

جامعة عجمان للعلوم والتكنولوجيا (إحدى مؤسسات شبكة الجامعة)

جامعة عجمان للعلوم والتكنولوجيا  
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جامعة عجمان للعلوم والتكنولوجيا

دليل

الجامعة

٢٠٠٨-٢٠٠٩

إن المعلومات المتعلقة بالمتطلبات الأكاديمية والمساقات والبرامج والرسوم الدراسية واللوائح التنظيمية والمالية الواردة في هذا الدليل لا تشكل التزاماً أو اتفاقاً قانونياً بين الجامعة والطلبة الذين يدرسون أو سيلتحقون بها أو تجاه أي طرف ثالث. وتحفظ الجامعة بحق تعديل أو إلغاء أو إضافة أية متطلبات أكاديمية أو مساقات أو برامج أو رسوم دراسية أو لوائح مالية وإدارية وغيرها من القوانين الداخلية دون إشعار مسبق للطرف الآخر.

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ਭੈਰਵ ?



صاحب السمو الشيخ خليفة بن زايد آل نهيان  
رئيس دولة الإمارات العربية المتحدة





صاحب السمو الشيخ حميد بن راشد النعيمي  
عضو المجلس الأعلى - حاكم عجمان  
رئيس مجلس أمناء جامعة عجمان للعلوم والتكنولوجيا

## كلمة رئيس الجامعة



يطيب لي أن أقدم في كلمات موجزة شبكة جامعة عجمان للعلوم والتكنولوجيا، والتي انطلقت في عام ١٩٨٨ م كمبادرة تعليمية غير نمطية في مسيرة التعليم العالي، ليس في دولة الإمارات العربية المتحدة فحسب، بل في المنطقة العربية عامة. لقد تمكنت شبكة جامعة عجمان للعلوم والتكنولوجيا بأبعادها الثلاثة التعليمية والمعلوماتية والاستثمارية من شق طريقها والتغلب على العديد من الصعاب من خلال الالتزام برؤية شاملة تقوم على برنامج عمل دقيق وواضح المعالم يسعى إلى تحقيق هدف نبيل يتتمثل في جامعة المستقبل. ومن منظورنا، فإن جامعة المستقبل تركز على التعليم كنظام مفتوح يؤدي إلى تحقيق بيئة الإبداع الشاملة. وكان من نتائج تبني هذه الرؤية أن ترسخت شبكة الجامعة كبيت خبرة يرفد المجتمع والمنطقة بالخبرات المتميزة في شتى المجالات.

ومن أهم مزايا التعليم كنظام مفتوح كسر الحاجز بين المجتمع الأكاديمي ومجتمع الفعاليات وفضاء السابير بالإضافة إلى الإفادة من الوسائل التقليدية المحدثه وعناصر البيئة الافتراضية ومنطقة السابير وأدواتها التفاعلية الحديثة. وتسخر شبكة الجامعة هذه الأدوات والوسائل الحديثة في تنظيم أنشطتها المختلفة من ندوات ومؤتمرات تقاربية ثم تقوم بتقييم مخرجات هذه الفعاليات للتأكد من تطبيق معايير الجودة.

وساهمت شبكة الجامعة خلال العقدين الماضيين في تأسيس العديد من المشاريع والمؤسسات أذكر منها على سبيل المثال مساهمتها كبيت خبرة في إنشاء كليتين جامعتين في مسقط وصلالة بسلطنة عمان الشقيقة.

كما كان لشبكة الجامعة السبق في تأسيس رابطة المؤسسات العربية الخاصة للتعليم العالي والشبكة العربية الأوروبية للبحوث، واللذان أشرف برئاستيهما ككتويج للدور الفعال والمتميز لشبكة الجامعة في تأسيسهما.

وللتواؤم مع عصر المعلومات، لم نألُ جهداً في دعم شبكة الجامعة بقواعد المعلومات وأدواتها من شبكة داخلية (الإنترنت) ووسائل التواصل عن بعد ومختبرات الوسائط المتعددة وشبكة خارجية (الإنترنت) في إطار بيئة افتراضية فاعلة أثّرت البعدين الآخرين لشبكة الجامعة، وهما البعد التعليمي والبعد الاستثماري.

وباحتراف شبكة جامعة عجمان للعلوم والتكنولوجيا بذكرها العشرين، فإن التزامها بتحقيق بيئة إبداع شاملة في التعليم العالي يزداد رسوخاً، في ضوء رؤية شاملة تستمد قوتها من خطط تنفيذية وبرامج عمل دقيقة أشمرت إنجازات طيبة ولملوسة على أرض الواقع. ولم تؤت هذه الرؤية الشاملة ثمارها إبداعاً وابتكاراً إلا من خلال التلاحق وانتقاء أفضل المزايا في مختلف النظم التعليمية من حولنا ثم تكيفها للمستفيدين والمستخدمين في الدولة والمنطقة، وذلك تحقيقاً لمفهوم الجامعة كنظام مفتوح تعمل على تسخير خبراتها للنهوض بشتى مناحي الحياة.

والسلام عليكم ورحمة الله وبركاته،

د. سعيد عبد الله سلمان

رئيس شبكة جامعة عجمان للعلوم والتكنولوجيا

رئيس الشرف المؤسس لرابطة المؤسسات العربية الخاصة للتعليم العالي

رئيس الشبكة العربية الأوروبية للبحوث

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## نبذة تاريخية

إن فكرة إنشاء جامعة عجمان للعلوم والتكنولوجيا قد جاءت تعبيراً عن الاهتمام الكبير الذي أولاه صاحب السمو الشيخ زايد بن سلطان آل نهيان - رحمه الله - مؤسس دولة الإمارات العربية المتحدة للتعليم العالي. وبصفة خاصة في مجال العلوم والتكنولوجيا، كما تعد تجسداً لتوجهات سموه بتوسيع نطاق هذا النوع من التعليم لتأهيل كوادر فنية وتقنية متخصصة، قادرة على تلبية احتياجات الخطط التنموية الطموحة للدولة.

وبإدراك تام لكل ذلك، وتكاملاً مع جهود الدولة في التنمية والتطوير، يبادر صاحب السمو الشيخ حميد بن راشد النعيمي عضو المجلس الأعلى حاكم عجمان بإصدار المرسوم الأميري رقم ٨٨/٤ في ٣ من ذي القعدة سنة ١٤٠٨ هـ الموافق

١٩٨٨/٦/١٧، والخاص بتأسيس كلية عجمان الجامعية للعلوم والتكنولوجيا باعتبارها مؤسسة تعليمية جامعية تحظى برعاية كاملة من سموه، وتسهم بجهودها مع مثيلاتها من المؤسسات التعليمية الجامعية الأخرى في الدولة في تحمل جانب من مسؤوليات البناء والتنمية والتطوير. وقد صدر قرار معالي الشيخ نهيان بن مبارك آل نهيان وزير التعليم العالي والبحث العلمي رقم (٥٤) سنة ٩٤ في شأن الترخيص لكلية عجمان الجامعية للعلوم والتكنولوجيا بالعمل في مجال التعليم العالي.

كما صدر قرار وزير التعليم العالي والبحث العلمي رقم (٥٤) سنة ٩٧ في شأن تحويل كلية عجمان الجامعية لتصبح جامعة عجمان للعلوم والتكنولوجيا وأصبحت بعد ذلك جامعية.

وتعتبر الجامعة عضواً مؤسساً لرابطة المؤسسات العربية الخاصة للتعليم العالي وللشبكة العربية الأوروبية للبحوث.

وفي الثالث عشر من إبريل عام ١٩٩٩م انضمت الجامعة إلى اتحاد الجامعات العربية.

وفي أبريل ٢٠٠٠ تم افتتاح مقر الجامعة بالفجيرة بالتنسيق مع الجمعية الخيرية بالفجيرة.

وفي ٣ يونيو ٢٠٠٨ تحولت جامعة عجمان للعلوم والتكنولوجيا إلى شركة ذات مسؤولية محدودة مملوكة مناصفة بين سمو الشيخ حميد بن راشد النعيمي، عضو المجلس الأعلى حاكم عجمان ود. سعيد عبد الله سلمان، الرئيس الأعلى لشبكة الجامعة، تحت إشراف مجلس أمناء يرأسه سموه ويضم ١٥ عضواً.



## أعضاء مجلس الأمناء

صاحب السمو الشيخ حميد بن راشد النعيمي،  
عضو المجلس الأعلى حاكم عجمان،  
رئيساً

معالي الدكتور / سعيد عبد الله سلمان،  
الرئيس الأعلى للجامعة،  
نائباً للرئيس

سمو الشيخ / راشد بن حميد النعيمي،  
رئيس دائرة البلدية والتخطيط بعجمان،  
عضواً

دولة الأستاذ الدكتور / عبد السلام المجالي  
نائب رئيس مجلس الأعيان ورئيس وزراء المملكة الأردنية  
الهاشمية سابقاً،  
عضواً

معالي / سعيد محمد الرقباني  
مستشار صاحب السمو حاكم إمارة الفجيرة ورئيس مجلس إدارة جمعية  
الفجيرة الخيرية ووزير الزراعة والثروة السمكية في دولة الإمارات العربية  
المتحدة سابقاً،  
عضواً

معالي / عبد الله بن حميد المزروعى  
رجل أعمال ووزير العدل في دولة الإمارات العربية المتحدة سابقاً،  
عضواً

الأستاذ الدكتور / خالد مذكور المذكور،  
المستشار في ديوان سمو أمير دولة الكويت،  
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الأستاذ الدكتور / فاروق الباز،  
مدير مركز تطبيقات الاستشعار عن بعد في جامعة بوسطن بالولايات المتحدة  
الأمريكية،  
عضواً

الأستاذ الدكتور / محمد هيثم الخياط،  
كبير مستشاري المدير الإقليمي لمنظمة الصحة العالمية لشرق المتوسط،  
عضواً

الأستاذ الدكتور / زغلول راغب النجار،  
رئيس لجنة الإعجاز العلمي بالقرآن الكريم والسنة النبوية المطهرة بالمجلس  
الأعلى للشؤون الإسلامية في جمهورية مصر العربية،  
عضواً

الدكتور / علي بن راشد النعيمي،  
مستشار في وزارة التربية والتعليم في دولة الإمارات العربية المتحدة،  
عضواً

السيد / فامر سعيد سلمان،  
نائب الرئيس للشؤون الإدارية والمالية بجامعة  
عجمان للعلوم والتكنولوجيا،  
عضواً

الدكتور / خليفة راشد الشعالي،  
عميد كلية القانون بجامعة عجمان للعلوم والتكنولوجيا،  
عضواً

الدكتور / أحمد محمد عنكيظ،  
نائب الرئيس للعلاقات الخارجية  
والشؤون الثقافية بجامعة عجمان للعلوم والتكنولوجيا،  
عضواً

الدكتور / بشير محمود شحادة،  
نائب الرئيس للمتابعة والتحديث  
والتطوير بجامعة عجمان للعلوم والتكنولوجيا،  
عضواً

الدكتور / زين العابدين رزق،  
عميد معهد البيئة والمياه  
والطاقة بجامعة عجمان للعلوم والتكنولوجيا،  
عضواً

## الرؤية الشاملة للجامعة

إن الأمم لا تحتاج إلى كثرة جامعات، ولكن تحتاج إلى رؤى... رؤى قابلة للتطبيق... تحمي الأمم من سلبات العولمة وتتناغم معها في إيجابياتها. من أنا؟ ومن نحن؟ ومن هو الآخر؟ وأين هوية الأمة التي تنتمي إليها المؤسسة التعليمية والمعلوماتية والاستثمارية وغيرها؟

جامعة عجمان للعلوم والتكنولوجيا هي مؤسسة تعليمية معلوماتية استثمارية لها أهداف محددة وواضحة أبرزها تهيئة بيئة الإبداع الشاملة وفق معايير وضوابط محددة لضمان الجودة ومراقبتها. ولا شك أن بيئة الإبداع تطلق العنان لأعضاء هيئة التدريس والطلبة والعاملين لإعطاء أفضل ما لديهم والإبداع في مجالات التدريس والبحث والتدريب والخبرات والممارسة. ولتحقيق بيئة الإبداع عمليا لا بد من توافر العناصر والمقومات التي تؤدي إلى ذلك ومنها:

- الجامعة كنظام مفتوح
- منطقة السببر
- مناهج الملفات
- معايير الجودة والتقييم
- النموذج الهرمي لتنفيذ المشروعات

### أولاً: الجامعة كنظام مفتوح

تجمع مزايا النظم التعليمية التقليدية المحدثه والنظم التفاعلية وتستفيد من كافة التقنيات الحديثة ومنهجيتها على أربعة محاور:

- كسر الحاجز بين المجتمع الأكاديمي ومجتمع الأعمال والفعاليات
- مفهوم التلاقح والانتقاء والتكيف والمواءمة
- الوسائل التقليدية المحدثه
- البيئة الافتراضية

### كسر الحاجز بين المجتمع الأكاديمي ومجتمع الأعمال والفعاليات:

إن انفتاح الجامعة على المجتمع له مردود إيجابي على كل منهما. فربط أنشطة الجامعة من خطط دراسية وأبحاث ودورات تدريبية وخبرات وممارسة بالتطبيق العملي وبالتغيرات على الساحة المحلية والعالمية وباحتياجات سوق العمل سوف يؤدي بلا شك إلى مد مجتمع الأعمال والفعاليات بخبرات مؤهلة تساهم في دفع عجلة التنمية قدماً، كما تغذي الجامعة بعناصر فكرية وتطبيقية تساهم في ضبط جودة التعليم وملاءمة الخطط الدراسية لمتطلبات المجتمع وبالتالي تخريج كوادر تساهم مباشرة في مجتمع الأعمال والفعاليات.

وتقوم الجامعة منذ نشأتها بجهد كبير في مجال كسر الحاجز بينها وبين مجتمع الأعمال والفعاليات حيث تنظم الندوات النقابية لكل مشروع أو فكرة تنوي تنفيذها وتدعو لها ذوي العلاقة من رجال الأعمال وأهل الفعاليات، ومن

خلال تلك الندوات النقابية تتبلور الأفكار، حيث ترصد وتستخدم في تفعيل مجالات التعاون بصورة واضحة ومثمرة، كما تستخدم نتائجها في تحديث وتطوير الخطط الدراسية بالجامعة. ومن هنا يأتي التفاعل الإيجابي والتلاحم بين ما يتم تدريسه في قاعات الدراسة وما يتم ممارسته على أرض الواقع. وهذا يؤدي بلا شك إلى تهيئة بيئة الإبداع الشاملة والتي تسعى الجامعة لتحقيقها.

### مفهوم التلاقح والانتقاء والتكيف والمواءمة:

يجب أن يكون التعليم منفقاً على كل النظم التعليمية السابقة والحاضرة للتفاعل مع المستجدات العالمية والمخترعات الحديثة والتطورات التقنية أولاً بأول ومن شأن هذا الانفتاح أن يضمن تخريج كوادر قادرة على التطوير والتواءم المستمر مع مستجدات العصر والإبداع والابتكار في مجالات التطبيق. وفي الوقت نفسه ينبغي الحفاظ على الهوية والثقافة والتقاليد. بالإضافة إلى ذلك، ولضمان جدوى العملية التعليمية، فلا بد من توجيه التعليم وترجمته إلى أمثلة تطبيقية تتعلق بالبيئة المحلية تكريساً لإعداد المتعلمين للانخراط مباشرة في مجتمع الأعمال والفعاليات.

ولتحقيق كل تلك المزايا اعتمدت الجامعة منهاج التلاقح والانتقاء والتكيف والذي يشمل:

١. التلاقح: التفاعل مع كل ما في العالم من نظم تعليمية وما يتعلق بها من أنشطة.

٢. الانتقاء: وهو انتقاء أفضل المزايا في النظم المختلفة وذلك بعد فرز دقيق لما يجري في العالم من رؤى وأفكار وتطبيقات.

٣. المواءمة للمستخدمين والمستفيدين، وهي مواءمة خلاصة عملية الانتقاء ودمج كل تلك العناصر المستخلصة من النظم المختلفة في الخطط التعليمية والتدريبية مع مراعاة القيم والعادات والثقافة والتاريخ لتصبح جاهزة للمستفيدين في الدولة والمنطقة في صورة تكاملية دقيقة.

### الطرق التقليدية المحدثه:

تقوم الجامعة بالتطوير المستمر لطرق التعليم التقليدية المحدثه وبما يتلاءم مع مستوى الطلبة وتحقيق أهداف الخطط الدراسية. حيث يتم استخدام طرق التعليم المبني على معالجة المشكلات ودراسات الحالة وغيرها. كما يتم دمج برامج الحاسب الآلي والوسائل السمعية والبصرية وبما يضمن الوصول إلى أفضل المخرجات للعملية التعليمية.

وبالتالي فإن تطوير تلك الطرق تبقي على ميزة التفاعل المباشر بين المدرس والطالب وكذلك الطالب والطالب، وهو ما يكرس مفهوم التحديث مع التقيد بالمثل والقيم ويعطي المدارس الفرصة لتصحيح أخطاء الطلبة ومفاهيمهم بالنقاش المباشر.



مشتركة دون تحمل عناء السفر وهدر الوقت. هذا بالإضافة إلى إمكانية تقويم مخرجات العملية التعليمية على مستوى الجامعة ككل لضمان تكاملها وتناغمها.

### ثانياً : منطقة السير:

تتشافر البيئة الافتراضية مع منطقة السير حيث لا حدود مكانية أو زمانية للمعلومات. وخلال منطقة السير تتواصل وحدات جامعة عجمان مع شبكات ومؤسسات وهيئات محلياً وعالمياً مما يؤدي إلى انسياب المعلومات والخبرات والإمكانات بسهولة وسرعة وكفاءة في عصر أصبحت دقة وسرعة التواصل فيه ضرورية. وبذلك تطبق الجامعة رؤيتها في التواصل والاطلاع على تجارب العلم أولاً بأول مما يدعم منهاج الانتقاء والمواءمة والاستفادة الفورية من كل ما هو جديد.

كما تستخدم آليات البيئة الافتراضية ومنطقة السير في نقل الدورات التدريبية وبرامج التعليم المستمر إلى خريجي الجامعة ومنسوبيها ولمن يرغب من أفراد المجتمع حرصاً من الجامعة على مواصلة التميز وكسر الحاجز بينها وبين مجتمع الأعمال والفعاليات. ولا شك أن ذلك يعزز تهيئة بيئة الإبداع والتي تترعرع فيها الكفاءات وتنمو وتزدهر.

### ثالثاً : منهاج الملفات:

لسهولة تناول الموضوعات والمشروعات المختلفة وعرضها بشكل يسهل تقييمه وتبنيه فإن الجامعة تتبع منهاج الملفات الذي يوضح الجوانب المختلفة للمشروعات أو الموضوعات. وهذه الملفات هي:

#### الملف الاستراتيجي:

يتناول الجوانب الاستراتيجية بشقيها الإداري والموضوعي ويتولى هذا الملف الإدارة العليا للجامعة ممثلة في مجلس الأمناء الذي يرأسه سمو الشيخ حميد بن راشد النعيمي عضو المجلس الأعلى حاكم عجمان وبنوب عنه د. سعيد عبد الله سلمان الرئيس الأعلى للجامعة، ومن ثم يقوم الإداريون والأكاديميون بالتنفيذ في إطار الرؤية الشاملة للجامعة وفلسفتها التعليمية.

#### الملف الفكري الأكاديمي:

يتناول الموضوعات الفكرية والمعايير الأكاديمية مثل التدريس والبحث والتدريب والخبرة والممارسة. ويعني هذا الملف بالبرامج الأكاديمية وما يتعلق بها من مصادر للمعلومات والتعلم ودورات تدريبية، كما يعني بالجانب الإبداعي المتعلق بتلك الأنشطة.

كما أن تطوير الطرق التقليدية المحدثه عن طريق انتقاء أفضل ما يستجد من طرق التعليم ونظرياته بالإضافة إلى تطويع وسائل مثل الفيديو ووسائل السمع المختلفة والشفافيات والشرائح الملونة والسبورات الذكية وتقنيات دائرة التلفزيون المغلقة والتعليم الإلكتروني يختصر الوقت المطلوب لتوصيل المعلومات ويساهم في إعطاء المحاضرات بشكل أفضل وأكثر تركيزاً ويشري عملية النقاش بمزيد من المعلومات.

ولتحقيق ذلك قامت الجامعة بتأسيس وحدة الخدمات الأكاديمية الإلكترونية لتساعد في إنتاج وسائل التعليم الحديثة بطريقة أكثر تفاعلية. كما يقوم خبراء التربية بالجامعة بعمل ورش العمل التخصصية والدورات التدريبية لتنمية مهارات أعضاء هيئة التدريس والطلبة استجابة للتطورات المتسارعة في المفاهيم التربوية في هذا المجال واضعة في الاعتبار مستوى الطلبة واحتياجاتهم في ضوء التقويم المستمر لمخرجات العملية التربوية والتعليمية.

#### البيئة الافتراضية :

تحت الجامعة على استخدام جميع التقنيات الحديثة في التعليم والتواصل. ويشمل مفهوم البيئة الافتراضية فيما يشمل إتاحة جميع أنشطة الجامعة من خطط ومساقات دراسية ومصادر معلومات وتعلم ونظم قبول وتسجيل الطلبة وشؤون إدارية ومالية ودورات تدريبية وندوات تقاربية وغيرها من خلال الشبكة المعلوماتية الداخلية بأسلوب تفاعلي. كما يشمل استخدام وسائل التعليم والتعلم والاتصال مثل الوسائط المتعددة والمحاكاة التفاعلية والانترنت والتواصل عن بعد. فهذه الأدوات أصبحت ضرورية للتواصل بين وحدات وكيانات الجامعة فيما بينها وبين الجامعة والمؤسسات التي ترتبط بها في الخارج.

ولا شك أن خصوصية جامعة عجمان للعلوم والتكنولوجيا تحتم استخدام تلك التقنيات والآليات في التواصل. وتقوم الجامعة بالتحديث والتطوير المستمر لشبكته، حيث قامت بتأسيس مراكز الوسائط المتعددة التفاعلية وإدارة التسويق والاتصال للمساهمة في إنتاج واستخدام المواد التعليمية الحديثة والترويج لها عبر القنوات المتاحة مثل قناة "آفاق" التلفزيونية. كما قامت الجامعة بتوفير نظام إلكتروني لمكتباتها يمكن الجميع من الوصول إلى كل مصادر المعلومات والتعليم من كلا مقرري الجامعة. ووفرت الجامعة أيضاً عدداً من أجهزة التواصل عن بعد والتي تتيح للجميع عقد الاجتماعات واللقاءات والندوات والمحاضرات وغيرها من الأنشطة المشتركة بينما يتواجد كل في مكانه.

ولا تقتصر أهمية استخدام آليات البيئة الافتراضية على التواصل الكفء بين جميع أعضاء أسرة الجامعة وتوفير الوقت والجهد والنفقات فقط، وإنما تعدى ذلك إلى تحقيق مبدأ مهم تحرص عليه الجامعة ألا وهو توحيد مدخلات العملية التعليمية وتوفير الفرص المتكافئة لجميع الطلبة في الوصول إلى مصادر المعلومات والتعلم وعقد الندوات التقاربية والمحاضرات المشتركة وتشكيل فرق بحث وعمل من أعضاء هيئة التدريس والطلبة لتنفيذ مشروعات بحثية

## الملف القانوني:

يبحث المعنى ويوجد التوازن بين الملفات الأخرى وينظم العلاقات بين جميع وحدات الجامعة داخلياً وبينها وبين الخارج. ويضطلع خبراء القانون من كلية القانون والمرجعية القانونية بدور عام فيه.

## الملف التنظيمي والإداري:

التنظيم والإدارة من آثار وثمرات القانون ويتناغمان مع جميع الملفات. ويتناول ذلك الملف الإجراءات التنظيمية والإدارية التي تكفل تنفيذ المطلوب من خلال إجراءات منضبطة ومتسلسلة في إطار خطط عمل وجدول زمنية دقيقة.

## الملف المالي والاستثماري:

يتولى هذا الملف مسؤولية ضبط النفقات وتقليصها إلى الحد الأدنى. وهذا من الأركان الأصلية لرؤية جامعة عجمان، حيث يتم تحقيق أفضل درجات الإنجاز بأقل التكاليف الممكنة وفي أسرع وقت وتحقيق مبدأ تعدد الأغراض وتعدد الوظائف وتعدد الاستخدامات.

## ملف المعلومات والإعلام والترويج:

يستوعب مخرجات جميع الملفات ويتفاعل معها جيداً ومن ثم يخرجها بلغاته ووسائل تعبيره بشفاافية تعكس الوجه المشرف للمؤسسة.

## ملف المعايير لضمان الجودة ومراقبتها:

يركز على التأكد من حسن التطبيق وضبط الإيقاع والتناغم بين جميع وحدات الجامعة. ولكل ملف أو إجراء معايير الخاصة التي يتم من خلالها التأكد من صدق ومعايير الأداء كما ينتمي التطوير المعياري في الملفات الأخرى لهذا الملف. ويستكمل فيه ما لم يستوف من معايير في الملفات الأخرى.

## ملف المتابعة والتحديث والتطوير:

بعد أخذ باقي الملفات وصيها في المتابعة للتأكد من التنفيذ يأتي التحديث مباشرة وإذا ما حدث ذلك بشكل جيد فإن التطوير يصبح سلوكاً وحتمية.

## رابعاً: معايير الجودة والتقييم

وهذه المعايير هي لتقويم الأشخاص والمناهج والأداء وغيرها، ولكل من هذه المعايير تفاصيل قابلة للقياس. وتحرص الجامعة على تطبيق معايير الجودة لتحقيق رؤيتها وأهدافها بالشكل الأمثل فيما يتعلق بأبعادها التعليمية والمعلوماتية والاستثمارية.

## خامساً: النموذج الهرمي لتنفيذ المشروعات

تحرص الجامعة على التطبيق التدريجي للأفكار والمشروعات بما يضمن حسن التطبيق وجودته.

## مراحل تطبيق المشروعات:

### أولاً: مرحلة الفكر:

هي الخطوة الأولى حيث يتم تبادل الآراء والأفكار بحرية تامة ودون قيود، وتؤخذ كافة التجارب والمداخلات من شتى الاتجاهات في الاعتبار، ثم تتفاعل الأفكار وتتلاقح للوصول إلى أفضلها وأنسبها لظروف الجامعة والمنطقة. وبعد التوصل للفكرة المناسبة يصبح القبول بها ملزماً للجميع حتى لا تشتت الجهود، ويجب تطبيق معايير الفكر بالالتزام بالموضوعية والخلق والقيم.

### ثانياً: مرحلة الرؤية:

بعد استقرار الفكرة وتولد القناعة بها يتم بلورتها بما يتناسب مع الرؤية الشاملة للجامعة لضمان التناغم وانتقاء أفضل المزايا بينهما. وهنا لا بد من إخضاع الفكر لمعايير الجودة والمواءمة وأخلاقيات التعامل. ويجب صياغة كافة المدخلات في منهاج الملفات الذي تتبعه الجامعة لتسهيل الحكم على التجربة ومقارنتها بغيرها.

### ثالثاً: مرحلة التجريب:

بعد إنجاز مرحلة الرؤية بوضع الفكرة في أفضل صورة تطبيقية ممكنة يتم تجربتها بشكل عملي على أرض الواقع في حدود ضيقة وقياس مدى نجاح التطبيق والوقوف على السلبيات والإيجابيات من الناحية العملية، وهنا لا بد من إخضاع التجريب لمعايير الجودة في الأداء ولضمان عدم خروجها عن النسق العام في خضم الممارسة العملية للمؤسسة.

### رابعاً: مرحلة التطبيق:

هي مرحلة الغرس المعياري في أرض الواقع بعد نضوج الفكرة وتكامل جوانبها خلال المراحل السابقة بما يضمن التطبيق المتميز والذي يعزز الإيجابيات ويقلل السلبيات. كما يجب استمرار تطبيق معايير الجودة التي تضمن حسن التطبيق وانسجامه وتكامله مع النسق العام للجامعة. وفي هذه المرحلة لا ينبغي أن تخرج آراء تشكك في صلب الفكرة وجدواها أو تكرار ما تم إنجازه، ففي هذا السلوك تعطيل لسير العمل وهدر للوقت والجهد وتقليل من الفائدة المرجوة، وإنما يتم التعبير عن الرأي في إطار روح الفريق ومن خلال الآليات المحددة بهدف التقويم والتطوير المستمر.

### خامساً: جلائل الأعمال:

لا شك أن المعاناة وتكرار التطبيق أثناء المراحل السابقة سيكسب التجربة نضجاً وخبرة واستقراراً ووضوحاً، وهذا لا بد أن يؤدي بالتبعية إلى دقة الممارسة وجودتها. كما أن حسن قيادة الفريق الذي يطبق يضمن التناغم والانسجام والانتقال إلى مستويات أعلى من أفكار جديدة وإضافات متميزة.

## رسالة جامعة عجمان للعلوم والتكنولوجيا وأهدافها

### رسالة الجامعة:

تهدف جامعة عجمان للعلوم والتكنولوجيا بأبعادها الثلاثة التعليمية والمعلوماتية والاستثمارية إلى رفد المجتمع بخريجين متميزين قادرين على التعامل مع التقنيات الحديثة وتطبيقاتها في شتى مجالات الحياة وفي برامج التنمية. وتوفر الجامعة للطلبة آليات تعليم وتعلم حديثة منتقاة بعناية ومكيفة بما يتواءم مع عادات المجتمع وقيمه ومتطلباته. وتعمل الجامعة على كسر الحاجز بين المجتمع الأكاديمي ومجتمع الفعاليات والأعمال من خلال تطبيق المفهوم المتكامل لمعايير التدريس والبحث والتدريب والخبرات والممارسة وفي الأبعاد التعليمية والمعلومات والاستثمارية.

### أهداف الجامعة:

١. مساعدة الطلبة على تحقيق التميز على المستوى الشخصي والمهني والقيادي وذلك من خلال تقديم برامج أكاديمية ومهنية، تجريبية وتطبيقية.
٢. مساعدة الطلبة على استخدام المعلومات وممارسة التدريب وإتقان المهارات فيما يفيد المجتمع ووسط الأعمال.
٣. استخدام الآليات التي تحفز التفكير الإبداعي والتعلم المستمر واكتساب المهارات.
٤. التأكيد على أهمية البعد الأخلاقي وتحمل المسؤولية وتطبيق المعايير في الدراسة والعمل.
٥. تغذية البرامج الأكاديمية بالأنشطة الصفية واللاصفية.
٦. تهيئة عناصر بيئة الإبداع الشاملة لدعم عملية التعلم والتعليم والبحث.
٧. تأمين وسائل تطبيق معايير الجودة بتشكيل الوحدات والأقسام اللازمة لذلك داخلياً وخارجياً.

٨. تقديم برامج أكاديمية وتجريبية وتطبيقية متميزة كفيلة بإعداد الخريجين للعمل في أي مكان في العالم والتأكيد على تكاملية العملية التعليمية والبحثية.
٩. العمل على تطوير الإمكانيات البحثية وخاصة البحوث التطبيقية وتهيئة البيئة المناسبة للإيفاء باحتياجات الطلبة وأعضاء هيئة التدريس والعاملين بالجامعة للوصول إلى أعلى مستويات الجودة في الأداء.



## أين تقع جامعة عجمان للعلوم والتكنولوجيا ؟

للجامعة مقران ، واحد في عجمان وآخر في الفجيرة .

### دولة الإمارات العربية المتحدة

إن دولة الإمارات العربية المتحدة اتحاد فيدرالي مكون من سبع إمارات هي : أبو ظبي ، ودبي ، والشارقة ، وعجمان ، ورأس الخيمة ، وأم القوين والفجيرة . وتقع الدولة على الساحل الشرقي لشبه الجزيرة العربية ، وتبلغ مساحتها ٧٧٧٠٠ كيلو متر مربع .

ومعظم هذه الأراضي مكون من صحارى تكسوها الرمال تتخللها هنا وهناك واحات ووديان خضراء ، وقد أنشئت فيها أحدث المدن وأجملها خلال العقود الأخيرة .

ويبلغ عدد سكان الدولة ما يفوق خمسة ملايين نسمة ويشمل هذا الرقم المواطنين ، والمقيمين العرب والأجانب ، ومناخ دولة الإمارات العربية المتحدة حار في شهور السنة (مايو إلى أكتوبر) حيث تصل درجة الحرارة العظمى إلى ٤٩ درجة مئوية فيما عدا المناطق الساحلية التي تكون أبرد قليلا إلا أنها مرتفعة الرطوبة . أما الأشهر المتبقية فتتراوح فيها درجات الحرارة ما بين ٢٠ - ٣٥ درجة مئوية .

ويعتبر النفط أهم الثروات التي تمتلكها الدولة حيث يصل الاحتياطي فيها ما يعادل عشر الاحتياطي العالمي ، كما أن بنيتها الاقتصادية المتميزة ومراكزها السياحية الجذابة تضمن لها مداخل مهمة .

### مركز مصادر المعلومات والتعلم

#### المكتبات

##### رسالة المكتبات:

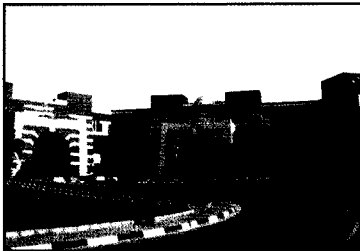
تساهم المكتبات في تحقيق رسالة الجامعة بتحديد مصادر المعلومات والتعلم وحفظها وتنظيمها وإتاحتها للمستخدمين بما يخدم احتياجات أعضاء هيئة التدريس والطلبة والعاملين والمجتمع بشكل عام .

##### أهداف المكتبة:

١. يمكن تلخيص الأهداف العامة لمكتبات الجامعة فيما يلي:
٢. مساعدة الطلبة وأعضاء الهيئة التدريسية والهيئة المعاونة لتنمية مهاراتهم وتحديث معلوماتهم بما يدعم إجراء البحوث الأكاديمية المتميزة .
٣. تقديم المشورة والمساعدة لمستخدمي المكتبات .
٤. توفير مصادر التعلم المختلفة مثل الكتب والدوريات والتقارير والرسائل والصحف والمطويات والخرائط وبرامج الكمبيوتر والوسائط المتعددة .
٥. توفير المكان الملائم للاطلاع واستخدام مصادر التعلم المختلفة .
٦. توفير تقنيات المعلومات الضرورية ومصادر المعلومات في صورها الإلكترونية .

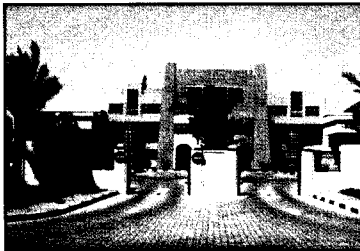
### المكتبة التقليدية:

تقدم المكتبة في كل من مقرّي الجامعة خدماتها للمستخدمين ، وتمثل المصادر التي تقدمها المكتبات في الكتب والدوريات والتقارير والرسائل والصحف والمطويات وغيرها .



### عجمان

تقع إمارة عجمان على الساحل الغربي لدولة الإمارات العربية المتحدة على مسافة قريبة جداً من إمارة الشارقة وعلى بعد (٢٠) كم من دبي مما يجعل هذه الإمارات الثلاث (عجمان ، الشارقة ودبي) حاضرة متصلة . وإمارة عجمان هي المكان الذي تأسست فيه الجامعة عام ١٩٨٨م .



### الفجيرة

تقع إمارة الفجيرة في أقصى الساحل الشرقي لدولة الإمارات العربية المتحدة وتطل على المحيط الهندي والخليج العربي ، وتبعد مسافة (١٢٠) كم من دبي . أنشئ فيها فرع لجامعة عجمان عام ٢٠٠٠م .

### خدمات البحث:

تقدم المكتبات خدمات تسهيل الحصول على المعلومات في حقول المعرفة المختلفة بتوفيرها مجموعات من الكتب وغيرها. كما توفر المكتبة إمكانية الاستعارة من المكتبات الأخرى.

### المشورة والمساعدة:

يقدم العاملون في المكتبات المشورة والمساعدة والتدريب لأعضاء هيئة التدريس والطلبة وكافة المستخدمين لكيفية الاستخدام الأمثل لمصادر المعلومات والتعلم المختلفة.

### خدمات النسخ والتصوير:

توفر المكتبات آلات النسخ للمواد المختلفة مع مراعاة حقوق الطبع والنشر.

### المكتبة الرقمية : Digital Library

تشتمل مصادر التعلم المتاحة بالمكتبة على:  
- الأقراص المدمجة (CD-ROM) حيث تتوافر قوائم بالأقراص المدمجة وهي متاحة للمستخدمين في جميع مكتبات الجامعة.  
- الكتب الإلكترونية: توفر المكتبات العديد من الكتب في صورة رقمية من خلال الجامعة وتعمل المكتبة على زيادة المتاح من تلك الكتب باستمرار.

### خدمات الإنترنت:

يتمتع جميع الطلبة وأعضاء هيئة التدريس والعاملون بالجامعة بخدمة استخدام الإنترنت على مدار الساعة.

### المصادر المتاحة عبر الجامعة:

وتشمل قواعد المعلومات والدوريات التي قامت الجامعة بالاشتراك فيها في تخصصات مختلفة.

### الإنترانت Intranet

تم ربط مقرات الجامعة بشبكة داخلية واحدة والتي يمكن من خلالها الوصول إلى مصادر المعلومات والتعلم المتاحة بالجامعة. كما يمكن الوصول إلى كثير من مصادر المعلومات والتعلم من خارج الجامعة. وبالتالي فقد تم التغلب على محدودية المكان والزمان بتوفير إمكانية الوصول إلى المصادر واستخدامها من خارج الجامعة ومن مقرها بعجمان والفجيرة.

### آلية التواصل عن بعد Video-Conferencing

توفر الجامعة الآلية والتي تساهم بشكل فعال في التواصل الأنّي بين المقرات

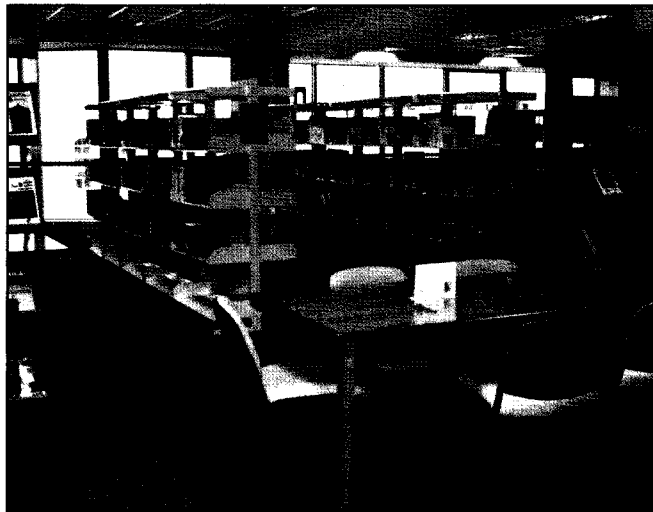
المختلفة وعقد الاجتماعات ونقل المحاضرات والندوات والأنشطة المشتركة. ويتيح ذلك الفرص المتكافئة لأعضاء هيئة التدريس والطلبة.

### إدارة تكنولوجيا المعلومات رسالة الإدارة

- تقديم الخدمات المناسبة لجميع مستخدمي الكمبيوتر بالجامعة.  
- كسر الحاجز الجغرافي بين مقري الجامعة وبين المؤسسات الأخرى وذلك بتوفير التوصيل الشبكي بينها.

### أهداف الإدارة

- تصميم نظم المعلومات المناسبة وصيانتها .  
- صيانة شبكات الجامعة.  
- تقديم خدمات تقنيات المعلومات لكليات الجامعة ومختبراتها .  
- تطوير برمجيات الكمبيوتر بما يتناسب مع التطبيقات المطلوبة بالجامعة .  
- فحص وتقييم البرمجيات قبل شرائها للتأكد من توافقها مع نظم الجامعة التقنية .  
وتتمحور استراتيجية إدارة تقنيات المعلومات حول توفير وتطوير آليات اتصال فعالة ومتكاملة عبر الشبكات وبما يؤدي إلى كسر الحاجز الجغرافي بين كليات الجامعة وإداراتها. ويسمح هذا الربط الشبكي بالتواصل بين الجامعة والخارج وتفعيل البيئة الافتراضية في إطار منطقة السير .



## عمادة شؤون الطلبة

تقوم عمادة شؤون الطلبة بدور مساعد للعملية التعليمية التي تجري داخل الحرم الجامعي من خلال المساهمة في صقل شخصية الطالب عبر حزمة من الأنشطة التي تلبى ميوله واهتماماته، فالحياة الجامعية لا تقتصر على ما يعطى للطالب من محاضرات بل تتعداها لتشمل ممارسة الهوايات وتنمية المواهب التي تبرز شخصية الطالب وتعمل على ملء وقته بكل ما هو مفيد. وتدرج الأهداف الاستراتيجية للأنشطة الطلابية فيما يأتي:

- ١- دمج الطالب بالمجتمع المحلي عبر الأنشطة المختلفة.
- ٢- تنمية شخصية الطالب وصقلها وإغنائها بالقيم والمبادئ والأخلاق السامية.
- ٣- تكوين شخصية مستقلة ومتميزة طالب الجامعة يحمل رؤيتها وفلسفتها في الحياة والمجتمع.
- ٤- استكشاف مواهب الطلبة وإبداعاتهم وتمييزها.
- ٥- تحقيق الأهداف العلمية التعليمية من خلال النشاطات العلمية والعملية التي توفر للطالب الخبرة الميدانية قبل انطلاقه إلى سوق العمل.

### الأنشطة الطلابية:

تولي عمادة شؤون الطلبة اهتماماً كبيراً بالأنشطة الطلابية وتوفير كل ما من شأنه أن يخدم الارتقاء بالأنشطة الاجتماعية والثقافية والرياضية والفنية والأدبية والفكرية والتربوية والترفيهية.

وتحرص عمادة شؤون الطلبة من خلال طاقمها المتخصص بكافة المجالات على تفعيل الأنشطة في المناسبات والأعياد الدينية والوطنية وفترات المعارض العلمية التي تقام على أرض الدولة، وفي المناسبات الخاصة بالجامعة حيث يتحول منتسبو عمادة شؤون الطلبة إلى ورش عمل يومية سعياً من الجامعة لبناء شخصية الطالب وإغنائها.

ومع تزايد أعداد الطلبة والتوسع المطرد للكليات في كل عام يجري توسيع وتطوير حقول الأنشطة الطلابية بما يتناسب والتطور البيئوي للجامعة، وتمحور هذه الأنشطة على الشكل الآتي:

### أولاً: النشاط الاجتماعي

تسعى عمادة شؤون الطلبة إلى توثيق العلاقات الاجتماعية بين الطلاب بعضهم ببعض من ناحية، وبينهم وبين إدارة الجامعة والهيئة التدريسية فيها من ناحية

أخرى، إضافة إلى توثيق الروابط الاجتماعية بين الجامعة والمجتمع المحلي وذلك عن طريق عدد من الأنشطة الاجتماعية منها:

- حفلات التعارف.
- الرحلات الترفيهية.
- الرحلات العلمية.
- الندوات التثاقفية.
- العمل التطوعي.
- رحلات الحج والعمرة.
- كما تعنى العمادة بمجموعة من الأنشطة الاجتماعية التي تتم متابعتها بشكل دائم ومنهجي منها:
- مساعدة الطالب على الاندماج والتكيف مع الحياة الجامعية.
- الحرص على متابعة الاتصالات واللقاءات مع أولياء أمور الطلبة وتزويدهم بكافة المعلومات التي يحتاجونها.
- التعرف على المشكلات التي تواجه الطلبة وإيجاد الحلول المناسبة لها.
- استطلاع آراء الطلبة المتعلقة بكافة الشؤون الدراسية وتبني الصحيح منها ونقلها إلى الجهات المعنية.
- مساعدة الطلبة الجدد في عملية التسجيل والإرشاد والإحاطة باستفساراتهم بالتنسيق مع عمادة القبول

### ثانياً: النشاط الثقافي

يحتل النشاط الثقافي مكانة خاصة بوصفه عنصراً مهماً من عناصر الحياة الثقافية لدى الطلبة كما تهتم العمادة بالعمل، من جهة أخرى على تقديم التسهيلات التي من شأنها أن تدفع نحو مزيد من التفاعل بين الطلبة والمجتمع، ومن هذه الأنشطة:

- تنظيم المحاضرات الثقافية والندوات الفكرية والأمسيات الشعرية والأدبية.
- إقامة المعارض المختلفة وعرض الأفلام الوثائقية والمسرحيات.
- تنظيم المسابقات الثقافية لإذكاء روح التنافس بين الطلبة.
- إصدار النشرات الإعلامية والمجلات الحائطية.
- إقامة المهرجانات لاكتشاف مواهب الطلبة وإبداعاتهم.



## ثالثاً: النشاط الرياضي

الرياضة هي أحد أهم أوجه الأنشطة في الجامعة لما لها من تأثير فعال في تكامل بناء الإنسان من الناحيتين البدنية والعقلية. ويزاولها الطلبة في أوقات فراغهم، وهي بالإضافة إلى ذلك تساعد الطالب على شحذ طاقاته الكامنة، واكتشاف القدرات والمهارات المختلفة لديه. وتعمل الجامعة على بناء مركب رياضي متكامل يشمل ملعب كرة قدم وحوض سباحة وصالات كرة سلة وطائرة وطاولة بلياردو، كما يشمل قاعة لكمال الأجسام ومرافق ترفيهيه موازية. وتشرف عليها إدارة المرافق الجامعية بالتنسيق مع عمادة شؤون الطلبة، وسيستفيد منها الطلاب والطالبات على حد سواء.

## الجمعيات الطلابية،

تعد الجمعيات الطلابية بتشكيلاتها المختلفة (الثقافية، الاجتماعية والرياضية) العنصر الأساس الذي يدخل في نسج علاقة الطالب بالجامعة والمجتمع لذلك فإن الجامعة تحرص في بداية كل عام دراسي على أن ينتخب الطلبة عدداً من زملائهم لتمثيل هذه الجمعيات الثلاثة لتساهم برفع الأنشطة والكشف عن الميول والمواهب لدى الطلبة وتوظيفها وإبرازها، مما يفتح المجال للطلبة المتميزين لفضل إبداعاتهم ومواهبهم في الحقول الأدبية والعلمية والفنية. وتسعى الجمعيات الطلابية لتحقيق مجموعة من الأهداف منها:

– تحقيق الألفة والتعاون بين أفراد الأسرة الجامعية.

– تشجيع الأنشطة الثقافية والاجتماعية والرياضية والفنية وتنظيمها وإيجاد الوسائل والسبل لتطويرها.

– توثيق الصلة بين الجمعيات ومثيلاتها في الجامعات الأخرى.

– تنمية روح العمل الجماعي.

– تشجيع العمل التطوعي وتنمية روح المسؤولية.

– العمل على بناء شخصية الطالب الإيجابية والفعالة ضمن المجتمع.

## رابعاً: الخدمات الطلابية

تقوم عمادة شؤون الطلبة بمتابعة كافة الخدمات التي تقدمها الجامعة لطلبتها والإشراف عليها مثل: الإسكان الطلابي، المواصلات، الرعاية الصحية، مطاعم الطلبة، المساجد، مكاتب الخدمات الأخرى.

## مساكن الطلبة:

انطلاقاً من رؤية وفلسفة معالي رئيس الجامعة في توفير كل ما يؤدي إلى إنجاح العملية التعليمية وحرصاً على راحة الطلبة، تم تأسيس مؤسسة مستقلة تعنى بتوفير مساكن مريحة للطلبة تحتوي على جميع المرافق مثل: المطاعم التي تقدم ثلاث وجبات يومياً، (الكوفي شوب)، والإنترنت، (الميني ماركت)، والنادي الصحي بأسعار رمزية، إضافة إلى خدمات مجانية: (كالماء والكهرباء وخدمات الصيانة والنظافة وصالات تلفزيونية وغرف للذاكرة ومكتب للثقافة العامة مزودة بالكتب الشيقة والصحف اليومية. وتمتاز المساكن بمائلي:

– جميع غرف الطلاب والطالبات مصممة ومجهزة على أحدث النظم ومؤثثة بأجود أنواع الأثاث بما يوفر الراحة التامة للمقيمين.

– الإشراف على الطلبة متواصل على مدار الـ ٢٤ ساعة من خلال المشرفين المؤهلين.

– توفير وسائل نقل مريحة من المساكن لأماكن الدراسة والتسوق والرحلات وجميع الأنشطة خارج السكن.

## العيادات الصحية:

تتوفر وحدات طبية في كل من من مقر الجامعة حيث يتألف طاقمها من (٤) أطباء و (١٤) ممرض وممرضة، وتقوم هذه الوحدات بالرعاية الصحية وتوفير الكشف الطبي وعلاج المرضى إضافة إلى العديد من المهام منها:

– إرشادات عامة للمستجدين من الطلبة عند إجراء الفحص الطبي.

– إعداد ملف لكل طالب وطالبة عند تسجيله بالجامعة يشمل بياناتهم الشخصية والتاريخ المرضي وتدوين كل الحالات المرضية التي قد تصيبهم أثناء العام الدراسي مع سجل مواعيد الزيارة والعلاجات التي تصرف لهم وأية ملاحظات أخرى.

– تدقيق الشهادات المرضية التي ترد للعيادات من قبل الطلبة للحصول على عذر عند الغياب عن المحاضرات أو الامتحانات.

– التوعية الصحية المستمرة للطلبة كالتغذية الصحي والاهتمام بالنظافة الشخصية والحصول على قدر من الراحة والنوم لمزيد من الاستيعاب والتفوق.

## النقلات:

تقوم إحدى مؤسسات الجامعة بنقل الطلبة. إذ تمتلك المؤسسة أسطولاً كبيراً من الحافلات المختلفة الأحجام المزودة بكل وسائل الراحة، ويقوم على خدمتها طاقم من السائقين والمشرفين الأكفاء والمتميزين، للنقل المريح للطلبة من مقر إقامتهم (دبي، الشارقة، عجمان) لحضور محاضراتهم في مباني الجامعة بإمارة عجمان، وتقوم المؤسسة بنسيير أكثر من ٧٣ رحلة يومياً لهذا الغرض عبر ١٦ خطاً، حيث يتم نقل الطلبة إلى الأسواق وتأمين مواصلاتهم إلى أماكن الأنشطة خارج الجامعة كالزيارات والرحلات العلمية والترفيهية وحضور الندوات والمحاضرات والمؤتمرات الطلابية. وتتقاضى المؤسسة رسوماً رمزية لقاء هذه الخدمات. علاوة على ذلك، تخصص المؤسسة حافلتين للطوارئ لخدمة طلبة السكن الجامعي.

## مؤسسة (سمارت سوبر ستور) :

يأتي إنشاء هذه المؤسسة لتوفير الخدمات الأساسية التي يحتاجها الطلبة داخل الحرم الجامعي، فتوفر هذه المؤسسة تجهيزات مكتبية وكتب عربية وأجنبية وقرطاسية وبرمجيات حاسب آلي وتصوير وطباعة وتجليد إضافة إلى تقديم خدمات التصوير الضوئي الأبيض والأسود والملون، وبعده قياسات من خلال استخدام أحدث الآلات الموجودة في مجال التصوير.

كما توفر هذه المؤسسة لطلبتها الكتب الدراسية المقررة لجميع التخصصات واللغتين العربية والإنجليزية وبأسعار تقل عن مثيلاتها في السوق المحلي. حيث يتم شراء الكتب من الناشر مباشرة وهذا يؤدي إلى تخفيض التكلفة وبالتالي توفيرها بأثمان مناسبة.

# وكالة التوظيف والتدريب

## الرسالة

وتقديم خدمات  
الإرشاد المهني للخريجين:  
دورات حول تطوير المهارات الوظيفية:  
اختبارات الشخصية القياسية:  
مشروع احتضان مشروعات الخريجين  
وتقديم المعلومات حول:  
فرص العمل المتوفرة:  
صفحات الويب الخاصة بأصحاب العمل:  
صفحة الويب الخاصة بالخريجين الباحثين عن العمل.

تسعى وكالة التوظيف والتدريب إلى مساعدة طلبة جامعة عجمان للعلوم والتكنولوجيا وخريجها على التخطيط لحياتهم المهنية ورسم أهدافهم الوظيفية بشكل منهجي. وتعمل الوكالة وفق الرؤية الشاملة للجامعة والمتمثلة في ثلاثة أبعاد - التعليم والمعلومات والاستثمار وتتجسد في توفير خدمات ذات نوعية جيدة من شأنها أن تعزز القدرات الوظيفية للطلبة والخريجين، وتقوية قنوات الاتصال مع أصحاب العمل المحتملين. وتساعدنا في تحقيق هذه المهمة جمعية الخريجين لجامعة عجمان للعلوم والتكنولوجيا، وهي جمعية غير ربحية تهدف إلى تعزيز التواصل والتفاعل الإيجابي بين الخريجين والطلاب من جهة، وبين الجامعة ومحيطها من جهة أخرى.

## الأهداف:

مساعدة الطلبة الجدد على اختيار التخصص الأنسب لرغباتهم وطموحاتهم:  
مساعدة الطلبة والخريجين على اتخاذ القرار المناسب بخصوص الاختيارات المهنية وتحديد الأهداف الوظيفية:  
توفير الإرشاد الضروري للطلبة والخريجين حول المهارات اللازم تطويرها لتلبية التغير المستمر في متطلبات سوق العمل:  
مساعدة الطلبة والخريجين على اكتساب وتطوير استراتيجيات البحث عن فرص العمل:

توجيه الطلبة والخريجين إلى مصادر البحث عن العمل:  
توفير معلومات عن سوق العمل لفائدة الجامعة للمساعدة على التخطيط الأكاديمي:  
تعزيز علاقات التعاون مع أصحاب العمل وذلك من أجل توفير المعلومات عن الوظائف الشاغرة وفرص التدريب المتوفرة لفائدة الطلبة والخريجين:  
تحديد خطة تقييم أداء الوكالة وأنشطتها:  
تعزيز أواصر العلاقة بين الجامعة وخريجها:  
تعزيز التواصل بين الخريجين، وبين الخريجين والجامعة:  
تعزيز دور جمعية الخريجين داخل الجامعة وخارجها:  
فسح المجال للخريجين للمساهمة والمشاركة الفعالة في صنع قرارات الجامعة:  
وضع آلية لجمع التبرعات لفائدة جمعية الخريجين.

## الخدمات

يقوم المركز بتنظيم  
معارض التوظيف:  
أنشطة ثقافية واجتماعية:  
منتديات وأندية الخريجين.





تغییرات و تحولات

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- ٢٨ ١- التخصصات الموجودة في الجامعة
- ٣٠ ٢- قواعد القبول
- ٣٠ ● إجراءات القبول العامة
- ٣١ ● الانتقال إلى الجامعة من جامعات أخرى
- ٣٢ ● تغيير التخصص
- ٣٣ ٣- نظام الدراسة
- ٣٥ ٤- الإرشاد الأكاديمي وتسجيل المساقات
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- ٣٩ ٩- الدراسات المسائية
- ٤٠ ١٠- الرسوم الدراسية واللوائح المالية
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## ١ - الكليات والتخصصات الموجودة في الجامعة

### برامج البكالوريوس

#### كلية إدارة الأعمال

- بكالوريوس العلوم في الإدارة (١٢٦ عدد الساعات/٦٠٪ علمي، أدبي الحد الأدنى للمعدل المطلوب)
- بكالوريوس العلوم في التسويق (١٢٦ عدد الساعات/٦٠٪ علمي، أدبي الحد الأدنى للمعدل المطلوب)
- بكالوريوس العلوم في التمويل (١٢٦ عدد الساعات/٦٠٪ علمي، أدبي الحد الأدنى للمعدل المطلوب)
- بكالوريوس العلوم في المحاسبة (١٢٦ عدد الساعات/٦٠٪ علمي، أدبي الحد الأدنى للمعدل المطلوب)

#### كلية تكنولوجيا المعلومات

- بكالوريوس العلوم في هندسة الحاسب الآلي (١٤٠ عدد الساعات/٧٠٪ علمي الحد الأدنى للمعدل المطلوب)
- بكالوريوس العلوم في علوم الحاسب الآلي (١٢٦ عدد الساعات/٦٠٪ علمي الحد الأدنى للمعدل المطلوب)
- بكالوريوس العلوم في نظم المعلومات (١٢٦ عدد الساعات/٦٠٪ علمي، ٦٥٪ أدبي الحد الأدنى للمعدل المطلوب)
- بكالوريوس العلوم في الوسائط المتعددة وتطوير صفحات الإنترنت (١٢٦ عدد الساعات/٦٠٪ علمي، ٦٥٪ أدبي الحد الأدنى للمعدل المطلوب)

#### كلية طب الأسنان

- طبيب في جراحة الأسنان (١٩٩ عدد الساعات/٨٠٪ علمي الحد الأدنى للمعدل المطلوب)
- دبلوم في صحة الفم والأسنان (٨٤ عدد الساعات/٧٠٪ علمي الحد الأدنى للمعدل المطلوب)

#### كلية الهندسة

- بكالوريوس العلوم في الهندسة الكهربائية / إلكترونيات (١٤٢ عدد الساعات/٧٠٪ علمي الحد الأدنى للمعدل المطلوب)
- بكالوريوس العلوم في الهندسة الكهربائية / اتصالات (١٤٢ عدد الساعات/٧٠٪ علمي الحد الأدنى للمعدل المطلوب)
- بكالوريوس العلوم في الهندسة الكهربائية / القياسات والتحكم (١٤٢ عدد الساعات/٧٠٪ علمي الحد الأدنى للمعدل المطلوب)
- بكالوريوس العلوم في هندسة المعدات الطبية (١٣٥ عدد الساعات/٧٠٪ علمي الحد الأدنى للمعدل المطلوب)
- بكالوريوس العلوم في الهندسة المعمارية (١٦٩ عدد الساعات/٧٠٪ علمي الحد الأدنى للمعدل المطلوب)
- بكالوريوس في التصميم الداخلي (١٣٢ عدد الساعات/٦٠٪ علمي، أدبي الحد الأدنى للمعدل المطلوب)

#### كلية المعلومات والإعلام والعلوم الإنسانية

- بكالوريوس الآداب في الإعلام والعلاقات العامة (١٢٦ عدد الساعات/٦٠٪ علمي، أدبي (فني، صناعي، تجاري ٧٠٪) الحد الأدنى للمعدل المطلوب)
- بكالوريوس الآداب في اللغة الإنجليزية والترجمة (١٢٦ عدد الساعات/٦٠٪ علمي، أدبي الحد الأدنى للمعدل المطلوب)
- بكالوريوس الآداب في الاتصال والترجمة (١٢٦ عدد الساعات/٦٠٪ علمي، أدبي الحد الأدنى للمعدل المطلوب)

#### كلية الصيدلة والعلوم الصحية

- بكالوريوس في الصيدلة (١٥٠ عدد الساعات/٧٠٪ علمي الحد الأدنى للمعدل المطلوب)
- بكالوريوس في التمريض (١٣٢ عدد الساعات/٧٠٪ علمي الحد الأدنى للمعدل المطلوب)

## كلية التربية والعلوم الأساسية

- بكالوريوس التربية في "إعداد معلم في اللغة العربية والدراسات الإسلامية" (١٣٢ عدد الساعات/٦٠٪ علمي، أدبي الحد الأدنى للمعدل المطلوب)
- بكالوريوس التربية في "إعداد معلم في الرياضيات والعلوم" (١٣٢ عدد الساعات/٦٠٪ علمي، الحد الأدنى للمعدل المطلوب)
- بكالوريوس التربية في تدريس اللغة الإنجليزية كلغة أجنبية (١٢٦ عدد الساعات/٦٠٪ علمي، أدبي الحد الأدنى للمعدل المطلوب)
- بكالوريوس في تقنيات التعليم (١٢٠ عدد الساعات/٦٠٪ علمي الحد الأدنى للمعدل المطلوب)

## كلية القانون

- بكالوريوس في القانون (١٣٢ عدد الساعات /٦٠٪ علمي، أدبي الحد الأدنى للمعدل المطلوب)

## برامج الماجستير

### معهد البيئة والمياه والطاقة

- ماجستير في هندسة وإدارة المياه الجوفية (٣٦ عدد الساعات)

## كلية إدارة الأعمال

- ماجستير في إدارة الأعمال (٣٦ عدد الساعات)

## كلية تكنولوجيا المعلومات

- ماجستير في نظم المعلومات (٣٣ عدد الساعات)

## ٢- قواعد القبول

يتم القبول على أساس تنافسي بناءً على أعداد المتقدمين وإمكانات الجامعة في الاستيعاب.

### القبول المشروط

في بعض الحالات الخاصة (غير المستوفية لشروط القبول) والتي تقتنع بها مجالس الكليات يتم منح الطالب قبولاً مشروطاً بحصوله على تقدير جيد في خمسة مواد (تحددها الكلية) في الفصل الدراسي الأول للطالب، في حالة عدم تحقيق هذا الشرط يلغى قبول الطالب.

على الطلبة الذين يقبلون بشروط خاصة أن يوقعوا على تعهد بعدم مسؤولية الجامعة تجاه الجهات الرسمية والجامعات والمعاهد الأخرى في حالة انتقالهم أو عدم معادلة شهادتهم الثانوية.

تحدد الجامعة بناءً على توصية من مجلس الشؤون العلمية والتعليمية، قبل بداية كل عام دراسي أعداد الطلبة الذين يمكن قبولهم في مختلف الكليات العلمية في ذلك العام - بفصليه الدراسي: الأول والثاني وذلك في حدود الإمكانيات المتاحة.

وتوجه المراسلات والأوراق الخاصة بتقديم الطلبات إلى عمادة القبول والتسجيل باعتبارها الإدارة المختصة في هذا الشأن إضافة إلى كونها من أكثر الدوائر في إطار التعليم الجامعي التصاقاً بالحياة الدراسية للطلاب، حيث تستمر علاقتها معه من بداية تقديمه طلب الالتحاق بالجامعة إلى حين تسلمه شهادة التخرج، وهي في الوقت نفسه حلقة الاتصال بين الطالب من جهة، وباقي دوائر الجامعة المختلفة من جهة أخرى. وتحدد قواعد القبول فيما يأتي.

### ● إجراءات القبول العامة

يشترط في قبول الطلاب الجدد ما يأتي:

١- أن يكون الطالب حاصلاً على شهادة الثانوية العامة من دولة الإمارات العربية المتحدة أو ما يعادلها من وزارة التربية والتعليم.

٢- أن يكون الطالب مستوفياً لشروط القبول الخاصة بالكلية التي يرغب في الالتحاق بها على أساس مجموع العلامات التي تطلبها تلك الكلية.

شهادة الثانوية العامة (الفرع العلمي) تؤهل الطالب للالتحاق بجميع الكليات إذا استوفى شروط القبول التي تحددها الكلية المعنية.

شهادة الثانوية العامة (الفرع الأدبي)، بمعدل لا يقل عن ٦٠٪ تؤهل الطالب للالتحاق بالكليات التالية:

- كلية إدارة الأعمال.
- كلية المعلومات والإعلام والعلوم الإنسانية.
- والتخصصات التالية:
- بكالوريوس التربية في إعداد معلم مادة في اللغة العربية والدراسات الإسلامية.
- بكالوريوس التربية في تدريس اللغة الانجليزية كلغة أجنبية.
- بكالوريوس نظم معلومات.
- بكالوريوس في التصميم الداخلي.
- دبلوم تكنولوجيا المعلومات.



وأن يحصلوا على ٤٥٠ نقطة أو أكثر في نهاية الفصل الأول.

### ● الانتقال إلى الجامعة من جامعات أخرى

يمكن الطالب الذي يرغب في الانتقال من جامعة أو كلية معترف بها إلى جامعة عجمان للعلوم والتكنولوجيا أن يتقدم بطلب لعمادة القبول والتسجيل، ويصدر قرار قبوله عن لجنة القبول، وفقاً للشروط الآتية:

- ١- تحقيق شروط القبول في التخصص المرغوب فيه.
- ٢- أن يكون الطالب غير مفصول من الجامعة أو الكلية التي درس فيها.

إذا رغب الطالب في معادلة مساقاته قبل الالتحاق بالجامعة، يستوفى منه مبلغ (٥٠٠ درهم) لقاء هذا الإجراء، ويعتبر هذا المبلغ ضمن رسوم الالتحاق في حالة تسجيله وغير قابل للرد في حالة عدم الالتحاق بالجامعة.

### شروط معادلة المساقات:

إن الطالب المنتقل من جامعة أو كلية أخرى إلى الجامعة يمكن أن تحسب له بعض المساقات شريطة أن يقدم إلى عمادة القبول والتسجيل سجلاً دراسياً من الجامعة أو الكلية التي يرغب في الانتقال منها مصدقاً حسب الأصول ويرفق معه دليل تلك الجامعة أو الكلية في الأعوام التي تمت دراسة تلك المساقات فيها. تتم معادلة المساقات حسب ما يلي:

- ١- أن يكون المحتوى العلمي مكافئاً للمساق المطلوب معادلته في الجامعة.
- ٢- ألا يقل عدد الساعات المعتمدة للمساقات المطلوب معادلتها عن نظيره في الجامعة.
- ٣- أن يكون الطالب حاصلًا على تقدير جيد في المساق المطلوب معادلته.

في حالة انتقال الطالب من جامعة أو كلية ذات نظام أكاديمي مختلف، ينظر في معادلة المساقات التي درسها الطالب في ضوء نظام التقديرات المعمول به في تلك الجامعة (تقدير جيد).  
التقديرات أو المعدلات التي حصل عليها الطالب في المساقات المعادلة لا تدخل في احتساب معدله التراكمي في الجامعة.

إذا استوفى الطالب شروط المعادلة ولم يتمكن من تقديم محتويات المساقات التي درسها، تقوم الكلية المختصة بإجراء اختبار له ويتم البت في معادلة المساقات في ضوء نتائج الاختبارات.

لا تمنح الجامعة شهادة جامعية للطالب المنتقل إليها ما لم يكن قد أتم فيها دراسة ٥٠٪ على الأقل من الساعات المعتمدة لخطته الدراسية بنجاح في التخصص الذي يدرسه.

يمكن للطالب المسجل بالجامعة أن يدرس بعض المساقات في جامعة أخرى معتمدة شريطة أن يحصل مسبقاً على موافقة عميد الكلية. ويخضع الطالب للإجراءات المتبعة في الجامعة لمعادلة المساقات.

### الوثائق المطلوبة:

- ١- استمارة طلب التحاق بالجامعة يتم الحصول عليها من عمادة القبول والتسجيل.
- ٢- وثيقة النجاح في "الثانوية العامة"، أو ما يعادلها (كشف العلامات)، أو صورة طبق الأصل مصدقة حسب الأصول.
- ٣- صورة عن جواز السفر.
- ٤- شهادة اللياقة الصحية، معتمدة من طبيب الجامعة.
- ٥- شهادة حسن السيرة والسلوك معتمدة من جهة رسمية.
- ٦- ست صور شخصية مقاس (٦×٤) سم.
- ٧- تعهد خطي من الطالب بالالتزام والتقييد بأنظمة الجامعة وقوانينها ولوائحها وتعليماتها.
- ٨- شهادة امتحان قياسي في اللغة الإنجليزية مثل TOEFL بمعدل لا يقل عن (٥٠٠) نقطة أو IELTS أكاديمي بمعدل لا يقل عن (٥) نقاط.

### صلاحيات القبول:

يستمر قبول الطالب لفصل دراسي واحد. وفي حالة عدم تمكنه من الالتحاق بالجامعة عليه تقديم طلب وقف تسجيل. وخلال فترة تسجيل المواد لا يسمح للطلبة الذين إقامتهم على الجامعة بوقف التسجيل.

### مستوى اللغة المطلوب للتخصصات التي تدرس

#### باللغة الإنجليزية:

يخضع المتقدم بطلب التحاق بجامعة عجمان لامتحان قياسي في اللغة الإنجليزية TOEFL، وفي حالة عدم اجتيازهم هذا الامتحان بمعدل (٥٠٠) نقطة كحد أدنى، يجب على الطالب التسجيل في برنامج اللغة الإنجليزية المكثف. يسمح للطلبة الحاصلين على معدل (٥٠٠) نقطة كحد أدنى في امتحان TOEFL بالتسجيل، حسب رغبتهم، ما بين ٩ ساعات و ١٨ ساعة معتمدة من الخطة الدراسية.

يسمح للطلبة الحاصلين على معدل ما بين ٤٨٠ و ٤٩٩ نقطة في امتحان TOEFL التسجيل في ٩ ساعات معتمدة مع برنامج المستوى الرابع من اللغة الإنجليزية المكثف (٩ ساعات أسبوعياً) المطروح من قبل كلية المتطلبات الجامعية والإرشاد الأكاديمي.

يسمح للطلبة الحاصلين على معدل ما بين ٤٥٠ و ٤٧٩ نقطة في امتحان TOEFL التسجيل في ٦ ساعات معتمدة مع برنامج المستوى الثالث من اللغة الإنجليزية المكثف (١٥ ساعة أسبوعياً) المطروح من قبل كلية المتطلبات الجامعية والإرشاد الأكاديمي.

تحتفظ الكلية بمقعد القبول لمدة فصل دراسي واحد للطلبة الذين حصلوا على أقل من ٤٥٠ نقطة في امتحان TOEFL شريطة أن يسجلوا في برنامج اللغة الإنجليزية المكثف (١٥ ساعة أسبوعياً) والمطروح من قبل مركز الاختبارات

## ● تغيير التخصص

القواعد التي يبني عليها نظام تغيير التخصص داخل الجامعة هي:

### أ- الطالب الجديد

يجوز للطالب الجديد التحويل من التخصص المسجل فيه إلى تخصص آخر وذلك خلال فترة السحب والإضافة المسموح بها. ويتم إجراءات التحويل عن طريق عمادة القبول والتسجيل وفق الشروط الآتية:

١- توافر الشروط الخاصة بالقبول في التخصص العلمي المطلوب التحويل إليه.

٢- وجود أماكن شاغرة في التخصص المراد التحويل إليه.

٣- موافقة الكلية المحول منها والكلية المحول إليها.

### ب- الطالب المنتظم

يحق للطالب المنتظم التحويل من تخصص إلى آخر إذا استوفى الشروط المتعلقة بالطالب الجديد في البندين ٢ و ٣ السابقين وما يأتي:

١- أن يسمح له آخر معدل فصلي حصل عليه بالتحويل إلى التخصص المطلوب (حسب الشروط التي تضعها الكلية).

٢- أن يقدم طلب التحويل خلال فترة السحب والإضافة في الفصل الدراسي العادي.

يمكن للطالب أن يغير تخصصه لمرة واحدة فقط خلال سنوات دراسته.



## ٢- نظام الدراسة

### النصاب (العبء) الدراسي :

هو عدد الساعات المعتمدة التي يسجلها الطالب، ويتابع الدراسة فيها أسبوعياً وفقاً لبرنامج منظم طول الفصل الدراسي الواحد، ويكون النصاب ما بين (٩) تسع ساعات معتمدة و (١٨) ثنائي عشرة ساعة معتمدة في الفصل الدراسي العادي وما بين (٣) ساعات و (٦) ساعات معتمدة في الفصل الصيفي .

ويحق للطالب زيادة نصابه الدراسي على الحد الأعلى المسموح به إلى (٢١) إحدى وعشرين ساعة معتمدة في الفصل الدراسي العادي وإلى (٩) تسع ساعات معتمدة في الفصل الصيفي وذلك في إحدى الحالتين الآتيتين :

١- إذا حصل على معدل تراكمي (٣,٥) نقطة فأكثر في الفصل الدراسي السابق للفصل الذي يجري التسجيل فيه .

٢- إذا اقتضت خطته الدراسية مثل تلك الزيادة لغرض التخرج في الفصل الدراسي نفسه (بعد موافقة مجلس الكلية) .

### النقاط :

هي وحدات رقمية تستخدم في التعليم الجامعي لتقويم مستوى التحصيل في مساقات الدراسة المطلوبة بعلامات، ويعبر عن قيمة كل منها بعبارة نقاط لكل مساق يجري تدريسه . والحد الأعلى للنقاط في جامعة عجمان للعلوم والتكنولوجيا (٤,٥) أربع نقاط ونصف .

تتبع الجامعة نظام الساعات المعتمدة الذي يقوم على تحديد عدد الساعات الدراسية التي يجب إتمامها، والنجاح فيها وفق المستوى الذي تحدده الجامعة للحصول على الدرجة الجامعية الأولى (البكالوريوس) في أحد تخصصات الكليات .

### تعريفات

#### الساعة المعتمدة:

هي مدة ساعة صفية مخصصة لمحاضرة نظرية واحدة في الأسبوع على مدى ستة عشر أسبوعاً، وكل ساعتين عمليتين في الأسبوع (مختبرات وتدريبات، أو ورش عمل) تعادل ساعة نظرية واحدة .

#### المساق:

هو مقرر دراسي يدرسه الطالب وفق برنامج منظم في عدد من الساعات المعتمدة في الأسبوع خلال الفصل الدراسي الواحد. ويعطى كل مساق اسماً ورقماً بهدف تعريفه وتصنيفه، ويرتبط المساق مع مساقات أخرى في خطة دراسية متكاملة .

#### المتطلب السابق :

هو المساق الذي تتطلب الخطة الدراسية أن يجتازه الطالب بنجاح قبل السماح له بالتسجيل في مساق لاحق .

#### الفصل الدراسي :

هو مدة زمنية خاصة بالتدريس تمتد إلى (١٦) ستة عشر أسبوعاً لا تدخل ضمنها مدة امتحانات نهاية الفصل

#### العام الدراسي :

هو المدة الزمنية المخصصة للتدريس والتي يتم تحديدها في نهاية كل عام دراسي طبقاً للتقويم، ويتألف العام الدراسي الواحد من فصلين دراسيين (الفصل الدراسي الأول والفصل الدراسي الثاني)، ويفصل بينهما عطلة نصف العام الدراسي ومدتها أسبوعان . ويجوز للجامعة أن تنظم فصلاً مكثفاً خلال أشهر الصيف، ويسمى "الفصل الدراسي الصيفي" .

#### الخطة الدراسية :

تضم الخطة الدراسية في تخصص معين ما يأتي :

- ١- وصفاً شاملاً لبرنامج الدراسة الذي يدرسه الطالب في تخصصه .
- ٢- مجموعة من المساقات المتكاملة التي ينبغي على الطالب دراستها للحصول على الدرجة الجامعية الأولى (البكالوريوس) .
- ٣- فترة تدريب عملي ولها ساعات معتمدة ضمن مساقات الخطة الدراسية وتتراوح مدتها تبعاً للتخصص (أنظر الخطة الدراسية للتخصص المطلوب) .





## متطلبات الجامعة

هي مجموعة من المساقات التي يجب على الطالب (مهما كان تخصصه) أن يجتازها بنجاح ، وتهدف هذه المساقات إلى إغناء ثقافة الطالب بالمعطيات الحديثة في مجالات العلوم الطبيعية والإنسانية فضلاً عن تزويده بما يحتاجه من مهارات لغوية إضافة إلى ما هو ضروري وأساسي لإدراك البعد التراثي والحضاري للفكر الإسلامي ، وتنقسم هذه المتطلبات إلى قسمين:

### ١- متطلبات إجبارية :

اسم المساق	عدد الساعات المعتمدة
١- الإحصاء	٣
٢- تطبيقات الحاسوب	٣
٣- الثقافة الإسلامية	٣
٤- اللغة العربية	٣
٥- مناهج البحث العلمي	٣

### ٢- متطلبات اختيارية :

يختار الطالب ثلاثة مساقات منها ، وفقاً لمتطلبات كل كلية وبما يتلاءم مع خطته الدراسية . وهذه المساقات هي :

اسم المساق	عدد الساعات المعتمدة
١- الرياضيات (١)	٣
٢- الريادة العلمية وبراءات الاختراع	٣
٣- تاريخ العلوم عند المسلمين	٣
٤- علم النفس العام	٣
٥- مجتمع الإمارات	٣
٦- البيئة والمياه والطاقة	٣
٧- مدخل إلى الإعجاز في القرآن والسنة	٣

### تصنيف الطلبة:

يصنف طلبة الجامعة حسب ما يلي :

- يعد الطالب في مستوى السنة الأولى ما دام لم ينجز ٣٣ ساعة معتمدة
  - يعد الطالب في مستوى السنة الثانية إذا أنجز ما بين ٣٣ و ٦٥ ساعة معتمدة.
  - يعد الطالب في مستوى السنة الثالثة إذا أنجز ما بين ٦٦ و ٩٨ ساعة معتمدة.
  - يعد الطالب في مستوى السنة الرابعة إذا أنجز ما بين ٩٩ و ١٣٢ ساعة معتمدة
  - يعد الطالب في مستوى السنة الخامسة إذا أنجز أكثر من ١٣٢ ساعة معتمدة.
- (ومسجلاً في كلية الهندسة ، كلية الصيدلة والعلوم الصحية ، وكلية طب الأسنان)



## ٤- الإرشاد الأكاديمي وتسجيل المسابقات

### • الإرشاد الأكاديمي

يعد الإرشاد الجامعي الركيزة الأولى التي يعتمد عليها نظام الساعات المعتمدة وهو لا يقتصر في وظائفه على التعريف بالخطة الدراسية ومساقاتها فقط، بل يتعداها إلى توثيق العلاقة بين الطلبة وأولياء الأمور وأعضاء هيئة التدريس بما يحقق الأهداف المتوخاة من العملية التربوية. ويقسم الإرشاد إلى قسمين:

#### ١- الإرشاد العام:

يشتمل على تعريف الطلبة بالنظام الجامعي وذلك عن طريق:

١. لقاء تعريفى مبدئى قبل بداية الفصل الدراسي يجمع الطلبة الجدد وأولياء أمورهم وأعضاء هيئة التدريس، والهدف منه التعريف بالنظام الجامعي ونظام الساعات المعتمدة وخطوات التسجيل والتعرف على المرشدين الأكاديميين بالإضافة إلى التعريف بمرافق الجامعة.
٢. برنامج تعريفى طوال الفصل الدراسي الأول للطلاب للتعريف بنظام ولوائح الجامعة وما تقدمه من خدمات.

#### ٢- الإرشاد الخاص:

ويهدف إلى:

١. متابعة الطالب ونصحه في أثناء مسيرته التعليمية منذ اختيار تخصصه وحتى تخرجه.
٢. إعداد الطالب نفسياً وفكرياً للتواءم مع البيئة الجامعية.
٣. مناقشة نتائج الفصل الدراسي السابق.
٤. إعداد وتنظيم الخطة الدراسية للطالب.
٥. مساعدة الطالب في اختيار المسابقات في بداية الفصل الدراسي وبما يتناسب مع قدراته ونتائجه في الفصل السابق.
٦. متابعة التحصيل العلمي للطالب.
٧. متابعة حضور الطالب للمحاضرات.
٨. توطيد التواصل والتعاون بين أسرة الجامعة وأولياء الأمور من خلال شؤون الطلبة.
٩. مساعدة الطالب فيما قد يواجه من مشكلات خاصة.
١٠. اللقاء المنتظم مع الطلبة المنزدرين أكاديمياً من أجل رفع مستواهم العلمي.

### المرشد الأكاديمي

عضو هيئة التدريس الذي يقوم بتقديم العون للطالب في أثناء عملية التسجيل كما يتولى مساعدة الطالب وإرشاده في تنفيذ خطته الدراسية وتقديم النصيحة له في الأمور المتعلقة بالشؤون الأكاديمية ومتابعة تحصيله العلمي واختيار المسابقات التي سوف يسجلها ويساعده في حل ما قد يعترضه من مشكلات. ويوزع الطلبة على المرشدين في القسم العلمي.

### • تسجيل المسابقات

#### تسجيل المسابقات للطلبة الجدد:

ينبغي على الطلبة الجدد حضور محاضرة الإرشاد الأكاديمي التي تعدها الكليات في بداية الفصل الدراسي، والهدف من عقد هذه المحاضرات هو تزويد الطالب بنبذة عن نظام الساعات المعتمدة التي تتبعها الجامعة وكذلك نصحه بالمسابقات التي يتوجب أن يسجل فيها خلال الفصل الدراسي الأول، كما تهدف هذه المحاضرات إلى تزويد الطلاب الجدد بخطوات التسجيل التي يجب اتباعها، وكذلك تزويده بنبذة عن الإرشاد الأكاديمي.

يتم اختيار الطالب للمسابقات وإدخالها على الحاسوب من قبل مرشده الأكاديمي، على أن يقوم الطالب بتسديد الرسوم الدراسية المترتبة على تسجيله للمسابقات الدراسية، وبعد ذلك يمكن للطالب أن يحصل على الجدول الدراسي مبيناً به المسابقات الدراسية التي سجلها، وأسماء أعضاء هيئة التدريس الذين يقومون بتدريسه المسابقات كما يبين في الجدول الدراسي أماكن القاعات الدراسية والمعامل التي سوف يحضر فيها. هذا ويمكن إلغاء قبول الطالب إذا لم ينه إجراءات تسجيل المسابقات في الوقت المسموح به لتسجيل المسابقات.

#### تسجيل المسابقات للطلبة المنتظمين:

تشجع الكليات الطلبة غير المنزدرين أكاديمياً بأن يقوموا بعملية التسجيل المبكر لاختيار المسابقات بمساعدة مرشديهم الأكاديميين، خلال فترة التسجيل المبكر المعلنة في التقويم الجامعي، ويمكن للطلبة المنزدرين أكاديمياً والذين لم يتمكنوا من تسجيل المسابقات خلال فترة التسجيل المبكر المسموح بها بتسجيل مسابقاتهم أثناء فترة التسجيل المحددة في التقويم الجامعي.

#### سحب المسابقات وإضافتها:

يتوجب على الطالب أن يقوم بعملية السحب والإضافة بموافقة مرشده الأكاديمي وخلال الفترة المقررة للسحب والإضافة، وفي خلال هذه الفترة يتسنى للطالب الاحتفاظ بالرسوم الدراسية للمسابقات التي يعتزم سحبها. ويتحتم على الطالب أن يسجل على الأقل تسع ساعات في الفصل الدراسي.

يبين التقويم الجامعي المواعيد المقررة لسحب المسابقات بدون أثر في السجل الدراسي مع فقدان الطالب للرسوم التي سدها.

يبين التقويم الجامعي آخر موعد لسحب المسابقات مع إظهار علامة (W) في سجل الطالب الدراسي وفقدان الرسوم التي سدها، علماً بأن علامة (W) لا تدخل في حساب المعدل التراكمي للطلاب ولا يتأثر بها.

#### وقف التسجيل:

يسمح وقف التسجيل للطالب الذي أكمل فصلاً دراسياً واحداً في الجامعة، وعدد الفصول الدراسية التي يمكن للطالب إيقافها هو أربعة فصول دراسية وتكون إما فصلين متتاليين وإما أربعة فصول متفرقة، بشرط أن يقوم الطالب بإخطار عمادة القبول والتسجيل كتابياً والحصول على موافقتها.

## ٥- الامتحانات ونظم التقويم:

### التقويم العلمي للطلبة:

يتم التقويم العلمي للطلبة في كل مساق يدرسه في الفصل الدراسي الواحد وفقاً للمقاييس التي تضعها الكلية والتي ترد في توصيف المساق: تعد العلامة ١٠٠ الحد الأعلى لتقويم كل مساق ويتم تقسيمها على النحو الآتي:

- ١- الأنشطة الفصلية ٣٠ علامة
- ٢- امتحان نصف الفصل ٢٠ علامة
- ٣- امتحان نهاية الفصل ٥٠ علامة

تشمل الأنشطة الفصلية امتحانات السعي، الاختبارات الجزئية، الواجبات الفصلية، الأبحاث، المختبرات والتدريبات. تُعد العلامة ٦٠٪ الحد الأدنى للنجاح في أي مساق يدرسه الطالب في الجامعة.

### التقديرات:

توزع تقديرات النجاح في المساق بحسب العلامات التي يحصل عليها الطالب فيه، وفق التقسيم الآتي:

م	العلامة	التقدير	الرمز	النقاط
١	من ٩٥ إلى ١٠٠	امتياز بمرتبة الشرف	+	٤,٥
٢	من ٩٠ إلى ٩٤	امتياز	أ	٤
٣	من ٨٥ إلى ٨٩	جيد جداً مرتفع	ب+	٣,٥
٤	من ٨٠ إلى ٨٤	جيد جداً	ب	٣
٥	من ٧٥ إلى ٧٩	جيد مرتفع	ج+	٢,٥
٦	من ٧٠ إلى ٧٤	جيد	ج	٢
٧	من ٦٥ إلى ٦٩	مقبول مرتفع	د+	١,٥
٨	من ٦٠ إلى ٦٤	مقبول	د	١
٩	أقل من ٦٠	راسب	هـ	صفر



## المعدل الفصلي:

هو مقياس يدل على مستوى التحصيل العلمي للطالب في الفصل

مجموع الساعات المعتمدة لكل مساق X عدد النقاط التي حصل عليها في المساق

مجموع عدد الساعات المعتمدة التي سجل فيها خلال الفصل

مثال توضيحي : إذا حصل الطالب في فصل ما على النتائج المبينة في الجدول الآتي :

المساق	عدد الساعات المعتمدة	النتيجة بالنقاط	عدد الساعات X النقاط
الثقافة الإسلامية	٣	٤	١٢
اللغة العربية	٣	٤	١٢
اللغة الإنجليزية ١	٣	٢	٦
فيزياء ١	٣	٣	٩
الرياضيات ١	٣	٣	٩
الإحصاء	٣	٢	٦
المجموع	١٨		٥٤

فإن معدله الفصلي يكون كما يلي :

$$\bar{x} = \frac{٥٤}{١٨} = \frac{٦+٩+٩+٦+١٢+١٢}{١٨}$$

## المعدل التراكمي

هو مقياس يدل على مستوى تحصيل الطالب في جميع الفصول الدراسية منذ التحاقه بالجامعة حتى زمن احتساب هذا المعدل ، ويحسب على النحو الآتي :

مجموع الساعات المعتمدة لكل مساق X عدد النقاط التي حصل عليها في المساق

مجموع الساعات المعتمدة التي سجل فيها خلال الفصول الدراسية

إذا نجح الطالب في مساق رسب فيه سابقاً ، يحسب المعدل التراكمي له بأخذ العلامة التي حصل عليها في ذلك المساق ، وتهمل الأصفار السابقة فيه مهما كان عددها ، على أن تبقى العلامة الأولى في سجله الدراسي .

إذا أعاد الطالب دراسة مساق ما من أجل تحسين معدله يحسب المعدل التراكمي له على أساس آخر علامة حصل عليها في ذلك المساق سواء أكانت العلامة النهائية أعلى أم أدنى من سابقتها (على أن تبقى العلامة الأولى بتقديرها ونقاطها في سجله الدراسي) .

## تقدير (غير مكتمل):

- إن حضور الامتحان النهائي إلزامي، وفي حالة إخفاق الطالب في حضور الامتحان في مساق ما يعتبر راسباً فيه. وإذا تعذر دخول الطالب الامتحان النهائي بسبب قهري، يعطى تقدير "غير مكتمل". الأسباب القهرية المقبولة هي:
- تقرير طبي معتمد من طرف طبيب الجامعة.
- شهادة وفاة أحد أفراد أسرة الطالب.
- استدعاء الطالب من طرف المحكمة أو الشرطة.

يشترط أن يتقدم الطالب بطلبه في مدة لا تتجاوز ثلاثة أيام من تاريخ الامتحان ويقوم الطالب بتعبئة النموذج المعد لذلك والموجود لدى عمادة القبول والتسجيل على أن يرفق معه ما يثبت العذر الاضطراري.

تقوم عمادة القبول والتسجيل باستكمال البيانات الخاصة بها، وختم الطلب بخاتمها الرسمي وتحويل الطلب إلى قسم الحسابات لمعرفة ما إذا كانت على الطالب التزامات مالية أم لا.

لكي ينظر القسم المختص في طلب تقدير "غير مكتمل" يجب أن يكون الطالب مستوفياً للشرطين الآتيين.

- أ- الانتظام بالدراسة وعدم تجاوز نسبة ٢٥٪ من الغياب.
- ب- ألا يقل مجموع علاماته في الأعمال الفصلية عن ٦٠٪ منها أي ٥٠/٣٠.

يجب على الطالب الذي حصل على تقدير "غير مكتمل" في مساق ما، أن يزيل هذا التقدير قبل نهاية الأسبوع الثاني من الفصل الدراسي الذي يلي حصوله على تقدير غير مكتمل فيه وفقاً للموعّد الذي تحدده الكلية المختصة.

إذا أوقف الطالب تسجيله في فصل دراسي ما، وكان عليه إزالة تقدير "غير مكتمل" في هذا الفصل يجب عليه إزالة هذا التقدير في أول فصل دراسي يعيد تسجيله فيه.

يحسم ١٠٪ من درجة الامتحان النهائي شريطة ألا يؤدي هذا الحسم إلى رسوب الطالب

## التظلم:

يعطى الطالب فرصة ١٥ يوماً بعد إعلان النتائج لتقديم طلب تظلم على نتيجة الامتحان.

يقوم الطالب بتعبئة نموذج التظلم الموجود لدى عمادة القبول والتسجيل والتي تقوم بدورها بتحويله إلى الكلية المعنية لاتخاذ الإجراء اللازم.

تقوم الكلية بعد دراسة الطلب واتخاذ اللازم بإبلاغ عمادة القبول والتسجيل والتي تقوم بدورها بإبلاغ الطالب بنتيجة دراسة التظلم.

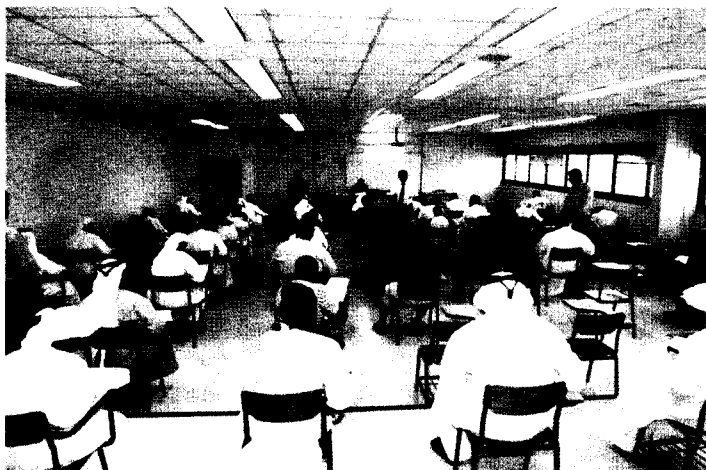
## إعادة الامتحان:

إذا نجح الطالب في جميع متطلبات التخرج فيما عدا مساق واحد وكان راسباً فيه في الفصل الأخير قبل التخرج، يسمح له بإعادة تسجيله مباشرة بعد النتيجة وإعادة امتحانه النهائي فيه بعد دفع ٥٠٪ من رسوم المساق المعين خلال فترة اسبوعين من إعلان النتائج.

## الحصص الموجهة:

يحق للطالب الذي استكمل متطلبات الجامعة الإلزامية ونصاب ٥٠ من الساعات المعتمدة للتخرج أن يسجل في الحصص الموجهة بما لا يزيد عن ثلاثة ساعات معتمدة في الفصل الواحد، وذلك في الحالات الآتية:

- ١- إذا كان يرغب في تعديل خطته الدراسية بأخذ مساق غير مطروح في الفصل الدراسي نفسه.
- ٢- إذا كان يرغب في استكمال مطلب تخرج في الفصل الدراسي الأخير.
- ٣- إذا كان يرغب بالاستزادة في رصيده المعرفي فيما يتعلق بالجانب العملي والتطبيقي في تصميم المساق وتحليله وتوثيقه.



## ٦ - الإنذار بسبب الغياب

إن مواظبة الطالب على حضور المحاضرات النظرية والدروس العملية في مواعيدها في برنامج دراسته بحد أدنى ٧٥٪، أمر إلزامي تحرص الجامعة على تطبيقه بالدقة التامة حفاظاً على مستوى التحصيل العلمي فيها، ومن هنا جاءت أهمية تنبيه الطالب بشأن غيابه وفقاً لما يأتي:

- ١- الإنذار بشأن الغياب ١٠٪: إذا بلغت نسبة غياب الطالب عن محاضرات أي مساق ١٠٪ من عدد ساعاته النظرية والعملية، يوجه له إنذار أول.
- ٢- الإنذار بشأن الغياب ٢٠٪: إذا بلغت نسبة غياب الطالب عن محاضرات أي مساق ٢٠٪ من عدد ساعاته النظرية والعملية، يوجه له إنذار ثان.
- ٣- الرسوب بسبب الغياب: إذا بلغت نسبة غياب الطالب عن محاضرات أي مساق ٢٥٪ فأكثر من عدد ساعاته النظرية والعملية، يعد راسباً في ذلك المساق، ويعطى علامة (صفر) فيه، ويحسب في معدله الفصلي والتراكمي.

لمجلس الشؤون العلمية والتعليمية الحق في اعتبار الطالب منسحباً من المساق بدون رسوب إذا قدم عذراً يسوغ فيه أسباب غيابه بشكل رسمي، يقبله المجلس.

## ٧- الإنذار الأكاديمي

يوجه إنذار أكاديمي للطالب إذا قل معدله التراكمي عن (٢) نقطة بنهاية الفصل الدراسي (باستثناء الفصل الدراسي الأول من خطة الطالب الدراسية والفصل الصيفي).

يسمح للطالب المنذر إنذاراً أكاديمياً أولاً بتسجيل خمسة مسابقات (١٥ ساعة معتمدة) كحد أقصى ويتوجب عليه إعادة مساق واحد أو مساقين وذلك حسب معدله التراكمي.

يسمح للطالب المنذر إنذاراً أكاديمياً ثانياً بتسجيل أربعة مسابقات (١٢ ساعة معتمدة) كحد أقصى ويتوجب عليه إعادة مساقين على الأقل من اللذين حصل فيهما على علامة راسب (هـ) أو (د).

يسمح للطالب المنذر إنذاراً أكاديمياً ثالثاً بإعادة تسع ساعات معتمدة

يعطى الطالب المنذر إنذاراً أكاديمياً ثالثاً مهلة فصل دراسي واحد لرفع معدله التراكمي إلى (٢) نقطة أو أكثر، وإذا عجز عن ذلك تتخذ الكلية بحقه أحد الإجراءات الآتية:

- ١- تحويل الطالب إلى تخصص آخر (شرط موافقة الكلية المحول إليها) ويشترط أن يحصل الطالب على معدل تراكمي لا يقل عن (٢) نقطة في المساقات المتضمنة في تخصصه الجديد.
- ٢- توقيف الطالب عن الدراسة في الجامعة لمدة أقصاها فصلين دراسيين ويسمح للطالب خلال هذه الفترة بتسجيل مسابقات في جامعة أخرى معترف بها. ويمكن إعادة تسجيل الطالب في الجامعة إذا حصل على معدل تراكمي لا يقل عن (٢) نقطة بعد تحويل المساقات التي استوفت شروط التحويل المعمول بها في الجامعة.

٣- فصل الطالب من الجامعة.

## إزالة أثر الإنذار الأكاديمي

يتمكن الطالب من إزالة الإنذار الأكاديمي في نهاية الفصل إذا حصل على معدل تراكمي (٢) نقطة أو أكثر.

## ٨- متطلبات التخرج

يمنح الطالب الدرجة العلمية لدى استيفائه الشروط الآتية:

- ١- إتمام دراسة مقررات الخطة الدراسية بنجاح.
- ٢- إنهاء مدة التدريب العملي المقررة في الخطة الدراسية.
- ٣- الحصول على معدل تراكمي لا يقل عن (٢) نقطة.

## تقديرات الدرجة العلمية

يتم تقدير الشهادات التي تمنحها الجامعة وفقاً للمعدل التراكمي الذي حصل عليه الطالب بالتقديرات الآتية:

النقاط	التقدير
من ٤ إلى ٤,٥	امتياز مع مرتبة الشرف
من ٣,٧٥ إلى أقل من ٤	امتياز
من ٢,٧٥ إلى أقل من ٣,٧٥	جيد جداً
من ٢,٢٥ إلى أقل من ٢,٧٥	جيد
من ٢ إلى أقل من ٢,٢٥	مقبول

## ٩- الدراسات المسائية

تنظم الجامعة برامج للدراسات المسائية للذين يرغبون في استكمال دراستهم الجامعية من حملة الشهادة الثانوية العامة أو ما يعادلها، للحصول على الدرجات العلمية التي تمنحها الجامعة.

ونظام الدراسة فيها هو نفس النظام المتبع في الدراسات العادية إلا أن ساعات المحاضرات تبدأ اعتباراً من الساعة الثالثة والنصف مساءً.

# الرسوم الدراسية واللوائح المالية الخاصة بالطلبة

- ١- رسوم التسجيل و طلب الالتحاق
- ٢- الرسوم الدراسية
- ٣- إجراءات استرداد الرسوم الدراسية
- ٤- الحسوم عن الرسوم الدراسية والمنح
- ٥- الكتب الدراسية

## ١- رسوم التسجيل و طلب الالتحاق:

رسوم التسجيل و طلب الالتحاق ١٣٠٠ درهم إماراتي ، تدفع نقدا مرة واحدة عند أول تسجيل للطالب (الطالبة) ولا تُعد جزءاً من الرسوم الدراسية. لا تسترد رسوم التسجيل إلا في حالة عدم قبول الطالب (الطالبة). رسوم معادلة المساقات ٥٠٠ درهم يدفعها الطالب (الطالبة) مقابل معادلة مساقات درسها في مؤسسات تعليم عال معتمدة، وهي غير قابلة للاسترداد، ويتم احتسابها ضمن رسوم التسجيل إذا التحق الطالب بالدراسة في الجامعة.

## ٢- الرسوم الدراسية:

### ١-٢ رسوم الساعات المعتمدة للبيكالوريوس

تحدد الرسوم الدراسية في الكليات والتخصصات التي تطرحها الجامعة وفق نظام الساعات المعتمدة، كما يلي:  
وتشمل رسوم المختبرات للمسابقات التي تطرحها الكلية ويستثنى من ذلك رسوم المختبرات للمسابقات المتضمنة في الخطة الدراسية التي تطرحها الكليات الأخرى.

الكلّيات	رسوم الساعة المعتمدة الواحدة
كلية المعلومات و الإعلام و العلوم الإنسانية	٧٥٠ درهماً
كلية القانون	٧٥٠ درهماً
كلية تكنولوجيا المعلومات	٧٥٠ درهماً
<b>كلية الهندسة</b>	
– هندسة كهربائية	٧٥٠ درهماً
– هندسة معدات طبية	٧٥٠ درهماً
– هندسة إلكترونيات	٧٥٠ درهماً
– هندسة القياس والتحكم	٧٥٠ درهماً
– هندسة معمارية	٨٠٠ درهماً
– هندسة تصميم داخلي	٨٠٠ درهماً
كلية طب الأسنان	١,١٠٠ درهم
كلية الصيدلة والعلوم الصحية	٩٠٠ درهم
كلية التربية والعلوم الأساسية	٧٠٠ درهم
كلية إدارة الأعمال	٧٥٠ درهماً

## ٢-٢ رسوم المختبرات والاستوديوهات والعيادات:

الكلبيات	طب الأسنان		الصيدلة	الهندسة المعمارية/هندسة التصميم الداخلي
	السنة الأولى حتى السنة الثالثة	السنة الرابعة والخامسة		
الرسوم	١٥٠٠ درهم	٢٥٠٠ درهم	٨٥٠ درهماً	١٠٠٠ درهم للمساق الواحد

### رسوم المختبرات:

الطلبة المسجلون في بالمساقات التي تتطلب ساعات عملية للمختبرات، سيقرب عليهم سداد رسم قدره: ٥٠٠ درهم للمساق الواحد معتمداً على طبيعة ذلك المساق.

### رسوم ساعات المناقشة:

الطلبة المسجلون في المساقات التي تتطلب ساعات مناقشة، سيقرب عليهم سداد رسم قدره: ٣٥٠ درهماً للمساق الواحد.

### ٣-٢ الإرشاد الأكاديمي:

يدفع الطالب (الطالبة) ٧٠٠ درهم رسوم مساق الإرشاد الأكاديمي وذلك مرة واحدة طوال فترة دراسته.

### ٤-٢ رسوم إضافية:

يدفع الطالب الرسوم الإضافية التالية: ١٥٠ درهماً: رسوم الفحص الطبي، تدفع مرة واحدة عند أول تسجيل للطالب. ٢٠٠ درهم: رسوم خدمات طلابية. ٥٠ درهماً: رسوم تقديم طلب "غير مكتمل". ٣٠ درهماً: رسوم إصدار شهادة "لمن يهمل الأمر". ٢٠ درهماً: رسوم إصدار نسخة من السجل الدراسي. ٣٠ درهماً: رسوم طلب تظلم. ١٠ درهماً: رسوم بطاقة جامعية.

### ٥-٢ رسوم الدراسات العليا:

الرسوم الدراسية ٢٠٠٠ درهم للساعة المعتمدة. رسوم طلب الالتحاق والتسجيل ٢٠٠٠ درهم تدفع مرة واحدة ولا تُسترد، ولا تُعد جزءاً وغير مستردة ولا تعتبر جزءاً من الرسوم الدراسية. رسوم الفحص الطبي ١٥٠ درهماً تدفع مرة واحدة عند أول تسجيل للطالب. يجب على الطالب (الطالبة) سداد الرسوم الدراسية كاملة للمساقات التي يسجلها عند طلبه تسجيل هذه المساقات ويمنع أي طالب (طالبة) من دخول قاعات المحاضرات إلا بعد سداد هذه الرسوم كاملة. تحتفظ الجامعة بحق تعديل الرسوم المذكورة أعلاه إذا اقتضى الأمر ذلك.

## ٣ إجراءات استرداد الرسوم الدراسية:

### ١-٣ سحب مساقات دراسية:

– تحدد فترة السحب والإضافة بمدة أسبوعين من بدء الدراسة وذلك وفق التقويم الجامعي المنشور، ويحق للطالب (الطالبة) خلال فترة السحب والإضافة سحب مساقات أو إضافتها دون فقدان أي جزء من الرسوم.



– إذا تقدم الطالب (الطالبة) إلى إدارة القبول والتسجيل بطلب وقف التسجيل لفصل واحد أو فصلين متتاليين على الأكثر بعد انقضاء فترة أسبوعين على تاريخ انتهاء فترة السحب والإضافة، لا يحق له استرداد أي جزء من الرسوم الدراسية التي دفعها (الأسبوع الخامس والسادس)

### ٣-٣ وقف التسجيل مع الانسحاب من الجامعة:

– إذا تقدم الطالب (الطالبة) إلى إدارة القبول والتسجيل بطلب وقف التسجيل والانسحاب من الجامعة أثناء فترة السحب والإضافة، يحق له استرداد كامل الرسوم الدراسية التي دفعها وذلك بعد انقضاء أسبوع واحد على تقديم طلب استرداد الرسوم إلى مسؤول حسابات الطلبة.

– إذا تقدم الطالب (الطالبة) إلى إدارة القبول والتسجيل بطلب وقف التسجيل والانسحاب من الجامعة خلال الأسبوعين اللذين يليان انتهاء فترة السحب والإضافة، فلا يحق له استرداد إلا ٥٠٪ من الرسوم الدراسية التي دفعها (الأسبوع الثالث والرابع)

– إذا تقدم الطالب (الطالبة) إلى إدارة القبول والتسجيل بطلب وقف التسجيل والانسحاب من الجامعة بعد انقضاء فترة أسبوعين على تاريخ انتهاء فترة السحب والإضافة، لا يحق له استرداد أي جزء من الرسوم الدراسية التي دفعها (الأسبوع الخامس والسادس).

### ٣-٤ الفصل التأديبي من الجامعة:

لا يحق للطلاب (الطالبة) استرداد أي جزء من الرسوم الدراسية في حالة فصله تأديبياً من الجامعة.

### ٤- الخصوم عن الرسوم الدراسية والمنح:

#### ٤-١ الخصوم عن الرسوم الدراسية:

– يمنح الطالب (الطالبة) حسم امتياز وقدره ٢٠٪ من قيمة رسوم المسابقات المسجلة في أول فصل وذلك لفصل دراسي واحد من الحالات التالية (شريطة حصوله على التوفل TOEFL أو ما يعادلها):

– إذا كان الطالب (الطالبة) ناجحاً في الثانوية العامة بنسبة ٩٥٪ أو أعلى يلتحق الطالب أول مرة بكلية طب الأسنان وكلية الصيدلة والعلوم الصحية.

– إذا كان الطالب (الطالبة) ناجحاً في الثانوية العامة بنسبة ٩٠٪ أو أعلى فإن له الحق في الالتحاق بكافة كليات الجامعة باستثناء كلية طب الأسنان وكلية الصيدلة والعلوم الصحية.

– إذا حصل الطالب (الطالبة) على المعدل الفصلي ٤٠٠ أو أعلى شريطة أن يكون الطالب (الطالبة) قد سجل في الفصل الذي حصل فيه على معدل التفوق ١٥ ساعة معتمدة أو أكثر، ويحق للطالب (الطالبة) الاستمرار في الانتفاع بهذا الحسم إذا حافظ على المعدل الفصلي المذكور سالفاً.

– يستحق الطالبان الشقيقتان (الطالبات الشقيقتان) حسماً قدره ٥٪ من قيمة رسوم المسابقات المسجلة في الفصل لكل منهما في حالة تسجيلهما في الفصل نفسه، ولا يستفيد أي واحد منهما من هذا الحسم إذا لم يسجلا في الفصل نفسه أو إذا قل المعدل التراكمي عن ٢٠٠

– يفقد الطالب (الطالبة) حقه في الاستفادة من أية حسم من الرسوم الدراسية

التي تمنحها الجامعة إذا حصل على معدل تراكمي أقل من ٢٠٠. لا يجوز للطالب (الطالبة) الجمع بين حسمين ويستحق في هذه الحال الحسم الأعلى.

– الطلبة غير الحاصلين على شهادة الـ

(TOEFL, ILTES / Academic, iBT) لا يستفيدون من الحسم.

### ٤-٢ المنح الدراسية:

تخصص المنح والإعفاءات للطلبة المتفوقين في كليات الجامعة كافة للرسوم الدراسية والمختبرات فقط باستثناء الفصل الصيفي كما يلي:

– ١٠٪ من الرسوم الدراسية للطلاب الأول على مستوى الكلية.

– ٥٠٪ من الرسوم الدراسية للطلاب الثاني على مستوى الكلية.

– ٤٠٪ من الرسوم الدراسية للطلاب الثالث على مستوى الكلية.

شرط الحصول على هذه المنح والإعفاءات هو أن يكون الطالب قد أنهى ٦٠ ساعة معتمدة دراسية في الجامعة وأن يكون حسن السيرة والسلوك وألا يكون قد خالف لأحة انضباط الطلبة خلال الفترة المذكورة.

– تقوم الجامعة بتخصيص عدد من المنح الدراسية السنوية وعلى الطلبة الراغبين في الاستفادة منها تقديم طلباتهم إلى لجنة المنح.

### ٥- الكتب الدراسية:

تتولى الجامعة توفير الكتب الدراسية المقررة للطلبة مقابل رسوم تفضيلية ولا تشمل الحسم رسوم الكتب.



## ١٢ - توصيف مساقات متطلبات الجامعة

### أ - المساقات الإلزامية:

#### ١- الإحصاء ١٠٣١١٠

يتضمن المساق قدراً مناسباً من الطرق والمفاهيم الأساسية لعلم الإحصاء مما يساهم في إكساب الطالب القدرة على التعامل مع البيانات وكيفية عرضها واستخلاص المؤشرات منها. ويشمل ذلك التوزيعات الإحصائية، تطبيقات على التوزيعات الإحصائية، عناصر التوزيع الإحصائي، الاحتمال، توزيعات جاكسون الإحصائية، معالجة المعلومات بالعلاقات والنماذج الإحصائية.

#### ٢- تطبيقات الحاسوب ١٠٤١١٠

يتضمن هذا المساق وصفاً عاماً لطريقة عمل الحاسب وكيفية استخدامه بطريقة فعالة وتعريف الطالب بالجوانب المختلفة لتقنية المعلومات واستخدامها في المجالات المختلفة، يتناول المساق المواضيع: مكونات الحاسب، البرمجيات، استرجاع المعلومات، البرامج التطبيقية، الشبكات، تصميم الرسومات، الوسائط المتعددة، الانترنت، استرجاع المعلومات، الجوانب القانونية والأخلاقية في تقنية المعلومات.

#### ٣- الثقافة الإسلامية ١٠٢١١٠

الثقافة الإسلامية وأهميتها، أهمية الدين في حياة الإنسان، أثر العقيدة الصحيحة في حياة الإنسان وسلوكه، العقيدة الإسلامية وأركان الإسلام، القرآن والسنة، المجتمع الإسلامي ونظامه التشريعي، المرأة ومكانتها في الإسلام، الغزو الفكري وأهدافه ووسائله وأخطاره، حفظ سورة من القرآن الكريم مع تفسيرها. وقضايا أخرى تخص المساق وتعالج من خلاله.

#### ٤- اللغة العربية ١٠٢١٤٠

يتضمن مساق اللغة العربية دراسة فروع اللغة العربية التي تناسب الطالب الجامعي غير المتخصص، كدراسة بعض النصوص الرفيعة شعراً ونثراً، بحث تختار من مختلف عصور الأدب، وذلك للوقوف على أساليب التعبير، وإجراء بعض التطبيقات اللغوية والنحوية والصرفية والبلاغية عليها، بالإضافة إلى دراسة بعض الأبواب النحوية: الجملة الاسمية، والجملة الفعلية، الإعراب، البناء، الإعراب بالحروف، العدد، وبعض القضايا الإملائية: الهمزة، والألف اللينة، والتاء

المربوطة والمفتوحة.

#### ٥- مناهج البحث العلمي ٥١٤٣٣٠

مفهوم العلم، أهداف العلم، مفهوم البحث العلمي، خصائص البحث العلمي، مناهج البحث المختلفة، فلسفة البحث العلمي، إعداد مخطط البحث، أدوات جمع البيانات واستخدامها، البحوث النظرية، البحوث التطبيقية، البحوث التجريبية، إعداد البحث.

#### ب- المساقات الاختيارية :

#### ١- رياضيات (١) ١١٠١١٠

الدالة ذات المتغير الواحد، تعريفها، مجالها، مداها، نهاية دالة، دراسة اتصال الدالة عند نقطة في مجالها وعلى فترة من المجال، الدوال الأسية والدوال اللوغاريتمية والدوال المثلثية وكذلك الدوال الزائدية، ومعكوس كل منها، الاشتقاق: تعريفه وقواعده، قاعدة السلسلة، الاشتقاق الضمني، نظرية "رول" ونظرية القيم العظمى والصغرى ورسم المنحنيات.

#### ٢- الريادة العلمية وبراءة الاختراع ١٥٠١٥٠

يتضمن هذا المساق دراسة ظاهرة الإبداع والابتكار، جذورها، مقوماتها، دورها في التطور العلمي، خصائص العملية الإبداعية، خصائص الشخص المبدع، المعرفة الإنسانية، العلم والتفسير العلمي للظواهر المصنوعة، العلم ومزاج العصر، النمو المتسارع للعلم، نبذة عن تاريخ التطور العلمي، أبرز الظواهر الإبداعية، أبرز العلماء والمبتكرين ودراساتهم كظاهرة خاصة، الاختراع، تسجيل الاختراع، الاستفادة منه، براءة الاختراع، الحقوق المادية والفكرية لصاحب الاختراع.

#### ٣- تاريخ العلوم عند المسلمين ١٥٠١٥١

يتضمن هذا المساق التعريف بالأسس التي قامت عليها الحضارة الإسلامية بصفتها حضارة إنسانية عالمية، نشوء العلوم في العصر الإسلامي، الصلات مع الحضارات الأخرى، ودراسة أهم المنجزات العلمية عند المسلمين في مجالات الميكانيكا والبصريات والفلك والطب والعقائد، أمثلة عن علماء مسلمين بارزين في كل من هذه المجالات، العوامل التي ساعدت على تحقيق تلك الإنجازات والدور الذي لعبته علوم المسلمين في التطور على مستوى عالمي.

#### ٤ - علم النفس العام ٥٠٠١٣٠

يعطي هذا المساق فكرة عامة عن المبادئ الأولية والمفاهيم الأساسية في مجالات علم النفس المختلفة وخاصة ما سيكون عوناً للطالب على استيعابه مساقات أخرى. وكذلك مساعدة الطالب على تكوين موقف إيجابي من علم النفس وإدراك أهميته التطبيقية في مجالات الحياة المختلفة، ويتضمن المساق تعريفات أساسية مع أهم المدارس الفكرية في علم النفس.

#### ٥- مجتمع الإمارات ١١٥١٦٠

يتناول هذا المساق القضايا المتعلقة بطبيعة المجتمع الإماراتي قبل فترة اكتشاف النفط وبعدها. كما يتطرق إلى تأثيرات هذه الطفرة النفطية على التنمية الشاملة بالدولة من خلال عرض أثارها على مناحي الحياة السياسية والجغرافية والثقافية والاجتماعية والتعليمية بالإمارات العربية المتحدة.

#### ٦- البيئة والمياه والطاقة ٧٠٠١٠٠

هذا المساق يثقف الطالب بالمفاهيم الأساسية والعناصر الرئيسية والتي تشمل الغلاف الجوي والغلاف المائي والغلاف الصخري وتفاعلها وتأثيرها بالأنشطة البشرية، يناقش المساق موارد المياه وموارد الطاقة التقليدية والبديلة، كما يناقش مظاهر وتبعات تلوث الهواء والمياه والتربة وجهود الحد من أثارها الضارة على الإنسان والبيئة، ويعطي المساق اهتماماً خاصاً لقضايا البيئة والمياه والطاقة في دولة الإمارات العربية المتحدة ودول مجلس التعاون الخليجي.

#### ٧- مدخل إلى دراسة الإعجاز في القرآن والسنة ١٠٢١٢٠

يتناول المساق مفهوم الإعجاز في القرآن الكريم وأنواعه وضرورته، وموقف العلماء منه، وضوابط التعامل معه مع التركيز على الجانب العلمي منه. ويتناول أيضاً الإعجاز في السنة النبوية المطهرة من خلال عرض عدد من الأحاديث النبوية الصحيحة وتوضيح أوجه الإعجاز فيها وفق الضوابط التي اتفق عليها جمهور العلماء والفقهاء.



## كلية القانون

### المقدمة

أنشئت كلية القانون في جامعة عجمان للعلوم والتكنولوجيا لتكون أحد صروح التعليم القانوني على المستويين المحلي والإقليمي، ولتؤدي دورها بين مؤسسات التعليم الجامعي الإماراتية في إعداد أجيال قانونية قادرة على العطاء. وقد أنشئ فرع للكلية بمقر الجامعة في إمارة الفجيرة استقبل أولى دفعاته بداية العام الجامعي ٢٠٠٦ - ٢٠٠٧ ولكلية القانون جذور ترجع إلى عام ٢٠٠٣ م حيث قدم برنامج البكالوريوس في القانون إلى هيئة الاعتماد الأكاديمي بوزارة التعليم العالي، وقد تطور هذا البرنامج عبر مدخلات متعددة استجابة لمتطلبات الاعتماد التي أسهمت في اعتماده بصفته الحالية وليلصل عدد الطلبة المسجلين في الكلية في بداية العام الدراسي ٢٠٠٧ - ٢٠٠٨ إلى ما يزيد على ١١٠٠ طالب وطالبة .

### رسالة الكلية:

تسعى الكلية إلى توفير البيئة العلمية المناسبة لإطلاق الإبداع في مختلف العلوم القانونية، وذلك عن طريق اعتماد برامج أكاديمية متميزة ترمي إلى تخريج الأطر المؤهلة والمدرّبة على ممارسة الأعمال القانونية والشرعية وإتقان أحدث ما استجد في مجال العلوم القانونية، وتعليم الطالب وسائل اكتسابها وسبل التعلم الذاتي والاستفادة من التقنيات الحديثة، مع ضرورة اتساق برامج الكلية مع رسالة جامعة عجمان للعلوم والتكنولوجيا بأبعادها الثلاثة التعليمية والمعلوماتية والاستثمارية.

### الأهداف:

تمكين الطالب من إتقان المعارف الأساسية في فروع القانون التي تخوّله العمل في مختلف المجالات القانونية.  
بناء الطالب بناءً منهجياً وفق القيم والفضائل المحلية والعالمية.  
تنمية ملكات البحث العلمي لدى الطالب في المجالات القانونية والشرعية.  
الربط الوثيق بين النظرية والتطبيق بما يضمن الاستفادة من المخرجات التعليمية في الواقع القانوني العملي.  
استخدام التقنيات الحديثة لرفع المستوى العلمي وتحسين الأداء المهني.

### الدرجات العلمية التي تمنحها الكلية

برنامج البكالوريوس في القانون

### المخرجات التعليمية

يسعى برنامج البكالوريوس في القانون لإكساب الخريج المهارات والقدرات الآتية :

- ١ - إتقان المعارف الأساسية في فروع القانون المختلفة
- ٢ - التمكن من ممارسة الأعمال القانونية في مختلف المجالات
- ٣ - بناء الطالب بناءً منهجياً من الناحيتين المهنية والأخلاقية

٤ - الإحاطة بجوانب المسؤولية المهنية

٥ - الإسهام في جهود التوطن في مجال العمل القانوني

٦ - القدرة على مواصلة البحث العلمي

٧ - القدرة على استخدام التقنيات الحديثة في تطوير المعرفة القانونية

٨ - التمكن من تقديم الاستشارات القانونية المختلفة

٩ - القدرة على التواصل مع الآخرين والعمل ضمن فريق

١٠ - الإسهام الفعلي في خدمة المجتمع داخل الإطار المهني

### شروط القبول

- ١ - تقبل الكلية الطلبة الحاصلين على الثانوية العامة (أو ما يعادلها) بمعدل لا يقل عن ٦٠ شريطة أن تكون مصدقة من وزارة التربية والتعليم في دولة الإمارات العربية المتحدة
- ٢ - اجتياز المقابلة الشخصية بنجاح

### شروط التخرج

للحصول على درجة البكالوريوس في القانون ، يتعين توافر الشروط الآتية :

- ١ - أن يجتاز الطالب بنجاح (١٣٢) ساعة معتمدة متضمنة التدريب العملي
- ٢ - ألا يقل معدله التراكمي عن نقطتين (٢)

### فرص العمل

- ١ - النيابة العامة والقضاء
- ٢ - الوظائف المساعدة للقضاء
- ٣ - سلك الشرطة والأمن
- ٤ - المحاماة والاستشارات القانونية ومراكز التحكيم
- ٥ - الشؤون القانونية بمختلف الدوائر والوزارات والمؤسسات
- ٦ - الشركات العامة والخاصة
- ٧ - السلك الدبلوماسي والصحافة
- ٨ - استكمال الدراسات العليا والانضمام إلى هيئة التدريب بالجامعات



## ثانياً: متطلبات التخصص (١٠٨ ساعة معتمدة)

متطلبات التخصص الإجبارية (٣٦ مساق - ٩٦ س/م)

م	رقم المساق	المساق	المتطلب السابق	س/م
١	١١٠١١١٦	تاريخ التشريع الإسلامي ومصادره	-	٣
٢	١١٠١١٢١	المدخل لدراسة القانون	-	٣
٣	١١٠١١٥١	القانون الدولي العام (باللغة الإنجليزية)	المدخل لدراسة القانون	٣
٤	١١٠١١٥٢	القانون الدستوري	-	٣
٥	١١٠١١٦٥	مصطلحات قانونية باللغة الإنجليزية	-	٣
٦	١١٠١١٦٦	مبادئ علم الاقتصاد	-	٣
٧	١١٠١٢٢٣	قانون المعاملات المدنية (١) مصادر الالتزام الإرادية	المدخل لدراسة القانون	٣
٨	١١٠١٢١٣	الأحوال الشخصية للمسلمين	تاريخ التشريع الإسلامي ومصادره	٣
٩	١١٠١٢٥٣	مبادئ القانون الإداري	المدخل لدراسة القانون	٣
١٠	١١٠١٢٢٤	قانون المعاملات المدنية (٢): مصادر الالتزام غير الإرادية	قانون المعاملات المدنية (١)	٣
١١	١١٠١٢٢١	عقوبات عام (١)	-	٢
١٢	١١٠١٢٢٢	عقوبات عام (٢)	عقوبات عام (١)	٢
١٣	١١٠١٣٢٥	قانون المعاملات المدنية (٣) أحكام الالتزام	قانون المعاملات	٢
١٤	١١٠١٣٢٩	قانون المعاملات المدنية (١): التقاضي والقضاء	قانون المعاملات المدنية (٢)	٣
١٥	١١٠١٣٤١	قانون المعاملات التجارية (١) نظرية التاجر والأعمال التجارية	المدخل لدراسة القانون	٣
١٦	١١٠١٣٤٢	قانون المعاملات التجارية (٢): الشركات التجارية والإفلاس	قانون المعاملات التجارية (١)	٣
١٧	١١٠١٣١٧	أحكام الإثبات	قانون المعاملات المدنية (٣)	٢
١٨	١١٠١٣١٣	قانون العمل والتشريعات الاجتماعية	قانون المعاملات المدنية (١)	٣
١٩	١١٠١٣١٠	عقوبات خاص (١)	عقوبات عام (٢)	٢
٢٠	١١٠١٣١٢	عقوبات خاص (٢)	عقوبات خاص (١)	٢

٢١	١١٠١٣١٤	فقه المواريث والوصايا والوقف	تاريخ التشريع الإسلامي ومصادره	٣
٢٢	١١٠١٣٤٦	قانون الإجراءات المدنية (٢): التحكيم التجاري الدولي والمحلي	قانون الإجراءات المدنية (١)	٣
٢٣	١١٠١٣١١	قانون المعاملات المدنية (٤): العقود المسماة	قانون المعاملات المدنية (٣)	٣
٢٤	١١٠١٤٧١	التدريب العملي	الأحوال الشخصية للمسلمين قانون الإجراءات المدنية (١) قانون الإجراءات الجزائية (٢)	٣
٢٥	١١٠١٤٣٧	قانون الإجراءات الجزائية (١)	عقوبات خاص (٢)	٢
٢٦	١١٠١٤٣٩	قانون الإجراءات الجزائية (٢)	قانون الإجراءات الجزائية	٢
٢٧	١١٠١٤٢٨	القانون الدولي الخاص (١): تنازع القوانين والاختصاص القضائي وتنفيذ الأحكام	الأحوال الشخصية للمسلمين قانون الإجراءات المدنية (١)	٢
٢٨	١١٠١٤٤١	قانون الإجراءات المدنية (٣): التنفيذ الجبري	قانون الإجراءات المدنية (٢)	٣
٢٩	١١٠١٤٤٤	قانون المعاملات التجارية (٣): الأعمال المصرفية والأوراق التجارية	قانون المعاملات التجارية (١)	٣
٣٠	١١٠١٤٢٦	قانون المعاملات المدنية (٥): الحقوق العينية الأصلية	قانون المعاملات المدنية (٣)	٢
٣١	١١٠١٤٢٩	قانون المعاملات المدنية (٦): ضمانات الائتمان العينية والشخصية	قانون المعاملات المدنية (٥)	٢
٣٢	١١٠١٤٤٨	القانون البحري والجوي	قانون المعاملات التجارية (١)	٣
٣٣	١١٠١٤١٣	أصول الفقه	تاريخ التشريع الإسلامي ومصادره	٣
٣٤	١١٠١٤١٥	المنهجية القانونية	قانون الإجراءات المدنية (١)	٢
٣٥	١١٠١٤٦٦	القانون الدولي الخاص (٢): الجنسية ومركز الأجانب	القانون الدولي الخاص (١)	٢
٣٦	١١٠١٤١٧	الملكية الفكرية	قانون المعاملات التجارية (١)	٢

## متطلبات التخصص الاختيارية (٤ مساقات - ١٢ س/م)

م	رقم المساق	المساق	المتطلب السابق	س/م
٢٢	١١٠١٣٤٦	قانون الإجراءات المدنية (٢): التحكيم التجاري الدولي والمحلي	قانون الإجراءات المدنية (١)	٣
١	١١٠١١٣١	علم الإجرام والعقاب	-	٣
٢	١١٠١٤٢٥	النظام القانوني للاستثمار	قانون المعاملات المدنية (١)	٣
٣	١١٠١٤٦٨	الجوانب القانونية للتجارة الإلكترونية	قانون المعاملات المدنية (١) قانون المعاملات التجارية (١)	٣
٤	١١٠١٢٥٥	المنظمات الدولية	القانون الدولي العام	٣
٥	١١٠١٢١٢	حقوق الإنسان	-	٣
٦	١١٠١٢٢٠	قانون حماية البيئة	المدخل لدراسة القانون	٣
٧	١١٠١٣٢٧	التشريعات الجزائية الخاصة	عقوبات خاص (٢)	٣
٨	١١٠١٣٥٦	المالية العامة والتشريع الضريبي	مبادئ علم الاقتصاد	٣
٩	١١٠١٣١٥	النظام القانوني للأسواق المالية	قانون المعاملات التجارية (١)	٣
١٠	١١٠١٣٦٧	العقود الإدارية	مبادئ القانون الإداري	٣
١١	١١٠١٣١٨	قانون المعاملات الرياضية	قانون المعاملات المدنية ٢	٣
١٢	١١٠١١١٧	مهارات التواصل باللغة الإنجليزية	-	٣

## الخطـة الدراسـية لبرنامج البكالوريوس في القانون

(١٢٢) ساعة معتمدة

متطلبات الجامعة (٢٤ ساعة معتمدة)

أ- متطلبات الجامعة الإلزامية (٥ مساقات ١٥ - س/م)

م	رقم المساق	المساق	المتطلب السابق	س/م
—	٠١٠١٠٠٠	الإرشاد الأكاديمي	—	—
١	٠١٠٢١١٠	الثقافة الإسلامية	—	٣
٢	٠١٠٢١٤٠	مهارات الاتصال باللغة العربية	—	٣
٣	٠١٠٤١١٠	تطبيقات الحاسوب	—	٣
٤	٠١٠٣١١٠	الإحصاء	—	٣
٥	٠١٠٣١٣٠	طرائق البحث العلمي	—	٣

ب- متطلبات الجامعة الاختيارية (٣ مساقات ٩ - س/م)

م	رقم المساق	المساق	المتطلب السابق	س/م
١	٠١١٥١٤٠	مبادئ الرياضيات	—	٣
٢	٠١١٥١٢٠	الريادة العلمية	—	٣
٣	٠١١٥١١٠	تاريخ العلوم عند المسلمين	—	٣
٤	٠١١٥١٣٠	علم النفس العام	—	٣
٥	٠١١٣١١٠	أساسيات الإنترنت	—	٣
٦	٠١١٥١٦٠	مجتمع الإمارات	—	٣
٧	٠١١٥١٥٠	فن التعبير والكتابة	—	٣
٨	٠١١٧١٤٠	الإسعافات الأولية	—	٣
٩	٠١١٧١٤٠	البيئة والمياه والطاقة	—	٣



## توصيف المساقات

### أولاً : المساقات الإجبارية (٩٦ ساعة معتمدة)

#### اسم المساق تاريخ التشريع الإسلامي ومصادره

رقم المساق ٦١١١٠١ : نظري

التوصيف: يتناول المساق أبواباً ومداخل مهمة للعلوم الشرعية، تبين ضرورة وجود التشريعات لتنظيم الحياة الاجتماعية والشخصية للإنسان وتعريفها بالتشريعة والفقه وبيان أقسامهما، ومصادر التشريع الإسلامي والأدوار التاريخية للتشريع الإسلامي وخصائصها، وبعض القواعد الكلية في الفقه الإسلامي وشرحاً وافياً لبعض النظم الإسلامية.

المتطلب السابق : لا يوجد

#### اسم المساق : المدخل لدراسة القانون

رقم المساق ١١٠١٢١ : نظري

التوصيف: يتناول المساق دراسة النظرية العامة للقانون من حيث : تعريف القانون وخصائص القاعدة القانونية وعلاقتها بالقواعد الاجتماعية الأخرى وأنواعها، ونطاق القانون وفروعه ومصادره الرسمية والتفسيرية، ونطاق تطبيق القانون من حيث المكان والزمان، وتفسير القانون، ودراسة النظرية العامة للحق من حيث : التعريف بالحق وبيان صلته بالقانون، وأشخاص الحق، الشخص الطبيعي- الشخص الاعتباري، ومحل الحق ووسائل حماية ومصادره وأقسامه واستعماله وإثباته وطرق انقضائه.

المتطلب السابق : لا يوجد

#### اسم المساق: القانون الدولي العام باللغة الإنجليزية

رقم المساق ١١٠١٥١ : نظري

التوصيف: يتناول المساق التعريف بالقانون الدولي العام ونشأته وطبيعته، وبيان مصادره وأشخاصه والعلاقة بينه وبين القانون الوطني وبقية فروع القانون الأخرى، ونشوء الدول والاعتراف بها وحقوقها وواجباتها، ومبادئ الاختصاص ودراسة قانون البحار، وموضوع المسؤولية الدولية وحقوق الإنسان واستعمال القوة ومراحل تطورها وتسوية المنازعات الدولية، والعلاقات الدبلوماسية والقنصلية والمنظمات الدولية.

المتطلب السابق : المدخل لدراسة القانون

#### اسم المساق : القانون الدستوري

رقم المساق ١١٠١٥٢ : نظري

التوصيف: يتناول المساق دراسة القانون الدستوري من حيث : إيضاح طبيعته وتمييزه عن فروع القانون الأخرى والتعريف بالدستور وبيان مصادر الأحكام الدستورية وأنواع الدساتير ونشأتها وانقضائها ووسائل الحفاظ على سيادة الدستور من خلال بيان أنواع الرقابة على دستورية القوانين، ودراسة النظم السياسية المعاصرة وصورها الرئيسية ودراسة الدولة وأركانها وأشكالها ونظام الحكم فيها والنظام الدستوري لدولة الإمارات العربية المتحدة.

المتطلب السابق : لا يوجد

#### اسم المساق : مصطلحات قانونية باللغة الإنجليزية

رقم المساق ١١٠١٦٥ : نظري

التوصيف: يتناول المساق التعريف ببعض المصطلحات القانونية بدءاً بمعنى كلمة القانون وفروع القانون العام والخاص ومصادر القانون وأهداف القانون وتطبيقات القانون، والتعريف بالدستور ونشأته وأنواعه وسمو الدستور ومبدأ الرقابة على دستورية القوانين، والنظم السياسية والسلطات الثلاثية والمؤسسات الدستورية في الدولة كرئيس الدولة ومجلس الوزراء والبرلمان وغيرهم.

المتطلب السابق : لا يوجد

#### اسم المساق : مبادئ علم الاقتصاد

رقم المساق ١١٠١٦٦ : نظري

التوصيف: يتناول المساق التعريف بعلم الاقتصاد وعلاقته بالعلوم الأخرى، وأساليب التحليل الاقتصادي، والمشكلة الاقتصادية وعناصرها، وتطور النظم الاقتصادية، والتنمية الاقتصادية ومشكلاتها، والتحليل الاقتصادي الجزئي، والادخار والاستثمار في النظرية الاقتصادية، والعلاقات الاقتصادية الدولية

المتطلب السابق : لا يوجد

#### اسم المساق : قانون المعاملات المدنية (١)

رقم المساق ١١٠١٢٢ : نظري

مصادر الالتزام الإرادية:

التوصيف: يتناول المساق دراسة المصادر الإرادية للالتزام والعقد والإرادة المنفردة من حيث : تعريف العقد ودور مبدأ سلطان الإرادة في العقود وتقسيماتها، وأركان العقد وآثاره سواء بالنسبة إلى طرفيه أو الغير، وجزاء الإخلال بالعقد وأركان المسؤولية العقدية، ودراسة الإرادة المنفردة من حيث : التعريف، وأحكام الوعد بجائزة الموجه للجمهور: شروطه - آثاره - تقادمه.

المتطلب السابق : المدخل لدراسة القانون

#### اسم المساق : الأحوال الشخصية للمسلمين

رقم المساق ١١٠١٢٣ : نظري

التوصيف: يتناول المساق أهم الأبواب الخاصة بالأحوال الشخصية، ودراستها دراسة مقارنة مستوفية لأهم آراء العلماء وأدلتهم فيما ذهبوا إليه وصححوه. من ذلك مباحث الزواج وأحكامه، وحقوق الزوجين، وفرق النكاح وأحكامه كالطلاق والخلع والعدة. وأحكام الرضاع والنسب التبني والحضانة وما إلى ذلك.

المتطلب السابق : تاريخ التشريع الإسلامي ومصادره

## اسم المساق : مبادئ القانون الإداري

رقم المساق ١١٠١٢٥٣ : نظري

التوصيف: يتناول المساق التعريف بالقانون الإداري ومصادره والخصائص المميزة له وعلاقته بفروع القانون الأخرى والعمل الإداري وأثاره والعقود الإدارية وأركانها وإجراءات إبرامها وكيفية اختيار المتعاقد من جهة الإدارة من خلال المناقصات ودراسة ما ورد في قانون المناقصات والمزايدات في دولة الإمارات، والرقابة على أعمال الإدارة من حيث ماهيتها وأنواعها وآثارها.

المتطلب السابق : لا يوجد

## اسم المساق : قانون المعاملات المدنية (٢)

رقم المساق ١١٠١٢٢٤ : نظري

مصادر الالتزام غير الإرادية

التوصيف: يتناول المساق التعريف بالمسؤولية التقصيرية والتمييز بينها وبين المسؤولية العقدية، والجمع والخيرة بين المسؤوليتين، وأركان المسؤولية التقصيرية، الفعل الضار - الضرر - علاقة السببية، الفعل الضار، المسؤولية عن الخطأ الشخصي والمسؤولية عن عمل الغير والمسؤولية عن الأشياء، والضرر بنوعيه المادي والأدبي، وعلاقة السببية بين الفعل الضار والضرر. ودراسة دعوى المسؤولية التقصيرية والتعويضية، ودراسة الفعل النافع، والكسب دون سبب والقانون باعتبارهما مصدرين غير إراديين للالتزام. المتطلب السابق : قانون المعاملات المدنية (١)

## اسم المساق : عقوبات عام (١)

رقم المساق ١١٠١٢٢١ : نظري

التوصيف: يتناول المساق تعريف قانون العقوبات وأقسامه وطبيعته ونطاق تطبيقه (مبدأ الشرعية وقاعدة عدم الرجعية وعلاقته ببعض فروع القانون الجنائي الأخرى، ودراسة النظرية العامة للجريمة تعريفها وأركانها) والمشاركة الإجرامية وأسباب الإباحة وموانع المسؤولية الجنائية.

المتطلب السابق : لا يوجد

## اسم المساق : عقوبات عام (٢)

رقم المساق ١١٠١٢٢٢ : نظري

التوصيف: يتناول المساق دراسة العقوبة وجوهرها وخصائصها وآثارها وأغراضها وتقسيماتها وأنواعها في قانون العقوبات الاتحادي، وتنفيذ العقوبة وتقريدها وتعديدها، وانقضاء العقوبات وسقوطها وزوال الأحكام الصادرة بها، ودراسة التدابير الاحترازية (تطورها وخصائصها وشروط تطبيقها)

المتطلب السابق : عقوبات عام (١)

## اسم المساق : قانون المعاملات التجارية (٢)

رقم المساق ١١٠١٣٤٢ : نظري

الشركات التجارية والإفلاس

التوصيف: يتناول المساق التعريف بالشركة وخصائصها وتميزها عما سواها، وأنواع الشركات المختلفة وفق قانون الشركات الإماراتي، مع العناية بتأسيس الشركات وأشكالها وتكوينها، والشخصية المعنوية لها، والأحكام العامة لانقضاء الشركات التجارية وتصفياتها، ودراسة أحكام الإفلاس التجاري من حيث شروطه وآثاره وإدارة التقلية وانتهائها.

المتطلب السابق : قانون المعاملات التجارية (١)

## اسم المساق : أحكام الإثبات

رقم المساق ١١٠١٣١٧ : نظري

التوصيف: يتناول المساق دراسة المبادئ العامة في الإثبات من حيث: تعريفه وبيان أهميته، ومطله، ومن يتحمل عبء الإثبات، وطرق الإثبات: الكتابة وشهادة الشهود والقرائن - الإقرار واليمين، ودراسة حجية المستند الإلكتروني في الإثبات.

المتطلب السابق : قانون المعاملات المدنية (٣)

## اسم المساق : قانون العمل والتشريعات الاجتماعية

رقم المساق ١١٠١٣١٣ : نظري

التوصيف: يتناول المساق دراسة المبادئ العامة في قانون العمل من حيث التعريف به وأهميته والخصائص المميزة له ومصادره، ونطاق تطبيقه من حيث الأشخاص. وتعريف عقد العمل وعناصره المميزة لتبعية الأجر: ماهيته و ضمانات الوفاء به وحمايته وإبرامه وإثباته وآثاره من حيث الالتزامات التي يربتها على طرفيه (العامل وصاحب العمل) ووقف العقد وانقضاؤه. ودراسة التأمينات الاجتماعية: أنواعها والمستحقون لها وشروط استحقاقها.

المتطلب السابق : قانون المعاملات المدنية (١)

## اسم المساق : عقوبات خاص (١)

رقم المساق ١١٠١٣١٠ : نظري

التوصيف: يتناول المساق دراسة جرائم الاعتداء على الأشخاص: الجرائم الماسة بالحق في الحياة والأحكام المشتركة في القتل ومحل الاعتداء فيه والركن المادي بعناصره، والأحكام الخاصة بالقتل العمد، وأسباب الإباحة، وعقوبة القتل العمد والظروف المشددة والظروف المخففة، والأحكام الخاصة بالقتل غير العمد، والجرائم الماسة بسلامة الجسم، والجرائم الواقعة على العرض، والجرائم الواقعة على السمعة.

المتطلب السابق : عقوبات عام (٢)

وخصائصه وانعقاده وإثباته وتفسيره وآثاره وانتهاؤه.  
المتطلب السابق : قانون المعاملات المدنية (٣)

### اسم المساق : التدريب العملي رقم المساق ١١٠١٤٧١ : عملي

التوصيف: يتناول المساق تدريب الطالب عمليا على ما تم دراسته خاصة كيفية إجراء التحقيقات وكتابة المذكرات والاستشارات القانونية وصحف الدعاوى وصياغة العقود، والتدريب على المرافعات الشفوية من خلال محكمة تصورية تعد لهذا الغرض، وزيارات خارجية للمحاكم والنيابات ومكاتب المحامين وشركات التأمين وغير ذلك.  
المتطلب السابق : الأحوال الشخصية للمسلمين - قانون الإجراءات المدنية ١ - قانون الإجراءات الجزائية

### اسم المساق : قانون الإجراءات الجزائية (١) رقم المساق ١١٠١٤٣٧ : نظري

التوصيف: يتناول المساق التعريف بقانون الإجراءات الجزائية وفلسفته وأهدافه، والأنظمة المختلفة للإجراءات الجزائية، والتفريق بين النظامين الاتهامي والتنقيبي والتحري، والدعاوى الناشئة عن الجريمة وأطرافها وقبود رفع الدعوى وانقضائها، واختصاصات مأموري الضبط القضائي العادية والاستثنائية، والضبط القضائي وجمع الاستدلالات، والتحقيق المبدئي وخصائصه والاستجواب وأوامر التصرف في التحقيق الابتدائي والطعن فيه.  
المتطلب السابق : عقوبات خاص (٢)

### اسم المساق : قانون الإجراءات الجزائية (٢) رقم المساق ١١٠١٤٣٩ : نظري

التوصيف: يتناول المساق الجانب التطبيقي من الإجراءات الجزائية، وعلى وجه التحديد: المحاكمة وطرق الطعن في الأحكام، وأنواع المحاكم وتشكيلها واختصاصاتها، وإجراءات المحاكمة والمبادئ العامة للتحقيق النهائي، وأدلة الإثبات الجنائي، والإجراءات الخاصة ببعض المحاكمات والمتهمين، والحكم الجنائي: أنواعه المختلفة، وطرق الطعن في الأحكام والبطالان وإشكالات تنفيذ الأحكام.  
المتطلب السابق : قانون الإجراءات الجزائية (١)

### اسم المساق : عقوبات خاص (٢) رقم المساق ١١٠١٤١٢ : نظري

التوصيف: يتناول المساق دراسة جرائم السرقة وتعريفها وأقسامها وأركانها والجرائم الملحق بها، والسرقة الموجبة للحد، وعقوبة السرقة في الشريعة والظروف المشددة، والاحتيال والجرائم الملحق به، وجريمة خيانة الأمانة وما يتصل بها والجرائم الملحق بها، وجريمة الصك (الشيك دون رصيد) بسوء نية والجرائم المتعلقة بالوظيفة العامة (الرشوة، استغلال الوظيفة وإساءة استعمال السلطة، التعدي على الموظفين، وانتحال الوظائف والصفات)  
المتطلب السابق : عقوبات خاص (١)

### اسم المساق : فقه المواريث والوصايا والوقف رقم المساق ١١٠١٤١٤ : نظري

التوصيف: يتناول المساق دراسة أحكام المواريث من حيث أركان الإرث وأسبابه وشروطه وموانع الإرث، وأصحاب الفروض والعصبات وميراث ذوي الأرحام، وميراث الحمل والمفقود والغرقى والهدمي. ودراسة الوصية من حيث أركانها وشروطها ومبطلاتها، والوصية الواجبة وتزام الوصايا، والوقف من حيث: تعريفه ومشروعيته وصفته وأنواعه وأركانه وشروطه وطرق الانتفاع بالوقف والولاية عليه.  
المتطلب السابق : تاريخ التشريع الإسلامي ومصادره

### اسم المساق : قانون الإجراءات المدنية ٢ رقم المساق ١١٠١٤٤٦ : نظري

#### التحكيم التجاري الدولي والداخلي

التوصيف: يتناول المساق تعريف التحكيم ومزاياه وأنواعه، وأهم المؤسسات التحكيمية العالمية، وأهم الاتفاقات الدولية المنظمة له، ومعيار التفرقة بين التحكيم الدولي والمحلي، وأركان اتفاق التحكيم، وضوابط اختيار المحكمين، والقانون الواجب التطبيق على إجراءات التحكيم وموضوع النزاع، وأثار عقد التحكيم وانقضائه، وحالات تدخل القاضي أثناء إجراءات التحكيم، ومحتويات القرار التحكيمي وآثاره وتنفيذه، وكيفية الطعن فيه.  
المتطلب السابق : قانون الإجراءات المدنية (١)

### اسم المساق : قانون المعاملات المدنية (٤) رقم المساق ١١٠١٣١١ : نظري

#### العقود المسماة

التوصيف: يتناول المساق دراسة عقد البيع من حيث: تعريفه وأركانه وآثاره: التزامات البائع، نقل الملكية، تسليم المبيع، ضمان التعرض والاستحقاق - ضمان العيوب الخفية، والتزامات المشتري تسليم المبيع - الوفاء بالثمن. ودراسة عقد المقاولة من حيث: تعريفه، وأركانه، وآثاره، وانقضائه، وأحكام عقد المقاولة من الباطن وآثاره. وعقد التأمين، من حيث التعريف به

**اسم المساق : القانون الدولي الخاص (١)****رقم المساق : ١١٠١٤٢٨ : نظري****تنازع القوانين والاختصاص القضائي وتنفيذ الأحكام**

التوصيف: يتناول المساق دراسة أحكام تنازع القوانين من حيث : مفهوم الظاهرة وشروط وجودها وكيفية حلها بواسطة قواعد الإسناد في المجالات المختلفة التي نص عليها المشرع الإماراتي، ثم تنازع الاختصاص القضائي الدولي، وحالات الاختصاص الدولي لمحاكم الإمارات وكيفية تنفيذ الأحكام الأجنبية فيها، ومدى حجية تلك الأحكام.

المتطلب السابق : الأحوال الشخصية للمسلمين - قانون الإجراءات المدنية ١

**اسم المساق : قانون الإجراءات المدنية (٢)****رقم المساق : ١١٠١٤٤١ : نظري****التنفيذ الجبري**

التوصيف: يتناول المساق دراسة مفهوم التنفيذ الجبري وشروطه ووسائل إجبار المدين على تنفيذ التزامه، والقاعدة العامة في تنفيذ الأحكام القضائية، والنفاز المعجل : أنواعه وشروطه وحالاته، والتنفيذ الجبري بالحجز والبيع : الحجز التحفظي حالاته وشروطه، وحجز المنقول لدى المدين، وحجز ما للمدين لدى الغير، والحجز العقاري، و منازعات التنفيذ المختلفة .

المتطلب السابق : قانون الإجراءات المدنية (٢)

**اسم المساق : قانون المعاملات التجارية ( ٣ )****رقم المساق : ١١٠١٤٤٤ : نظري****الأعمال المصرفية والأوراق التجارية**

التوصيف: يتناول المساق دراسة الأعمال المصرفية من ودائع مصرفية وحسابات تجارية وعمليات ائتمان مصرفية ، والأوراق التجارية : الكمبيالة وأحكامها المختلفة ، والسند الإذني ، والصك (الشيك)، أحكامه وأنواعه.

المتطلب السابق : قانون المعاملات التجارية (١)

**اسم المساق : قانون المعاملات المدنية(٥)****رقم المساق : ١١٠١٤٣٦ : نظري****الحقوق العينية الأصلية**

التوصيف: يتناول المساق التعريف بالحقوق العينية وأنواعها والتمييز بينها وبين الحقوق الشخصية ، ودراسة حق الملكية من حيث التعريف به وخصائصه وعناصره والقيود الواردة عليه سواء قيوداً قانونية أو قيوداً إرادية والشروط المانع من التصرف، وأحكام الملكية الشائعة، وأسباب كسب الملكية .

ودراسة الحقوق العينية الأصلية الأخرى (حق الانتفاع ، وحق الاستعمال وحق السكني، وحق المساطحة وحق الارتفاق)

المتطلب السابق : قانون المعاملات المدنية(٣)

**اسم المساق : قانون المعاملات المدنية ( ٦ )****رقم المساق : ١١٠١٤٢٩ : نظري****ضمانات الائتمان العينية والشخصية**

التوصيف: يتناول المساق دراسة الرهن التأمين من حيث تعريفه وخصائصه والشروط الموضوعية لإنشائه التي يلزم توافرها في الراهن أو الدين المضمون بالرهن أو العقار المرهون، والشروط الشكلية، وأثار العقد سواء بالنسبة لطرفيه أو للغير، وانقضاؤه. ودراسة الرهن الحيازي وشروطه وأثاره وانقضاؤه ، وحقوق الامتياز : أنواعها ومراتبها. ودراسة الكفالة من حيث : تعريفها ومحل التزام الكفيل، وأنواعها، وأثارها سواء بالنسبة للعلاقة بين الكفيل والدائن أو بين الكفيل والمدين، وانتهائها .

المتطلب السابق : قانون المعاملات المدنية (٥)

**اسم المساق : القانون البحري والجوي****رقم المساق : ١١٠١٤٤٨ : نظري**

التوصيف: يتناول المساق التعريف بالقانون البحري وخصائصه ونشأته ومصادره، وتوضيح عناصر الملاحة البحرية : الوضع القانوني للسفينة ، أشخاص الملاحة البحرية ، وعقد إيجار السفينة وأنواعه ، وعقد النقل البحري وخصائصه، ومسؤولية الناقل البحري والبيوع البحرية ، وعقد نقل الأشخاص بحراً، والحوادث البحرية، والمساعدة والإنقاذ، والخسائر المشتركة وفقاً للتشريع التجاري البحري والاتفاقيات الدولية بهذا الخصوص. ودراسة مجموعة القواعد القانونية التي تنظم الملاحة في الغلاف الجوي، والعلاقات التي تنشأ عن استعمال المركبات الهوائية أو الطائرات، والاتفاقات الدولية التي تنظم هذا الموضوع .

المتطلب السابق : قانون المعاملات التجارية (٣)

**اسم المساق : أصول الفقه****رقم المساق : ١١٠١٤١٣ : نظري**

التوصيف: يتناول المساق تعريف علم أصول الفقه وأهميته، ثم شرحاً لأهم مباحثه مثل المباحث المتعلقة بالحكم الشرعي، وأقسامه: كالمندوب، والحرام، والمكروه، والمباح، والعزيمة، والرخصة، والحكم الوضعي، وأقسامه، والسبب، والشرط المانع، والصحة والبطلان، والحاكم والمحكوم فيه، وشروطه، والمحكوم عليه، والأهلية وعوارضها وأقسامها، وأدلة الأحكام وطرق استنباطها، والقواعد الأصولية اللغوية .

المتطلب السابق : تاريخ التشريع الإسلامي ومصادره

## اسم المساق : المنهجية القانونية

رقم المساق ١١٠١٤١٥ : نظري

التوصيف: يتناول المساق دراسة منهجية البحث القانوني ومقوماته الأساسية، وتكليف الطالب إعداد بحث تخرج في أحد الموضوعات القانونية تحت إشراف أستاذ المادة، ودراسة منهجية تحليل الأحكام القضائية وكيفية استخلاص القواعد القانونية منها وأوجه الطعن فيها. ومنهجية تحليل النصوص التشريعية والوقوف على حقيقة إرادة المشرع من خلال تفسيرها. المتطلب السابق: قانون الإجراءات المدنية (١)

## اسم المساق القانون الدولي الخاص (٢)

رقم المساق ١١٠١٤٦٦ : نظري

الجنسية ومركز الأجانب

التوصيف: يتناول المساق دراسة أحكام الجنسية ومركز الأجانب بشكل عام وفي دولة الإمارات العربية المتحدة على وجه الخصوص، بدءاً بالنظرية العامة للجنسية وقواعد كسبها والتجرد منها وأثر الزواج في هذا الخصوص وحل مشكلة تنازع الجنسيات، وقواعد كسب الجنسية الإماراتية وفقدانها واستردادها، وتمتع الأجانب بالحقوق في دولة الإمارات العربية المتحدة. المتطلب السابق: القانون الدولي الخاص (١)

## اسم المساق : الملكية الفكرية

رقم المساق ١١٠١٤١٧ : نظري

التوصيف: يتناول المساق مفهوم ومضمون الملكية الفكرية: مفهوم حق المؤلف بجانبه الأدبي والمالي والحماية القانونية المقررة له، وتعريف الحقوق المجاورة ومضمونها والحماية القانونية لها، والتعريف ببراءة الاختراع وشروط منحها وتسجيلها، وحقوق وامتيازات صاحب الاختراع، وانقضاء البراءة، ودعوى إبطالها، والحماية القانونية لبراءة الاختراع على المستويين المحلي والدولي، ودراسة الرسوم والنماذج الصناعية والحماية القانونية لها. والعلامات التجارية، والبيانات التجارية وشروطها وتسجيلها، والحماية القانونية لها، والإشارة إلى جرائم علامات البضائع، وعقوباتها، والإجراءات التحفظية. المتطلب السابق: قانون المعاملات التجارية (١)

## ثانياً : المساقات الاختيارية (١٢ ساعة معتمدة)

يختار الطالب (٤) مساقات من القائمة الآتية :

## اسم المساق : علم الإجرام والعقاب

رقم المساق ١١٠١١٣١ : نظري

التوصيف: يتناول المساق في جزئه الأول بيان أهمية علم الإجرام وتطوره ومفهومه وعلاقته بالعلوم الأخرى، ومحاور البحث في علم الإجرام ونطاقه ومنهج البحث فيه، وموضوع البحث في علم الإجرام والمجرم والجريمة،

والنظريات العلمية المختلفة في تفسير الظاهرة الإجرامية والسلوك الإجرامي. ويتناول الجزء الثاني دراسة علم العقاب، وأهميته، وموضوعه وتطور الفلسفة العقابية، وعلاقته ببعض فروع القانون الأخرى، وفكرة الجزاء الجنائي، وأنواعه والمؤسسات العقابية وأنواعها، وطريقة وأسلوب المعاملة التي تطبق على المحكوم عليهم. المتطلب السابق : لا يوجد

## اسم المساق : النظام القانوني للاستثمار

رقم المساق ١١٠١٤٢٥ : نظري

التوصيف: يتناول المساق النظام القانوني للاستثمار خاصة في البلدان العربية والمشكلات القانونية الخاصة بذلك، ومدى كفاية الضمانات الموجودة حالياً للمستثمر، وكيفية تعزيزها والاستفادة من صيغ حماية الاستثمار في البلدان المتقدمة. المتطلب السابق : قانون المعاملات التجارية (٢)

## اسم المساق : الجوانب القانونية للتجارة الإلكترونية

رقم المساق ١١٠١٤٦٨ : نظري

التوصيف: يتناول المساق دراسة ملامح النظام القانوني للتجارة الإلكترونية ومستجداتها والمزايا والمشكلات المترتبة بموجبها، خاصة ما يتعلق بانقضاء العقود بوسائل الاتصال الحديثة والتوقيع عليها والتوقيع الإلكتروني مع استعراض لبعض العقود المصرفية الخاصة بالتجارة الإلكترونية كبطاقات الائتمان، ودراسة النظام القانوني لها. المتطلب السابق : قانون المعاملات المدنية (١) قانون المعاملات التجارية (١)

## اسم المساق : المنظمات الدولية

رقم المساق ١١٠١٢٥٥ : نظري

التوصيف: يتناول المساق بيان فكرة التنظيم الدولي ونشأة المنظمات الدولية وتطورها، وطبيعتها، ووظائفها، ونظامها القانوني، وتمتعها بالشخصية القانونية، وأحكام العضوية فيها، وحل المنظمة الدولية، ومشكلات المسيرات الدولية، ودراسة بعض المنظمات الدولية: كعصبة الأمم، ومنظمة الأمم المتحدة، والمنظمات الإقليمية. المتطلب السابق : القانون الدولي العام

## اسم المساق : حقوق الإنسان

رقم المساق ١١٠١٢١٢ : نظري

التوصيف: يشمل هذا المساق التعريف بالحق وأقسامه، وحقوق الإنسان، وموقعها بين الحقوق الأخرى، ومراحل تطورها، ووسائل حمايتها في المواثيق الدولية والشريعة الإسلامية مع إشارة إلى هذه الحقوق في دستور دولة الإمارات العربية المتحدة. المتطلب السابق : لا يوجد

### اسم المساق : قانون حماية البيئة

رقم المساق ١١٠١٣٢٧ : نظري

التوصيف: يتناول المساق دراسة نصوص القانون الاتحادي رقم (٢٤) لسنة ١٩٩٩ في شأن حماية البيئة وتنميتها، ولائحته التنفيذية الصادرة بقرار مجلس الوزراء رقم (٣٧) لسنة ٢٠٠١م، وذلك من حيث: بيان التأثير البيئي للمنشآت، وخطط الطوارئ لمواجهة الكوارث البيئية، وحماية البيئة المائية والبحرية، والحماية من التلوث من المصادر البرية، وحماية مياه الشرب والمياه الجوفية، وحماية التربة، وحماية الهواء من التلوث وضمان التداول الآمن للمواد والنفايات الخطرة، والمحميات الطبيعية، والمسؤولية، والتعويض عن الأضرار البيئية.

المتطلب السابق : المدخل لدراسة القانون

### اسم المساق : التشريعات الجزائية الخاصة

رقم المساق ١١٠١٣٢٧ : نظري

التوصيف: يتناول المساق دراسة الجرائم الدولية المنظمة وطرق محاكمة المجرمين الدوليين والمحاكم الدولية والجهات المختصة لتنفيذ تلك الأحكام. ونشأة الإنتربول الدولي، وأحكامه، وطرقه لتنفيذ الأحكام الدولية والجزائية عن طريق ذلك. وأهم أحكام المنشآت العقابية وطرق حمايتها قانوناً، وصلتها بالقوانين والمعاهدات الدولية ذات الصلة، وجرائم المخدرات، وحيازة الأسلحة والذخائر، وغسيل الأموال، وجرائم الإرهاب، وأركان كل منها وعقوباتها، وقواعد حماية المستهلك جنائياً.

المتطلب السابق: عقوبات خاص (٢)

### اسم المساق : المالية العامة والتشريع الضريبي

رقم المساق ١١٠١٣٥٦ : نظري

التوصيف: يتناول المساق دراسة القانون المالي من حيث مصادر إيرادات الدولة "الضرائب والقروض والرسوم، والموارد الأخرى، والمصروفات، والنفقات العامة"، وأثارها المالية، والموازنة العامة للدولة، وكيفية ربطها وإصدارها والحساب الختامي وأنواع الموازنات العامة.

المتطلب السابق: مبادئ علم الاقتصاد

### اسم المساق : النظام القانوني للأسواق المالية

رقم المساق ١١٠١٣١٥ : نظري

التوصيف: يتناول المساق ماهية الأوراق المالية المتداولة وأنواعها وحقوق والتزامات طرفي العلاقة وواجب الإفصاح وبيان المعلومات الجوهرية المتعلقة بالأوراق، والمركز القانوني لوسطاء السوق، وأشكال ملكية الأوراق المالية، وأحكام تداولها في الأسواق المالية عموماً وفي دولة الإمارات العربية خاصة، وهيئات الرقابة المختصة ودور إدارة السوق المالي، ومسؤولياتهم مع الحرص على إجراء الدراسة المقارنة بالنظام القانوني

بالأسواق المالية العربية في الأردن ودول ومجلس التعاون الخليجي ومصر.  
المتطلب السابق : قانون المعاملات التجارية (١)

### اسم المساق : العقود الإدارية

رقم المساق ١١٠١٣٦٧ : نظري

التوصيف: يتناول المساق دراسة نشأة العقود الإدارية وأنواعها، ومعايير تمييزها عن العقود الأخرى وكيفية إبرامها وأركان العقد الإداري وشروط صحته، والأحكام العامة في تنفيذ العقود الإدارية والتي تتجسد في سلطات الإدارة تجاه المتعاقد بها والتزامات المتعاقد مع الإدارة وحقوق المتعاقد مع الإدارة، وأثار العقود الإدارية بالنسبة للغير وتفسيرها وانقضائها.

المتطلب السابق : مبادئ القانون الإداري

يَتَسَلَّمُونَ لَهُمُ الْمَوْتِىَ وَبِئْسَ الْمَقَرُّ

# كلية التربية والعلوم الأساسية

## المقدمة

يُعد معلم اليوم لخدمة أجيال الغد، لذا تعكس كلية التربية والعلوم الأساسية ذلك في خطط دراسية مستوحاة من رؤية شاملة ذات أبعاد ثلاثة : تعليم ومعلومات واستثمار وفلسفة تعليمية ذات منظور عقدي وإنساني ، تربط الماضي المجيد بالحاضر وتحدياته ، وتؤسس للمستقبل المأمول بتطلعاته وتوقعاته على قاعدة من عقيدتنا الإسلامية السمحة وبشكل متوائم متناغم مع متطلبات العصر بما يحقق الآمال الطيبة بإذن الله تعالى.

## رسالة الكلية

طبقاً لرؤية جامعة عجمان للعلوم والتكنولوجيا، تسعى كلية التربية والعلوم الأساسية إلى إعداد معلمين متمسكين بعقيدتهم الإسلامية ولغتهم العربية الفصحى ومسلحين بمعارف ومهارات واسعة تمكنهم من حشد المصادر المناسبة لخدمة رسالتهم وأهدافهم التعليمية وتمكنهم من استخدام أحدث التقنيات التعليمية وتطبيقها بكفاءة.

## أهداف الكلية

- ١- إعداد معلم الصف لمرحلتى التعليم الابتدائي والإعدادي للمواد الأساسية (اللغة العربية والدراسات الإسلامية، والرياضيات والعلوم واللغة الإنجليزية)
- ٢- إعداد المختص في تقنيات التعليم القادر على مساعدة المعلم والمدرّب في تعزيز مواقفهم التعليمية والتعلمية.
- ٣- تزويد المتعلم بالمعرفة والخبرة في استخدام لغة عربية سليمة في عمله مع الاهتمام المناسب باللغات الأجنبية وخاصة الإنجليزية.
- ٤- تزويد المتعلم بثقافة إسلامية كافية تساعد في توجيه أبنائه.
- ٥- إبراز أهمية الحضارة الإسلامية والعربية ودورها في مجالي العلوم والتكنولوجيا.
- ٦- تزويد المتعلم بالمعرفة النفسية والاجتماعية حتى يستطيع رعاية أبنائه الأطفال.
- ٧- تزويد المتعلم بالمعرفة في أصول بناء المناهج واستخدام أفضل السبل للارتقاء بالمواقف التعليمية والتعلمية.
- ٨- إبراز أهمية العلوم البحتة المختلفة في تطوير التكنولوجيا التي تسعى لحل الكثير من المشكلات التربوية.
- ٩- تزويد المتعلم بأحدث تقنيات التعليم وأساليب التدريس ليكون قادراً على حل بعض مشكلات التعليم.
- ١٠- الاهتمام بإجراء البحوث التربوية الميدانية التي تساعد في الارتقاء بمستوى العملية التربوية.
- ١١- السعي لتعزيز الصلة بين المؤسسات التربوية الحكومية والخاصة وتقديم خدمات أكاديمية وفنية.
- ١٢- المشاركة في محاضرات ودورات تدريبية وندوات ومؤتمرات محلية وعربية وعالمية.

## الدرجات العلمية التي تمنحها الكلية :

تطرح كلية التربية والعلوم الأساسية أربعة برامج بكالوريوس يحصل الطالب فيها على زاد معرفي نظري وعملي متين وتحظى كلها باعتماد وزارة التعليم العالي والبحث العلمي.

## البرامج الأربعة هي:

بكالوريوس في التربية تخصص إعداد معلم اللغة العربية والدراسات الإسلامية.

بكالوريوس في التربية تخصص إعداد معلم في الرياضيات والعلوم.

بكالوريوس تدريس اللغة الإنجليزية كلغة أجنبية.

بكالوريوس تقنيات التعليم.

## المصادر التعليمية

تتوفر في كلية التربية والعلوم الأساسية مختبرات مجهزة بأحدث المعدات والأجهزة في مجال تقنيات التعليم والفيزياء، وتستخدم التسهيلات المتاحة في الكليات الأخرى ومن ذلك مختبرات الأحياء والكيمياء، والجيولوجيا، واللغات، وتقنية المعلومات. وترتبط الحواسيب في الحرم الجامعي بالشبكة المحلية للجامعة، والحواسيب الخاصة بأعضاء هيئة التدريس والطلاب موصولة بشبكة الإنترنت. بالإضافة إلى ذلك، يوجد لدى الكلية مختبران مخصصان للإنترنت، وتشرف الكلية على مكتبة تحتوي على الكتب المقررة الأساسية التي يتم تحديثها باستمرار ويتواصل اقتناء أحدث الكتب لفائدة الطلبة وأعضاء هيئة التدريس.





## قسم اللغة العربية والدراسات الإسلامية

### المقدمة

إن برنامج قسم اللغة العربية والدراسات الإسلامية في جامعة عجمان للعلوم والتكنولوجيا معتمد من وزارة التعليم العالي في دولة الإمارات العربية المتحدة، وعلى الطالب أن ينجز (١٣٢) ساعة معتمدة، يحصل بعد إنجازه على بكالوريوس في التربية - تخصص إعداد معلم اللغة العربية والدراسات الإسلامية.

### اسم التخصص

بكالوريوس في التربية / تخصص إعداد معلم اللغة العربية والدراسات الإسلامية.

### الرسالة

انسجاماً مع رؤية الجامعة وفلسفتها، ورسالة كلية التربية والعلوم الأساسية، يسعى القسم إلى إعداد وتأهيل إطار(كادر) من المعلمين قادر على تحقيق رسالته في تدريس اللغة العربية، والدراسات الإسلامية، للمرحلة الابتدائية العليا، الحلقة الثانية (٤-٦) والإعدادية (٧-٩).

### الأهداف

- ١- إمداد الطالب بحصيلة معرفية واسعة حول المفاهيم الإسلامية الأساسية، من مثل العقيدة الإسلامية. وبذلك يتم إعداد معلم سوي، متمسك بعقيدته الإسلامية، مؤمن بها، منتم إلى أمته العربية والإسلامية، مستعد لخدمتها وحمايتها، مبرز لدورها الحضاري، معزز بهذا الانتماء: عقيدة ولغة وتاريخاً وثقافة وقيماً علياً، مستفيد من تراثها وسماتها وخصائصها الإنسانية.
- ٢- تنمية فهم الطالب واستيعابه للأدب من خلال تحليل النصوص الأدبية ونقدها.
- ٣- تزويد الطالب بالمعارف الأساسية المرتبطة باللغة العربية الفصحى، ما يسهم في جعل كتابته سليمة، وينمي حصيلته اللغوية.
- ٤- تنمية معرفة الطالب بالنحو العربي وقواعده، ليتحدث ويقرأ ويكتب بسلاسة وطلاقة.
- ٥- تمكين الطالب من قراءة النصوص التراثية والفقهية، والحديثية، والتعامل معها.
- ٦- تنمية مهارات الطالب في استيعاب نصوص القرآن الكريم والسنة النبوية وفهمها.
- ٧- تنمية مهارة تلاوة القرآن الكريم وتجويده.
- ٨- إمداد الطالب بحصيلة معرفية واسعة بمفاهيم الفقه الإسلامي وأصوله.
- ٩- تزويد الطالب بأسس تاريخ نشأة الإسلام، وسيرة الرسول - صلى الله عليه وسلم - وعصر الخلفاء الراشدين.
- ١٠- إمداد الطالب بالمهارات الأساسية اللازمة في دراسته، وتطبيق طرائق التدريس العامة والخاصة المتبعة في تدريس اللغة العربية، والدراسات الإسلامية.

١١- تزويد الطلبة بالمعرفة الضرورية لاستخدام التقنيات الحديثة وتطبيقها في الصفوف الدراسية.

١٢- تنمية مهارات التواصل الاجتماعي لدى الطالب، التي تؤهله لإيصال معارفه المكتسبة بأفضل السبل، إضافة إلى تنمية قدراته لاتخاذ القرارات المناسبة.

١٣- تنمية استيعاب الطالب للمبادئ والمفاهيم الأساسية في كل من: علم أصول التدريس، وعلم النفس، ومناهج التدريس، ما يؤهله ليصبح متعلماً ذات مستوى رفيع، ومؤهلاً مهنيًا.

١٤- تزويد الطالب بالمعارف المتعلقة بتصميم الدروس وإعداد الخطط الدراسية وتقييمها.

١٥- تنمية قدرة الطالب في الاعتماد على نفسه، واتخاذ القرار المناسب في الوقت المناسب.

١٦- تنمية مهارات الطالب لتطبيق ما تلقاه من علوم متعلقة باللغة العربية والدراسات الإسلامية، في العملية التدريسية، حتى يوسع الطالب المعلم ثقافته العامة، ومعارفه الأساسية لتساعد على تكوين شخصيته، شخصية المرابي القدوة، ويشجعه على تقدير هذه العلوم ورعايتها، لأن الدين واللغة هما أساس هوية الأمة.

١٧- تزويد الطالب بمهارات التواصل الأساسية، شفويًا، وكتابيًا، واستخدامها بكفاءة وطلاقة.

### المخرجات التعليمية

- ١- استيعاب مبادئ العقيدة الإسلامية الأساسية.
- ٢- فهم النصوص الأدبية ودراساتها وتحليلها ونقدها.
- ٣- تكوين حصيلة لغوية جيدة، والكتابة بأسلوب سليم محكم.
- ٤- الاستفادة من معرفته بقواعد اللغة العربية في الكتابة، والقراءة، والتحدث بتمكن.
- ٥- قراءة النصوص الفقهية، والأدبية، والتعامل معها.
- ٦- فهم واستيعاب القرآن الكريم، وسنة الرسول صلى الله عليه وسلم.
- ٧- إبراز الطالب مهارته في تلاوة القرآن الكريم وتجويده.
- ٨- استيعاب مفاهيم الفقه الإسلامي الأساسية.
- ٩- فهم المظاهر الأساسية لنشأة التاريخ الإسلامي.
- ١٠- إظهار مهارته في تطبيق الدروس النظرية المتعلقة بطرائق التدريس خلال الممارسة العملية.
- ١١- توظيف معرفته بالتقنيات بما يعود على العملية التعليمية بالفائدة.
- ١٢- إبراز مهاراته الاجتماعية وقدرته على اتخاذ القرار.
- ١٣- إظهار استيعابه للمفاهيم الأساسية لكل من: علم أصول التدريس، وعلم النفس، ومناهج التدريس.
- ١٤- إظهار قدرته على تصميم الدروس، والخطط الدراسية، وتقييمها.
- ١٥- إظهار ثقته بنفسه، وقدرته على اتخاذ القرار المناسب.
- ١٦- إظهار مهارته في تطبيق ما تعلمه.

١٧- إظهار مهاراته في التواصل شفويًا وتحريياً.

### شروط القبول

- شهادة الثانوية العامة أو ما يعادلها مصدقة من وزارة التربية والتعليم في دولة الإمارات العربية المتحدة بمعدل لا يقل عن ٦٠
- اجتياز المقابلة الشخصية بنجاح.

### فرص العمل

يكون الخريج مهياً تهيئة وافية ليصبح معلماً للغة العربية والدراسات الإسلامية للمرحلة الابتدائية العليا والإعدادية.

### شروط التخرج

بنيت الخطة الدراسية على أساس من التوازن الذي يلبي الواقع التعليمي الحالي والمستقبلي في مدارس التعليم العام في المستوى الأساسي في تخصص اللغة العربية والدراسات الإسلامية، المحقق لأهدافها: وذلك للحصول على بكالوريوس في التربية تخصص إعداد معلم اللغة العربية والدراسات الإسلامية، وتبلغ متطلبات التخرج ١٣٢ ساعة معتمدة موزعة على النحو الآتي:

البيان	عدد الساعات المعتمدة	
متطلبات الجامعة	أ. الإجمالي ب. الاختيارية ج. متطلبات التعليم العام الإلزامية	١٥ ٩ ٦
متطلبات الكلية	أ. الإجمالي ب. الاختيارية	٣٣ ٣
متطلبات التخصص	الدراسات الإسلامية أ. الإلزامية ب. الاختيارية	٢٧ ٦
متطلبات التخصص	اللغة العربية أ. الإلزامية ب. الاختيارية	٢٧ ٦
المجموع		١٣٢

متطلبات الحصول على الدرجة  
أولاً: متطلبات الجامعة (٣٠) ساعة معتمدة

متطلبات الجامعة الإلزامية (١٥) ساعة معتمدة

م	اسم المساق	رقم المساق	عدد الساعات	المتطلب السابق
١	الإرشاد الأكاديمي	٠١٠١٠٠٠	—	لا يوجد
٢	الثقافة الإسلامية	٠١٠٢١١٠	٣	لا يوجد
٣	مهارات الاتصال باللغة العربية	٠١٠٢١٤٠	٣	لا يوجد
٤	تطبيقات الحاسوب	٠١٠٤١١٠	٣	لا يوجد
٥	طرائق البحث العلمي	٠١٠٣١٣٠	٣	لا يوجد
٦	إحصاء	٠١٠٣١١٠	٣	لا يوجد

متطلبات الجامعة الاختيارية (٩) ساعة معتمدة

م	اسم المساق	رقم المساق	عدد الساعات	المتطلب السابق
١	متطلب جامعة اختياري ١		٣	لا يوجد
٢	متطلب جامعة اختياري ٢		٣	لا يوجد
٣	متطلب جامعة اختياري ٣		٣	لا يوجد

متطلبات التعليم العام الإلزامية (٦) ساعات معتمدة

م	اسم المساق	رقم المساق	عدد الساعات	المتطلب السابق
١	اللغة الإنجليزية	٠٥٠٠١٠١	٣	لا يوجد
٢	تقنيات في التعليم	٠٥٠٠٢٢٢	٣	لا يوجد

المتطلبات الإلزامية (٣٣) ساعة

م	اسم المساق	رقم المساق	عدد الساعات	المتطلب السابق
١	أصول التربية	٠٥١١١٠١	٣	—
٢	علم نفس النمو	٠٥١٢١٠١	٣	—
٣	بناء المناهج	٠٥١١١٠٢	٣	٠٥١١١٠١
٤	علم النفس التربوي	٠٥١٢٢٠٣	٣	٠٥١٢١٠١
٥	طرائق تدريس التربية الإسلامية	٠٥١١٣٠٤	٣	٠٥١١١٠٢
٦	طرائق تدريس اللغة العربية	٠٥١١٣٠٥	٣	٠٥١١١٠٢
٧	التقويم التربوي	٠٥١١٣٠٩	٣	٠٥١١١٠٢
٨	إدارة مدرسية وصفية	٠٥١١٣٠٨	٣	إنجاز ٦٠ ساعة
٩	التربية العملية	٠٥١١٤١٠	٩	٠٥١١٣٠٤ + ٠٥١١٣٠٤

ثانيا: المتطلبات الاختيارية (٣) ساعات

م	اسم المساق	رقم المساق	عدد الساعات	المتطلب السابق
١	مهنة التعليم وأدوار المعلم	٠٥١١٢٠٤	٣	—
٢	التربية ومشكلات المجتمع	٠٥١١٢٠٥	٣	—

ثالثا: متطلبات التخصص (٦٦) ساعة معتمدة

م	اسم المساق	رقم المساق	عدد الساعات	المتطلب السابق
١	علوم القرآن وأصول التلاوة	٠٥٢٢١١٥	٣	—
٢	المدخل إلى دراسة الشريعة الإسلامية	٠٥٢٢١١٦	٣	—
٣	فقه العبادات	٠٥٢٢٢١٧	٣	٠٥٢٢١١٦
٤	السيرة النبوية	٠٥٢٢٢١٨	٣	—
٥	النحو (١)	٠٥٢١٢٠١	٣	—
٦	الأدب الإسلامي والأموي	٠٥٢١٢٠٢	٣	—
٧	الصرف	٠٥٢١٢٠٥	٣	٠٥٢١٢٠١
٨	فقه الأحوال الشخصية	٠٥٢٢٢١٩	٣	٠٥٢٢٢١٧
٩	النحو (٢)	٠٥٢١٢٠٣	٣	٠٥٢١٢٠١
١٠	البلاغة (١)	٠٥٢١٢٠٤	٣	—
١١	العقيدة الإسلامية	٠٥٢٢٣٢٠	٣	إنجاز ٦٦ ساعة
١٢	الأدب العربي الحديث	٠٥٢١٣١٢	٣	إنجاز ٦٦ ساعة + ٠٥٢١٢٠٢
١٣	التفسير التحليلي	٠٥٢٢٣٢١	٣	٠٥٢٢١١٥
١٤	النحو (٣)	٠٥٢١٣١٠	٣	٠٥٢١٢٠٣
١٥	أصول وأساليب الدعوة الإسلامية	٠٥٢٢٣٢٢	٣	إنجاز ٦٦ ساعة + ٠٥٢٢٢١٧
١٦	أحاديث الأحكام	٠٥٢٢٤٢٣	٣	إنجاز ٩٠ ساعة + ٠٥٢٢٢١٧
١٧	فقه اللغة	٠٥٢١٤١٤	٣	٠٥٢١٢٠٥
١٨	النقد الأدبي	٠٥٢١٤١٣	٣	٠٥٢١٣١٢

مساقات الدراسات الإسلامية الاختيارية (٦ ساعات)

م	اسم المساق	رقم المساق	عدد الساعات	المتطلب السابق
١	أصول الفقه	٠٥٢٢٤٢٧	٣	إنجاز ٦٦ ساعة معتمدة + فقه العبادات (٠٥٢٢٢١٧)
٢	علوم الحديث وتدوينه	٠٥٢٢٣٢٥	٣	---
٣	فقه المعاملات	٠٥٢٢٤٢٦	٣	فقه العبادات (٠٥٢٢٢١٧)
٤	فقه السيرة	٠٥٢٢٣٢٤	٣	السيرة النبوية (٠٥٢٢٢١٨)

مساقات اللغة العربية الاختيارية (٦ ساعات)

م	اسم المساق	رقم المساق	عدد الساعات	المتطلب السابق
١	الأدب الجاهلي	٠٥٢١٢٠٦	٣	-
٢	علم البديع والعروض	٠٥٢١٢٠٧	٣	-
٣	البلاغة (٢)	٠٥٢١٣٠٨	٣	البلاغة (١) (٠٥٢١٢٠٤)
٤	الأدب العباسي	٠٥٢١٣٠٩	٣	الأدب الإسلامي والأموي (٠٥٢١٢٠٢)

مساقات الدراسات الإسلامية الاختيارية (٦ ساعات)

السنة الدراسية	الفصل الدراسي الأول من العام الدراسي			الفصل الدراسي الثاني من العام الدراسي		
الأولى	رقم المساق	اسم المساق	عدد الساعات	رقم المساق	اسم المساق	عدد الساعات
	٠١٠١٠٠٠	الإرشاد الأكاديمي	—	٠٥٢٢١١٥	علوم القرآن وأصول التلاوة	٣
	٠١٠٢١١٠	الثقافة الإسلامية	٣	٠٥٢٢١١٦	المدخل إلى دراسة الشريعة الإسلامية	٣
	٠١٠٢١٤٠	مهارات الاتصال باللغة العربية	٣	٠٥١٢١٠١	علم نفس النمو	٣
	٠١٠٤١١٠	تطبيقات الحاسوب	٣	٠١٠٣١١٠	الإحصاء	٣
	٠١٠٣١٣٠	طرائق البحث العلمي	٣	—	متطلب جامعة اختياري (٢)	٣
	٠٥١١١٠١	أصول التربية	٣	—	متطلب جامعة اختياري (٣)	٣
	—	متطلب جامعة اختياري (١)	٣	٠٥٢١٢٠١	النحو (١)	٣
الثانية	٠٥٢١٢٠٣	النحو (٢)	٣	٠٥٢١٢٠٢	الأدب الإسلامي والأموي	٣
	٠٥٢١٢٠٤	البلاغة (١)	٣	٠٥٢٢٢١٧	فقه العبادات	٣
	٠٥٢١٢٠٥	المصرف	٣	٠٥٢٢٢١٨	السيرة النبوية	٣
	٠٥٢٢٢١٩	فقه الأحوال الشخصية	٣	٠٥١١١٠٢	بناء المناهج	٣
	٠٥١٢٢٠٣	علم النفس التربوي	٣	٠٥٠٠١٠١	متطلب تعليم عام إجباري	٣
	٠٥٠٠٢٢٢	متطلب تعليم عام إجباري		(تقنيات في التعليم)	٣	
الثالثة	٠٥٢١٣١٢	الأدب العربي الحديث	٣	٠٥٢١٣١٠	النحو (٣)	٣
	٠٥٢٢٣٢٠	العقيدة الإسلامية	٣	٠٥٢٢٣٢٢	أصول وأساليب الدعوة الإسلامية	٣
	٠٥٢٢٣٢١	التفسير التحليلي	٣	٠٥١١٣٠٩	التقويم التربوي	٣
	٠٥١١٣٠٤	طرائق تدريس التربية الإسلامية	٣	٠٥١١٣٠٥	طرائق تدريس اللغة العربية	٣
	٠٥١١٣٠٨	إدارة مدرسية وصفية	٣	—	اختياري دراسات إسلامية (١)	٣
	—	اختياري لغة عربية (١)	٣	—	متطلب كلية اختياري (تربية)	٣
	—	—	—	—	—	—
الرابعة	٠٥٢١٤١٤	فقه اللغة	٣	٠٥١١٤١٠	التربية العملية	٩
	٠٥٢١٤١٣	النقد الأدبي	٣			
	٠٥٢٢٤٢٣	أحاديث الأحكام	٣			
	—	اختياري لغة عربية (٢)	٣			
	—	اختياري دراسات إسلامية (٢)				

## قسم الرياضيات والعلوم

### المقدمة:

يتولى قسم الرياضيات والعلوم تدريس مساقات الرياضيات والفيزياء في كليات جامعة عجمان للعلوم والتكنولوجيا. ويقدم القسم برنامج بكالوريوس في التربية/ تخصص إعداد معلم في الرياضيات والعلوم المعتمد من قبل وزارة التعليم العالي والبحث العلمي.

### برنامج: بكالوريوس في التربية / تخصص إعداد معلم في الرياضيات والعلوم رسالة البرنامج

إعداد معلمين أكفاء في مجال الرياضيات و/أو العلوم للعمل في المدارس الابتدائية (المراحل من ١ إلى ٦ والإعدادية) المراحل من ٧ إلى ٩ في الدول العربية، خاصة في منطقة الخليج العربي.

### أهداف البرنامج:

- ١- إتقان المفاهيم الأساسية في الرياضيات، والفيزياء، والأحياء، والكيمياء، والجيولوجيا، والبيئة إتقاناً جيداً.
- ٢- التعبير عن المشكلة بصيغ رياضية واستخدام النماذج المجردة لوصف الأنظمة الفيزيائية والظواهر الطبيعية.
- ٣- ممارسة الاستدلال العلمي، واعتماد مقاربة منطقية وناقدة في التعامل مع الأمور.
- ٤- اكتساب القدرة على تصميم وإنجاز التجارب العلمية وتحليل نتائجها.
- ٥- تطبيق الطرق العلمية في تشخيص المشكلات ومعالجتها.
- ٦- إتقان المبادئ الأساسية في علم أصول التربية، وعلم النفس، وطرائق التدريس، وتصميم المناهج.
- ٧- اكتساب معرفة جيدة في تصميم المساقات، والاختبار، والتقييم.
- ٨- تنمية الثقة بالذات واحترام الأشخاص من ثقافات ومعارف متنوعة.
- ٩- إدراك تأثير التعليم في المجتمع وأهمية التعلم مدى الحياة.
- ١٠- إجادة استخدام الحاسوب وتطبيق الأدوات والتقنيات الحديثة لتحسين الأداء المهني.
- ١١- اكتساب مهارات تواصل جيدة (شفهياً وتحريراً).
- ١٢- القدرة على العمل بشكل منفرد أو ضمن فريق.

### مخرجات البرنامج:

- ١- النتائج التي يتوقع أن تتحقق لدى خريجي البرنامج هي أن يكونوا قادرين على:
- ٢- تطبيق المعارف الرياضية والعلمية والتكنولوجية في مجال التعليم.
- ٣- تطبيق المعارف الأساسية في أصول التدريس وعلم النفس وطرائق التدريس وبناء المناهج في ظروف وبيئات تعليمية مختلفة.

- ٤- صياغة المسائل العلمية، وإيجاد حلول عملية لها والتعبير عنها باستخدام لغة مناسبة.
- ٥- ممارسة المهارات الأساسية في مجال الحاسوب وتقنيات التعليم واستخدام الإنترنت للوصول إلى المعلومات.
- ٦- تصميم وإنجاز التجارب العلمية وتحليل وتأويل نتائجها.
- ٧- التعامل البناء مع الأدوات المستخدمة في التجارب العلمية والمختبرات.
- ٨- تحمل المسؤولية والإسهام الفعلي في خدمة المجتمع خارج الإطار المهني.
- ٩- تصميم الدروس وتطوير وسائل للقياس والتقويم.
- ١٠- التواصل الفعلي مع الآخرين شفهاً وتحريراً.
- ١١- إدراك المسؤولية المهنية والأخلاقية.

### شروط القبول :

يقبل الطالب إذا توفرت فيه الشروط الآتية :  
الحصول على شهادة الثانوية العامة (القسم العلمي) بمعدل لا يقل عن ٦٠ من دولة الإمارات العربية المتحدة أو ما يعادلها من أي دولة أخرى.  
الحصول على ٧٠ فأكثر في الرياضيات.  
اجتياز مقابلة شخصية لمعرفة مدى ملاءمة الطالب جسدياً ومهنيّاً بنجاح.

### فرص العمل:

يمكن للمترشح في البرنامج الالتحاق بإحدى المدارس الابتدائية أو الإعدادية والعمل معلماً في مجال الرياضيات و/ أو العلوم.

### متطلبات التخرج:

- لإتمام البرنامج بنجاح على الطالب:
- ١- إنجاز ١٣٢ ساعة معتمدة من ضمنها التربية العملية وتعادل ٩ ساعات معتمدة.
  - ٢- يسجل الطالب مساق التربية العملية في الفصل الدراسي السابع أو الثامن في مدرسة للتعليم الأساسي يختارها لجنة التربية العملية في الكلية.
  - ٣- الحصول على معدل تراكمي ( ٢.٠ ) أو أكثر.

### متطلبات إكمال الدرجة العلمية:

يتطلب الحصول على درجة بكالوريوس في التربية/ تخصص إعداد معلم في الرياضيات والعلوم إتمام ١٣٢ ساعة معتمدة موزعة كما يلي:

نوع المساقات	عدد المساقات	عدد الساعات المعتمدة	القسم
مساقات إجبارية واختيارية في الرياضيات	١٢	٣٦ (٢٧.٣ %)	الرياضيات والعلوم
مساقات إجبارية واختيارية في العلوم	١١	٣٣ (٢٥ %)	الرياضيات والعلوم
متطلبات كلية إجبارية واختيارية	١٣	٣٩ (٢٩.٦ %)	التربية
متطلبات جامعية إجبارية ٥	٥	١ (١١.٣ %)	أقسام مختلفة
التربية العملية	١	٩ (٦.٨ %)	التربية
المجموع	٤٢	١٣٢ (١٠٠ %)	-

### مساقات المتطلبات الجامعة الإلزامية (١٥ ساعة معتمدة)

اسم المساق	رقم المساق	المتطلب السابق	عدد الساعات المعتمدة	عدد الساعات		
				نظري	مناقشة	عملي
الإرشاد الأكاديمي	٠١٠١٠٠٠	-	١			
الثقافة الإسلامية	٠١٠٢١١٠	٣	٣			
مهارات الاتصال باللغة العربية	٠١٠٢١٤٠	٣	٣			
الإحصاء	٠١٠٣١١٠	٣	٢			٢
طرائق البحث العلمي	٠١٠٣١٣٠	٣	٣			
تطبيقات الحاسوب	٠١٠٤١١٠	٣	٣			

مساقات المتطلبات الجامعية الاختيارية: ٩ ساعات يتم اختيارها حسب ما هو مطروح من قبل عمادة المتطلبات الجامعية و الإرشاد الأكاديمي.

### مساقات المتطلبات الجامعة الإلزامية (١٥ ساعة معتمدة)

اسم المساق	رقم المساق	المتطلب السابق	عدد الساعات المعتمدة	عدد الساعات		
				نظري	مناقشة	عملي
اللغة الإنكليزية	٠٥٠٠١٠١		٣	٣		
تقنيات في التعليم	٠٥٠٠٢٢٢		٣	٢		٢

مساقات التخصص الإلزامية والاختيارية: التربية، والرياضيات، والعلوم.



المسابقات الإلجبارية/ تربية (٢٣ ساعة)

اسم المساق	رقم المساق	المتطلب السابق	عدد الساعات المعتمدة	عدد الساعات		
				نظري	مناقشة	عملي
أصول التربية	٥١١١٠١٠		٣	٣		
علم نفس النمو	٥١٢١٠١		٣	٣		
بناء المناهج	٥١١١٠٢	٥١١١٠١	٣	٣		
علم النفس التربوي	٥١٢٢٠٣	٥١٢١٠١٠	٣	٣		
طرائق تدريس العلوم	٥١١٣٠٦	٥١١١٠٢٠	٣	٣		
إدارة مدرسية وصفية	٥١١٣٠٨٠	إنجاز ٦٠ ساعة	٣	٣		
التقويم التربوي	٥١١٣٠٩	٥١١١٠٢	٣	٣		
طرائق تدريس الرياضيات	٥١١٣٠٧	٥١١١٠٢	٣	٣		
التربية العملية	٥١١٤١٠	٥١١٣٠٦ ٥١١٣٠٧	٩	٩		

المسابقات الاختيارية/ تربية (٣ ساعات)

اسم المساق	رقم المساق	المتطلب السابق	عدد الساعات المعتمدة	عدد الساعات		
				نظري	مناقشة	عملي
مهنة التعليم وأدوار المعلم	٥١١٢٠٤		٣	٣		
التربية ومشكلات المجتمع	٥١١٢٠٥		٣	٣		

المسابقات الإلجبارية/ رياضيات (٢٧ ساعة)

اسم المساق	رقم المساق	المتطلب السابق	عدد الساعات المعتمدة	عدد الساعات		
				نظري	مناقشة	عملي
رياضيات I	٥٤١١٠١	٣	٣	٢		
رياضيات II	٥٤١١٠٢	٥٤١١٠١	٣	٣	٢	
هندسة تحليلية	٥٤١١٠٣	٥٤١١٠١	٣	٣	٢	
معادلات تفاضلية	٥٤١٢٠٤	٥٤١١٠٢	٣	٣	٢	
جبر خطي	٥٤١٢٠٥	٥٤١١٠١	٣	٣	٢	
تحليل متجهات	٥٤١٣٠٦	٥٤١١٠٢	٣	٣	٢	
تحليل حقيقي I	٥٤١٣٠٧	٥٤١١٠٢	٣	٣	٢	
جبر مجرد	٥٤١٣٠٨	٥٤١٢٠٥	٣	٣		
تحليل عقدي	٥٤١٤٠٩	٥٤١٣٠٧	٣	٣		

### المسابقات الاختيارية/ رياضيات (٦ ساعات)

اسم المساق	رقم المساق	المتطلب السابق	عدد الساعات المعتمدة	عدد الساعات		
				نظري	مناقشة	عملي
تحليل عددي	٠٥٤١٤١٠	إنجاز ٧٢ ساعة	٣	٣		
نظرية العدد	٠٥٤١٤١١	إنجاز ٧٢ ساعة	٣	٣		
تبولوجيا	٠٥٤١٤١٢	٠٥٤١٣٠٧	٣	٣		
إحصاء II	٠٥٤١٤١٣	٠١٠٣١١٠	٣	٢	٢	
وسائل المعاينة	٠٥٤١٤١٤	٠١٠٣١١٠	٣	٣		

### المسابقات الإلزامية/ علوم (٢٧ ساعة)

اسم المساق	رقم المساق	المتطلب السابق	عدد الساعات المعتمدة	عدد الساعات		
				نظري	مناقشة	عملي
فيزياء I	٠٥٤٢٢٠١		٣	٢	٢	٢
فيزياء II	٠٥٤٢٢٠٢	٠٥٤٢٢٠١	٣	٢	٢	٢
كيمياء I	٠٥٤٢٢٠٤		٣	٢		٢
كيمياء II	٠٥٤٢٤١٢	٠٥٤٢٢٠٤	٣	٢		٢
أساسيات علوم الحياة I	٠٥٤٢٢٠٥		٣	٢		٢
تطبيقات البرمجيات	٠٥٤٢٣٠٧	٠١٠٤١١٠	٣	٢		٢
أساسيات علوم البيئة	٠٥٤٢٣٠٨		٣	٣		
جيولوجيا عامة	٠٥٤٢٤٠٩		٣	٣		
موضوعات مختارة في العلوم	٠٥٤٣٤١٥					

### المسابقات الاختيارية/ علوم (٦ ساعات)

اسم المساق	رقم المساق	المتطلب السابق	عدد الساعات المعتمدة	عدد الساعات		
				نظري	مناقشة	عملي
فيزياء حديثة	٠٥٤٢٣٠٣	٠٥٤٢٢٠٢	٣	٣		
كيمياء حيائية	٠٥٤٢٣٠٦	٠٥٤٢٤١٢	٣	٣		
الحرارة والضوء	٠٥٤٢٤١٠	٠٥٤٢٢٠٢	٣	٣		
أساسيات علوم الحياة II	٠٥٤٢٤١٤	٠٥٤٢٢٠٥	٣	٣		

**الخطة الدراسية**  
**برنامج بكالوريوس تربية / تخصص إعداد معلم في الرياضيات والعلوم**

المستوى الدراسي			الفصل الدراسي الأول			الفصل الدراسي الثاني		
السنة الأولى	اسم المساق	رقمه	متطلبه السابق	رقم المساق	اسم المساق	متطلبه السابق	اسم المساق	رقم المساق
	إرشاد أكاديمي	١٠١٠٠٠٠		٥٠١٠١٠	لغة إنكليزية			
	مهارات الاتصال باللغة العربية	١٠٢١٤٠٠		٥١٢١٠١	علم نفس النمو			
	إحصاء	١٠٣١١٠٠		٥٥٤١١٠١	رياضيات I			
	أصول التربية	٥١١١٠١٠		٥٥٤١١٠٣	هندسة تحليلية			
	رياضيات I	٥٤١١٠١٠		٠١٠٤١١٠	تطبيقات الحاسوب			
	الثقافة الإسلامية	٠٠١٠٢١١			متطلب جامعة اختياري ١			
السنة الثانية	بناء المناهج	٥١١١٠٢٠	٥١١١٠١٠	٥٥١٢٢٠٣	علم النفس التربوي			
	طرائق البحث العلمي	١٠٣١٣٠٠		٥٥٤١١٠٢	تحليل متجهات			
	معادلات تفاضلية	٥٤١٢٠٤٠	٥٤١١٠٢٠	٥٥٤١٢٠٥	جبر خطي			
	فيزياء I	٥٤٢٢٠١٠		٥٥٤٢٢٠١	فيزياء II			
	كيمياء I	٥٤٢٢٠٤٠						
	كيمياء II	٥٥٤٢٤١٢	٥٥٤٢٢٠٤					
	متطلب جامعة اختياري ٢				متطلب جامعة اختياري ٣			
السنة الثالثة	طرائق تدريس العلوم	٥١١٣٠٦٠	٥١١١٠٢٠	٥٥١١٣٠٩	التقويم التربوي			
	إدارة مدرسية وصفية	٥١١٣٠٨٠	انجاز ٦٠ ساعة	٥٥١١٣٠٧	طرائق تدريس الرياضيات			
	تطبيقات البرمجيات	٥٤٢٣٠٧٠	١٠٤١١٠٠	٥٥٤١٣٠٨	جبر مجرد			
	تحليل حقيقي I	٥٤١٣٠٧٠	٥٤١١٠٢٠	٥٠٠٢٢٢٠	التقنيات في التعليم			
	أساسيات علوم الحياة I	٥٤٢٢٠٥٠			مساق اختياري - رياضيات			
	أساسيات علوم البيئة	٥٤٢٣٠٨٠			مساق اختياري - علوم			
	تحليل عقدي	٥٤١٤٠٩٠	٥٤١٣٠٧٠					
السنة الرابعة	جيولوجيا	٥٤٢٤٠٩٠						
	موضوعات مختارة في العلوم	٥٤٣٤١٥٠	انجاز ٧٢ ساعة					
	مساق اختياري - رياضيات							
	مساق اختياري - علوم							
	مساق اختياري تربية							

## قسم العلوم التربوية

### المقدمة

يسهم قسم العلوم التربوية بالتعاون مع أقسام الكلية الأخرى في إعداد المعلم الكفاء القادر على أداء مهامه بنجاح في المدرسة، والمتمكن من المهارات والكفايات التي تساعد على مواجهة التطورات الحاصلة في مناهج مرحلة التعليم الأساسي وطرائق تدريسها. ويشرف القسم على برنامج التربية العملية الذي يهدف إلى ربط النظرية بالتطبيق وتطوير الكفايات المهنية للطلبة المعلمين بالكلية.

### الرسالة:

إعداد معلم متمكن قادر على مواجهة تحديات العصر ويسهم في إعداد جيل يواكب التطورات المتلاحقة وينهض بمجتمعه.

### الأهداف:

- ١- إكساب الطالب المعلم المهارات المهنية الأساسية اللازمة لأداء مهامه في العمل معلماً.
- ٢- تزويد الطلبة بالمعرفة الضرورية لاستخدام التقنيات الحديثة وتطبيقها في الصفوف الدراسية.
- ٣- تنمية مهارات التواصل الاجتماعي لدى الطالب، التي تؤهله لإيصال معارفه المكتسبة بأفضل السبل، إضافة إلى تنمية قدراته لاتخاذ القرارات المناسبة.
- ٤- تنمية استيعاب الطالب للمبادئ والمفاهيم الأساسية في كل من: علم أصول التدريس، وعلم النفس، ومناهج التدريس، مما يؤهله ليصبح متعلماً ذات مستوى رفيع، ومؤهلاً مهنيًا.
- ٥- تنمية قدرة الطالب في الاعتماد على نفسه، واتخاذ القرار المناسب في الوقت المناسب.

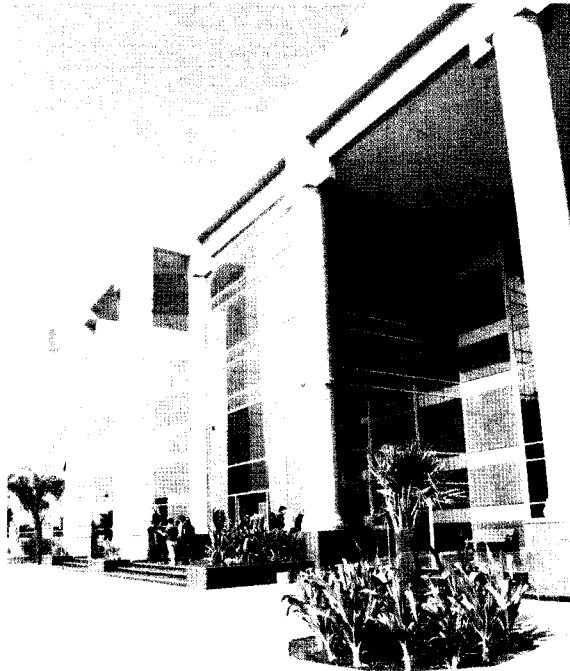
### المخرجات التعليمية

- يسهم القسم في إعداد معلم يكون قادراً على أن:
- ١- يصمم الدروس وإعداد الخطط الدراسية وتقييمها.
  - ٢- يطبق طرائق التدريس العامة والخاصة المناسبة لتدريس مادة التخصص.
  - ٣- يوظف مهارات التفكير العلمي في حل المشكلات الميدانية في المدرسة.
  - ٤- يتواصل بفاعلية مع زملائه وطلابه.
  - ٥- يوظف تقنيات التعليم والأدوات والمصادر التعليمية في التدريس.
  - ٦- يعد الاختبارات ويحللها بطريقة إحصائية، ويستفيد من نتائجها في تطوير عمليتي التعليم والتعلم.
  - ٧- يتعامل مع الطلبة وفق متطلبات مرحلة النمو وسمات الشخصية.
  - ٨- يعزز تعلم الطلبة بالطرق المختلفة.

٩- يتفاعل مع أولياء الأمور وفعاليات المجتمع المحلي بما يحقق رؤية المدرسة وأهدافها.

### مساقات القسم

يطرح القسم ١٣ مساقاً يختار منها طلبة الكلية كل حسب تخصصه فيدرس كل من طلبة قسم الرياضيات والعلوم وطلبة قسم اللغة العربية والدراسات الإسلامية ٩ مساقات إجبارية ومساقاً واحداً اختياريًا بما يعادل ٣٦ ساعة معتمدة، ويختار طلبة قسمي تربويات اللغة الإنجليزية، وتقنيات التعليم المساقات المطلوبة حسب الخطة الأكاديمية لكل قسم.



وتتوزع هذه المساقات في مجموعتين :  
١- المتطلبات الإجبارية (٢٢) ساعة

م	اسم المساق	رقم المساق	عدد الساعات	المتطلب السابق	ملاحظات
١	أصول التربية	٠٥١١١٠١	٣	—	
٢	علم نفس النمو	٠٥١٢١٠١	٣	—	
٣	بناء المناهج	٠٥١١١٠٢	٣	٠٥١١١٠١	
٤	علم النفس التربوي	٠٥١٢٢٠٣	٣	٠٥١٢١٠١	
٥	طرائق تدريس التربية الإسلامية	٠٥١١٣٠٤	٣	٠٥١١١٠٢	
٦	طرائق تدريس اللغة العربية	٠٥١١٣٠٥	٣	٠٥١١١٠٢	خاص بطلبة قسم اللغة العربية والدراسات الإسلامية
٧	طرائق تدريس العلوم	٠٥١١٣٠٦	٣	٠٥١١١٠٢	خاص بطلبة قسم الرياضيات والعلوم
٨	طرائق تدريس الرياضيات	٠٥١١٣٠٧	٣	٠٥١١١٠٢	خاص بطلبة قسم الرياضيات والعلوم
٩	التقويم التربوي	٠٥١١٣٠٩	٣	٠٥١١١٠٢	
١٠	إدارة مدرسية وصفية	٠٥١١٣٠٨	٣	إنجاز ٦٠ ساعة	
١١	التربية العملية	٠٥١١٤١٠	٩	٠٥١١٣٠٥ × ٠٥١١٣٠٤	خاص بطلبة قسم اللغة العربية والدراسات الإسلامية
				٠٥١١٣٠٧ × ٠٥١١٣٠٦	لطلبة قسم الرياضيات والعلوم

## ٢- المتطلبات الاختيارية (٢) ساعات

م	اسم المساق	رقم المساق	عدد الساعات	المتطلب السابق
١	مهنة التعليم وأدوار المعلم	٠٥١١٢٠٤	٣	—
٢	التربية ومشكلات المجتمع	٠٥١١٢٠٥	٣	—

الخطة الدراسية الإرشادية لمساقات قسم العلوم التربوية

السنة الدراسية	الفصل الدراسي الأول من العام الدراسي			الفصل الدراسي الثاني من العام الدراسي		
الاول	رقم المساق	اسم المساق	عدد الساعة	رقم المساق	اسم المساق	عدد الساعات
	٠٥١١١٠١	أصول التربية	٣	٠٥١٢١٠١	علم نفس النمو	٣
الثاني	٠٥١١١٠٢	بناء المناهج	٣	٠٥١٢٢٠٣	علم النفس التربوي	٣
الثالث	٠٥١١٣٠٦	طرائق تدريس العلوم	٣	٠٥١١٣٠٧	طرائق تدريس الرياضيات	٣
	٠٥١١٣٠٤	طرائق تدريس التربية الإسلامية	٣	٠٥١١٣٠٩	التقويم التربوي	٣
الرابعة	٠٥١١٣٠٨	إدارة مدرسية وصفية	٣	٠٥١١٣٠٥	طرائق تدريس اللغة العربية	٣
	—	متطلب كلية اختياري (تربية)	٣	٠٥١١٤١٠	التربية العملية	٩

ملاحظة : يطرح القسم مساقات طرائق التدريس والتربية العملية ، ومتطلب الكلية الاختياري في الفصلين الأول والثاني عند الحاجة لدواعي التخرج وإتمام متطلبات مساق التربية العملية .

## توصيف المساقات

### أولاً : قسم اللغة العربية والدراسات الإسلامية

#### علوم القرآن وأصول التلاوة (٥٢٢١١٥)

يتناول المساق التعريف بالقرآن الكريم، والوحي، والمكي والمدني، ونزول القرآن، وأول وآخر ما نزل، وأسباب نزوله، وجمعه وترتيبه، ونزوله على الأحرف السبعة، وقراءاته، ومحكمه، ومتشابهه، وعامه وخاصه، وناسخه ومنسوخه، وإيجازه، وأمثاله، وأقسامه، وقصصه، والتفسير وكتبه، وأصول التلاوة وقواعدها وتطبيقاتها.

#### المدخل إلى دراسة الشريعة الإسلامية (٥٢٢١١٦)

يتضمن المساق مدخلا يبين ضرورة وجود التشريعات لتنظيم الحياة الاجتماعية والشخصية للإنسان، ويقدم تعريفا بالشريعة والفقه، ويبين خصائصهما، ويقدم مباحث عن مصادر التشريع الإسلامي والأدوار التاريخية التي مر بها الفقه الإسلامي، وتعريفا بأبرز المجتهدين ومذاهبهم، ودراسة لبعض القواعد الكلية في الفقه الإسلامي.

#### فقه العبادات (٥٢٢٢١٧)

يتناول المساق أهم الأحكام المتعلقة بالعبادات، كأحكام الطهارة، من وضوء وغسل وتيمم، وبعض الأحكام الشرعية الخاصة بالنساء، وأحكام الصلاة من حيث وجوبها وأوقاتها وشروطها وأركانها، وصلاة الجمعة والعديد، وصلاة الكسوف والاستسقاء، وصلاة الجنائز، وأحكام الزكاة ومصارفها وأحكام الصوم، وأحكام الحج والعمرة.

المتطلب السابق: المدخل إلى دراسة الشريعة الإسلامية (٥٢٢١١٦)

#### السيرة النبوية (٥٢٢٢١٨)

يتناول المساق ما يتعلق بسيرة النبي صلى الله عليه وسلم من حيث مصادرها وأهمية دراستها دراسة تحليلية معمقة، وأحوال العرب قبل الإسلام وقبيل البعثة الشريفة، والعهد المكي وأهم أحداثه وموقف العرب وقريش من الرسالة وتحليل ذلك الموقف. ويتناول الحديث عن الهجرة إلى الحبشة والهجرة إلى المدينة وبيان أسبابها ودواعيها والعهد المدني وإنشاء الدولة الإسلامية الأولى في المدينة، وأهم الأحداث في هذه الفترة، والدروس المستنبطة منها.

#### نحو ١ (٥٢٢١٢٠١)

يتناول المساق المعرب والمبني من الأسماء والأفعال والحروف وأنواع الإعراب وعلامات الإعراب والبناء الأصلية والفرعية والأسماء الستة والمثنى والجمع بأنواعه والمقصود والمنقوص والمدود وبناء الأفعال وإعرابها ونواصب الفعل المضارع وجوازمه والأفعال الخمسة.

#### الأدب الإسلامي والأموي (٥٢٢١٢٠٢)

يتناول المساق التعريف بأثر القرآن الكريم والحديث النبوي الشريف في اللغة والأدب، وموقف الإسلام من الشعر والشعراء، ودراسة أعلام عصر صدر الإسلام في الشعر والخطابة الذين تمثل في نتاجهم الأدبي معاني الإسلام وقيمه. ويدرس

أبرز تيارات الشعر الأموي كالتفانض والشعر السياسي والزهد والغزل، ويتناول فني الخطابة والترسل الفني في العصر الأموي، ويحيط في دراسته بالألوان الفنية، وينمي الذوق الأدبي من خلال طريق دراسة النصوص الشعرية والنثرية.

#### الصرف (٥٢١٢٠٥)

يتناول المساق بنية الكلمة وأصولها وما يجري عليها من تغيير، ويتناول وزن الكلمة وما يطرأ عليها من حذف أو زيادة أو قلب أو إعلال أو إبدال، ومعرفة المجرد والمزيد، ومعاني الحروف الزائدة في الأفعال، والمشتقات بأنواعها، والتصغير والنسب.

المتطلب السابق: نحو ١ (٥٢١٢٠١)

#### فقه الأحوال الشخصية (٥٢٢٢١٩)

يتضمن هذا المساق مدخلا إلى الأحوال الشخصية: الزواج، وحكمه وحكمته والمحرمان من النساء وأسباب التحريم، والخطبة وما يتعلق بها من أحكام. كما يتضمن: عقد النكاح وشروط صحته، والانكحة الفاسدة وما يترتب عليها من فسخ العقد وغيره، والولاية في النكاح وأنواعها وشروط الولي، والأنكحة المنهي عنها. كما يتناول بالتفصيل المهر وأحواله وأنواعه ومتمتع الطلاق والنفقة وأسباب وجوبها، وحقوق الزوجين المشتركة، وحقوق كل واحد منهما على الآخر. وشرح النكاح: الطلاق، الخلع، وفسخ العقود وأسبابها، ودراسة مباحث: العدة والزراعة، والحضانة، وثبوت النسب، والحجر.

المتطلب السابق: فقه العبادات (٥٢٢٢١٧)

#### نحو ٢ (٥٢١٢٠١)

يتناول المساق الجملة الاسمية وأحكامها (المبتدأ والخبر) وما يدخل على الجملة الاسمية من النواسخ: حروفا وأفعالا، وأفعال المقاربة والرجاء والشروع، والأفعال: ظن وأخواتها، والفاعل ونائبه وأحكامهما، وأفعال التعجب، وأفعال المدح والذم، وما يعمل عمل الفعل، والعدد وأحكامه.

المتطلب السابق: نحو ١ (٥٢١٢٠١)

#### بلاغة ١ (٥٢١٢٠٤)

يتناول المساق: تعريف بعض المفاهيم والمفردات البلاغية مثل الفصاحة والبلاغة، ومفهوم علم البيان ومكانته في البلاغة، والتشبيه وأقسامه وأنواعه، والمجاز العقلي والمرسل، والاستعارة وأقسامها، والكناية وأقسامها، ومفهوم علم المعاني وصلته بالأسلوب، والخبر وخروجه عن مقتضى الظاهر، والإنشاء وتقسيماته وأغراضه، وأحوال المسند إليه والمسند، والقصر: تعريفه وطرقه، والإيجاز والإطناب والمساواة.

## العقيدة الإسلامية (٥٢٢٢٢٠)

يتناول المساق أصول الإيمان بالله تعالى والإيمان بالملائكة والإيمان بالأنبياء والرسول والإيمان بالكتب السماوية والإيمان باليوم الآخر وما يتعلق من أمر الغيب وما صرح عن النبي صلى الله عليه وسلم في ذلك كعلامات الساعة الكبرى والصغرى وتفاصيل يوم القيامة وصفة الجنة والنار، ونواقض الإيمان والتعريف بأهل البدع ودراسة عامة عن الفرق والملل والنحل ورد أباطيلهم.

المتطلب السابق: إنجاز ٦٦ ساعة دراسية معتمدة.

## الأدب العربي الحديث (٥٢١٢١٢)

يتناول مساق الأدب العربي الحديث عوامل ازدهار الأدب في العصر الحديث من امتزاج الثقافات، وانتشار الطباعة والصحافة والترجمة، والإطلاع على أهم المذاهب الأدبية والفنية ووجه الإبداع فيها وأبرز أعلام هذه المذاهب في مجال الشعر، ثم الانتقال إلى دراسة النثر مثلًا في: القصة بأنواعها، والمسرحية، والمقالة، والسيرة الذاتية.

المتطلب السابق: الأدب الإسلامي والأموي (٥٢١٢٠٢) وإنجاز ٦٦ ساعة دراسية معتمدة.

## التفسير التحليلي (٥٢٢٢٢١)

يتناول المساق تفسير آيات الأحكام الواردة في القرآن الكريم، ويتم اختيار بعضها كالسحر والربا والطلاق وأمثالها للتفسير التحليلي الذي يشمل دراسة النصوص القرآنية من نواحي اللغة والقراءات وأسباب النزول والأحكام الشرعية بالمذاهب الفقهية، وأقوال المفسرين القدامى والمحدثين.

المتطلب السابق: علوم القرآن وأصول التلاوة (٥٢٢١١٥)

## نحو ٣ (٥٢١٢٠٢)

يتناول المساق مقدمة عن المنصوبات: المفعول به، والمفعول المطلق، والمفعول لأجله، والمفعول فيه، والمفعول معه، والاستثناء، والحال، والتمييز، والمنادى، التوابع: التعت والعطف والتوكيد والبدل / وتطبيقات وتمارين.

المتطلب السابق: نحو ٢ (٥٢١٢٠١)

## أصول وأساليب الدعوة الإسلامية (٥٢٢٢٢٢)

التعريف بهذا العلم الشريف ودراسة مجملته عن الشريعة الإسلامية وخصائصها وغاياتها وأهم الأحكام المتعلقة بها، وبيان الداعي وصفاته وما يجب أن يكون عليه حاله والمؤهلات التي تؤهله لهذا العمل، وأنواع الدعوة وأساليبها، المدعون وأنواعهم وصفاتهم، وأعداء الإسلام وصفاتهم. والأساليب الدعوية الناجحة لعرض الإسلام والحوار مع المخالفين.

المتطلب السابق: فقه العبادات (٥٢٢٢١٧) وإنجاز ٦٦ ساعة دراسية معتمدة.

## أحاديث الأحكام (٥٢٢٢٢٣)

يتضمن هذا المساق دراسة تحليلية لأحاديث مختارة من أبواب الفقه المختلفة :

## فقه اللغة (٥٢١٤١٤)

التعريف بفقه اللغة وموضوعاته، وعناصر اللغة وأقسام علم اللغة وأصل اللغات وأشهر فصائلها، والعربية قبل الإسلام، وسيادة لهجة قريش، وخصائص اللغة العربية وموقعها بين اللغات، والتعريف بخصائص العربية (الإعراب والاشتقاق والترادف والتضاد والمشتراك اللفظي) ودراسة نصوص تطبيقية من كتب فقه اللغة.

المتطلب السابق: الصرف (٥٢١٢٠٥)

## النقد الأدبي (٥٢١٤١٣)

يتناول المساق تبيان النقد ومناهجه واتجاهاته وحاله في العصر الجاهلي وصدور الإسلام والتطور المتنامي بعد ذلك، والتعرف إلى أبرز أعلامه مثل ابن سلام والجاحظ والأمدي والجرجاني ودراسة قضاياهم: قضية اللفظ والمعنى والسرقات الأدبية وعمود الشعر، ومذاهب النقد في العصر الحديث، ثم دراسة نماذج تطبيقية من النقد القديم والحديث. ويهتم المساق بتمكين الطالب من توظيف معلوماته النقدية في النصوص الأدبية.

المتطلب السابق: الأدب العربي الحديث (٥٢١٣١٢)

## أصول الفقه (٥٢٢٤٢٧)

تعريف علم أصول الفقه وأهميته ودراسة مباحثه: المتعلقة بالحكم الشرعي وأقسامه كالمندوب والحرام والمكروه والمباح والعزيمة والرخصة، والحكم الوضعي وأقسامه، والسبب والشرط والمانع والصحة والبطان، والحاكم، والمحكوم فيه وشروطه، والمحكوم عليه، والأهلية وعوارضها وأقسامها.

وأدلة الأحكام الأصلية: الكتاب والسنة، والأدلة التبعية: كالإجماع والقياس وغيرهما. وطرق استنباط الأحكام وقواعده الأصولية اللغوية: كالخاص والمطلق والمفيد والأمر والنهي والمشتراك وغير ذلك. وتعارض الأدلة والترجيح، والنسخ، والاجتهاد، والتقليد.

المتطلب السابق: فقه العبادات (٥٢٢٢١٧) وإنجاز ٦٦ ساعة دراسية معتمدة.



## علوم الحديث وتدوينه (٥٢٢٢٢٥)

بيان أهمية هذا العلم وتاريخه واختصاص الأمة الإسلامية به والتعريف بالأسئلة وأنواعها ومكانتها وحجيتها وتدوينها وأشهر مدوناتها، ويشمل دراسة: الحديث الصحيح والصن وأقسامهما والحديث الضعيف وأنواعه والمشارك بينها كالمرفوع والموصول والغريب والمعنعن والمسلسل والعالي والنازل وغيرها من الأنواع (مصطلح الحديث) كما يتناول التعريف بعلوم الحديث كعلم تأريخ الرواة والجرح والتعديل والناسخ والمنسوخ وغريب الحديث وغيرها.

ويتضمن معرفة الصحابة وطبقاتهم وفضلهم وعدالتهم، ومعرفة التابعي وطبقات التابعين، كما يتناول دراسة: آداب المحدث وطالب الحديث، ودراسة ظاهرة الوضع في الحديث الشريف وحكم الوضع ورواة الموضوعات، وكيف تمت عملية مقاومة هذه الظاهرة الخطيرة من قبل العلماء.

## فقه المعاملات (٥٢٢٤٢٦)

يتناول المساق بعضاً من أبواب الفقه في أمور المعاملات كالبيع وحكمه، ومشروعيته، وأركانه، وشروطه. وبعض المباحث المتعلقة به كالخيار، وأنواعه وشروطه ومدته واختلاف المتبايعين في شأن المبيع، والسلم والرهن والقرض والحجر، والمضاربة، والشركة، والإجارة، والوكالة، والحوالة، والوديعة، والهبة، والوصية.

المتطلب السابق: فقه العبادات (٥٢٢٢٢٧).

## فقه السيرة (٥٢٢٢٢٤)

نظام الخلافة، وخلافة أبي بكر الصديق، وعمر بن الخطاب، وعثمان بن عفان، وعلي بن أبي طالب، وسيرهم الشخصية، والإدارة، والقضاء، والولاة على البلدان، والاقتصاد، والموارد المالية، والثقافة العامة، وفتوحات العراق والشام، ومصر، والمغرب، والفتن الداخلية كالردة، ومقتل عثمان، وموقعة الجمل، وموقعة صفين، وموقعة النهروان.

المتطلب السابق: السيرة النبوية (٥٢٢٢١٨)

## الأدب الجاهلي (٥٢١٢٠٦)

يتناول المساق شعر العرب قبل الإسلام، فيمهد لحياة العرب السياسية، والعقلية، والاجتماعية، والدينية في العصر الجاهلي، ويعرض لبدايات الشعر الأولى ويناقش قضايا الشعر المتمثلة في الرواية والتدوين وتوثيق المصادر: ثم يتناول بالدراسة والتحليل ظواهره الفنية وخصائصه المعنوية واللفظية من خلال عرض الأغراض الشعرية. ويُنَى أيضاً بالتعرف إلى الشعراء الجاهليين ومذاهبهم الشعرية المتعددة مهتماً بنماذج من شعراء المعلقات، والصعاليك والفرسان، ويعتني بما ورد من نثر جاهلي؛ فيدرس أنواعه من: خطابة، وأمثال، وحكم، ووصايا وسجع كهان، ومنافرات، ومفاخرات، وما لكل نوع من خصائص.

## علم البديع والعروض (٥٢١٢٠٧)

يتناول المساق علم البديع: وهو فرع من علوم البلاغة يعنى بالمحسنات اللفظية

والمعنوية وأثرها في تزيين الكلام وتحسينه: في الشعر وفي فنون النثر المختلفة. وعلم العروض: ويعنى بموسيقا الشعر وإيقاعاته المختلفة التي تمثلت في البحور الشعرية كما يدرس القافية وحروفها وما يصيبها من عيوب. ويشمل معرفة الأوزان (البحور) والكتابة العروضية والتقطيع، وما يطرأ على التفاعيل، وما يتفرع من البحور، وملاءمة الأوزان للمقاصد الشعرية.

## بلاغة ٢ (٥٢١٣٠٨)

يتناول المساق موضوعين أساسيين هما تاريخ البلاغة وإعجاز القرآن. في القسم الأول يتتبع تاريخ البلاغة منذ نشأتها الأولى عند علماء القرن الثاني والثالث الهجريين، ويبحث في تأسيس علم المعاني وشمولية هذا العلم، ويأخذ هذا التتبع التاريخي منحى التعمق في آراء عبد القاهر الجرجاني والزمخشري والسكاكي. وفي القسم الثاني يركز على إعجاز القرآن ومزية أسلوبه من الوجهة الجمالية والنفسية كما يعرض للقصص القرآني مبيناً خصائصه وروعته.

المتطلب السابق: بلاغة ١ (٥٢١٢٠٤)

## الأدب العباسي (٥٢١٣٠٩)

يتناول المساق لمحة عن الحياة السياسية والعقلية والاجتماعية، وأبرز قضايا التجديد في العصر العباسي من خلال الوقوف عند بعض أبرز الشعراء مثل: بشار، وأبي نواس، وأبي العتاهية، وأبي تمام، والبحري، وابن الرومي، والمتنبي، وأبي فراس، والمعري. وبعض أبرز أعلام النثر: ابن المقفع، والجاحظ، والهمذاني، وابن العميد، مع دراسة النماذج الشعرية والنثرية وتحليلها.

المتطلب السابق: الأدب الإسلامي والأموي (٥٢١٢٠٢)

## ثانياً: قسم الرياضيات والعلوم

### رياضيات ١ (٥٤١١٠١)

يتناول المساق الإحداثيات الكارتيزية ومعادلة الخط المستقيم في المستوى والدوال: مجالها، وأنواعها، ومعكوسها، تركيبها، وتمثيلها بيانياً. والنهيات، الاتصال، المشتقة، وقواعدها. مع العناية بتطبيقات الاشتقاق: القيم القصوى، التقعر، والتحدب، التزايد، والتناقص، وتطبيقات إضافية في الفيزياء والعلوم الأخرى.

### رياضيات ٢ (٥٤١١٠٢)

يتناول المساق التكامل باعتباره عملية عكسية للتفاضل، حساب التكامل المحدود، النظريات الأساسية في التكامل، طرق حساب التكامل. التكاملات المتعددة (الثانية والثلاثية). تطبيقات التكامل في الفيزياء والهندسة.

### هندسة تحليلية (٥٤١١٠٣)

يتناول المساق الإحداثيات الكارتيزية والقطبية في المستوى ودراسة معادلة الخط المستقيم والدائرة والقطع المخروطية كافة. ويعنى بانتقال المحاور ودورانها مع إعطاء تطبيقات هندسية متنوعة، ويتناول المساق الإحداثيات الكارتيزية في

الفضاء الإقليدي و دراسة المستوى والمعادلات البارامترية للخط المستقيم ويتعرض إلى تطبيقات هندسية مختلفة في الفضاء.

#### معادلات تفاضلية ٥٤١٢٠٤

يتناول المساق المعادلات التفاضلية الاعتيادية من الرتبة الأولى، تكوينها وطرق حلها، وبعض التطبيقات عليها مثل المسارات المتعامدة والدوائر الكهربائية، والمعادلات التفاضلية ذات الرتبة الثانية، الخطية، المتجانسة ذات المعاملات الثابتة وتطبيقاتها، ومسائل القيم الأولية والحدودية، ومعادلات كوشي - أولير، والمعادلات الخطية غير المتجانسة، واستخدام سلاسل القوى في حل المعادلات التفاضلية الخطية، و تحويلات لابلاس في حل المعادلات التفاضلية.

#### جبر خطي ٥٤١٢٠٥

يتناول المساق المصفوفات والمحددات والعمليات الجبرية عليها والمصفوفة العكسية ومنظومة المعادلات الخطية وحلولها. ويتناول المساق فضاءات المتجهات، والفضاءات الجزئية، وأساساتها، والتحويلات الخطية، ونواتها، ومداها، وتمثيلها باعتبارها مصفوفة. ويتناول المساق الجذور الذاتية والمتجهات الذاتية المرتبطة بها والفضاءات الذاتية.

#### تحليل متجهات ٥٤١٢٠٦

يتناول المساق تعريف المتجهات وتمثيلها الهندسي وجبر المتجهات وتطبيقاتها، ويشمل المساق تعريف الدوال المتجهية وخصائصها، والحقول المتجهية وتطبيقاتها، ونظريات جرين وجاوس واستوكس.

#### تحليل حقيقي ٥٤١٣٠٧

يتناول المساق خصائص نظام الأعداد الحقيقية ومجموعاتها الجزئية ومسلمات الحقل والترتيب والتمام وتناحجها وتبولوجيا خط الأعداد الحقيقية والمتتاليات الحقيقية ونظريات التقارب التي تبرز الخصائص الأساسية للأعداد. ويشمل المساق التعريف بالمتسلسلات الحقيقية وخصائصها، واختبارات التقارب ومتسلسلات القوى.

#### جبر مجرد ٥٤١٣٠٨

يتناول المساق الزمر وخواصها، والزمر الجزئية وبعض الزمر الخاصة (الإبدالية، الدائرية)، ومبرهنة "لاجرانج"، وزمر التبادل، والزمرة المتناوبة وبعض خواصها، ويتعرض المساق لبعض تطبيقات الزمر، ويتناول تعريف الزمرة الجزئية الناقضية، ومركز الزمرة، وتشاكل الزمر، ونواة التشاكل، وأمثلة عليها. ويتناول التعرف إلى الحلقات والحقول وخواصها، وتشاكل الحلقات.

#### تحليل عقدي ٥٤١٤٠٩

يتناول المساق الأعداد العقدية وتعريفها، وخواصها، والعمليات الجبرية عليها في الإحداثيات الكارتيزية والقطبية وتمثيلها هندسياً. والدوال العقدية: نهايتها واتصالها واشتقاقها والدوال التحليلية. ويعنى خاصة ببعض الدوال الأولية

الأسية واللوغاريتمية والمثلثية وغيرها. ويتناول المساق التكامل العقدي، وأهم النظريات والتطبيقات في هذا المجال، ثم المتتابعات والسلاسل العقدية وتطبيقاتها وعلاقتها بالتكاملات العقدية.

#### تحليل عددي ٥٤١٤١٠

يتناول المساق الطرائق العددية المختلفة لحل مسائل في الرياضيات غير ممكنة الحل تحليليا حيث يتم تناول معادلات لا خطية بمجهول واحد، إضافة إلى طرائق تقريب الدالة وحل المعادلات التفاضلية عددياً، ويستخدم في هذا المجال طرائق عددية لحساب التفاضل والتكامل العددي والمقارنة بينهما.

#### نظرية العدد ٥٤١٤١١

يتناول المساق بديهية الاستقراء الرياضي والخواص الأساسية للأعداد الصحيحة كالقسمة وخواصها وخوارزمية القسمة، ونظرية "إقليدس"، وإيجاد القاسم المشترك الأعظم، والمضاعف المشترك الأدنى، وخواص الأعداد الأولية، وحلول معادلة "ديوفانتين" الخطية، ومبرهنة الباقي الصينية، ودالة "أويلر"، ومبرهنة "فيرما"، وطريقة "إراتوستينز" لإيجاد الأعداد الأولية.

#### تبولوجيا ٥٤١٤١٢

يتناول المساق مقدمة في التبولوجيا العامة: تعريف الفضاءات التبولوجية وأمثلة عليها: والاستمرارية بين فضاءين تبولوجيين والكفاف التبولوجي: والفضاءات المترية والمنظمة: والفضاءات التامة: ومسلمات العد ومسلمات الفصل: والترانس: والجداء التبولوجي: والاتصال والاتصال المحلي.

#### إحصاء ٥٤١٤١٣

يتناول المساق التعريف بالإحصاء الاستدلالي مع التطبيقات على الدراسات التربوية. ويتضمن موضوعات من بينها توزيعات إحصاءات العينات، ونظرية الغاية المركزية، والتقديرية الإحصائية بشقيها النقطية والمدى، والاختبارات الإحصائية للوسط والنسبة والتباين إضافة إلى تحليل التباين.

#### وسائل معينة ٥٤١٤١٤

يتناول المساق طرق اختيار العينات الاحتمالية وأنواع العينات الاحتمالية- وتقدير معالم المجتمع بواسطة الإحصاءات من العينة، وتحديد حجم العينة المناسب لأنواع العينات التي يتم تغطيتها والأخطاء المرافقة لتقدير المعلومات من إحصاءات العينة.

#### فيزياء ٥٤٢٢٠١

يتناول المساق المفاهيم العلمية الأساسية التي تشمل أنظمة القياس والمتجهات وحركة الأجسام في بعد واحد وفي مستوى وقوانين نيوتن في الحركة وتطبيقاتها العملية والشغل والطاقة والقدرة ونظرية الشغل والطاقة والزخم الخطي والدفع ونظرية الدفع والزخم الخطي والحركة الموجية والحرارة. بالإضافة إلى مجموعة من التجارب العملية التي توضح هذه المفاهيم.

## فيزياء ٥٤٢٢٠٢

يتناول المساق المفاهيم العلمية الأساسية في الكهرباء والمغناطيسية التي تشمل : الكهرباء الساكنة (قانون كولوم و المجال الكهربائي، و قانون جاوس، والجهد الكهربائي، والسعة الكهربائية (والكهرباء التيارية)، قانون أوم، وقاعدتا كيرتشف، ودوائر التيار المستمر) و المجال المغناطيسي و تأثيراته ومصادره والحث الكهرومغناطيسي وقانون فاراداي، ومعادلات ماكسويل. ويتناول المساق الضوء الهندسي وهو يشمل المرايا والعدسات بالإضافة إلى مجموعة من التجارب العملية التي توضح هذه المفاهيم .

## كيمياء ٥٤٢٢٠٤

يتناول المساق أساسيات علم الكيمياء : الذرة ومكوناتها، والمواد والجزئيات والمركبات، والتوزيع الإلكتروني والجدول الدوري، والروابط الكيميائية، والمبادئ الأساسية للكيمياء اللاعضوية والفيزيائية والكهربائية و قوانينها وبعض تطبيقاتها.

## كيمياء ٥٤٢٤١٢

يتناول المساق دراسة الكيمياء الحرارية و الحركية وأثرها في سير التفاعلات الكيميائية والحيوية، ويهتم المساق بدراسة الكيمياء النووية و تطبيقاتها في مجال الطاقة والغذاء و الطب كما يهتم المساق بمركبات الكربون، وخواصها الفيزيائية، وتفاعلاتها الكيميائية، وطرق تحضيرها بالإضافة إلى فوائدها واستخداماتها في مجال الصناعة و وظائفها الحيوية.

## أساسيات علوم الحياة ٥٤٢٢٠٥

يتناول المساق دراسة المفاهيم الأساسية في علم الأحياء، وتطور الأحياء عبر الزمن، ويشمل دراسة الخلية الحية وأنماطها، والأساس الكيميائي للمادة الحية ودراسة الخلية باعتبارها وحدة بناء للكائنات الحية ومنها المكونات المجهرية للخلية والتطرق إلى بعض الأنماط الخلوية والنسج ووظائفها والعلاقة بين تركيب الخلية الحية ووظائف عضياتها ودراسة ماهية بعض المفاهيم العلمية كالأحياء الدقيقة والطحالب والبكتريا وغيرها ودراسة المفاهيم الخاصة للأبيض الخلوي وإنتاج الطاقة، ودراسة النمو في الكائنات الحية، والتكامل ما بين الكائن الحي وبيئته، والأسس البيولوجية لسلوك الكائن الحي، ودراسة الانقسام الخلوي وطرق التكاثر ومبادئ توارث الصفات في الكائنات الحية، والأسس الوراثية للحياة .

## تطبيقات البرمجيات ٥٤٢٣٠٧

يتناول المساق التعرف إلى البرمجيات المستخدمة في الرياضيات والفيزياء والكيمياء والأحياء والجيولوجيا والبيئة وتطبيقاتها، مع استخدام البرمجيات العاملة في مجال تخصصهم، والتعرف إلى تطبيقات متقدمة لأتملة في الرياضيات والعلوم باستخدام الإكسيل المتقدم MAT LAB بشكل تفصيلي لسعة انتشاره بين أجهزة الحاسوب، واستخدام MAT LAB لكونه أكثر البرمجيات المستخدمة في مجال التخصص.

## أساسيات علوم البيئة ٥٤٢٣٠٨

يتناول المساق معرفة البيئة وعلاقتها بعلم المنظومات والعلوم الأساسية والعلاقة بين الإنسان والبيئة ومن ثم نشأة الكون ونشأة المجموعة الشمسية والشمس ومكوناتها والطاقة الشمسية وتوزيعها والأرض (نشأتها، عمرها، المجال المغناطيسي لها، وطبقاتها) وكذلك يتناول الرياح والبحار والغلاف الجوي ومكوناته، والقمر وأطواره، وعلاقته بالمد والجزر، ودورة العناصر الحيوية، والبيئات الحيوية وبيئة الجماعات، والسكان، والكثافة السكانية وكيفية حسابها، والتلوث البيئي ومخاطره.

## جيولوجيا عامة ٥٤٢٤٠٩

يتناول المساق أصل الأرض: تعريفها والتاريخ الجيولوجي للأرض، ومكونات القشرة الأرضية والعمليات الداخلية والزلازل والبراكين، وحرارة باطن الأرض، والعمليات الخارجية (المياه السطحية والمياه الجوفية) ومغناطيسية الأرض ونظرية حركة الألواح، والخرائط الطبوغرافية والخرائط الجيولوجية، والبلورات بتراكيبها المختلفة والمعادن وصفاتها، ويتناول المساق الصخور بأنواعها النارية والمتحولة والرسوبية، ويعرف المساق الطالب بالتركيب الجيولوجية والطبقات الصخرية المختلفة والأحافير وموارد الأرض.

## موضوعات مختارة في العلوم ٥٤٢٤١٥

يتناول المساق مواضيع متخصصة في مجال العلوم في أحد المحاور التالية:  
- الفلك: ويشمل نظرية نشوء الكون، والمجرات والمجموعة الشمسية، ونبتة عن المرصد الفلكية، وماهية الثقوب السوداء، والأشعة الكونية وغيرها.  
- الطاقة البديلة: ويشمل مقدمة عن التطور التاريخي لاستخدام الطاقة وطبيعتها ومصادرها، وأهمية ترشيد استهلاك الطاقة في مختلف القطاعات، وأنواع الطاقة البديلة النظيفة مثل الطاقة الشمسية، وطاقة الرياح، وطاقة الهيدروجين والطاقة النووية وغيرها.  
- النانوتكنولوجيا: وتشمل الخلفية التاريخية لها ومراحل تطورها، واستخداماتها الحديثة في مجالات الطب والهندسة والعلوم الأساسية والفضاء والطاقة والبحث العلمي وغيرها.

## فيزياء حديثة ٥٤٢٣٠٢

يتناول المساق نظرية النسبية الخاصة و السلوك المزدوج للمادة والإشعاع و البنية الذرية للمادة و ميكانيكا الكم ومعادلة شرودنجر و النشاط الإشعاعي والمكونات النووية و بنية المادة الصلبة ونظرية الحزم الطاقةية.

## كيمياء حياتية ٥٤٢٣٠٦

يتناول المساق معرفة التركيب الكيميائي للمركبات الحيوية التي تدخل في تركيب جسم الكائن الحي وغذائه وعلاقة ذلك بوظيفتها الحيوية في جسم الإنسان ويهتم المساق بدراسة التغيرات الحيوية التي تحدث للمركبات الكيميائية المكونة للغذاء بعد تناوله وكيفية قيام الخلية باستخلاص الطاقة من مكونات الغذاء نتيجة عمليات التمثيل الغذائي ومعرفة ميكانيكية لبناء الأحماض النووية والبروتينات في الكائن

الحي. ويهتم المساق بتفسير الظواهر الحياتية والصحية والنفسية للفرد على ضوء عمليات التمثيل الغذائي .

### ٥٤٢٤١٠ الحرارة والضوء

يتناول المساق المفاهيم الأساسية في علم الحركة الحراري وقوانينه مع بعض التطبيقات على القانون الثاني والقانون الثالث في علم الحركة الحراري. ويتناول المساق التعرف إلى طبيعة الضوء والمرايا والعدسات وتوضيح بعض مفاهيم الضوء الفيزيائي مثل التداخل والحيود والاستقطاب، ويختتم المساق بتزويد الطالب بمبادئ فيزياء الليزر .

### أساسيات علوم حياة II ٥٤٢٤١٤

يتناول المساق دراسة فيزيولوجيا الإنسان دراسة ميكانيكية والتأكيد على المفاهيم الأساسية في علم الوراثة والوراثة المندلية والسيوبلازمية، ودراسة الصفات الوراثية المتعلقة بالكروموسومات الجنسية والأمراض المتعلقة بها. ويتطرق المساق إلى دراسة مبادئ الهندسة الوراثية، والاستنساخ، والتطبيقات الحالية والمستقبلية للهندسة الوراثية في عدد من المجالات العلمية، ودراسة بعض المشكلات التي تؤديها الاستعمالات المفرطة في عدد من المجالات، ودراسة بعض الطفرات الجينية ودراسة أنواع الكائنات الحية والأمراض التي تسببها مع العناية بدراسة هذه الأمراض من ناحية فيزيولوجية وجزيئية والتطرق إلى طبيعة الجهاز المناعي والتعرف إلى بعض الأمراض المناعية التي تصيب الإنسان في بيئته، وطرق الحفاظ على صحته الجسمية والنفسية .

### ثالثا : قسم العلوم التربوية

#### أصول التربية (٥١١١٠١)

يتناول المساق مفهوم التربية، وما يتعلق بها من مفاهيم مباشرة كأهداف التربية ووظائفها، والتعليم والتعلم . ويتناول الأصول التاريخية للتربية، والأصول الاجتماعية للتربية، والأصول الفلسفية للتربية، والأصول النفسية للتربية، والأصول الاقتصادية للتربية. ويعرض المساق للأسس التي تقوم عليها الأنظمة التعليمية.

المطلب السابق : لا يوجد

#### علم نفس النمو (٥١٢١٠١)

يتناول المساق تعريف الطالب بمفهوم علم نفس النمو وأهميته، وأهدافه، ومبادئه، ومطالب النمو، دارسا مناهج البحث في علم نفس النمو ونظرياته، ومظاهره في مراحل العمر المختلفة، مع العناية بالتطبيقات التربوية في كل مرحلة، وخاصة في مرحلتَي الطفولة والمراهقة ويتناول المشكلات التي تصاحب التغيرات التي تطرأ على مظاهر النمو في مراحلها كافة.

المطلب السابق : لا يوجد

### بناء المناهج وتطويرها (٥١١١٠٢)

يتناول المساق التعرف إلى مفهوم المنهج التقليدي والحديث، والمفاهيم والمصطلحات المتعلقة به، وعناصر المنهج (الأهداف - المحتوى الأنشطة والخبرات التقويم) والأسس التي يقوم عليها المنهج (الفلسفية والمعرفية والنفسية والاجتماعية) كما يعنى المساق بتصميم المنهج، وتنفيذه وتقويمه وتطويره، ويسلط المساق الضوء على المنهج من المنظور الإسلامي.

المطلب السابق : ٥١١١٠١

### علم النفس التربوي (٥١٢٢٠٣)

يتناول المساق التعريف بعلم النفس التربوي ومجالاته وطرق البحث المستخدمة فيه، ودراسة الأهداف واشتقاقها ومجالاتها، ونظريات التعلم وتطبيقاتها، ودراسة الدافعية ونظرياتها، والدكاء ونظرياته، والتفكير الابتكاري واستخداماته وتمييزه، ونماذج التدريس وتطبيقاتها، والقياس والتقويم .

المطلب السابق : ٥١٢١٠١

### طرائق تدريس التربية الإسلامية (٥١١٣٠٤)

يتضمن المساق التعريف بالأصول النظرية للتربية الإسلامية المتمثلة بتعريف بنيتها المفاهيمية ومصطلحاتها التراثية والحداثية، ومصادرها، وأهميتها للفرد والمجتمع، ويتناول مهارات صياغة الأهداف السلوكية، والتخطيط الفصلي واليومي، وتحليل محتوى مناهج التربية الإسلامية في مرحلة التعليم الأساسي، وإجراءات تدريس فروعها: التلاوة، والتفسير، والحفظ، والحديث النبوي الشريف، والعقيدة الإسلامية، والفقه، والسيرة النبوية، والأخلاق والقيم الإسلامية.

المطلب السابق : ٥١١١٠٢

### طرائق تدريس اللغة العربية (٥١١٣٠٥)

يعرّف المساق بالمفاهيم الأساسية للغة العربية، ثم يفصل في أساليب تدريس الاستماع والتحدث والقراءة والنصوص الأدبية والكتابة وقواعد اللغة العربية، ويتناول التدريب على إعداد الخط الفصلي واليومية لفروع اللغة العربية المختلفة، ويتناول المساق مهارات صياغة الأهداف السلوكية والتخطيط الفصلي واليومي، وتحليل المحتوى لمناهج اللغة العربية بمراحل التعليم الأساسي، وبعض أساليب تشخيص الضعف في مهارات الاستماع والكلام والقراءة والكتابة، وكيفية وضع الخطط العلاجية لجوانب الضعف التي يشخصها المعلم عند طلبته من أجل تطوير مهارات اللغة العربية المتوقعة.

المطلب السابق : ٥١١١٠٢

### طرائق تدريس العلوم ٥١١٣٠٦

يتناول المساق التعريف بطبيعة العلم وأهداف تدريس العلوم بالإضافة إلى مستويات الأهداف بمجالاتها المختلفة، ويوضح الأسس التي يتم في ضوءها اختيار وتحديد طرائق التدريس، ويتضمن المساق تعريف الطلبة بعدد من طرائق التدريس

المتطلب السابق :

٥١١٣٠٤ + ٥١١٣٠٤ : لطلبة قسم اللغة العربية والدراسات الإسلامية  
٥١١٣٠٦ + ٥١١٣٠٧ : لطلبة قسم الرياضيات والعلوم

### مهنة التعليم وأدوار المعلم (٥١١٣٠٤)

يتناول المساق المفاهيم الأساسية المرتبطة بمهنة التعليم ، مع تناول الكفايات اللازمة التي تعين المعلم على أداء عمله بنجاح في عصر متغير ومتجدد، إضافة إلى عرض تحليلي لجوانب التكوين المهني للمعلم من حيث الإعداد قبل وأثناء ممارسة مهنته . ويعرض المساق أيضاً لأهم المشكلات والتحديات التي تواجه المعلم وكيفية معالجتها والتغلب عليها.

المتطلب السابق : لا يوجد

### التربية ومشكلات المجتمع (٥١١٣٠٥)

يتناول هذا المساق تشخيص القضايا والمشكلات التي يواجهها المجتمع وتحليلها، ويصف انعكاساتها عليه وعلى الميدان التربوي، وعلى المؤسسات التعليمية على وجه الخصوص. كما يناقش دور النظام التربوي التعليمي في تحليل وتشخيص هذه القضايا المختلفة، وخلق وعي عام بها، وتقديم الحلول العملية الممكنة لها، كما يناقش المساق ما يتعلق بالتقنيات من حيث أنواعها وآثارها الإيجابية والسلبية ومستوياتها نظراً لما أحدثته من متغيرات وتحديات على مستوى الفرد والمجتمع، ويوضح دور التربية باعتبارها إحدى أدوات المجتمع في إعداد الفرد القادر على التعامل بنجاح مع هذا الواقع .

المتطلب السابق : لا يوجد

المختلفة والمعتمدة بدرجة أساسية على فعالية المتعلم والمقارنة بينها، ويعنى المساق بأهمية العمل المخبري والحقلي في تدريس العلوم ، ومساعدة المتعلمين على معرفة أهمية التخطيط للتدريس ومستوياته مع توضيح الكفايات التعليمية لمعلم العلوم .

المتطلب السابق : ٥١١١٠٢

### طرائق تدريس الرياضيات ٥١١٣٠٧

يتناول المساق مقدمة حول طبيعة الرياضيات، ويعرض لطريقة تنظيم مناهج الرياضيات المدرسية في مرحلة التعليم الأساسي، والمبادئ والمعايير المرتبطة بهذا التنظيم. ويعنى المساق باستراتيجيات تدريس كل من المفاهيم والتعميمات والمهارات والخوارزميات الرياضية إضافة إلى استراتيجيات حل المشكلة الرياضية، مع تعزيز ذلك من خلال نماذج وأمثلة من كتب الرياضيات المدرسية المقررة، إضافة إلى مهارات البرهان الرياضي. ويعالج هذا المساق أيضاً التخطيط لتدريس الرياضيات في مراحل التعليم العام.

المتطلب السابق : ٥١١١٠٢

### التقويم التربوي (٥١١٣٠٩)

يتناول المساق عملية التقويم باعتباره عملية منظمة تشمل في طياتها عمليات فرعية هي الملاحظة والقياس والتقدير والحكم ثم إصدار القرارات. ويتناول تبعاً لذلك التعريف بهذه المفاهيم مع مبادئ القياس والتقويم، ثم التعرف إلى خطة بناء الاختبارات وكيفية إدارتها ثم تصحيحها وتحليل نتائجها بطرق التحليل المختلفة من طرق النزعة المركزية والتشتت والارتباط. ثم كيفية استخراج التقادير النوعية ومنحها للتلاميذ بعد ذلك توضيح كيفية توجيه التعلم والتدريس في ضوء تلك النتائج.

المتطلب السابق : ٥١١١٠٢

### إدارة مدرسية وصفيّة (٥١١٣٠٨)

يتناول هذا المساق مفاهيم الإدارة التربوية والمدرسية والصفية وعملياتها، وأهميتها ودورها في تحقيق أهداف المؤسسة التعليمية، و يقدم وصفاً للجهاز الإداري في المدرسة ووظيفته. ويتناول استراتيجيات الإدارة الصفية وأهمية تنظيم بيئة التعليم والتعلم داخل الفصل وخارجه. ويناقش بعض النماذج المعاصرة في إدارة وتنظيم الصف الدراسي.

المتطلب السابق : إنجاز ٦٠ ساعة

### التربية العملية (٥١١٤١٠)

يتناول المساق تطبيقاً لما درسه الطالب في الكلية من مساقات تخصصية أو مساقات مهنية وما تمخض عنها من كفايات أساسية تساعد الطالب على أن يستعد للميدان بعد تخرجه. وتحقيقاً لذلك فقد روعي في التربية العملية أن يبدأ الطالب برنامجه داخل الكلية لمدة أسبوعين، يتم خلالها تعريفه ببرنامجه التربية العملية ومراحلها ، ثم ينتقل الطالب إلى المدارس لمدة ثلاثة عشر أسبوعاً متصلة ليطبق ما تعلمه تدريجاً، ثم يعود بعدها في الأسبوع الأخير لمناقشة حصيلة تعلمه وتقويمه.

## **011 615 Subsurface Characterization and Monitoring**

**Pre-requisite:** 011 604

This course is an introduction to field and laboratory methods for characterizing subsurface geological, hydrological, geotechnical, and contaminant conditions. It also describes water quality, water chemistry, gaining and extraction of water samples, water analysis, disinfection of wells, bacteriological tests, international quality standards, documentation, water quantity, well monitoring procedures and equipment, well testing procedures and equipment, hydraulic tests, capacity tests, types and removal of well incrustations, well logging, documentation.

## **011 616 Water Well Rehabilitation**

**Pre-requisite:** 011 604

The course covers identification and evaluation of existing well capacity and efficiency, hydrochemical analysis of groundwater, e.g. identification of organic and inorganic constituents indicating groundwater pollution and/or contamination, heavy metals, radioactive contaminants, chemical and physical analysis of well incrustations, CCTV well inspection, borehole and well logging, step-drawdown and constant pumping test, recovery test, Selection of the most suitable mechanical and hydromechanical well rehabilitation method, determination of the most suitable non-toxic, up-to-date chemical well rehabilitation agent, execution of mechanical, hydromechanical and chemical water well rehabilitations, verification and recording of results of well rehabilitation by CCTV camera pump test water analysis geophysical well logging, development of water wells, sterilization of water wells and individual water well rehabilitation plans for cost-efficient operation.

## **011 617 Thesis**

**Pre-requisite:** 011 601

**6 Credit Hours**

This course is taken over 2 semester (full-time students) or 3 semesters (part-time students). The course is for all graduate students registered in the program. Students conduct an applied research study in various fields of water science and engineering. Students are expected to carry out their research studies under supervision of theses committees, selected according to thesis subjects. A student must prepare and submit his/her thesis and should be able to defend it.

apply the most appropriate techniques to summarize and organize data. It also allows them an insight in the limitations of data collection and the corresponding consequences for water management. More specifically, the consequences to the development and the calibration of mathematical models and other predictive tools are discussed. Also the consequences to the evaluation, the exploitation and the management of the water systems are addressed. The latter water management and research tasks may be based on mathematical modelling or not. The understanding of the data limitations and their consequences are useful in setting up most appropriate data collection programs for specific water management and planning problems. Based on discussions of the different uncertainty sources, also a fundamental insight is given in the general process of mathematical modelling. By using examples from specific water fields (surface hydrology, hydraulics, and wastewater treatment) in the lectures and the practical sessions, this course has important interactions with the other courses.

### **011 609 Subsurface Microbiology**

**Pre-requisite:** 011 604

This course provides detailed information about the structure of microorganisms, their growth and genetic basis. The course also provides information about the major groups of bacteria, fungi, algae, and protozoa. Basic virology including viral structure, taxonomy and classification are also dealt with. The course illustrates the bacterial classification system, nomenclature and methods for the identification.

### **011 610 Water and Wastewater Treatment**

**Pre-requisite:** 011 601 and 011 603

The course covers: water treatment methods: screening, coagulation and flocculating, sedimentation, filtration, aeration, desalination and disinfection. Wastewater treatment methods: preliminary, secondary, and advanced treatment biological systems of treatment, sludge treatment, reuse and disposal, industrial wastewater treatment (definitions, characteristics), survey and monitoring of industrial waste water, legislation, guidelines, and standards. treatment processes: volume and strength reduction, neutralization and equalization, removal of suspended and colloidal solids, removal of dissolved organics, combined treatment of industrial wastewater with domestic sewage, treatment economics.

### **011 611 Desalination and Advanced Water Treatment**

**Pre-requisite:** 011 603

The course is designed to provide an up to-date analysis of desalination technology. It also provides a practical approach to the design and

operation of desalination plants. Fundamentals of thermal desalination, fundamentals of membrane desalination, pretreatment with UF/MF, conventional pretreatment, operation and maintenance of membrane plants, operation and maintenance of thermal plants, corrosion and material selection, scaling and fouling in membrane processes and thermal processes, saline water chemistry, privatization/contracting: BOO, BOT, BOOT, hybrid desalination processes, instrumentation and control in desalination plants are also presented.

011 612 Groundwater Pollution and Contaminant Transport

**Pre-requisite:** 011 602

This course describes solute transport in soils and aquifers. The course material should be of interest to graduate students in both science and engineering. Discussion topics will include a description and quantification of solute transport processes (diffusion, dispersion, advection, sorption and transformations), formulation and solution of solute transport equations, modeling of water flow and solute transport, and applications: Groundwater contamination, site remediation, and nonpoint agricultural pollution sources.

### **011 613 Groundwater Modeling**

**Pre-requisites:** 011 601 and 011 602

Theory and practice of numerical techniques are developed and applied to fluid flow and transport in groundwater flow systems. Governing equations are formulated using FD techniques with appropriate BC's and IC's. Additional topics include: model conceptualization and grid design in multidimensional systems; practical applications of numerical models including calibration, validation, and prediction; concepts and techniques of advective, dispersive, and reactive transport using MODFLOW-2000 with Argus One Open Numerical Environment, and MT3D with GMS processing software.

### **011 614 Hydrogeology of Arid Regions**

**Pre-requisite:** 011 601

The course provides an introduction to water resources in the Arabian Peninsula; physical geography of the Arabian Peninsula, geology of the Arabian Peninsula and Gulf, aquifer and aquiclude systems, hydrogeochemistry, conventional water resources: springs and falajes, non-conventional water resources: desalination and treated wastewater, case studies on the hydrogeology of the Cenozoic aquifer systems in the Arabian Peninsula, the legal basis for groundwater protection in the Gulf States, towards the development of a water policy management, numerical modeling of Certain aquifer systems in the United Arab Emirates, Saudi Arabia and Kuwait.

# Course Descriptions

## 011 601 Water Resources Planning and Management

**Pre-requisite:** None

The aim of the course is to inform students of the increasing competition for water quantity as well as water quality, and the need for more efficient use of water for human consumption, industry and agriculture. The course contains the elements required to focus on water management from a wide range of perspectives and present them in four sections: water resources and water quality, water suitability, water conservation and technology, and re-use of treated water. Students successfully completing this course should have developed the skills to: critically evaluate complex water resources management issues, determine effective methods for addressing water resources management problems, and make informed decisions regarding various water supply alternatives.

## 011 602 Hydrogeology

**Pre-requisite:** None

The course covers: water: definitions, concept of the hydrologic cycle and law of mass conservation, aquifer properties; principles of groundwater flow; soil moisture: soil moisture and unsaturated flow, unsaturated hydraulic conductivity and hysteresis, Darcy's law for unsaturated flow, infiltration and groundwater recharge, evaporation, precipitation and streamflow; groundwater geology; regional groundwater flow; well hydraulics; groundwater chemistry, quality and contamination.

## 011 603 Environmental Water Quality and Methods

**Pre-requisite:** None

This course will teach the basic principles of water chemistry and how to use these principles in precipitation, surface water and groundwater studies. Much of the course will focus on groundwater applications which can be used to: determine the time and source of groundwater recharge, estimate groundwater residence time, identify aquifer mineralogy, examine the degree of mixing between waters of various sources and evaluate what types of biological and chemical processes have occurred during the water's journey through the aquifer system.

## 011 604 Water Well Technology: Principles

**Pre-requisite:** None

The course covers: detection of groundwater resources, planning of

water extraction, well design, planning, drilling, construction, completion, cleaning, development, testing and assessment, operation, monitoring, maintenance, rehabilitation, restoration, repair, sealing of aquifers, international technical standards and documentation.

## 011 605 Field Training

**Pre-requisite:** 011 604

The course introduces site selection; well drilling; well construction; well completion; well cleaning; well development; water well testing and assessment of vertical water wells. State-of-the art operation of water wells; regular monitoring of wells; well inspections; well check book; maintenance plans; mechanical; hydromechanical and chemical rehabilitation of wells; repair and restoration of water wells; sealing of water wells; international technical standards; documentation are also covered.

## 011 606 GIS Applications in Water Resources

**Pre-requisite:** 011 601

The course covers principles of Geographic Information System (GIS); spatial sciences; Map scale and projections; Global Positioning System (GPS); GIS processes; working with databases; data analysis and modeling; GIS analysis functions; presentation of Geodata and analysis; networks in GIS; GIS software; ArcGIS desktop; data sources for GIS in water resources; GIS in water resources; examples of GIS applications in the United Arab Emirates and Arabian Gulf region.

## 011 607 Remote Sensing of Water Resources

**Pre-requisite:** 011 601

The course intends to give state-of-the-art of spatial information processing using Geographic Information System (GIS) and earth observation techniques and image processing methods, applied to water resources problems. Student's acquisition of practical skills is promoted by computer exercises in GIS analyses and remote sensing processing techniques with different GIS and RS (Remote Sensing) packages.

## 011 608 Statistical Methods in Water Resources

**Pre-requisite:** 011 604

The learning objective of the course is to give the students a fundamental knowledge and practical understanding of the common techniques for data processing in hydrology and water management. This knowledge and understanding must allow students to select and



# Training

## A. Field Training Programs

1. Sampling procedures for environmental and water studies
2. Field measurements of environmental and water resource parameters
3. Chemical analyses of air, water and soil samples
4. Bacteriological analyses for environmental and water quality studies
6. Field sampling for isotope analyses

## B. Training Courses

1. Remote sensing and GIS applications in environmental studies
2. Remote sensing and GIS application in water resource investigations
3. Modeling techniques in water and environmental studies
4. Applications of environmental isotopes

## Learning Outcomes

The desired outcomes are that the MSc holder will be able to solve engineering problems at an advanced level of engineering analysis, synthesis and evaluation. In addition the course aims to provide students with:

1. extensive, advanced, disciplinary knowledge in the basics of groundwater engineering and management, with an emphasis upon advanced groundwater extraction technologies
2. the ability to conduct engineering design related to groundwater monitoring, exploitation and development, through the involvement of external expertise in advanced technologies
3. the skills necessary for employment in the groundwater field in the UAE, Arabian Gulf region and Arab countries



## Master Program in Groundwater Engineering and Water Resources Management: *Study Plan*

b. Part-time students

First Semester

Course code	Subject	Credit Hours	Lecture/ Week	Practical	Pre-requisite
11011601	Water Resources Planning and Management	3	2	2	--
11011602	Hydrogeology	3	2	2	-
11011604	Water Well Technology: Principles	3	2	2	-
Total		9	6	6	

Second Semester

Course code	Subject	Credit Hours	Lecture/ Week	Practical	Pre-requisite
11011603	Environmental Water Quality and Methods	3	2	2	--
-----	Elective (1)	3	2	2	--
-----	Elective (2)	3	2	2	
Total		9	6	6	

Third Semester

Course code	Subject	Credit Hours	Lecture/ Week	Practical	Pre-requisite
-----	Elective (3)	3	2	2	
-----	Elective (4)	3	2	2	
11011617	Thesis (1)	3	3	0	11011601
Total		9	7	4	

Fourth Semester

Course code	Subject	Credit Hours	Lecture/ Week	Practical	Pre-requisite
-----	Elective (4)	3	2	2	
11011617	Thesis (2)	3	3	0	11011601
11011605	Field training	3	3	0	11011604
Total		9	8	2	

AUST Graduate Bylaws covering regulations for Masters programs states that: "The maximum period for study of a master degree is eight standard semesters, excluding the period of registration suspension. However, the Faculty of Research and Graduate Studies may, due to valid reasons and upon recommendations by the Supervisory Committee, relax the requirement for the maximum period".

## Master Program in Groundwater Engineering and Water Resources Management: *Study Plan*

a. Full time students

First Semester

Course code	Subject	Credit Hours	Lecture/ Week	Practical	Pre-requisite
11011601	Water Resources Planning and Management	3	2	2	--
11011602	Hydrogeology	3	2	2	--
11011603	Environmental Water Quality and Methods	3	2	2	--
11011604	Water Well Technology; Principles	3	2	2	--
Total		12	8	8	

Second Semester

Course code	Subject	Credit Hours	Lecture/ Week	Practical	Pre-requisite
-----	Elective (1)	3	2	2	
-----	Elective (2)	3	2	2	
-----	Elective (3)	3	2	2	
11011617	Thesis (1)	3	3	--	11011601
Total		12	9	6	

Third Semester

Course code	Subject	Credit Hours	Lecture/ Week	Practical	Pre-requisite
-----	Elective (4)	3	2	2	
-----	Elective (5)	3	2	2	
11011617	Thesis (2)	3	3	0	11011602
11011605	Field training	3	3	0	11011604
Total		12	10	4	

# Degree Completion Requirements

## Curriculum

The Master of Science in Groundwater Engineering and Management includes core courses, elective courses and thesis research. Students are required to successfully complete 36 credit hours distributed as: 15 credit hours of core courses (including Field Training), 15 credit hours of elective courses, and 6 for the thesis credits. The sequence of study is as follows:

### Core Courses (15 credit hours required)

The Master of Science in Groundwater Engineering and Management includes core courses, elective courses and thesis research. Students are required to successfully complete 36 credit hours distributed as: 15 credit hours of core courses (including Field Training), 15 credit hours of elective courses, and 6 for the thesis credits. The sequence of study is as follows:

12011601	Water Resources Planning and Management
12011602	Hydrogeology
12011603	Environmental Water Quality and Methods
12011604	Water Well Technology: Principles
12011605	Field training

### Elective courses

(minimum of 15 credit hours with at least five courses)

12011606	GIS applications in water resources
12011607	Remote sensing of water resources
12011608	Statistical Methods in Water Resources
12011609	Subsurface Microbiology
12011610	Water and Wastewater Treatment
12011611	Desalination and Advanced Water Treatment
12011612	Groundwater Pollution and Contaminant Transport
12011613	Groundwater Modeling
12011614	Hydrology of Arid Regions
12011615	Subsurface Characterization and Monitoring
12011616	Water Well Rehabilitation

## Research Thesis (minimum of 6 credits)

### Full-time students

Full-time students may complete the degree requirements in two years, including thesis writing, examination and defense.

### Part-time students

Part time students can accomplish degree requirements in two and half to three years.

## Language of Instruction

The language of instruction is English and lectures, laboratory sessions and field training will be delivered in English. Assignments, term papers, tests, exams, thesis and presentations are to be presented in English.



# ADMISSION AND REGISTRATION

This program is designed for applicants with BSc degree in engineering, science, agriculture, or other relevant disciplines, from accredited universities or institutions, and who hold a minimum Cumulative Grade Point Average (CGPA) of 2.75 (out of 4) or 3.0 (out of 4.5):

1. Engineering: Civil, Mechanical, Electrical and Chemical
2. Science: Mathematics, Physics, Chemistry, Biochemistry, Biology and Geology
3. Agriculture: Soil and Water, Agricultural Engineering, Agriculture Economics, Agricultural Biochemistry, Food Technology, Pesticides and Crops

This program is designed for applicants with BSc degree in engineering, science, agriculture, or other relevant disciplines, from accredited universities or institutions, and who hold a minimum Cumulative Grade Point Average (CGPA) of 2.75 (out of 4) or 3.0 (out of 4.5):

1. Engineering: Civil, Mechanical, Electrical and Chemical
2. Science: Mathematics, Physics, Chemistry, Biochemistry, Biology and Geology
3. Agriculture: Soil and Water, Agricultural Engineering, Agriculture Economics, Agricultural Biochemistry, Food Technology, Pesticides and Crops

## *Other Proficiencies*

Applicants must submit proof of an official Test of English as a Foreign Language (TOEFL), or an equivalent standardized test, with a score of at least 530.

In addition, proficiency in the following subjects is required for all applicants:

4. Calculus
5. Introduction to Computer
6. General Chemistry
7. General Physics

## **How to Register**

Applicants should arrange for two recommendation letters to be sent

by appropriate academic referees before they can be considered for the program.

In addition, applicants should complete an application form, which must be fully completed. They must also supply all requested information, including documents, certificates and letters of recommendation, fulfill all admission requirements, and produce proof of approval of applicant's affiliation, where required.



# INSTITUTE OF ENVIRONMENT, WATER AND ENERGY

UNESCO Chair in Environment and Water Resources

## Mission

The mission of the Institute of Environment, Water and Energy at AUST is to make use of the capabilities of the university's virtual environment, the intranet and Internet, in addition to extensive field investigations and laboratory analyses, to provide innovative solutions to environmental, water and energy resource problems.

## Vision

In addition to being the Founder and President of Ajman University of Science and Technology, His Excellency Dr. Said Abdullah Salman, is also former Minister of Agriculture and Fisheries and President of UAE University. In his view the environment has two dimensions - the virtual dimension which encompasses human innovation, intellect, thought, ambitions and dreams, and the physical environment which includes man and his surroundings - the atmosphere, hydrosphere and lithosphere. This vision is behind the initiation of the institute that addresses the environment as a whole, placing special emphasis on water and energy resource challenges. Therefore the vision of the Institute of Environment, Water and Energy at Ajman University of Science and Technology arises from the vision of the institution as a whole.

## Goals

The goals of the Institute of Environment, Water and Energy are to:

1. Diagnose, monitor and analyze environmental, water and energy resource problems
2. Provide innovative solutions through intelligent programs of teaching, research, training, consultation and practice in the fields of environment, water and energy

## Objectives

The objectives of the Institute of Environment, Water and Energy are to:

1. Initiate undergraduate and graduate courses related to the institute's fields of interests
2. Offer intermediate undergraduate degrees
3. Design graduate programs on environment, water resources and energy resources
4. Conduct applied, inter-disciplinary research
5. Organize innovative training programs
6. Provide consultancy in environment and water-related areas

Carry out projects at both the national and regional level

## Outcomes

The intended outcomes of the Institute of Environment, Water and Energy are to:

1. Establish a new undergraduate course in AUST in Environment, Water and Energy, which has been offered as a university requirement course since 2003
2. Design a Masters program in groundwater engineering and management, which is accredited by the UAE Ministry of Higher Education and Scientific Research

Carry out training courses and research projects on water resource problems with special emphasis on evaluation of conventional and non-conventional water resources, use of natural isotopes in water resource studies, application of advanced numerical and mathematical models in environment and water resource studies, resource evaluation and assessment and conservation, use of remote sensing and GIS techniques for environmental investigations, coastal zone management and water resource evaluation

## Program Objectives

The objectives of the Masters program are to:

- Provide an advanced graduate education to students holding Bachelor Degrees in some disciplines of agriculture, science and engineering
- Apply new technologies in groundwater engineering and management, with an emphasis upon advanced groundwater extraction technologies
- Raise student awareness of existing groundwater problems and constraints in the Arabian Gulf and Arab region
- Contribute to improvement of current groundwater management policies in the Arab region by introducing advanced practices in groundwater extraction and management
- Improve qualifications and skills of program students and others working as technicians or professionals in groundwater related areas
- Train students on groundwater exploration, exploitation and monitoring with direct supervision by highly qualified experts in groundwater engineering

Enhance student ability to collect, analyze and manage data in order to pursue higher levels of research

**INSTITUTE OF ENVIRONMENT, WATER AND ENERGY**

**580 531 Web Programming Languages**

In this course students will explore, compare and contrast client-side and server-side web programming languages. They will develop intermediate level skills with coding and troubleshooting a client-side scripting language. They will design and develop an instructional application that incorporates a client-side scripting language.

**580 532 Information Management and Distance Learning Technologies**

This course will explore the component processes and strategies that comprise distance education to include teaching and learning, communication, management of information, course design, program planning and delivery. Students will explore administrative, instructional and technical issues associated with integrated delivery systems.

**580 540 Educational Technology and Human Resource Development**

This course will introduce organizational factors that affect training and development systems, ways to identify training needs in an organization, strategies for maximizing trainees' learning, methods of measuring training effectiveness, strategies for developing and training leaders, and management and executive development approaches.

**580 541 Design and Management of Training Projects**

Students will explore the unique responsibilities of project management for an instructional design project, which includes project planning, timeline and budget development, selecting team members, tracking project progress, managing simple and complex projects and using a project management productivity tool.

**580 323 Computer-Based Collaborative Instruction**

In this course students will develop an understanding of the concept of collaborative learning (collaborative instruction) and how collaborative learning activities are implemented. They will evaluate both asynchronous and synchronous communication tools for collaborative learning and plan, facilitate and evaluate computer-based collaborative learning activities.



### **580 325 Web-Based Instruction**

This course is an introduction to the principles of Web-Based Instruction (WBI) and its role in creating learning environments that utilize the attributes and powerful resources of the Internet. Emphasis will be placed on pedagogical, technological, organizational, institutional and ethical issues related to the design, development and delivery of WBI. Online course will be constructed as a project in this course for the purpose of providing a developmentally appropriate academic experience integrated with current learning theories and better practices in education.

### **580 412 Integration of Technology into Instruction and Training**

In this course students explore technology integration in instruction and training in a specific discipline, apply the NTEQ model for integrating technology in instruction and evaluate the application of the model. They also develop expertise with tools and techniques for learner-centered and teacher-directed technology integration.

### **580 421 Practicum**

On-site experience relates closely theory and practice under the supervision of qualified person(s). Students under the supervision of a practicum supervisor and a college coordinator are responsible for planning and carrying out a "Plan of Work" and maintain and submit logs, journals and other documents of the experience.

### **580 422 Graduation Project**

The course is intended to be a vehicle by which students can demonstrate the competencies they have mastered during their major program. This involves the completion of a significant project in which educational technology concepts and techniques are used. Successful projects demonstrate clearly the skills and knowledge that students have gained in their area of concentration.

### **580 510 Instructional Graphic Design**

This course will focus on the production of computer graphics used in the development of instructional materials by examining of the principles of graphic design, typography and production techniques as they apply to electronic delivery systems. Students will develop an awareness of the visual aspects of communicating information and exercise that awareness through practice using design tools, primarily Adobe Photoshop.

### **580 511 Instructional Videography**

In this course students participate in the pre-production, production and post-production phases of the digital video production process to develop technically and aesthetically sound video programs that meet instructional needs.

### **580 512 Animation in Multimedia**

In this course students consider the uses of animation in instructional multimedia, explore various ways to create animation and develop expertise with software packages for creating digital animation through a series of hands-on projects.

### **580 520 Database Application for Educational Management**

In this course students will explore the uses of databases for the management of educational information. They will gain skills in the development of computer-based databases and will design, develop and plan for the implementation of an educational database.

### **580 521 Simulations and Games**

In the course students will consider issues related to the design of simulations and games, evaluate commercially-produced simulations and games, explore a variety of software for their development develop expertise with specific software packages. They will design and develop technically simple, instructionally sound simulations and games.

### **580 522 Computer-Based Training**

Students will design and develop computer-based training following an instructional design process can be used for all media computer-based training, web-based training, distance education). Students will examine major types of media that are popular for delivery systems today, the benefits and drawbacks of each and "walk through" the processes of needs assessment, instructional design, development and implementation and evaluation.

### **580 530 Instructional Web Authoring Systems**

This course will explore methodologies in comparing and selecting authoring systems for distance education. The course will focus on effective instructional strategies in distance education and both asynchronous and synchronous deliveries will be explored.

### **580 222 Training Strategies**

This course builds upon concepts gained in the "Educational Technology and Training" course and focuses on determining training strategies that: 1) align with an organization's business needs and 2) are based on the characteristics and effective utilization of various training methods.

### **580 223 Individualized Learning Models**

In this course students explore the history, purpose and learning theory basis of individualized learning. They compare and contrast expository and inquiry approaches, evaluate instruction based on both approaches, consider design and development issues and explore current issues and emerging trends in individualized learning.

### **580 224 Networks and Communication Systems in Distance Learning**

This course presents the design of distance-learning networking and data communications via a combination of live TV lectures, web labs, web lectures posted on the web and e-mail.

### **580 225 Application of Psychology in Instruction and Training**

This course will examine the theories of learning and the practical application of these theories in instruction and training. Drawing upon the main themes of these theories, the role of media and technology in teaching and learning, and the planning, design and delivery of technology-based instruction will be explored.

### **580 311 Learning Resource Center Development and Evaluation**

This course is designed to provide students with the knowledge and skills necessary for the development and evaluation processes of learning resource centers. Students will be introduced to the concept of the learning resource center, its philosophy, objectives, levels, planning, development and evaluation. Students will be required to set up a plan for instituting a learning resource center at a specified level. The course also provides information and guidelines regarding the cyber library and its services.

### **580 312 Evaluation in Educational Technology**

This course explores current trends, issues and assessment/evaluation methods in modern educational technology. Emphasis will be placed on applying the processes of student assessment and program evaluation to determine the outcomes of educational technology application. In addition the relevance of a broad selection of evaluation criteria are assessed, and the question of how evaluation might be applied to determine formative, summative and Criterion-Referenced Measurement (CRM) outcomes of student learning through technology use is addressed.

### **580 314 Selection and Evaluation of Computer-Based Instruction Software**

This course will explore techniques for selecting and evaluating educational software products and Internet-based resources in terms of quality, effectiveness, educational benefits, instructional uses(s) and ease of implementation. In addition to conducting evaluations of educational software and Internet-based resources, students will evaluate hardware system requirements and install/download applications for use.

### **580 315 Web Page Design**

In this course students will critically evaluate web sites, develop expertise in website design, and skills in website development using HTML and web authoring software. They will design, develop and publish a simple personal website in addition to a more complex informational or instructional one.

### **580 321 Instructional Design Project**

During this course, students will complete the design of an instructional program for an existing instructional problem. Students will identify an instructional problem, conduct a needs analysis and design the instructional plan to include evaluation measures as a solution to the problem.

### **580 322 Learning Resource Administration**

This course covers the following concepts: media quarters, facilities, collections, equipment and services. The course also discusses principles of organization and administration of learning resource centers and media centers and programs. Students are expected to familiarize themselves with learning and media centers in the field.

# Course Descriptions

## **580 111 Instructional Print and Audio Media**

This entry-level course will introduce students to the design and development of effective print and presentation instructional materials. Students will develop advanced skills in word processing, desktop publishing and electronic presentation application software.

## **580 112 Modern Educational Technology**

This introductory course surveys the field of educational technology through the historical development of computer technology, an overview of modern classroom applications and an examination of trends and issues surrounding the use of computer technology for teaching and learning.

## **580 121 Introduction to Instructional System Analysis and Design**

This course serves to introduce and provide experience in the concepts and processes of instructional systems analysis and design. The major components of instructional design models, along with their respective functions, will be presented. This is an introductory course which provides both the information for and application of skills and techniques necessary in the analysis, design, development and evaluation of effective instructional products.

## **580 122 Introduction to Distance Education**

The purpose of this course is to investigate principles for distance education, strategies for delivering content online and tools for delivery. The course explores the central issues involved in distance education, from print-based correspondence courses to more contemporary, digital approaches. The primary focus will be on the use of Internet, e-mail, authoring instruction for the World Wide Web, electronic bulletin boards, conferencing systems and video teleconferencing.

## **580 123 Instructional Visual Media**

Students will acquire and create digital still and motion visuals that meet instructional needs. They will learn about visual literacy and fair use guidelines and develop skills with hardware, software and design techniques.

## **580 211 Instructional System Analysis and Design**

This course represents a mix of theory and practical development. Students will examine components of a predominant ISD model and implement it in the development of self-based instructional units. To accomplish this goal, students will participate in the instructional design process: identifying the need for instruction, examining learner characteristics, conducting task analysis, writing instructional objectives, determining the instructional sequence and objectives, selecting instructional messages and conducting formative evaluation.

## **580 212 Introduction to Interactive Multimedia Development**

Students will be actively involved in learning and designing dynamic multimedia products using presentation programs. The course will encourage hands-on participation and group learning as students research the internet and peripherals such as CD-ROM, camcorder, scanner and digital photography.

## **580 213 Educational Technology and Training**

This introductory course provides experience in the concepts of process training and analysis of various aspects of training systems. Students will have the opportunity to experience the major components of training systems and models. The course provides both introductory information and practice in the application of skills and techniques necessary in analysis, design, development and evaluation of effective training procedures.

## **580 221 Multimedia for Learning**

This course focuses on the design and evaluation of multimedia in learning and teaching environments, aspects related to human learning, and the design of interactive multimedia technology to support learning and knowledge construction. It examines different types of interactive multimedia learning environments, strategic approaches to education multimedia design and presentation design. The course involves a practical component in which students design a scaled-down educational multimedia environment.

## SEMESTER 5

Course #	Course Title	Credit Hours	Con. Hours	Pre-requisite
511 309	Educational Evaluation	3	3	512 218
580 221	Multimedia for Learning	3	2-2	580 212
580 225	Application of Psychology in Instruction and Training	3	3	-
580 311	Learning Resource Center Development and Evaluation	3	2-2	-
580 315	Web Page Design	3	2-2	580 224
*	Department Electives	3	3 or 4	Required Domain Courses

## SEMESTER 6

Course #	Course Title	Credit Hours	Con. Hours	Pre-requisite
103 130	Research Methodology	3	3	-
580 222	Training Strategies	3	3	580 213
580 223	Individualized Learning Models	3	3	-
580 312	Evaluation in Educational Technology	3	3	511 309
580 325	Web-Based Instruction	3	2-2	580 315
*	Department Electives	3	3 or 4	Required Domain Courses

## SEMESTER 7

Course #	Course Title	Credit Hours	Con. Hours	Pre-requisite
580 314	Selection and Evaluation of Computer-Based Instruction Software	3	3	580 212
580 321	Instructional Design Project	3	3	580 211
580 322	Learning Resource Center Administration	3	3	580 311
580 412	Integration of Technology into Instruction and Training	3	3	
*	Department Electives	3	3 or 4	Required Domain Courses

## SEMESTER 8

Course #	Course Title	Credit Hours	Con. Hours	Pre-requisite
580 421	Practicum	3	3	-
580 422	Graduation Project	3	3	-
*	Department Electives	3	3 or 4	Required Domain Courses

## Proposed Sequence of Study

### SEMESTER 1

Course #	Course Title	Credit Hours	Con. Hours	Pre-requisite
111 000	Academic Advising	0	3	-
102 140	Communication Skills in Arabic Language	3	3	-
104 110	Computer Applications	3	2-2	-
102 110	Islamic Studies	3	3	-
	University Electives-1	3	3	-
500 102	Study Skills	3	3	-

### SEMESTER 2

Course #	Course Title	Credit Hours	Con. Hours	Pre-requisite
103 110	Statistics	3	2-2	-
	University Electives-2	3	3	-
	University Electives-3	3	3	-
580 111	Instructional Print and Audio Media	3	1-4	-
580 112	Modern Educational Technology	3	3	-

### SEMESTER 3

Course #	Course Title	Credit Hours	Con. Hours	Pre-requisite
314 112	Programming 1/Educational Technology	3	3	-
512 203	Educational Psychology	3	3	-
580 121	Introduction to Instructional System Analysis and Design	3	3	-
580 122	Introduction to Distance Education	3	3	-
580 123	Instructional Visual Media	3	1-4	580 111

### SEMESTER 4

Course #	Course Title	Credit Hours	Con. Hours	Pre-requisite
511 101	Curriculum Construction and Development	3	3	-
580 211	Instructional System Analysis And Design	3	3	580 121
580 212	Introduction to Interactive Multimedia Development	3	1-4	580 123
580 213	Educational Technology and Training	3	3	-
580 224	Networks and Communication Systems in Distance Learning	3	2-2	580 122

B: Teaching And Learning With Computer Based Technologies Domain

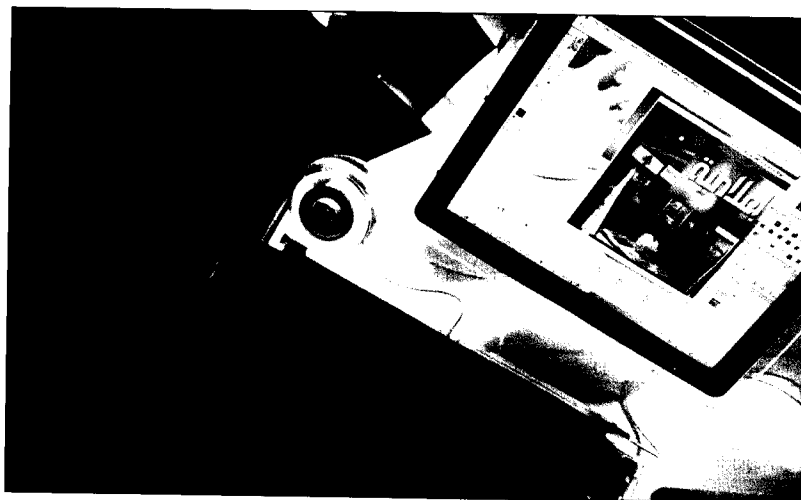
Course Title	Course #	Credit Hours	Con. Hours	Pre-requisite
Database Application for Educational Management	580 520	3	2-2	
Simulation and Games	580 521	3	2-2	580 221
Computer-Based Training	580 522	3	2-2	580 323
Computer-Based Collaborative Instruction	580 323	3	2-2	580 325

C: Distance Learning Domain

Course Title	Course #	Credit Hours	Con. Hours	Pre-requisite
Instructional Web Authoring Systems	580 530	3	3	580 122
Web Programming Languages	580 531	3	2-2	580 224 580 315
Information Management and Distance Learning Technologies	580 532	3	3	
Computer-Based Collaborative Instruction	580 323	3	2-2	580 212+580 312+580 224

D: Training And Educational Technology Domain

Course Title	Course #	Credit Hours	Con. Hours	Pre-requisite
Educational Technology and Human Resource Development	580 540	3	3	
Design and Management of Training Projects	580 541	3	3	580 213
Computer-Based Training	580 522	3	2-2	580 222
Information Management and Distance Learning Technologies	580 532	3	3	



## College Required Courses (9 Credit Hours)

Course Title	Course #	Credit Hours	Con. Hours	Pre-requisite
Curriculum Construction and Development	511 102	3	3	-
Educational Evaluation	511 309	3	3	-
Educational Psychology	512 203	3	3	-

## Department Required Courses (69 Credit Hours)

Course Title	Course #	Credit Hours	Con. Hours	Pre-requisite
Instructional Print and Audio Media	580 111	3	1-4	-
Modern Educational Technology	580 112	3	3	-
Introduction to Instructional System Analysis and Design	580 121	3	3	-
Introduction to Distance Education	580 122	3	3	-
Instructional Visual Media	580 123	3	1-4	580 111
Instructional System Analysis and Design	580 211	3	3	580 121
Interactive Multimedia Development	580 212	3	1-4	580 123
Educational Technology and Training	580 213	3	3	-
Multimedia for Learning	580 221	3	2-2	580 212
Training Strategies	580 222	3	3	580 213
Individualized Learning Models	580 223	3	3	-
Networks and Communication Systems in Distance Learning	580 224	3	2-2	580 122
Application of Psychology in Instruction and Training	580 225	3	3	-
Learning Resource Center Development and Evaluation	580 311	3	2-2	-
Evaluation in Educational Technology	580 312	3	3	580 211
Selection and Evaluation of Comp Based Instruction Software	580 314	3	3	580 212
Web Page Design	580 315	3	2-2	580 224
Instructional Design Project	580 321	3	3	580 312
Learning Resource Center Administration	580 322	3	3	580 311
Web-Based Instruction	580 325	3	2-2	580 315
Integration of Technology into Instruction and Training	580 412	3	3	580 222+580 312
Practicum	580 421	3	3	-
Graduation Project	580 422	3	3	-

## Department Elective Courses (12 Credit Hours)

### (a) Instructional Media Development Domain

Course Title	Course #	Credit Hours	Con. Hours	Pre-requisite
Instructional Graphic Design	580 510	3	2-2	580 111
Instructional Videography	580 511	3	2-2	580 123
Animation in Multimedia	580 512	3	2-2	580 212
Simulation and Games	580 521	3	2-2	580 314

## General Education Courses (30 Credit Hours)

(a) University Requirement Courses (15 Credit Hours)

Course Title	Course #	Credit Hours	Con. Hours	Pre-requisite
Orientation	101 000	0	1	-
Statistics	103 110	3	2-2	-
Computer Applications	104 110	3	2-2	-
Islamic Culture	102 110	3	3	-
Communication Skills in Arabic Language	102 140	3	3	-
Research Methodology	103 130	3	3	-

(b) University Elective Courses (9 Credit Hours)

Course Title	Course #	Credit Hours	Con. Hours	Pre-requisite
The Miraculousness of the Holy Koran	102 120-1	3	3	-
Principles of Art and Architecture	112 110	3	3	-
Principles of Interior Design	112 120	3	3	-
Modern Technology and Society	112 130	3	3	-
Internet Concepts	113 110	3	2 2	-
Introduction to Information Systems	113 120	3	3	-
Economic Concepts	114 110	3	3	-
Entrepreneurship Development	114 120	3	3	-
History of Science in Islam	115 110	3	3	-
Scientific Pioneering	115 120	3	3	-
General Psychology	115 130	3	3	-
Principles of Mathematics	115 140	3	3	-
The Art of Expression and Writing	115 150	3	3	-
Emirates Society	115 160	3	3	-
Education Technology	115 170	3	3	-
General Chemistry	117 110	3	3	-
Fundamental of Human Nutrition	117 120	3	3	-
First Aid	117 130	3	3	-
Energy, Water and Environment	117 140	3	3	-
Applications of Remote Sensing	117 150	3	3	-
Principles of Ethics	118 110	3	3	-
General Biology	118 120	3	2 2	-
Oral Health	118 130	3	3	-
General Principles of Epidemiology	118 140	3	3	-
CPR-Cardio Pulmonary Resuscitation	118 150	3	2-2	-
Communication Skills	119 110	3	3	-
Introduction to Communication Sociology	119 120	3	3	-
Information Society	119 130	3	3	-
Legal Culture	120 115	3	3	-



- Schools and school districts
- Industry, health, army and government agencies, and business corporations
- Training and educational software development agencies
- Media centers
- Learning resource centers, including libraries
- Evaluation, performance assessment and quality assurance agencies

Graduates are qualified to assume responsibility in the following positions:

- Instructional designer
- Training program designer and manager
- Performance technology specialist
- Training and educational software designer and developer
- Multimedia professional materials developer and designer
- Distance learning program designer and manager
- Computer instructor
- School district technology expert and coordinator
- Media specialist
- Technology project manager
- Software, technology and program evaluator

## Graduation and Degree Requirements

The Bachelor Degree in Educational Technology is awarded upon the fulfillment of the following:

- A minimum of 120 credits, including the following, are required:
- A minimum of general education courses (30 credits).
- University required courses (15 credits).
- University elective courses (nine credits).
- College general education (six credits).
- A minimum of college required courses (nine credits).
- A minimum of department courses (81 credits).
- Department required courses (69 credits).
- Department elective courses (12 credits).
- Successful completion of a practicum course (three credits)
- A final CGPA (Cumulative Grade Point Average) of not less than 2.0



# Department of Educational Technology

## Bachelor of Educational Technology Degree

The Bachelor of Educational Technology program seeks to provide its students with the knowledge and skills necessary for promoting instruction and training. The new technologies pose challenges and yet offer opportunities for rethinking education. The Department of Educational Technology (DET) will enable its graduates to participate effectively and efficiently in reshaping public and private organizations to face the technological and socio-cultural challenges of the 21st century

## Mission

It is the philosophy of the DET to involve its stakeholders in evaluating and developing the program's mission, goals and learning outcomes, and determining the level of importance of professional competencies recognized by the Association for Educational Communications and Technology (ACET). Stakeholders are also encouraged to participate in and offer real-life experience to the department's students through the practicum courses and field training. In addition they are involved in the process of graduate performance assessment where their feedback is used for program development and/or modifications when required.

The DET program gives special attention to practical experience. Integration of theory with practice is of great importance when designing, developing and implementing each course. The department places emphasis on the application of knowledge and skills acquired in instruction and training contexts. In addition, the department observes the practice of sharing students' comprehensive portfolios of educational technology projects and materials with organizations and agencies, for the benefit of both parties.

## Objectives

DET graduates are expected to master the professional competencies in design, development, utilization, management and evaluation within the instructional and work environments. The objectives enable students to:

- Analyze learner needs and performance in learning and work environments

- Design optimal conditions for learning and performance in instructional and working settings
- Design and develop technology-based instructional and professional products including multimedia-based projects, Web-Based Instruction (WBI) and Web-Based Training (WBT) courses and performance aids.
- Make decisions concerning the selection of technologies most appropriate to support learning using their knowledge of the strengths and weaknesses, costs and development time required by various instructional technologies
- Plan and manage instructional design projects, resource support systems and services, delivery systems, web based learning management systems and information sources in various learning and training contexts
- Evaluate learner performance, the quality of instructional and training programs, instructional technology projects and technology-based learning materials
- Use techniques and strategies to facilitate appropriate use of innovations in selected organizations and to integrate these innovations within the structure and behavior of the organizations
- Recognize technology policies and regulations adopted by society and evaluate their impact on utilization, applications and integration of instructional technologies
- Teach productivity tools for the production of professional and instructional materials

## Admission Requirements

To be admitted at the educational technology program, applicants must have a UAE secondary school certificate, or its equivalent, with a minimum grade of not less than 60 percent. English is the medium of instruction and applicants are required to satisfy the TOEFL requirements. For further information please refer to the university admissions policy.

## Career Opportunities

Graduates of the program are qualified to utilize their knowledge and competencies in the following areas:

- Higher education institutions, including universities and community colleges
- Private and government training agencies

### **610 306 Advanced English Writing Skills**

This course builds upon the skills acquired in the English Writing Skills course to further develop students' critical thinking and academic writing competencies. The course devotes part of the semester to the skills required to write summaries, critiques and syntheses, and to paraphrasing and using quotations. It then leads students through the process of writing a research paper.

### **610 307 Advanced English Grammar**

This course introduces more features of English grammar appropriate to an advanced level of study with challenging exercises that engender the creative, independent use of target structures. Exercise contexts reflect realistic, typical language use, which is relevant to student concerns, daily life and life experiences.

### **610 409 Introduction to Linguistics**

This course introduces students to the basic concepts and issues in linguistics, and investigates the nature of human language and its main features. It also familiarizes them with the procedures of analyzing a language at various phonetic and phonological levels taking English as an example.

### **610 619 English Literary Genres**

This course introduces students to the study of English literary genres, fiction, drama and poetry, giving them insights into the nature of literary discourse. It develops the language skills and critical thinking necessary for analyzing and appreciating English literature and culture.

### **610 629 Phonetics and Phonology**

This course introduces students to the analysis of English pronunciation and the scientific study of speech sounds. Theoretical principles underlying the articulation of speech sounds and their organization into syllables and words are combined with practical exercises designed to improve students' knowledge

### **610 731 Survey of Twentieth Century English Literature**

This course deals with aspects of British and American literature that reflect the events that have shaped twentieth-century literature and

consciousness. It focuses on prominent writers who dealt with the concerns of the period: World War I, imagism, industrialization, modernism and the absurd.

### **630 309 Short Stories**

This course builds on its prerequisite course, Introduction to English Literary Genres, which introduced students to the short story. This course provides further understanding of the elements of the short story and the characteristics that distinguish it from long fiction. As it deals exclusively with this particular genre, the course allows students the opportunity to read a number of English short stories that vary in complexity and techniques. Discussion will focus on the analysis of the elements of short fiction, language and cultural issues.

### **610 514 Linguistics II**

This course is a continuation of the Introduction to Linguistics course. In Linguistics II course, students study the morphology and syntax of English. Morphology is concerned with how morphemes are combined to form words, and syntax is concerned with how words are combined to form sentences. The course covers the core areas of morphology and syntax: words and sentences, word classes, word structure, affixes, inflectional and derivational paradigms, immediate constituents of morphemes, conditioning (phonological and morphological), processes of word formation, basic sentence patterns, noun and verb phrases, parts of speech, modification, etc.

### **610 412 Arabic-English Translation I**

This course is designed to equip students with the basic skills of translation with special focus on translating from Arabic into English. It covers various registers including social, scientific, etc.

### **610 204 Advanced English Reading Skills**

In this course, students will examine extensive readings in a variety of styles. The vocabulary in the readings includes words students typically encounter during their university study. Students will be required to read articles and extract information from various forms of charts, graphs and illustrations.

teaching grammar and helps them develop full and comprehensive lesson plans.

### **560 305 Children's Literature**

This course deals with the specific nature of children's literature and the ways and means of making children's narratives and poems interesting and appealing. Students will be exposed to many examples of children's literature such as poems, folktales, fantasy, realistic stories and biography. The literary samples chosen for this course reflect the type of literature taught in Grades 1 - 9. All the literary samples deal with specific cultural aspects and specific Western values which help students understand Western society and its cultural, moral, religious and aesthetic values as they are reflected in these stories, poems and fairy tales.

### **560 40 Introductions to Textbook Analysis**

In this course, student teachers will be acquainted to the practice of EFL textbook evaluation in order to be able to identify their strengths, pitfalls, relevance, appropriateness, degree of complexity, etc., with a particular emphasis on school textbooks. Moreover, the students will be familiarized with a variety of textbook analysis systems and checklists used in material evaluation.

### **560 402 Methodology 3**

The course gives students a good background on how children learn language and how to support children in their endeavor to learn a second language. It presents explicit instructions in selecting, adapting, creating and evaluating classroom activities.

### **560 403 Testing in EFL**

Testing and evaluation of students are a fact of daily life in language classrooms, yet the processes involved in test construction may seem mysterious to the inexperienced teacher. Tests which are constructed haphazardly may be counterproductive to language learning, therefore this course is intended to introduce future TEFL teachers to the different types of tests and also open their eyes to a variety of assessment and evaluation techniques.

### **511 410 Practical Training**

This course takes the form of an extensive practicum in schools. It is focused primarily around learning from the practical experience of

preparing lessons and teaching them. This will introduce trainees to the core skills involved in teaching English as a foreign language. Students will observe classes, teach lessons and participate in professional activities under the supervision of academic supervisors and cooperating teachers in schools.

### **560 203 Integrating Technology in the EFL Classroom**

This course will develop the students' skills in using modern technology in teaching English as a foreign language. Students will learn to use these tools to access materials to carry out projects and create a good language learning context to meet students' individual language needs.

### **560 204 Islamic Heritage**

This course aims to develop student understanding of "Islamic Civilization." It also familiarizes students with the Islamic vocabulary, concepts and values in the English language and encourages them to apply these educational concepts to their life. The course focuses on Islamic ethics, and the life and works of some prominent Muslim scholars who have impacted not only Islamic civilization but world civilization as a whole.

### **560 306 Seminars in English Language Teaching**

The course discusses professional issues and terminologies dealing with teaching English as a foreign/second language. It draws on students' knowledge acquired on their earlier study, particularly in the area of ELT methodology. The course attempts to fill knowledge gaps in areas such as the status of English worldwide with specific reference to the Arab world, learner and teacher characteristics, learning autonomy, class management and discipline, motivation, etc.

### **560 307 Language-Learning Strategies**

This course aims to give students the opportunity to learn using different language learning strategies such as cognitive and meta-cognitive strategies. Moreover, students will be sensitized to the application and implication of the use of strategies in language learning and language teaching.

# Course Descriptions

## 560 102 Study Skills

This course covers the skills that relate directly to the needs of most university students: improving reading efficiency, taking notes, managing their studies, doing basic research, organizing and preparing assignments, and learning through discussions.

## 560 201 Second Language Acquisition (SLA)

The course reviews the different theories of second language acquisition and their application to classroom practice. It also examines some of the major factors that influence the acquisition of English as a second language. It further examines the strategies employed by the second language learners in the process of learning. Learners' errors and second language students' specific learning situations are the main topics of detailed discussion in this course of study.

## 560 202 Methodology 1

The course touches upon the underlying principles of current language learning theories and shows their influence on classroom practice. At the same time, the course will provide students with a historical and theoretical background about the major approaches and methods of teaching foreign languages and their classroom application. Attention will be directed at the communicative and eclectic approaches. Students will be exposed to practical applications of major teaching methods through microteaching. Towards the end of the course, students will be introduced to lesson planning.

## 560 205 Discourse Analysis for Language Teachers

In this course, student teachers will be introduced to the field of discourse analysis and its relevance to language teaching. Different models of analysis are outlined and evaluated in terms of their usefulness to language teachers. Discourse-oriented approaches to grammar, vocabulary, and phonology will also be studied, and spoken and written language will be looked at in the light of native and EFL learner data considering teaching approaches.

## 560 206 Readings in L2 Culture

This course helps L2 learners widen their mental horizons and sharpen their views of the world through the study of some aspects of English culture. The course is an integration of advanced reading skills, culture and methodology. Through target reading passages students will be acquainted with various aspects of L2 culture and language.

## 560 301 Contrastive and Error Analysis

This course provides students with some insights into the differences between English and Arabic at the phonological, morphological, syntactic, semantic and discourse levels. It further familiarizes students with the methodology of analyzing errors made by Arabic speakers in their attempt to learn English.

## 2 560 302 Methodology 2

This course is a continuation of Methodology 1. It gives students first- and experience of lesson planning with an emphasis on the nature of presentation, practice, and interactive activities. The primary objective of this course is to focus on both the theoretical and the practical aspects of teaching the four basic language skills (listening, speaking, reading, and writing) in addition to other aspects of teaching English as a foreign language. The course will focus on classroom-related issues such as error correction, asking questions in the classroom, etc.

## 560 303 Applied Linguistics

This course introduces students to the field of applied linguistics. It familiarizes students with applied linguistic investigation of some issues in the areas of language teaching and language learning. It further familiarizes students with some key terms and concepts in these areas.

## 560 304 Pedagogical Grammar

This course aims to develop students' understanding of the role of English grammar in language development. It also acquaints students with the various approaches to teaching grammar. The course reviews some basic grammar concepts that are likely to be taught in schools. It also provides students with useful techniques and resources in

## SEMESTER 5

Course #	Course Title
511 308	Schools-Classroom Management
560 301	Contrastive and Error Analysis
103 130	Research Methodology
560 302	Methodology 2
560 303	Applied Linguistics
*** **	Major TEFL Elective (1)

## SEMESTER 6

Course #	Course Title
511 309	Educational Evaluation
560 304	Pedagogical Grammar
560 305	Children's Literature (TEFL)
610 629	Phonetics and Phonology
610 731	Survey of 20th –Century English Literature
*** **	Major TEFL Elective (1)
*** **	Major Language Elective (2)

## SEMESTER 7

Course #	Course Title
560 401	Introduction to Textbook Analysis
560 402	Methodology 3
560 403	Testing in EFL
*** **	Major language Elective (2)
*** **	College Elective Course (1)

## SEMESTER 8

Course #	Course Title
511 410	Practical Training

Proposed Sequence of Study

SEMESTER 1

Course #	Course Title
101 000	Orientation
103 110	Statistics/Arts
102 140	Communication Skills in Arabic Language
104 110	Computer Applications
102 110	Islamic Culture
511 106	Foundational Education
*** **	University Elective Course (1)

SEMESTER 2

Course #	Course Title
512 101	Developmental Psychology
500 102	Study Skills
610 306	Advanced English Writing Skills
*** **	University Elective Course (2)

SEMESTER 3

Course #	Course Title
511 102	Construction and Development of Curriculum
560 201	Second Language Acquisition
560 202	Methodology 1
610 307	Advanced English Grammar
*** **	University Elective Course (3)

SEMESTER 4

Course #	Course Title
560 205	Discourse Analysis for Language Teachers
512 203	Educational Psychology
560 206	Readings in I:2 Culture
610 619	English Literary Genres
500 222	Technology in Education
610 409	Introduction to Linguistics

(g) Major Elective Courses (12 Credit hours)

Course #	Course Title	Credit Hours	Pre-requisite
560 203	Integrating Technology in EFL Classroom	3	104 110
560 204	Islamic Heritage	3	None
560 306	Seminar in ELT	3	None
560 307	Language Learning Strategies	3	560 202
630 309	Short Stories	3	610 619
610 514	Linguistics II	3	610 409
610 412	Arabic-English Translation I	3	None
610 204	Advanced English Reading Skills	3	None





(a) College General Education Courses (6 Credit hours)

Course #	Course Title	Credit Hours	Pre-requisite
500 222	Technology in Education	3	104 110
560 102	Study Skills	3	None

(b) College Required Courses (18 Credit hours)

Course #	Course Title	Credit Hours	Pre-requisite
512 101	Developmental Psychology	3	None
511 102	Construction and Development of Curriculum	3	511 101
511 106	Educational Foundation	3	None
511 308	School/Class Management	3	None
512 203	Educational Psychology	3	512 101
511 309	Educational Evaluation	3	511 102

(c) College Elective Courses (3 Credit hours)

Course #	Course Title	Credit Hours	Pre-requisite
511 204	Teaching Profession and Teacher Role	3	None
511 205	Education and Society Problems	3	None

(f) Major Required Courses (63 Credit hours)

Course #	Course Title	Credit Hours	Pre-requisite
560 102	Study Skills	3	None
560 201	2nd Language Acquisition	3	None
560 202	Methodology I	3	None
560 205	Discourse Analysis for Language Teachers	3	None
560 206	Readings in L2 Culture	3	None
560 301	Contrastive and Error Analysis	3	560 201
560 302	Methodology II	3	560 202
560 303	Applied Linguistics	3	560 201
560 304	Pedagogical Grammar	3	560 302
560 305	Children's Literature (TEFL)	3	None
560 401	Introduction to Textbook Analysis	3	560 202
560 402	Methodology III	3	560 302
560 403	Testing in EFL	3	511 309
511 410	Practical Training	9	560 302
610 306	Advanced English Writing Skills	3	None
610 307	Advanced English Grammar	3	None
610 409	Introduction to Linguistics	3	610 307
610 629	Phonetics and Phonology	3	610 409
610 619	English Literary Genres	3	None
610 731	Survey of 20th Century English Literature	3	610 619

## University General Education Requirements

(a) University Required Courses (15 Credit Hours)

Course #	Course Title	Credit Hours	Pre-requisite
101 000	Orientation	0	None
102 110	Islamic Culture	3	None
102 140	Communication Skills in Arabic Language	3	None
104 110	Computer Applications	3	None
103 110	Statistics/Arts	3	None
103 130	Research Methodology	3	None

(b) University Elective Courses (9 Credit Hours)

Course #	Course Title	Credit Hours	Pre-requisite
102 120-1	The Miraculousness of the Holy Koran	3	None
112 110	Principles of Art and Architecture	3	None
112 120	Principles of Interior Design	3	None
112 130	Modern Technology and Society	3	None
113 110	Internet Concepts	3	None
113 120	Introduction to Information Systems	3	None
114 110	Economic Concepts	3	None
114 120	Entrepreneurship Development	3	None
115 110	History of Science in Islam	3	None
115 120	Scientific Pioneering	3	None
115 130	General Psychology	3	None
115 140	Principle of Mathematics	3	None
115 150	The Art of Expression and Writing	3	None
115 160	Emirates Society	3	None
115 170	Education Technology	3	None
117 110	General Chemistry	3	None
117 120	Fundamentals of Human Nutrition	3	None
117 130	First Aid	3	None
117 140	Energy, Water and Environment	3	None
117 150	Applications of Remote Sensing	3	None
118 110	Principles of Ethics	3	None
118 120	General Biology	3	None
118 130	Oral Health	3	None
118 140	General Principles of Epidemiology	3	None
118 150	CPR-Cardio Pulmonary Resuscitation	3	None
119 110	Communication Skills	3	None
119 120	Introduction to Communication Sociology	3	None
119 130	Information Society	3	None
120 115	Legal Culture	3	None

Degree Requirements

The Bachelor in Education in Teaching English as Foreign Language degree requires students to successfully complete 126 credit hours: University Required Courses (24 credit hours), College Required Courses (27 credit hours), and Major Required Courses (75 credit hours), as follows:

Types of Course	Credit Hours
1. University General Education Requirements	
(a) University Required Courses	15
(b) University Elective Courses	9
2. College Requirements	
(a) College General Education Courses	6
(b) College Required Courses	18
(c) College Elective Courses	3
3. Major Requirements	
(a) Major Required Courses	63
(b) Major Elective Courses	12
Total Credit Hours	126

# Department of TEFL

The Department of Teaching English as Foreign Language (TEFL) offers a four-year accredited Bachelor Degree program in Education in Teaching English as Foreign Language.

## Mission

The mission of the TEFL program is to provide local society and the various educational institutions with qualified English language teachers and to promote relations with other English departments and language centers in the UAE and the region to exchange ideas, information, experience and research findings.

## Objectives

The TEFL program, through a host of carefully studied and analyzed courses, aims to achieve the following objectives:

1. Develop students' language proficiency skills
2. Develop students' knowledge of language and linguistics
3. Develop students' educational and instructional skills
4. Develop students' research skills
5. Develop students' awareness of the native and target culture and literature

## Program Outcomes

At the end of the program, students are expected to:

1. Use English language proficiently
2. Create suitable conditions for teaching/learning a foreign language
3. Evaluate current theories, methods, and issues in the field of language learning, teaching and testing
4. Evaluate EFL course books, learning activities and/or other supplementary materials
5. Use a variety of teaching aids and modern technology in the language classroom
6. Identify and analyze the characteristics of the learner's language development
7. Analyze and identify learners' learning strategies
8. Base classroom teaching practices on theoretical principles
9. Analyze various systems (sound, grammar, etc.) of the English language

10. Show an awareness of English literature and culture
11. Carry out basic research in English language teaching
12. Write and implement effective lesson plans
13. Associate with Arabic and Islamic culture and literature

## Admission Requirements

To be admitted to the program, applicants should have a certified UAE secondary school certificate, or its equivalent, with a minimum average grade 60 percent. In addition they should hold an English proficiency certificate with a minimum score of 500 for TOEFL, 580 for TOEIC, or 5.0 for IELTS. Admission is also dependent upon the successful outcome of an interview during which the applicant's physical and personal capabilities for joining the teaching profession are assessed

## Career Opportunities

In today's globalized world there is an increasing demand for English language teachers across the UAE and the region. The AUST bachelor degree in TEFL provides its students with a thorough grounding in many areas of teaching English as a foreign language and prepares them for career in a variety of educational environments.

## Graduation Requirements

Students joining the program prior to Fall Semester 2006 were required to successfully complete 132 credit hours to satisfy the graduation requirements, in addition to obtaining a minimum GPA of 2.0. Students joining in Fall Semester 2006 and later are required to successfully complete 126 credit hours (39 courses + 9 training), and obtain a minimum GPA of 2.0. Students must successfully complete the courses as listed in the study plan.

**COLLEGE OF EDUCATION & BASIC SCIENCES**

### **700 416 Pharmaceutical Legislations (1-0-0-1)**

This course is designed to acquaint students with the legal and ethical basis of pharmacy practice. The course emphasizes the pharmacist's responsibility to care for patients and to respect patients as autonomous individuals. A detailed presentation of the laws that govern and affect the practice of pharmacy in UAE is included. Major topics include general legal principles, non-controlled and controlled prescription requirements and over-the-counter drug requirements. Pre-requisite: 700 416

### **700 417 Marketing and Sales (1-0-0-1)**

This course is designed to provide pharmacy student with the basic principles and theories of marketing as well as the principles of management and administration of a pharmacy in community and institutional settings. The course will cover all aspects of selling including applying standard criteria to evaluate the quality of selling, retail selling and product planning. Pre-requisite: 700 442

### **700 314 Community Pharmacy Training I (3-0-0-3)** **700 316 Community Pharmacy Training II (3-0-0-3)**

Through the utilization of selected community pharmacies and competency based objectives, the student will gain an appreciation for the profession of pharmacy as practiced in the community and develop the professional attitudes, judgment and skills needed to function in this setting. These courses are designed to enable students to: acquire advanced knowledge and proficiency in community pharmacy management, process prescriptions in an efficient manner compatible with advanced skills, acquire additional exposure to pharmacy operations and to different practitioners' disease approach, develop the skills necessary to provide pharmaceutical care services and acquire increased proficiency in counseling patients on health and drug-related matters.

Pre-requisites: for 700 314: 700 111, 30 hours

Pre-requisites: for 700 316: 700 314, 700 442

### **700 315 Hospital Pharmacy Training (3-0-0-3)**

This training is designed to provide students with the principles of pharmacy practice in a hospital setting. The training program aims to enable the students to acquire practice experience in various areas of

hospital pharmacy including: understanding the basic layout of the pharmacy department in a hospital setting; understanding the system of referral, identifying and reporting any possible drug interactions and mastering the administrative part of hospital pharmacy services.

Pre-requisite: 700 333

### **700 317 Clinical Pharmacy Training (3-0-0-3)**

This course is designed to provide the students with professional practice experience in clinical pharmacy. This includes acquiring the following competencies: independently reviewing and analyzing a patient's case history and identifying possible problems associated with the use of medicines, actively participating in drug choice and in the design of dosage regimens to ensure optimal drug therapy.

Pre-requisites: 700 418, 700 442

### **700 421 Project (2-2-0-3)**

This course is designed to acquaint the student with the techniques involved in the development of a project in the basic, pharmaceutical or clinical sciences. The project will be assigned and the student will be expected to perform literature reviews and other work deemed necessary by the college instructor to produce an acceptable final written report

Pre-requisite: 115 Credit Hours



### **801 318 Pathology (2-0-0-2)**

The course covers the fundamentals of the basic disease processes of the body: gross, microscopic and biochemical features of pathologic conditions of the organ systems are studied in detail in order to establish a sound foundation for pharmaceutical and clinical practice.

Pre-requisite: 700 333

### **700 534 Clinical Microbiology (College Optional Course) (2-2-0-3)**

The course provides students with basic knowledge of the important signs, symptoms and etiology of diseases as well as mechanisms of preventing infection and the means of identifying and diagnosing causative agents.

Pre-requisite: 700 333

### **700 535 Gene Therapy (College Optional Course) (3-0-0-3)**

The course is designed to provide students with a clear understanding of how human genes causing disease can be identified, and the impact of this on diagnosis, prevention and treatment. Methods used to isolate genes involved in disease and types of gene therapy treatment will also be discussed. The course deals with the basic science of gene therapy, gene delivery vectors, expression of transferred genes, and current gene therapy protocols in humans. Regulatory issues concerning biomaterials will also be addressed. Recognition of the advantages, disadvantages and limitations of gene therapy will be included.

Pre-requisites: 700 232, 700 333 after 115 Credit Hours

## **DEPARTMENT OF CLINICAL PHARMACY**

### **700 442 Clinical Pharmacy I (2-2-0-3)**

The course builds on the prior knowledge gained in pharmacology, biopharmaceutics and kinetics. The overall aim of the module is to develop the skills that students require to understand new aspects of pharmacy practice and the concept of pharmaceutical care. Upon completion of the course, students should be able to demonstrate sound knowledge and understanding of the pathophysiology of major organ diseases, namely, the cardiovascular, respiratory, and endocrine systems. Furthermore, the course is designed to enable

students to: analyze and review a patient's case history in the light of pathophysiology of disease; critically evaluate literature and data relating to the clinical use of medicines; identify independently different medical abbreviation and terminology and acquire effective skills in reading, writing, speaking and listening to enable them to communicate effectively with doctors and other healthcare professionals. Pre-requisites: 700 312 and 700 331

### **700 443 Clinical Pharmacy II and First Aid (2-2-0-3)**

The course builds on the prior knowledge gained in Clinical Pharmacy I. The overall aim of the module is to help students to access the knowledge base and skills required for assessment of pharmaceutical needs of patients in either primary or secondary healthcare settings and to understand how major diseases are managed, including the options available for drug therapy. The importance of establishing therapeutic goals for the patient will be emphasized throughout the course. The first aid section of this course is designed to educate students as to the correct procedures to be followed in the emergency care of a sick or injured person. The course is designed with great emphasis on the skills and knowledge critical to saving life and minimizing the severity of injury or sudden illness. Safety awareness and accident prevention are emphasized throughout the course.

Pre-requisite: 700 442

### **700 418 OTC Drug and Products (2-2-0-3)**

The course is designed to provide the student with a solid knowledge of OTC drugs in all aspects with the objective of graduating a patient-oriented pharmacist. This will include monitoring, screening and evaluating drug treatment regimens either in community or hospital settings. In particular, symptoms associated with common diseases will be considered with respect to: possible causes; symptoms and signs; treatment available; counseling points; and when to refer to doctors. This course is also designed to enable students to decide on the diagnosis of a complaint through the use of questioning techniques; recognize and evaluate the symptoms of minor ailments; select a suitable treatment, if any, and give appropriate advice; assess "danger symptoms" and judge when it is appropriate to refer the patient; and choose an effective level of communication with patients and other healthcare professionals.

Pre-requisites: 700 312 and 700 331

the muscular, gastrointestinal, respiratory, cardiovascular, renal, endocrine, nervous and reproductive systems. Clinical applications related to these systems are mentioned.

Pre-requisite: None

### **700 136 Principles of Human Anatomy and Physiology II (2-2-0-3)**

Continuation of Principles of Anatomy and Physiology I (700 135)

Pre-requisite: 700 135

### **700 231 Biochemistry I (2-2-0-3)**

The course covers the study of the structure and function of the biological constituents of living cells and their chemical reactions. Emphasis is made on the structure and function of carbohydrates, proteins, nucleic acids, lipids and vitamins. Enzyme kinetics and enzyme-catalyzed reactions are also covered.

Pre-requisite: 700 129

### **700 232 Biochemistry II (2-2-0-3)**

The study of the metabolism and biochemical energetics is covered in the course with emphasis on intermediary metabolism of proteins, carbohydrates and lipids. The course also includes the biosynthesis of biologically important macromolecules such as proteins, lipids, and nucleic acids. Special topics including hormones, nutrition, starvation, obesity, and molecular basis of human diseases are also covered.

Pre-requisite: 700 231

### **700 235 Pharmacology and Therapeutics I (2-2-0-3)**

The course covers General Pharmacology: Principles of drug action, routes of administration of drugs, passage of drugs across cell membranes and factors affecting the dosage and action of drugs. The autonomic nervous system: Introduction, sympathomimetics, sympathetic depressants, parasympathomimetics, parasympathetic depressants and drugs acting on autonomic ganglia. Skeletal muscle relaxants. Drugs acting on respiratory system. Autacoids and local hormones are also covered.

Pre-requisite: 700 136

### **700 238 Pharmacology and Therapeutics II (2-2-0-3)**

This course covers the action of drugs on the cardiovascular system (CVS), renal system, haematopoietic system and in the gastrointestinal

tract (G.I.T).

Pre-requisite: 700 235

### **700 331 Pharmacology and Therapeutics III (2-2-0-3)**

The course covers the action of drugs on the central nervous system and the endocrine system.

Pre-requisite: 700 238

### **700 333 Pharmaceutical Microbiology and Immunology (3-2-0-4)**

This course covers five areas: General microbiology: sterilization of pharmaceuticals, preservatives and preservation of pharmaceutical dosage forms and industrial microbiology.

Topics covered include: immunology - mainly immunity and infection, immune system and hypersensitivity; hygiene - pathogenesis of bacterial infections, etiology, clinical picture, lab diagnosis, treatment, prevention and control of diseases caused by the different bacteria; virology - general properties of viruses; food microbiology - micro-organisms associated with food and water.

Pre-requisite: 700 231

### **700 432 Toxicology and Chemotherapy (2-2-0-3)**

This course covers the adverse and toxic effects of drugs and many other chemicals that may be responsible for household, environmental and industrial intoxication. It also covers heavy metals toxicity and its management, common poisons and their antidotes, air pollutants, solvents and vapours and toxicity of pesticides. Chemotherapy covers the classification mechanism of action, clinical indications and adverse effects of anti-infective agents. These include antimicrobials, antiviral, antifungal, anthelmintics, antitubercular and antileprotic agents.

Pre-requisites: 700 311, 801 318

### **700 434 Bioassays and Drug Screening (2-2-0-3)**

This course covers the collection, classification and summarization of data, graphical presentation and the survey of basic distribution, estimations and significance tests. The course covers general methods of bioassay and drug screening of local hormones and drugs acting on ANS, CNS, CVS, NMJ, GIT and the respiratory system. It also deals with the design and analysis of pharmacological experiments.

Pre-requisites: 700 331, 103 110



etc. The study covers the biosynthesis, the chemical and physical properties, identification tests, and methods of isolation and methods of assays.

Pre-requisites: 700 127, 700 425

### **700 323 Medicinal and Pharmaceutical Chemistry I (2-2-0-3)**

This course covers the basic principles of medicinal chemistry. It deals with the relationship between chemical structure and biologic activity. Topics covered include the effect of physicochemical properties on biologic response, the effect of molecular modification on receptor binding, and drug metabolism. The second part of the course is devoted to the study of chemotherapeutic agents including antibiotics, synthetic antibacterial agents and antifungal and antiviral agents.

Pre-requisites: 700 129, 700 333

### **700 324 Medicinal and Pharmaceutical Chemistry II (2-2-0-3)**

This course covers the chemistry, structural features and structure – activity relationships of the major classes of pharmacotherapeutic agents. The course adopts a pharmacological classification, but within each class the emphasis is on the chemical basis of drug action. Topics covered include adrenergic and cholinergic drugs, CNS depressants, analgesics, antihistamines, local anesthetics and cardiovascular drugs.

Pre-requisite: 700 323

### **700 422 Instrumental Analysis I (2-2-0-3)**

The course provides an introduction to the instrumental methods of analysis including spectroscopic methods of analysis such as UV – VIS and fluorimetry; in addition to the following electro chemical methods: conductometry, potentiometry, amperometry and polarography.

Pre-requisite: 700 223

### **700 425 Instrumental Analysis II (2-2-0-3)**

This course aims to introduce to students the concept of applying instrumentation for the separation of mixtures as well as qualitative and quantitative analysis of medicinal and pharmaceutical formulations. The course covers different chromatographic methods and techniques (PC, TLC, IEC, CC, GPC, GC, HPLC) in addition to infra-red

spectroscopy, nuclear magnetic resonance and mass spectroscopy.

Pre-requisite: 700 422

### **700 522 Phytotherapy (College Optional Course) (3-0-0-3)**

The course covers medicinal plants and other naturally-occurring medicinal compounds intended for treatment of different ailments of the human body. The study includes knowledge of active constituents of these natural products, suggested pharmacokinetic and pharmacodynamic effects of these constituents, as well as the appropriate dosage forms for administration of their preparations. Monographs on *Materia Medica* of selected medicinal herbs are also included in the study.

Pre-requisite: 700 321 after 115 Credit Hours

### **700 527 Nuclear Pharmacy (College Optional Course) (3-0-0-3)**

The course provides a comprehensive discussion of the fundamentals of the field of nuclear pharmacy. It covers the formulation and application of radiopharmaceuticals. Topics include the preparation, and quality control of clinically useful radiopharmaceuticals. Procedures and techniques involved in handling, disposition, and use of radioisotopes in nuclear pharmacy practice will be discussed. Diagnostic and therapeutic uses of radiopharmaceuticals and their adverse reaction are included.

Pre-requisite: 115 Credit Hours

## **DEPARTMENT OF PHARMACOLOGY and TOXICOLOGY**

### **700 135 Principles of Anatomy and Physiology I (3-2-0-4)**

This course provides students with a broad knowledge of the structure and functions of the human body. The course includes the structure and function of the normal cell; tissues in general, their different types, microscopic characteristics, locations, distribution and functions in the human body and of the different organ system and their respective roles and function in the organization of the body. Gross anatomy is treated in its broadest aspects and includes the human skull and the different systems; muscular, respiratory, digestive, cardiovascular, nervous and reproductive. The physiology is integrated with anatomy for each system of the human body. Topics which are covered in detail include the organization, regulation and function of

### **700 413 Pharmaceutical Technology (3-2-0-4)**

This course comprises the design of pharmaceutical plants as well as the design and operation of clean rooms with special emphasis on quality assurance and good manufacturing practice guidelines. The course also covers theoretical background and practical demonstration of different manufacturing unit processes: heat transfer, filtration, particle size reduction, particle size analysis, mechanisms of mixing, powder flow, granulation, drying, tableting and capsulation. In addition the course covers packaging materials used in pharmacy.

Pre-requisite: 700 212, 700 214.

### **700 415 Pharmaceutical Technology Training (3-0-0-3)**

The course provides the student with basic training in large scale manufacturing of pharmaceutical dosage forms and quality control tests conducted for such dosage forms. It also covers quality assurance and good manufacturing practice guidelines followed during large scale manufacturing of various pharmaceutical dosage forms.

Pre-requisite: 700 413

### **700 515 Pharmaceutical Bio-technology (College Optional Course) (3-0-0-3)**

The course introduces the student to the background of biotechnology and its application in various scientific fields. The course also covers the different methods adopted for preparation of biotechnology products and their evaluation, handling and storage.

Pre-requisite: 700 232

## **DEPARTMENTS OF PHARMACEUTICAL CHEMISTRY and PHARMACOGNOSY**

### **700 124 Pharmaceutical Botany (2-2-0-3)**

This course deals with the study of the medicinal plants and their botanical structure such as cell differentiation, cell contents and the general study of the plant organs macroscopically and microscopically.

Pre-requisite: None

### **700 127 General Pharmacognosy (3-2-0-4)**

Pharmacognosy is the subject that deals with the general study of

important medicinal plants. The study includes their origin, morphology, histology, constituents and use. The drugs are classified into groups according to their main therapeutic values.

Pre-requisite: 700 124

### **700 128 Pharmaceutical Organic Chemistry I (2-2-0-3)**

This course presents the fundamental of certain topics in organic chemistry. It covers some important areas in organic chemistry, which include aliphatic and aromatic hydrocarbons, alkyl and aryl halides, alcohols, ethers and epoxides. It emphasizes the pharmaceutical importance of these functional groups.

Pre-requisites: None

### **700 129 Pharmaceutical Organic Chemistry II (2-2-0-3)**

This course is a continuation of Pharm. Organic Chemistry I. The course includes basic chemical reactions and mechanisms, Stereochemistry, phenols, aldehydes, ketones, and carboxylic acid and acid derivatives, properties and reactions of difunctional compounds, amines, aromatic and heterocyclic compounds, and introduction to organic natural products. Laboratory work concerning specific chemical reactions, organic synthesis and identification of organic compounds.

Pre-requisite: 700 128

### **700 222 Pharmaceutical Analytical Chemistry I (2-2-0-3)**

The course covers chemical purity and its control; pharmacopoeial standards and specifications, theoretical basis and practical applications of quantitative analysis of pharmaceutical compounds applying volumetric methods based on acid-base, diazotization, complexation and non-aqueous titrations.

Pre-requisite: 700 128

### **700 223 Pharmaceutical Analytical Chemistry II (2-2-0-3)**

A continuation of Pharmaceutical Analytical Chemistry I, this course covers volumetric analysis based on oxidation-reduction and precipitation as well as gravimetric analysis.

Pre-requisite: 700 222

### **700 321 Phytochemistry (3-2-0-4)**

This course covers the study of the chemistry of crude drugs such as volatile oils, glycosides, alkaloids bitter principles, resins and saponins,

# Course Descriptions

## Department of Pharmaceutics

### 700 111 Introduction to Pharmacy (2-2-0-3)

This course provides an introduction to prescriptions, general dispensing procedures, dosage forms with special emphasis on pharmaceutical solutions and basic techniques of compounding simple solutions. The course also includes definitions, Latin terms, and weighing, measuring and basic pharmaceutical calculations.

Pre-requisite: None

### 700 112 Physical Pharmacy I (2-2-0-3)

The course comprises the application of physicochemical principles to pharmaceutical systems. It covers basic physical pharmacy concepts: solubility distribution phenomena, buffers, isotonic solution, phase equilibria and phase rule.

Pre-requisite: 700 111

### 700 212 Physical Pharmacy II (2-2-0-3)

This course aims to provide students with basic knowledge of physicochemical principal in pharmacy and their possible applications in explaining characteristics and behavior of pharmaceutical dispersed systems such as colloids, suspensions, emulsions, ointments, pastes, creams and aerosols.

Pre-requisite: 700 112

### 700 213 Pharmaceutical Dosage Forms I (2-2-0-3)

The course comprises principles and techniques involved in the formulation, preparation and evaluation of solid dosage forms. It covers physical properties of powders, preparation of bulk and divided powders, as well as effervescent and non-effervescent granules and method of tablet and capsule manufacture. The course also covers rectal drug absorption, formulation and evaluation of suppositories.

Pre-requisite: 700 112

### 700 214 Pharmaceutical Dosage Forms II (2-2-0-3)

This course covers sterile products including parenterals and oph-

thalmic preparations; their advantages and disadvantages formulations, quality control tests and various sterilization procedures. In addition to aseptic techniques applied during the preparations of sterile products. The course also includes an introduction to sustained released products, packaging as well as basic principles of drug stability, and routes of drug degradation and various means of avoiding them.

Pre-requisite: 700 213

### 700 311 Bio-pharmaceutics and Pharmacokinetics I (2-2-0-3)

This course provides the basic principles required for understanding the concentration-time course of a drug in the body and hence prepares students to understand various factors that can influence it. It is important to be aware of the factors which can influence this concentration-time course and hence modify the effectiveness and safety of the drug. Factors involved include physicochemical, pharmaceutical ones, or those such as physiological or pathological factors related to the patient's condition. It also provides basic methods for assessing bio availability and bio-equivalency of drug products which are considered vital tools for quality control tests. Bio pharmaceutical aspects of new drug delivery systems will also be highlighted.

Pre-requisites: 700 214, 700 422

### 700 312 Bio-pharmaceutics and Pharmacokinetics II (2-2-0-3)

The course will introduce the student to the changes in drug absorption, distribution and elimination with time following one compartment IV bolus, oral absorption and IV infusion. The lectures will provide students with principle of the linear and non-linear pharmacokinetic models and their application. The principles of clinical pharmacokinetics are also introduced in order to be able to formulate or modify drug dose-regimens according to the need of patients.

Pre-requisite: 700 311

## SEMESTER 5

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
700 311	Biopharmaceutics and Pharmacokinetics I	2	2	0	3	700 214+ 700 422
700 323	Medicinal and Pharmaceutical Chemistry I	2	2	0	3	700 129+700 333
700 331	Pharmacology and Therapeutics III	2	2	0	3	700 238
700 425	Instrumental Analysis II	2	2	0	3	700 422
801 318	Pathology/Pharmacy	2	0	0	2	700 333
	Optional Course (university option)	2	2	0	3	xxx xxx
Total		12	10	0	17	

## SEMESTER 6

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
102140	Communication Skills in Arabic Language (university requirement)	3	0	0	3	xxx xxx
700 312	Biopharmaceutics and Pharmacokinetics II	2	2	0	3	700 311
700 321	Phytochemistry	3	2	0	4	700 12/+ 700 425
700 324	Medicinal and Pharmaceutical Chemistry II	2	2	0	3	700 323
700 413	Pharmaceutical Technology	3	2	0	4	700 212 + 700 214
	Optional Course (university option)	3	0	0	3	xxx xxx
Total		15	10	0	20	

## SEMESTER 7

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
700 315	Hospital Pharmacy Training	3	0	0	3	700 331
700 415	Pharmaceutical Technology Training	3	0	0	3	700 413
700 418	OTC Drugs and Products	2	2	0	3	700 331
700 432	Toxicology and Chemotherapy	2	2	0	3	700 331+801 318
700 442	Clinical Pharmacy I	2	2	0	3	700 312+700 331
	College Optional	3	0	0	3	after 115 Credit Hours
Total		9	6	0	18	

## SEMESTER 8

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
700 316	Community Pharmacy Training-II	3	0	0	3	700 314+700 442
700 317	Clinical Pharmacy Training	3	0	0	3	700 442+700 418
700 416	Pharmaceutical Legislations	1	0	0	1	700 432
700 417	Marketing and Sales	1	0	0	1	700 442
700 421	Project	2	2	0	3	after 115 Credit Hours
700 434	Bioassays and Drug Screening	2	2	0	3	130 130+700 331
700 443	Clinical Pharmacy II and First Aid	2	2	0	3	700 442
Total		9	4	0	17	

## Proposed Sequence of Study

### SEMESTER 1

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
104 110	Computer Applications (Univ. Req.)	2	2	0	3	xxx xxx
103 130	Research Methodology (Univ. Req.)	3	0	0	3	xxx xxx
700 111	Introduction to Pharmacy	2	2	0	3	xxx xxx
700 124	Pharmaceutical Botany	2	2	2	3	xxx xxx
700 128	Pharmaceutical Organic Chemistry-I	2	2	0	3	xxx xxx
700 135	Principles of Human Anatomy and Physiology-I	3	2	0	4	xxx xxx
Total		14	10	0	19	

### SEMESTER 2

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
700 112	Physical Pharmacy-I	2	2	0	3	700 111
700 127	General Pharmacognosy	3	2	0	4	700 124
700 129	Pharmaceutical Organic Chemistry-II	2	2	0	3	700 128
700 136	Principles of Human Anatomy and Physiology-II	2	2	0	3	700 135
700 222	Pharmaceutical Analytical Chemistry I	2	2	0	3	700 128
	Optional Course (Univ. Opt.)	2	2	0	3	xxx xxx
Total		13	12	0	19	

### SEMESTER 3

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
103110	Statistics (Univ. Req.)	2	2	0	3	xxx xxx
700 212	Physical Pharmacy II	2	2	0	3	700 112
700 213	Pharmaceutical Dosage Forms I	2	2	0	3	700 112
700 223	Pharmaceutical Analytical Chemistry II	2	2	0	3	700 222
700 231	Biochemistry I	2	2	0	3	700 129
700 235	Pharmacology and Therapeutics I	2	2	0	3	700 136
700 314	Community Pharmacy Training-I	3	0	0	3	after 30 Credit hours+ 700 111
Total		13	10	0	21	

### SEMESTER 3

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
102110	Islamic Culture (Univ. Req.)	3	0	1	3	xxx xxx
700 214	Pharmaceutical Dosage Forms II	2	2	0	3	700 213
700 232	Biochemistry II	2	2	0	3	700 231
700 238	Pharmacology and Therapeutics II	2	2	0	3	700 235
700 333	Pharmaceutical Microbiology and Immunology	3	2	0	4	700 231
700 422	Instrumental Analysis I	2	2	0	3	700 223
Total		14	10	0	19	

#### 4. Department of Clinical Pharmacy

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
700 418	OTC Drugs and Products	2	2	0	3	700 331
700 442	Clinical Pharmacy I	2	2	0	3	700 312+700 331
700 314	Community Pharmacy Training-I	3	0	0	3	700 111+ 30 hrs
700 315	Hospital Pharmacy Training	3	0	0	3	700 331
700 316	Community Pharmacy Training II	3	0	0	3	700 314+700 442
700 317	Clinical Pharmacy Training	3	0	0	3	700 442+700 418
700 416	Pharmaceutical Legislations	1	0	0	1	700 432
700 417	Marketing and Sales	1	0	0	1	700 442
700 434	Bioassays and Drug Screening	2	2	0	3	130 130+103 110
700 443	Clinical Pharmacy-II and First Aid	2	2	0	3	700 442

#### b) College Optional Courses

Students take one course from the following list (3 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
700 318	Community Pharmacy Training III(temp	1	0	0	1	700 316
700 515	Pharm. Biotechnology	3	0	0	3	700 232
700 522	Phytotherapy	3	0	0	3	700 321
700 534	Clinical Microbiology	2	2	0	3	700 333
700 535	Gene Therapy	3	0	0	3	700 232 + 700 333
700 527	Nuclear Pharmacy (	3	0	0	3	700 331



## COLLEGE REQUIREMENTS

### (a) Compulsory Courses:

#### 1. Department of Pharmaceutics

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
700 111	Introduction to Pharmacy	2	2	0	3	xxx xxx
700 112	Physical Pharmacy-I	2	2	0	3	700 111
700 212	Physical Pharmacy II	2	2	0	3	700 112
700 213	Pharmaceutical Dosage Forms I	2	2	0	3	700 112
700 214	Pharmaceutical Dosage Forms II	2	2	0	3	700 213
700 311	Biopharmaceutics and Pharmacokinetics I	2	2	0	3	700 214+ 700 422
700 312	Biopharmaceutics and Pharmacokinetics II	2	2	0	3	700 311
700 413	Pharmaceutical Technology	3	2	0	4	700 212 + 700 214
700 415	Pharmaceutical Technology Training	3	0	0	3	700 413

#### 2. Department of Pharmaceutical Chemistry and Pharmacognosy

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
700 124	Pharmaceutical Botany	2	2	2	3	xxx xxx
700 128	Pharmaceutical Organic Chemistry-I	2	2	0	3	xxx xxx
700 127	General Pharmacognosy	3	2	0	4	700 124
700 129	Pharmaceutical Organic Chemistry-II	2	2	0	3	700 128
700 222	Pharmaceutical Analytical Chemistry I	2	2	0	3	700 128
700 223	Pharmaceutical Analytical Chemistry II	2	2	0	3	700 222
700 422	Instrumental Analysis I	2	2	0	3	700 223
700 323	Medicinal and Pharmaceutical Chemistry I	2	2	0	3	700 129+700 333
700 425	Instrumental Analysis II	2	2	0	3	700 422
700 321	Phytochemistry	3	2	0	4	700 127+ 700 425
700 324	Medicinal and Pharmaceutical Chemistry II	2	2	0	3	700 323

#### 3. Department of Pharmacology and Toxicology

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
700 135	Principles of Human Anatomy and Physiology-I	3	2	0	4	xxx xxx
700 136	Principles of Human Anatomy and Physiology-II	2	2	0	3	700 135
700 231	Biochemistry I	2	2	0	3	700 129
700 235	Pharmacology and Therapeutics I	2	2	0	3	700 136
700 232	Biochemistry II	2	2	0	3	700 231
700 238	Pharmacology and Therapeutics II	2	2	0	3	700 235
700 333	Pharmaceutical Microbiology and Immunology	3	2	0	4	700 231
700 331	Pharmacology and Therapeutics III	2	2	0	3	700 238
801 318	Pathology / Pharmacy	2	0	0	2	700 333
700 432	Toxicology and Chemotherapy	2	2	0	3	700 331+801 318
700 434	Bioassays and Drug Screening	2	2	0	3	103 110+700 331

## University General Education Requirements

(a) University Required Courses (15 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
101 000	Orientation /CS	1	0	0	0	-
102 110	Islamic Culture	3	0	1	3	-
102 140	Communication Skills in Arabic Language	3	0	0	3	-
103 110-1	Statistics	2	2	0	3	-
103 130	Research Methodology	3	0	0	3	-
104 110	Computer Applications	2	2	0	3	-

(b) University Elective Courses (9 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
102 120-1	The Miraculousness of the Holy Koran	3	0	0	3	-
112 110	Principles of Art and Architecture	3	0	0	3	-
112 120	Principles of Interior Design	3	0	0	3	-
112 130	Modern Technology and Society	3	0	0	3	-
113 110	Internet Concepts	3	0	0	3	-
113 120	Introduction to Information Systems	3	0	0	3	-
114 110	Economic Concepts	3	0	0	3	-
114 120	Entrepreneurship Development	3	0	0	3	-
115 110	History of science in Islam	3	0	0	3	-
115 120	Scientific Pioneering	3	0	0	3	-
115 130	General Psychology	3	0	0	3	-
115 140	Principle of Mathematics	3	0	0	3	-
115 150	The Art of Expression and Writing	3	0	0	3	-
115 160	Emirates Society	3	0	0	3	-
115 170	Education Technology	3	0	0	3	-
117 110	General chemistry	3	0	0	3	-
117 120	Fundamental of Human Nutrition	3	0	0	3	-
117 130	First Aid	3	0	0	3	-
117 140	Energy, Water and Environment	3	0	0	3	-
117 150	Applications of Remote sensing	3	0	0	3	-
118 110	Principles of Ethics	3	0	0	3	-
118 120	General Biology	3	0	0	3	-
118 130	Oral Health	3	0	0	3	-
118 140	General Principles of Epidemiology	3	0	0	3	-
118 150	CPR-Cardio Pulmonary Resuscitation	3	0	0	3	-
119 110	Communication Skills	3	0	0	3	-
119 120	Introduction to Communication Sociology	3	0	0	3	-
119 130	Information Society	3	0	0	3	-
120 115	Legal Culture	3	0	0	3	-



different placements related to pharmacy profession:

- Community pharmacies
- Hospital pharmacies
- Pharmaceutical industry
- Pharmaceutical scientific laboratories
- Wholesale drug stores
- Medical representations
- Pharmaceutical administration
- Food control and analysis
- Pharmaceutical education and research

## Graduation Requirements

The degree of bachelor of pharmacy (B.Pharm) will be awarded after successful completion of least one hundred and fifty credit hours (150 Credit Hours), including the university requirement courses. The period of study normally takes eight semesters. In addition, every student should have field training of not less than 600 contact hours which is equivalent to 15 credit hours. The minimum a cumulative grade point average for graduation is 2.0.

## Degree Requirements

The pharmacy student will be awarded the degree of bachelor of pharmacy (B.Pharm) after the successful completion of at least 150 Credit Hours, including the university requirement courses, distributed according to the following plan:

Types of Course	Credit Hours
1. University General Education Requirements	
(a) University Required Courses	15
(b) University Elective Courses	9
2. College Requirements	
(a) College General Education Requirements	6
(b) Major Requirements - College Courses	102
(c) Major Requirements - Training Courses	15
(d) Major Electives - College Courses	3
Total Credit Hours	150

## Introduction

The vision of the College of Pharmacy and Health Sciences is to achieve excellence through the provision of innovative pharmacy education, training and research programs that enable its graduates to serve the evolving health needs of the society by delivering exemplary pharmaceutical care.

# Bachelor of Science in Pharmacy

## Mission

The mission of the College of Pharmacy and Health Sciences is to create an environment that promotes excellence in pharmaceutical education, practice and research. It is committed to the continuous improvement of its programs to keep abreast with the rapid advances in the profession of pharmacy and the provision of pharmaceutical care. It strives to prepare students to become competent, reliable and ethical health care professionals.

## Objectives

1. To prepare students for the practice of pharmacy by providing them with the scientific background, clinical and technical skills that they will need to successfully complete their program of study.
2. To provide an educational environment that enables students to acquire the behavior, and moral and ethical attitudes they will need to practice the profession competently and ethically.

## Program Outcomes

The intended outcomes of the program are that students will be able to:

1. Demonstrate knowledge of the basic and clinical science background of pharmacy practice
2. Implement the processes of compounding and dispensing medications, interpreting prescription orders and applying calculations related to the compounding and dispensing of medicines
3. Demonstrate knowledge of the basic skills and techniques involved in drug manufacture and development, drug design and screening and quality assurance of pharmaceutical products

4. Demonstrate knowledge of the rational use of herbal supplements, fundamentals of phytotherapy and the hazards of poisonous and abused natural products
5. Participate in patient care by influencing optimal drug choice and dosage through effective communication with health care providers and patients
6. Display legal, moral and ethical attitudes and behaviors consistent with the standards of the profession
7. Demonstrate the ability to lead and to function both independently and as a member of a team
8. Develop self-learning skills, problem solving and critical thinking abilities and the ability to retrieve, evaluate and manage information in the literature
9. Demonstrate the ability to write clear and organized reports, and to present oral communications
10. Develop the necessary skills in information use and management to educate health care professionals and the public in optimal drug therapy

## Admission Requirements

Prospective candidates seeking admission to the Bachelor of Pharmacy (B.Pharm) program should fulfill the following requirements:

- Secondary school certificate (science section), or its equivalent, with a minimum grade of 70 percent, approved by the UAE Ministry of Education
- A score of 500 or higher in the TOEFL English proficiency test, or the equivalent
- Personal interview
- Demonstration of good conduct and maturity

Please see the university admission requirements for more detail.

## Career Opportunities

The curriculum is designed and continuously improved with the aim of preparing its graduates to be able to effectively deliver pharmaceutical services in the private sector as well as in governmental agencies. Pharmacy graduates have the opportunity to work in

# College of Pharmacy and Health Sciences

The College of Pharmacy and Health Sciences (FOPHS) was founded in accordance with the university's policy of establishing an innovative medical environment which embraces health sciences, i.e. dentistry, medical technology, nursing, etc., in addition to pharmacy. The establishment of FOPHS is intended to meet the demand for pharmacists in hospitals and community pharmacies, and to provide manpower for the increasing number of private pharmacies and the growing pharmaceutical industry in the UAE and the region.

## Mission

The mission of the College of Pharmacy and Health Sciences is to create an environment that promotes excellence in pharmaceutical education, practice and research. It is committed to the continuous improvement of its programs to keep abreast with the rapid advances in the profession of pharmacy and the provision of pharmaceutical care. It strives to prepare students to become competent, reliable and ethical health care professionals.

## Degree Programs

The program of undergraduate study in the College of Pharmacy and Health Sciences leads to the Bachelor of Pharmacy (BPharm.) after completion of 150 credit hours. In addition to this professional degree, the college plans to offer the degree of Doctor of Pharmacy (PharmD) in the future.

## Facilities

### Laboratory Facilities

The college has several laboratories, covering the various branches of pharmaceutical science, which have the latest equipment. These laboratories have the instrumental apparatus which will enable students to gain sound practical skills as well as integrate theoretical study with real practical methods and techniques.

### Computer Facilities

The college receives full technical support and assistance from the University Computer Center which provides its services round the year to administrators, staff and students. The computer laboratories at the center are well-equipped and are available for use throughout the day; they are administered by trained staff who assist in solving problems and answering queries.



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### **900 401 Newspaper Design and Layout (2-2-0-3)**

This course presents theoretical and practical knowledge on layout design of newspapers and magazines, and related topographical elements and methods of producing newspapers and magazines by using desktop and journalistic publishing programs such as Quark Express and Adobe Photoshop.

Pre-requisite: 900 318

### **900 402 Radio and TV Directing (2-2-0-3)**

This course familiarizes students with the TV and radio studio and its different components related to cameras, sound, lighting and studio set-up. The course also demonstrates different roles and responsibilities of production team members. Students will also perform television and radio directing duties.

Pre-requisite: 900 317

### **900 403 Applications in Communication Research Methods (3-0-0-3)**

This course helps the students to control and use communication research methods and tools to conduct different types of media research. Students are expected to fulfill these assignments following the elements and steps of scientific method. Students are required to conduct research projects from A to Z.

Pre-requisites: 900 108, 103 110

### **900 404 Public Opinion (3-0-0-3)**

This course discusses the concept of public opinion, its development, nature and role in society. It also deals with how public opinion is formed and measured, and the types of research in the field. It investigates the various forms of public opinion and the relation between the media and public opinion. The course focuses on providing students with theoretical and practical knowledge of the characteristics of public opinion and how it is measured in different societies.

Pre-requisite: 900 101

### **900 405 Training and Graduation Project in Public Relations (3-0-0-3)**

The project is carried out according to a plan supervised by both an instructor specialized in public relations and the public relations practitioner.

Pre-requisite: 900 313

### **900 406 Training and Graduation Project in Mass Communication (3-0-0-3)**

This course provides students with the opportunity of practical training in media institutions. Training duties are determined by the course instructor. The student under training is supervised jointly by those in charge of the media institution and the academic instructor.

Pre-requisite: 900 313

### **900 407 Media Management (3-0-0-3)**

This course is concerned with the study of basic concepts of the management of communication establishments, newspapers, magazines, radio and TV: their characteristics, duties and interrelations.

Pre-requisites: 900 109, 900 101

This course provides students with the detailed background of the regulations and ethics that govern the journalistic profession both regionally and internationally. Topics such as freedom of the press and the nature of information systems will also be discussed. Topics are related to freedom of opinion and expression, journalistic codes of honor and NGO contributions to media performance.

Pre-requisite: 900 101

### **900 310 Documentary Programs (2-2-0-3)**

Students are taught how to write, produce and direct documentaries. Emphasis is placed on artistic documentary production.

Pre-requisite: 900 317

### **900 312 Information Society (3-0-0-3)**

The course focuses on the information revolution. It concentrates on the characteristics of the information society, its consequences, challenges and future implications. The course clarifies the position of the Arab world and other countries on the map of information markets, incorporating production, marketing and consumption.

### **900 313 Special Topics in Communication (3-0-0-3)**

This course offers an experimental and temporary base to explore topics not included in the established curriculum. These courses vary from one semester to another to cover the most recent developments in communication, whether technological and/or social. Students are required to take part in data collection and discussions of communication-related topics.

Pre-requisite: 900 204, 900 317

### **900 315 Communication Theories (3-0-0-3)**

The course surveys selected theories of human communication. The course covers various approaches to study the nature and the impact of communication technologies on individuals and society. It specifically emphasizes sociological and philosophical bases in order to understand mechanisms of communication in multiple contexts. Among other theories, the course discusses structural/functional and critical/cultural studies and post-modernism.

Pre-requisite: 900 101

### **900 316 Specialized Press (3-0-0-3)**

The press becomes ever more specialized in its contents and readership. The course develops student knowledge and skills in the sports, economic, artistic, scientific, medical and social affairs media.

Pre-requisite: 900 318

### **900 317 Broadcast Writing and Editing 2 (3-0-0-3)**

The course deals with the specific characteristics associated with writing for radio and TV. It also deals with the preparation of news,

variety shows, and entertainment programs, programs for women and political shows. The student learns about types of broadcasting, for example magazines, radio and television, editing and writing news, drama program scripts and drama.

Pre-requisite: 900 110

### **900 318 News Writing and Editing 2 (3-0-0-3)**

This course surveys advanced principles of journalistic writing by focusing on reports, interviews and feature stories. The course presents theoretical and practical information in journalistic writing and editing.

Pre-requisite: 900 109

### **900 320 Photojournalism (3-0-0-3)**

This course surveys principles and techniques of photojournalism. Students will learn the camera as a journalistic and documentation tool. They will also learn how to use conventional methods as well as digital technologies and explore visual perception as applied to photojournalism. The course provides students with analytical, critical, and artistic skills to "see" photos and explore ideas visually.

Pre-requisite: 900 318, 900 109

### **900 321 Mass Media in the UAE and the Gulf (3-0-0-3)**

The course examines historical, political, and cultural conditions under which mass media has emerged in the region. It also discusses the different development phases of the media; particularly the main big newspapers, radio and TV stations, news agencies, etc.

Pre-requisite: 900 101

### **900 322 Arab and International Communication (3-0-0-3)**

This course provides students with information on the history, birth, and development of Arab and foreign methods of communication. It also discusses the historical dimension of the Arab and international media and its methods, formal institutions, international resources for global communication and the role of space satellites in communication operations with emphasis on modern international media aspects such as media globalization and media methods in a society of information.

Pre-requisite: 900 101

### **900 110 Broadcast Writing and Editing 1 (3-0-0-3)**

The course covers the basic principles of editing for radio and TV and the principles of gathering and editing news in each medium. Students are trained to apply the steps in editing the news for television and radio and to identify the news values governing the selection of news for dissemination.

Pre-requisite: 102140

### **900 112 Technology in Mass Communication (3-0-0-3)**

This course covers the technological tools used in mass media whether in print media or in radio and TV. The course presents a historical survey of the development of media technologies since the invention of the press, followed by the various means of transferring information such as the telegraph, telephone, radio and TV broadcasting stations, fax, Internet and digital media.

Pre-requisite: 900 101

### **900 204 Public Relations Program (3-0-0-3)**

The course provides students with practical knowledge regarding public relations issues such as writing, media relations etc. Specifically, students acquire problem-solving techniques through case studies. In the process, they learn how to plan, implement and evaluate public relations programs.

Pre-requisite: 900 105

### **900 207 Principles of Social Marketing (3-0-0-3)**

This course deals with marketing from social and communication points of views. It concentrates on the social marketing of ideas, public projects and public institutions. It also concentrates on the strategic role mass media plays as tools of marketing to reach target audiences.

Pre-requisite: 900 101

### **900 208 Advertising (3-0-0-3)**

This required course is designed to help students gain potential understanding of the advertising process. It also helps them learn and engage in the process of developing and implementing advertising concepts. Through lectures, workshops, video screening, students have more opportunities to discuss, evaluate and engage in practical exercises that would help them apply advertising concepts and approaches discussed in earlier courses.

Pre-requisite: 900 105

### **900 214 Applications in Multimedia and Desktop Publishing (2-2-0-3)**

This course presents theoretical and practical knowledge on the main applications of multimedia and desktop publishing, which are used in web designing, e-learning, newspaper designing and other creative domains. The course focuses on basic theatrical concepts of multimedia and desktop publishing, and gives the students basic skills in using hardware and software for producing multimedia projects.

Pre-requisites: 900 109, 104 110

### **900 217 Online Media (3-0-0-3)**

This course introduces students to the basics of online media. It focuses on the operational and professional features of online journalism with reference to various online media outlets. It introduces students to blogging, "we media" and other online journalistic practices. It also surveys Arabic-language websites and compares them to those in English.

Pre-requisite: 900 110, 900 318

### **900 218 Internet for Communication (2-2-0-3)**

This course presents theoretical and practical knowledge on the Internet as a new global medium of communication. The Internet plays a dominant role in the field of communications in general and human communication in particular. The course focuses on communication skills via the Internet and its services such as e-mail, chatting, internet phone, files transferring, web browsing, newsgroups and mailing lists. This course also enables students to design web pages and engage in e-publishing.

Pre-requisite: 900 101, 104110

### **900 308 Broadcast Delivery (2-2-0-3)**

The course tackles the fundamental rules of perfect delivery and its technical bases. It provides students with the theoretical and practical knowledge of the bases of a perfect anchoring performance in front of the microphone and behind the camera. Rhythm of the delivery, articulation of letters, phonetic attributes of letters, vocal tones and pauses will be taught.

Pre-requisite: 900 110



news items and commentaries on TV. The course is an initial step towards providing students with the tools required in specialized media translation.

Pre-requisite: 620 404-6

### **620 404-6 Advanced Communication Translation (3-0-0-3)**

This course aims at reinforcing students' skills in translating from English into Arabic with special emphasis on the field of media. The course includes the translation of more specialized texts on subjects such as economics, sports, current affairs, etc. It also includes the translation of foreign newspapers editorials and opinion articles. Students will also be trained to translate media texts taken from internet websites.

Pre-requisite: 620 302-6

### **620 505 Translation for Electronic Media (3-0-0-3)**

This course is designed to provide students with translation strategies to help them to translate between Arabic and English using audio-visual facilities such as radio and TV. There is a functional element in the course. The multimedia laboratory, the language resource room, CDs, the Internet and other virtual technologies are used to develop students' translation skills.

Pre-requisite: 620 404-6

### **620 606 Graduation Project in Communication and Translation (3-0-0-3)**

This course aims to reinforce students' skills in the field of mass communication with special emphasis on communication terms and terminology from English into Arabic. The course includes the translation and preparation of specialized subjects, e.g., economics, sports, literary material, etc. for publication. It also includes translation of foreign newspaper editorials, opinion articles and direct translation from radio and TV stations. Students will be trained to translate communication material taken from other sources, for example internet websites. It also includes the training of various words and translated texts processing software packages.

Pre-requisite: Completion of 75 Credit Hours

### **900 101 Introduction to Mass Communication (3-0-0-3)**

The course surveys the history of mass media forms (print, radio, television, cinema, Internet) and their impact on human communication. Specifically, the course discusses main technological and communication characteristics of each medium. The course also provides students with critical thinking skills to re-think issues related to mass media and their impact on individuals and society.

### **900 104 Introduction to Communication Sociology (3-0-0-3)**

This course focuses on the social role of communication. Communication is considered to be an efficient tool for human interaction, influencing other social institutions in the process of socialization. The course clarifies the functions and dysfunctions of mass communication in society.

### **900 105 Introduction to Public Relations and Advertising (3-0-0-3)**

The course provides students with basic concepts and principles of public relations and advertising. It surveys the history and theories of public relations in the West as well as in the Arab world. The course also focuses on the role of media forms in creating and maintaining a healthy relationship between institutions and clients.

### **900 108 Communication Research Methods (3-0-0-3)**

This course provides students with the fundamentals and practical elements of communication research methods. These include the processes of conceptualizing, operationalizing and conducting research using scientific methods. Students will also be introduced to the concept and practice of sampling, questionnaire construction and interviewing techniques. They will be introduced to different data-gathering approaches including content analysis and participant observation.

Pre-requisite: 900 101

### **900 109 News Writing and Editing 1 (3-0-0-3)**

The course is an introduction to the basic rules for press editorial, critical and analytical reporting and column writing. The course aims at training and familiarizing students with journalistic writing style and genre.

Pre-requisite: 102140



### **620 201-6 Readings in Mass Communication (3-0-0-3)**

This course is a basic introduction for familiarizing students with media texts in English in the fields of communication, journalism, radio, and TV. The course is concerned with the products of Western school in the media with various fields and branches especially American and British.

Pre-requisite: 900 101

### **620 207 Press Releases' Translation (3-0-0-3)**

This course deals with the translation of the media materials issued after a political or non-political gathering representing the position of the people in that gathering. This also includes media materials issued by an individual or organization. The course is designed to vary students' knowledge and skills.

Pre-requisite: 620 404-6

### **620 212 Readings in Mass Communication (3-0-0-3)**

This course is a basic introduction for familiarizing students with media texts in English in the fields of communication, journalism, radio and TV. The course is concerned with the products of the Western school in the media with various fields and branches especially American and British.

Pre-requisite: 900 101

### **620 215 Introduction to Communication Translation (3-0-0-3)**

Introduction to Communication Translation is a translation course designed for people who are interested in communication and translation. It provides translation strategies helping students to translate written Arabic and English media texts. Media items taken from various written source are translated.

Pre-requisite: 600 101

### **620 251 Practical Training in Communication and Translation (3-0-0-3)**

This course is designed to give students the opportunity for practical training in their prospective careers. Students are prepared to work as professionals practicing interpreting and media translation, and carry out tasks under the supervision of academic and the field supervisors.

Pre-requisite: Completion of 75 Credit Hours

### **620 302-0 Advanced Communication Translation (3-0-0-3)**

This course aims to reinforce students' skills in the field of mass communication with special emphasis on communication terms and terminology from English into Arabic. The course includes translation and preparation of specialized subjects e.g., economics, sports, literary material, etc. for publication. It also includes translation of foreign newspaper editorials, opinion articles and direct translation from radio and TV stations. Students will be trained to translate communication material taken from other sources such as internet websites. The course also includes the training of various words and translated texts processing software packages.

Pre-requisite: 620 215

### **620 302-6 Introduction to Communication Translation (3-0-0-3)**

This course aims to provide students with basic strategies needed in translating various media texts to enable them to produce cohesive and coherent translated texts. It is designed to improve students' general knowledge and linguistic and technological skills in the field of communication

Pre-requisite: 900 101

### **620 303-6 Arabic for Translators (3-0-0-3)**

This is a service course in which students are provided with a good understanding of Arabic linguistics with the needs of the translator in mind. Emphasis is on the study of Arabic sentence structures and the similarities and differences between English and Arabic.

Pre-requisite: 102 140

### **620 309 Translation for Specialized Press (3-0-0-3)**

This course deals with the translation of items taken from the press tackling special issues, for example women, cars, fishing, cooking, etc. It also covers items taken from bulletins and other regular press releases made by international, regional and local organizations.

Pre-requisite: 620 404-6

### **620 352 Screen Translation (3-0-0-3)**

This course deals with the translation between Arabic and English of visual media items into print material. These include the translation of TV documentaries and series, cinema and TV films, feature films and

### **610 726 Linguistics III (3-0-0-3)**

This course introduces students to linguistic notions which have immediate bearing on translation. Topics include semantics, pragmatics and stylistics. It starts with a review of basic semantic concepts notably reference, denotation, connotation, sense relations, and the role of semantics in the study of language. The course also deals with semantic fields and various types of meaning. The students will also be involved in the study of the degree of lexical equivalence in synonymy, quasi-synonymy, polysemy, etc.

Pre-requisite: 610 517

### **610 727 Literary Translation (3-0-0-3)**

The course introduces students to the nature and problems of literary translation based on English texts from different periods and genres to highlight such issues as the nature of equivalence, English literary genres, loss and compensation, the translation of metaphors, style, culture, ideology and ethics.

Pre-requisite: 610 623

### **610 728 Consecutive Interpreting II (3-0-0-3)**

This course is mainly geared towards developing students' skills in consecutive interpreting from English to Arabic, making full use of the skills they have already acquired from the introduction to Consecutive Interpreting.

Pre-requisite: 610 622

### **610 729 Introduction to Computer-Assisted Translation (3-0-0-3)**

This course introduces students to the realm of computer-assisted translation (CAT), including the original and the latest techniques and technology. It will examine basic problems and approaches, and emphasize the way in which CAT research relies on ideas drawn from, and progress made in, other areas such as translation theory and theoretical linguistics.

Pre-requisite: 610 625

### **610 738 Survey of Twentieth Century Literature in English (3-0-0-3)**

This course deals with aspects of British and American literature which reflect the events that had shaped twentieth-century literature

and consciousness. It focuses on prominent writers who dealt with the concerns of the period: World War I, imagism, industrialization, modernism and the absurd.

Pre-requisite: 610 623

### **610 831 Translation Project (3-0-0-3)**

This course aims at giving the students the chance to gain hands-on experience. Students choose a text of 5,000-8,000 words on an appropriate subject and carry out an annotated translation preferably from English into Arabic or from Arabic into English. Furthermore, they investigate translation problems emanating from their study of the society they live in.

Pre-requisite: 610 625

### **610 832 Sociolinguistics (3-0-0-3)**

This course is designed to familiarize students with the cultural and social settings of the English Language. The course will introduce students to the basic concepts and approaches involved in the study of the links between language and society. It provides students with theoretical and practical knowledge about linguistic variation and relates it to social variables. Students will also learn how and why language varies as it is adapted to suit the subject matter, medium, purpose or attitude.

Pre-requisite: 610 726

### **610 833 Training (3-0-0-3)**

This course is designed to give students the opportunity for practical training in their prospective careers. Students are prepared to work as professionals, practicing interpreting and translation of various kinds, and carrying out tasks under supervision and guidance from academic and field supervisors.

Pre-requisite: Completion of 75 Credit Hours

### **620 200 Grammar I (3-0-0-3)**

This course introduces more features of English grammar appropriate to an advanced level of study with challenging exercises that engender creative, independent use of target structures. The exercise contexts reflect realistic, typical language use, which is relevant to the students' concerns, daily lives and life experiences.

### **610 622 Consecutive Interpreting I (3-0-0-3)**

This course is designed to provide students with the skills of content analysis, note-taking techniques, public speaking, presentation skills, sight translation and other skills pertinent to consecutive interpreting from English to Arabic. It is also designed to help students use standard methods of recording information when listening to source language texts. The course also aims at raising students' awareness of the differences between the spoken and the written mode.

Pre-requisite: 610 413

### **610 623 Introduction to English Literary Genres (3-0-0-3)**

This course introduces students to the study of English literary genres: fiction, drama and poetry, giving them insights into the nature of literary discourse. It develops the language skills and critical thinking necessary for analyzing and appreciating English literature and culture.

Pre-requisite: 610 414

### **610 624 Translation of Financial Texts (3-0-0-3)**

This course offers students an opportunity to understand the nature of financial texts and the related translation strategies which will help them produce cohesive translated Arabic texts. It provides students with reasonable financial and linguistic knowledge and skills deemed essential for translators of financial texts.

Pre-requisite: 610 517

### **610 625 Translation Theory (3-0-0-3)**

This course addresses itself to issues in translation theory. It deals with equivalence and context as major concepts in translation, and discusses different types and methods of translation from literal to free translations. It also deals with naturalization, cultural approximation and descriptive translation as major translation strategies. Further, it discusses certain aspects of translation from English into Arabic.

Pre-requisite: 610 516

### **610 631 Critical Theories in Communication and Translation (3-0-0-3)**

The course surveys selected critical theories of mass communication and translation. It covers various approaches to study the nature and

the impact of ideology in mass media. It specifically emphasizes sociological and philosophical bases in order to understand mechanisms of communication in multiple contexts. Among critical theories, the course discusses Marxism, psychoanalysis, structuralism, semiology, cultural studies, post-colonialism and postmodernism.

Pre-requisite: 610 625

### **610 635 French I (3-0-0-3)**

This course targets the fundamental language needs of students and gives them the necessary tools for immediate communication at this beginner level. The four language skills are tackled in a variety of exercises and the related language functions introduced in listening comprehension are practiced in the speaking class with a particular focus on pronunciation and communication. Student CD's, the multimedia laboratory, the language resources room and the Internet are used to develop learner autonomy and communicative competence.

### **610 636 French II (3-0-0-3)**

This course continues from French 1. It targets the fundamental needs of students at this level and gives them the necessary tools for immediate oral and written communication. This is achieved through a gradual progression approach. The four language skills are tackled in a variety of exercises and the related language functions introduced in listening comprehension are practiced in the speaking class with a particular focus on pronunciation and communication. Student CD's, the multimedia laboratory, the language resources room and the Internet are used to develop the learner's autonomy and communicative competence.

Pre-requisite: 610 635

### **610 724 Introduction to Computer-Assisted Translation (3-0-0-3)**

This course introduces students to the realm of computer-assisted translation (CAT), including the original and the latest techniques and technology. It will examine basic problems and approaches, and emphasize the way in which CAT research relies on ideas drawn from, and progress made in, other areas such as translation theory and theoretical linguistics.

Pre-requisite: 610 621

### **0610 517 Linguistics II (3-0-0-3)**

This course is a continuation of Introduction to Linguistics. Emphasis will be placed on morphology and syntax. The course covers the core areas of the subject: words and sentences, word classes, word structure, affixes, inflectional and derivational paradigms, immediate constituents of morphemes, conditioning (phonological and morphological), processes of word formation, basic sentence patterns, noun and verb phrases, parts of speech, modification, etc.

Pre-requisite: 610 412

### **610 518 Contrastive Analysis (3-0-0-3)**

This course provides students with some insights into the differences between English and Arabic at the phonological, morphological, syntactic, semantic and discourse levels. It further familiarizes students with the methodology of analyzing errors made by Arabic speakers in their attempts to learn English.

Pre-requisite: 610 412

### **610 519 Language of Media (3-0-0-3)**

This course introduces students to the linguistic varieties used in the various media. It aims at developing a reasonable command of the language of media. It also offers students the opportunity to develop an understanding of cultural differences between English and Arabic and how to tackle them when translating. Translation strategies and media skills are given a reasonable emphasis.

Pre-requisite: 610 414

### **610 520 Translation of Legal Texts (3-0-0-3)**

This course develops students' knowledge of legal terms and matters on an international basis, and explores such topics as pollution, maritime law, civil rights, with translation of key documents. It also gives students practice in the translation of contracts from English into Arabic. The emphasis is on the overall structure of contracts and their lexical features.

Pre-requisite: 610 413

### **610 542 Translation for Electronic Media (3-0-0-3)**

This course is designed for students who are interested in audio/visual communication and translation. It provides translation strategies, helping students to translate between Arabic and English in radio and

TV. There is a functional element to the course. The multimedia laboratory, the language resource room, CD-ROMs, the Internet and other virtual technologies are used to develop learners' translation skills.

Pre-requisite: 610 519

### **610 543 Translation for Specialized Press (3-0-0-3)**

This course deals with the translation of items taken from press tackling special issues, for example women, cars, fishing, cooking, etc. It also covers items taken from bulletins and other regular press releases made by international, regional and local organizations.

Pre-requisite: 610 542

### **610 621 Translation Theory (3-0-0-3)**

This course addresses issues in translation theory. It deals with equivalence and context as major concepts in translation, and discusses different types and methods of translation from literal to free translations. It also deals with naturalization, cultural approximation and descriptive translation as major translation strategies. Further, it discusses certain aspects of translation from English into Arabic.

Pre-requisite: 610 308

### **610 617/610 621-6 Discourse Analysis (3-0-0-3)**

This course introduces students to concepts in discourse analysis such as the definition of discourse analysis, text and context, schema theory speech acts, relevance theory, politeness, conversation analysis, cohesion and coherence and the differences between spoken English and written discourse.

Pre-requisite: 610 517

### **610 621-0 Translation Theory (3-0-0-3)**

This course addresses itself to issues in translation theory. It deals with equivalence and context as major concepts in translation, and discusses different types and methods of translation from literal to free translations. It also deals with naturalization, cultural approximation and descriptive translation as major translation strategies. Further, it discusses certain aspects of translation from English into Arabic.

Pre-requisite: 620201-6

### **610 309 Advanced English Writing Skills (3-0-0-3)**

This course builds upon the skills acquired in "English Writing Skills" to further develop students' critical thinking and academic writing competencies. The course devotes a good part of the semester to the skills of writing summaries, critiques, and syntheses; paraphrasing and using quotations. It then leads students through the process of writing a research paper.

Pre-requisite: 610 101

### **610 310 English Grammar (II) (3-0-0-3)**

This course is designed to introduce more features of English grammar appropriate to an upper-intermediate level of study with challenging exercises that engender creative, independent use of target structures. It concentrates on main lexical categories and grammatical categories. Other topics include sentences and their parts, subordination and coordination, etc.

Pre-requisite: 610 206

### **610 308/610 311 English-Arabic Translation I (3-0-0-3)**

This course is designed to equip students with the basic skills of translation with special focus on translating from English into Arabic. It covers various registers including social, scientific and others.

Pre-requisite: 610 204

### **610 411 English Language and Culture (3-0-0-3)**

This course offers students an opportunity to learn about culture and daily life in countries where English is spoken as a first language. It explores topics such as geography and history, traditions and superstitions, fashion, food and drink, law and order, music and sport from the point of view of young people. Students are encouraged to compare their own culture to that in Britain, Ireland, Canada, the US, Australia and New Zealand.

Pre-requisite: 610 204

### **610 412 Introduction to Linguistics (3-0-0-3)**

This course introduces students to the basic concepts and issues in linguistics, and investigates the nature of human language and its main features. It also familiarizes them with the procedures of analyzing a language at various phonetic and phonological levels taking English as an example.

Pre-requisite: 610 310

### **610 413 English-Arabic Translation II (3-0-0-3)**

This course is a continuation of English-Arabic Translation I. It is designed to further students' knowledge of the various translation strategies and their ability to apply them to various English text genres.

Pre-requisite: 610 311

### **610 414 English Language and Culture (3-0-0-3)**

This course offers students an opportunity to learn about culture and daily life in countries where English is spoken as the first language. It explores topics such as geography and history, traditions and superstitions, fashion, food and drink, law and order, music and sport from the point of view of young people. Students are encouraged to compare their own culture to that in Britain, Ireland, Canada, the US, Australia and New Zealand.

Pre-requisite: 610 308

### **610 415 Arabic-English Translation I (3-0-0-3)**

This course is designed to equip students with the basic skills of translation with special focus on translating from Arabic into English. It covers selected text genres for translation including social, scientific, etc.

Pre-requisite: 610 311

### **610 515 Language of Media (3-0-0-3)**

This course introduces students to the linguistic varieties used in various media. It aims to develop a reasonable command of the language of media. It also offers students the opportunity to develop an understanding of cultural differences between English and Arabic and how to tackle them when translating. Translation strategies and media skills are given a reasonable emphasis.

Pre-requisite: 610 411

### **610 516 Arabic- English Translation II (3-0-0-3)**

This course is a continuation of the course Arabic – English Translation I and is designed to further students' knowledge and ability to apply the various translation strategies when faced with Arabic texts.

Pre-requisite: 610 415

# Course Descriptions

## **610 101 English Writing Skills (3-0-0-3)**

The course is designed to develop students' proficiency in writing academic essays using rhetorical modes such as analysis, classification and comparison and contrast. The course focuses on organization and logical development as well as lexical accuracy. A special emphasis is put on thesis statements and coherence.

## **610 202 Advanced English Listening and Speaking (3-0-0-3)**

This course aims at reinforcing the students' listening and speaking skills. Students will learn to identify main ideas, take notes and give presentations. They will also learn a number of useful language functions, such as greeting, complimenting and comforting people, extending congratulations and condolences, making polite positive and negative statements, etc.

## **610 202-6 English Listening Skills (3-0-0-3)**

This course is designed for advanced students of English as a Foreign Language. The course uses lectures and readings on topics of universal interest in the fields of anthropology, history, sociology, communication and biology which provide stimulating content-based springboards for developing listening comprehension, note taking and academic study skills.

## **610 203 English Speaking Skills (3-0-0-3)**

This course aims at expanding students' oral communication skills and fluency in using appropriate verbal and nonverbal language and conversation management techniques. Students are given ample opportunities to express their ideas (orally) in a variety of social, business and academic situations.

## **610 204 Advanced English Reading Skills (3-0-0-3)**

In this course, students will examine extensive readings in a variety of styles. The vocabulary in the readings includes words students typically encounter during their university study. Students will be required to read articles and extract information from various forms of charts, graphs and illustrations.

Pre-requisite:

## **610 204-6 English Lexis (3-0-0-3)**

This course is designed to improve students' English vocabulary and help them learn how to use them in context. Strategies for enlarging students' vocabulary, organizing a vocabulary notebook and revising vocabulary are presented. Practice in the use of dictionaries is also given. Vocabulary-related concepts such as collocation, connotation, idioms, phrasal verbs, and some theme-based vocabulary are also introduced.

Pre-requisite: 610 101

## **610 205 Arabic Grammar (3-0-0-3)**

This course deals with the study of al-iaaraab and al-binaa in Arabic in addition to the following topics: reasons for establishing grammar science, study of sentences and styles, types of sentences in Arabic and their significance, the Five Verbs, the 'Weak Verbs', Active-passive relations and all their configurations, and Arabic numbers.

Pre-requisite: 102 140

## **610 206 English Grammar (I) (3-0-0-3)**

This course is designed to help students at an intermediate level improve their accuracy and extend their range of expression. The course focuses on the grammatical problems encountered by students and encourages them to find their own answers. There are activities at each step, using authentic written and spoken data. Some of the concepts and ideas introduced in this course will be given more attention in "English Grammar II."

Pre-requisite: 610 101

## **610 307 Advanced English Grammar (3-0-0-3)**

This course is designed to introduce more features of English grammar appropriate to an upper-intermediate level of study with challenging exercises that engender creative, independent use of target structures. It concentrates on main lexical categories and grammatical categories. Other topics include sentences and their parts, subordination and coordination, etc.

Pre-requisite: 610 206

SEMESTER 5

Course #	Course Name	Lec	Tut	Lab	Credit Hours	Pre-requisite
610 516	Arabic-English Translation(II)	3	0	0	3	610 415
610 517	Linguistics II	3	0	0	3	610 412
610 518	Contrastive Analysis	3	0	0	3	610 412
610 519	Language of Media	3	0	0	3	610 414
610 520	Translation of Legal Texts	3	0	0	3	610 413
xxx xxx	University Elective	3	0	0	3	-
TOTAL		18	0	0	18	

SEMESTER 6

Course #	Course Name	Lec	Tut	Lab	Credit Hours	Pre-requisite
610621-6	Discourse Analysis	3	0	0	3	610517
610 622	Consecutive Interpreting I	3	0	0	3	610 413
610 623	Introduction to English Literary Genres	3	0	0	3	610 414
610 624	Translation of Financial Texts	3	0	0	3	610 517
610 625	Translation Theory	3	0	0	3	610 516
xxx xxx	Major Elective	3	0	0	3	-
TOTAL		18	0	0	18	

SEMESTER 7

Course #	Course Name	Lec	Tut	Lab	Credit Hours	Pre-requisite
610 726	Linguistics III	3	0	0	3	610 517
610 727	Literary Translation	3	0	0	3	610 623
610 728	Consecutive Interpreting II	3	0	0	3	610 622
610 729	Introduction to Computer Assisted Translation	3	0	0	3	610 625
xxx xxx	Major Elective	3	0	0	3	-
xxx xxx	Major Elective	3	0	0	3	-
TOTAL		18	0	0	18	

SEMESTER 8

Course #	Course Name	Lec	Tut	Lab	Credit Hours	Pre-requisite
610 831	Translation Project	3	0	0	3	0610 625
610 832	Sociolinguistics	3	0	0	3	0610 726
610 833	Training	3	0	0	3	Completion of 75 Hours
TOTAL		9	0	0	9	

## Proposed Sequence of Study

### SEMESTER 1

Course #	Course Name	Lec	Tut	Lab	Credit Hours	Pre-requisite
101 000	Orientation	1	0	0	0	-
102 110	Islamic Studies	3	0	1	3	-
102 140	Communication Skills in Arabic	3	0	0	3	-
103 130	Research methodology	3	0	0	3	-
104 110	Computer Applications	2	2	0	3	-
900 101	Introduction to Mass Communication	3	0	0	3	-
TOTAL		15	2	1	15	

### SEMESTER 2

Course #	Course Name	Lec	Tut	Lab	Credit Hours	Pre-requisite
900 105	Introduction to Public Relations and Advertising	3	0	0	3	-
900 109	News Writing and Editing (I)	3	0	0	3	102 140
900 110	Broadcasting Writing and Editing (I)	3	0	0	3	102 140
900 112	Technology of Mass Communication	3	0	0	3	900 101
xxx xxx	University Elective	3	0	0	3	-
TOTAL		15	0	0	15	

### SEMESTER 3

Course #	Course Name	Lec	Tut	Lab	Credit Hours	Pre-requisite
620212-6	Readings in Mass Communication	3	0	0	3	900 101
620302-6	Intro. to Comm. Translation	3	0	0	3	900 101
900 108	Communication Research methods	3	0	0	3	900 101
Xxx xxx	University Elective	3	0	0	3	-
Xxx xxx	Major Elective	3	0	0	3	-
TOTAL		15	0	0	15	

### SEMESTER 3

Course #	Course Name	Lec	Tut	Lab	Credit Hours	Pre-requisite
103 110-2	Statistics	3	0	0	3	-
900 204	Public Relations Programs	3	0	0	3	900 105
900 207	Principles of Social Marketing	3	0	0	3	900 101
900 208	Advertising	3	0	0	3	900 105
900 218	Internet for Communication	3	0	0	3	900 101, 104 110
TOTAL		15	0	0	15	



## MAJOR REQUIREMENTS

(a) Major Requirements (93 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
620 201-6	Readings in Mass Communication	3	0	0	3	900 101
620 302-6	Introduction to Communication Translation	3	0	0	3	900 101
620 404-6	Advanced Communication Translation	3	0	0	3	620 302-6
900 101	Introduction to Mass Communication	3	0	0	3	
900 105	Introduction to Public Relations and Advertising	3	0	0	3	
900 108	Communication Research methods	3	0	0	3	900 101
900 109	News Writing and Editing (1)	3	0	0	3	102 140
900 110	Broadcasting Writing and editing (1)	3	0	0	3	102 140
900 112	Technology of Mass Communication	3	0	0	3	900 101
900 204	Public Relations Programs	3	0	0	3	900 105
900 207	Principles of Social Marketing	3	0	0	3	900 101
900 208	Advertising	3	0	0	3	900 105
900 214	Applications in Multimedia and Desktop	3	0	0	3	900 109,104 110
900 218	Internet for Communication	3	0	0	3	900 101,104 110
900 313	Special Topics in Communication and Public Relations	3	0	0	3	900 317, 900 204
900 315	Communication Theories	3	0	0	3	900 101
900 316	Specialized Press	2	2	0	3	900 318
900 317	Broadcasting Writing and Editing (II)	2	2	0	3	900 110
900 318	News Writing and Editing (II)	3	0	0	3	900 109
900 322	Arab and International Communication	3	0	0	3	900 101
900 401	Newspaper Design and Layout	3	0	0	3	900 318
900 402	Radio and TV Directing	3	0	0	3	900 317
900 403	Applications in Communication Research	2	2	0	3	900 108, 103 110
900 404	Public Opinion	2	2	0	3	900 101
900 405	Training and Graduation Project in Public Relations	3	0	0	3	900 313
900 406	Training and Graduation Project in Mass Communication	3	0	0	3	900 313
900 407	Media Management	3	0	0	3	900 109, 900 101
900 408	Media Laws and Ethics	3	0	0	3	900 101

(b) Major Electives (12 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
610 621	Translation Theory	3	0	0	3	620 201-6
620 303-6	Arabic for Translators	3	0	0	3	102 140
900 217	Online Media	2	2	0	3	900 109, 900 110
900 308	Broadcast Delivery	3	0	0	3	900 110
900 310	Documentary Programs	3	0	0	3	900 317
900 320	Photojournalism	3	0	0	3	900 109
900 321	Mass Media in UAE and Gulf	2	2	0	3	

## University General Education Requirements

(a) University Required Courses (15 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
101 000	Orientation	1	0	0	0	-
102 110	Islamic Culture	3	0	1	3	-
102 140	Communication Skills in Arabic Language	3	0	0	3	-
103 110-2	Statistics	2	2	0	3	-
103 130	Research Methodology	3	0	0	3	-
104 110	Computer Applications	2	2	0	3	-

(b) University Elective Courses (15 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
101 000-1	Orientation	1	0	0	0	
102 120-1	The Miraculousness of the Holy Koran	3	0	0	3	
106 120	CEC/TFL	0	15	0	0	
112 110	Principles of Art and Architecture	3	0	0	3	
112 120	Principles of Interior Design	3	0	0	3	
112 130	Modern Technology and Society	3	0	0	3	
113 110	Internet Concepts	2	2	0	3	
113 120	Introduction to Information Systems	3	0	0	3	
114 110	Economic Concepts	3	0	0	3	
114 120	Entrepreneurship Development	3	0	0	3	
115 110	History of Science in Islam	3	0	0	3	
115 120	Scientific Pioneering	3	0	0	3	
115 130	General Psychology	3	0	0	3	
115 140	Principles of Mathematics	3	0	0	3	
115 150	The Art of Expression and Writing	3	0	0	3	
115 160	Emirates Society	3	0	0	3	
115 170	Education Technology	3	0	0	3	
117 110	General Chemistry	2	2	0	3	
117 120	Fundamentals of Human Nutrition	3	0	0	3	
117 130	First Aid	3	0	0	3	
117 140	Energy, Water and Environment	3	0	0	3	
117 150	Applications of Remote Sensing	3	0	0	3	
118 110	Principles of Ethics	3	0	0	3	
118 120	General Biology	2	2	0	3	
118 130	Oral Health	3	0	0	3	
118 140	General Principles of Epidemiology	3	0	0	3	
118 150	CPR – Cardio Pulmonary Resuscitation	2	2	0	3	
119 110	Communication Skills	3	0	0	3	
119 120	Introduction to Communication Sociology	3	0	0	3	
119 130	Information Society	3	0	0	3	
120 115	Legal Culture	3	0	0	3	
900 104	Introduction to Communication Sociology	3	0	0	3	
900 312	Information Society	3	0	0	3	

SEMESTER 5

Course #	Course Name	Lec	Tut	Lab	Credit Hours	Pre-requisite
620 505	Translation for Electronic Media	3	0	0	3	620 404
900 317	Broadcasting Writing and Editing II	3	0	0	3	900 110
900 318	News Writing and Editing II	3	0	0	3	0900 109
900 408	Media Laws and Ethics	3	0	0	3	-
Xxx xxx	University Elective Course	3	0	0	3	-
TOTAL		15	0	0	15	

SEMESTER 6

Course #	Course Name	Lec	Tut	Lab	Credit Hours	Pre-requisite
610 308	English/Arabic Translation	3	0	0	3	620 302
620 606	Graduation Project in Communication and Translation	3	0	0	3	Completion of 75 Credit Hours
900 214	Applications in Multimedia and Desktop Publishing	3	0	0	3	900 109 104110
900 401	Newspaper Design and Layout	3	0	0	3	900 318
xxx xxx	University Elective Course	3	0	0	3	-
TOTAL		15	0	0	15	

SEMESTER 7

Course #	Course Name	Lec	Tut	Lab	Credit Hours	Pre-requisite
620 207-6	Press Releases' Translation	3	0	0	3	620 404
900 112	Technology of Mass Communication	3	0	0	3	900 101
900 315	Communication Theories	3	0	0	3	900 101
xxx xxx	Major Elective	3	0	0	3	-
TOTAL		12	0	0	15	

SEMESTER 8

Course #	Course Name	Lec	Tut	Lab	Credit Hours	Pre-requisite
610 724	Introduction to Computer-Assisted Translation	3	0	0	3	620 621
620 251	Practical Training in Communication and Translation	3	0	0	3	Completion of 75 Credit Hours
620 352	Screen Translation	3	0	0	3	620 404 620 505
900 404	Public Opinion	3	0	0	3	900 101
Xxx xxx	Major Elective	3	0	0	3	-
TOTAL		15	0	0	15	

## Proposed Sequence of Study

### SEMESTER 1

Course #	Course Name	Lec	Tut	Lab	Credit Hours	Pre-requisite
102 110	Islamic Studies	3	0	0	3	-
102 140	Communication Skills in Arabic	3	0	0	3	-
103 110-2	Statistics	2	2	0	3	-
104 110	Computer Applications	3	0	0	3	-
514 330	Research Methodology	3	0	0	3	-
TOTAL		14	2	0	15	

### SEMESTER 2

Course #	Course Name	Lec	Tut	Lab	Credit Hours	Pre-requisite
610 204	Advanced English Reading Skills	3	0	0	3	-
620 200	Grammar 1	3	0	0	3	-
620 201	Readings in Mass Communication	3	0	0	3	-
620 302	Arabic for Translators	3	0	0	3	0102140
900 101	Introduction to Mass Communication	3	0	0	3	-
xxx xxx	University Elective	3	0	0	3	-
TOTAL		18	0	0	18	

### SEMESTER 3

Course #	Course Name	Lec	Tut	Lab	Credit Hours	Pre-requisite
610 202	Advanced English Listening and Speaking	3	0	0	3	-
610 411	English Language and Culture	3	0	0	3	-
620 302-6	Introduction to Communication Translation	3	0	0	3	-
Xxx xxx	University Elective Course	3	0	0	3	-
Xxx xxx	Major Elective	3	0	0	3	-
TOTAL		15	0	0	15	

### SEMESTER 3

Course #	Course Name	Lec	Tut	Lab	Credit Hours	Pre-requisite
610 515	Language of Media	3	0	0	3	620 302
610 621	Translation Theory	3	0	0	3	610 412
620 404-6	Advanced Communication Translation	3	0	0	3	620 301
900 109	News Writing and Editing I	3	0	0	3	-
900 110	Broadcasting Writing and Editing I	3	0	0	3	-
xxx xxx	University Elective Course	3	0	0	3	-
TOTAL		18	0	0	18	

## MAJOR REQUIREMENTS

(a) Major Requirements (84 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
610 202	Advanced English Listening and Speaking	3	0	0	3	
610 204	Advanced English Reading Skills	3	0	0	3	
610 308	English/Arabic Translation 1	3	0	0	3	620 303-6
610 411	English Language and Culture	3	0	0	3	610 204
610 515	Language of Media	3	0	0	3	610 411
610 621	Translation Theory	3	0	0	3	610 308
610 724	Introduction to Computer-Assisted Translation	3	0	0	3	610 621
620 200	Grammar I	3	0	0	3	
620 201-6	Readings in Mass Communication	3	0	0	3	
620 207-6	Press Releases Translation	3	0	0	3	620 404-6
620 251	Practical Training in Communication and Translation	3	0	0	3	Completion of 75 Credit Hours
620 302-6	Introduction to Communication Translation	3	0	0	3	620 201
620 303-6	Arabic for Translators	3	0	0	3	102 140
620 352	Screen Translation	3	0	0	3	620 404-6
620 404-6	Advanced Communication Translation	3	0	0	3	620 302-6
620 505	Translation for Electronic Media	3	0	0	3	620 404-6
620 606	Graduation Project in Communication and Translation	3	0	0	3	Completion of 75 Credit Hours
900 101	Introduction to Mass Communication	3	0	0	3	
900 109	News Writing and Editing I	3	0	0	3	102 140
900 110	Broadcasting Writing and Editing I	3	0	0	3	
900 112	Technology of Mass Communication	3	0	0	3	900 101
900 214	Applications in Multimedia and Desktop Publishing	3	0	0	3	900 109, 104 110
900 315	Communication Theories	3	0	0	3	900 101
900 317	Broadcasting Writing and Editing II	3	0	0	3	900 110
900 318	News Writing and Editing II	3	0	0	3	900 109
900 401	Newspaper Design and Layout	3	0	0	3	900 318
900 404	Public Opinion	3	0	0	3	900 101
900 408	Media Laws and Ethics	3	0	0	3	

(b) Major Electives (9 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
610 307	Advanced English Grammar	3	0	0	3	
610 617	Discourse Analysis	3	0	0	3	
620 309	Translation for Specialized Press	3	0	0	3	620 404-6
900 208	Advertising	3	0	0	3	
900 217	Online Media	3	0	0	3	900 110, 900 318
900 320	Photojournalism	3	0	0	3	900 317
900 321	Mass Media in UAE and Gulf	3	0	0	3	900 101
900 407	Media Management	3	0	0	3	

## University General Education Requirements

(a) University Required Courses (15 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
101 000	Orientation	1	0	0	0	-
102 110	Islamic Studies	3	0	1	3	-
102 140	Communication Skills in Arabic	3	0	0	3	-
103 110-2	Statistics	2	2	0	3	-
103 130	Research Methodology	3	0	0	3	-
104 110	Computer Applications	2	2	0	3	-

(b) University Elective Courses (9 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
102 120-1	The Miraculousness of the holy Koran	3	0	0	3	-
112 110	Principles of Art and Architecture	3	0	0	3	-
112 120	Principles of Interior Design	3	0	0	3	-
112 130	Modern Technology and Society	3	0	0	3	-
113 110	Internet Concepts	3	0	0	3	-
113 120	Introduction to Information Systems	3	0	0	3	-
114 110	Economic Concepts	3	0	0	3	-
114 120	Entrepreneurship Development	3	0	0	3	-
115 110	History of science in Islam	3	0	0	3	-
115 120	Scientific pioneering	3	0	0	3	-
115 130	General psychology	3	0	0	3	-
115 140	Principle of mathematics	3	0	0	3	-
115 150	The Art of Expression and writing	3	0	0	3	-
115 160	Emirates Society	3	0	0	3	-
115 170	Education Technology	3	0	0	3	-
117 110	General chemistry	3	0	0	3	-
117 120	Fundamental of Human Nutrition	3	0	0	3	-
117 130	First Aid	3	0	0	3	-
117 140	Energy, Water and Environment	3	0	0	3	-
117 150	Applications of Remote sensing	3	0	0	3	-
118 110	Principles of Ethics	3	0	0	3	-
118 120	General Biology	3	0	0	3	-
118 130	Oral Health	3	0	0	3	-
118 140	General principles of Epidemiology	3	0	0	3	-
118 150	CPR-Cardio Pulmonary Resuscitation	3	0	0	3	-
119 110	Communication Skills	3	0	0	3	-
119 120	Introduction to Communication Sociology	3	0	0	3	-
119 130	Information Society	3	0	0	3	-
120 115	Legal Culture	3	0	0	3	-

# Degree Requirements

The BA degree in Communication and Translation requires the completion of 123 Credit Hours distributed according to the following plan:

Types of Course	Credit Hours
1. University General Education Requirements	
(a) University Required Courses	15
(b) University Elective Courses	15
2. Major Requirements	
(a) Major Requirements	84
(b) (b) Major Electives	9
Total Credit Hours	123



# Communication and Translation Department

This program prepares students for a career in translation in the media field. It aims to develop students' understanding of the language of the media and the role translation plays in the communication process. It also aims to cultivate students' understanding of the practices and functions of translation in global media communication. Students will develop the ability to analyze and translate linguistic, semiotic, and discursive features of several media genres

## Bachelor of Art in Communication and Translation

### Mission

The program's mission is to participate in meeting the needs of the community in providing well-educated individuals who are able to make a beneficial contribution to society.

### Objectives

The program aims to enable students to

- acquire competence in translation and communication skills
- acquire linguistic skills and knowledge and familiarity with the cultures of both languages
- acquire technological and research knowledge in the field of media translation

### Program Goals

By completing the program successfully the students are expected to

- demonstrate ability to translate for various media
- apply the required translation strategies in translating media items
- utilize the linguistic skills and the cultural knowledge of both languages

### Admission Requirements

- A UAE high school certificate, or its equivalent, with a minimum grade of 60 percent
- A minimum score of 500 in the Test of English as a Foreign Language (TOEFL) examination, or its equivalent

### Career Opportunities

Graduates are equipped to take up the following careers:

- media translator
- news conference translator
- legal translator

### Graduation Requirements

The degree of Bachelor in English language and Translation is awarded upon the fulfillment of the following: successful completion of 123 credit hours, which normally takes eight semesters, and a minimum cumulative grade point average of 2.0.





SEMESTER 5

Course #	Course Name	Lec	Tut	Lab	Credit Hours	Pre-requisite
610 516	Arabic English Translation(II)	3	0	0	3	610 415
610 517	Linguistics II	3	0	0	3	610 412
610 518	Contrastive Analysis	3	0	0	3	610 412
610 519	Language of Media	3	0	0	3	610 414
610 520	Translation of Legal Texts	3	0	0	3	610 413
xxx xxx	University Elective	3	0	0	3	-
TOTAL		18	0	0	18	

SEMESTER 6

Course #	Course Name	Lec	Tut	Lab	Credit Hours	Pre-requisite
1610621-6	Discourse Analysis	3	0	0	3	610517
610 622	Consecutive Interpreting I	3	0	0	3	610 413
610 623	Introduction to English Literary Genres	3	0	0	3	610 414
610 624	Translation of Financial Texts	3	0	0	3	610 517
610 625	Translation Theory	3	0	0	3	610 516
xxx xxx	Major Elective	3	0	0	3	-
TOTAL		18	0	0	18	

SEMESTER 7

Course #	Course Name	Lec	Tut	Lab	Credit Hours	Pre-requisite
610 726	Linguistics III	3	0	0	3	610 517
610 727	Literary Translation	3	0	0	3	610 623
610 728	Consecutive Interpreting II	3	0	0	3	610 622
610 729	Introduction to Computer Assisted Translation	3	0	0	3	610 625
xxx xxx	Major Elective	3	0	0	3	-
xxx xxx	Major Elective	3	0	0	3	-
TOTAL		18	0	0	18	

SEMESTER 8

Course #	Course Name	Lec	Tut	Lab	Credit Hours	Pre-requisite
610 831	Translation Project	3	0	0	3	0610 625
610 832	Sociolinguistics	3	0	0	3	0610 726
610 833	Training	3	0	0	3	Completion of 75 Hours
TOTAL		9	0	0	9	

## Proposed Sequence of Study

### SEMESTER 1

Course #	Course Name	Lec	Tut	Lab	Credit Hours	Pre-requisite
101 000	Orientation	1	0	0	0	-
102 110	Islamic Studies	3	0	1	3	-
102 140	Communication Skills in Arabic Language	3	0	0	3	-
103 10-2	Statistics	2	2	0	3	-
1041 110	Computer Applications	2	2	0	3	-
514 330	Research Methodology	3	0	0	3	-
610 101	English Writing Skills	3	0	0	3	-
TOTAL		17	4	1	18	

### SEMESTER 2

Course #	Course Name	Lec	Tut	Lab	Credit Hours	Pre-requisite
610 202-6	English Listening Skills	3	0	0	3	-
610 203	English Speaking Skills	3	0	0	3	-
610 204-6	English Lexis	3	0	0	3	610 101
610 205	Arabic Grammar	3	0	0	3	102 140
610 206	English Grammar I	3	0	0	3	610 101
TOTAL		15	0	0	15	

### SEMESTER 3

Course #	Course Name	Lec	Tut	Lab	Credit Hours	Pre-requisite
610 308	Advanced English Reading Skills	3	0	0	3	610 204
610 309	Advanced English Writing Skills	3	0	0	3	610 101
610 310	English Grammar II	3	0	0	3	610 206
610 311	English – Arabic Translation (I)	3	0	0	3	610 204
xxx xxx	University Elective	3	0	0	3	-
TOTAL		15	0	0	15	

### SEMESTER 4

Course #	Course Name	Lec	Tut	Lab	Credit Hours	Pre-requisite
610 412	Introduction to Linguistics	3	0	0	3	610 310
610 413	English –Arabic Translation (II)	3	0	0	3	610 311
610 414	English Language and Culture	3	0	0	3	610 308
610 415	Arabic-English Translation (I)	3	0	0	3	610 311
xxx xxx	University Elective	3	0	0	3	-
TOTAL		15	0	0	15	

## MAJOR REQUIREMENTS

(a) Major Requirements (93 Cr. Hrs.)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
610 101	English Writing Skills	3	0	0	3	-
610 202-6	English Listening Skills	3	0	0	3	-
610203	English Speaking Skills	3	0	0	3	-
610 204-6	English Lexis	3	0	0	3	610 101
610 205	Arabic Grammar	3	0	0	3	102 140
610 206	English Grammar I	3	0	0	3	610 101
610 308	Advanced English Reading Skills	3	0	0	3	610 204
610 309	Advanced English Writing Skills	3	0	0	3	610 101
610 310	English Grammar II	3	0	0	3	610 206
610 311	English –Arabic Translation (I)	3	0	0	3	610 204
610 412	Introduction to Linguistics	3	0	0	3	610 310
610 413	English – Arabic Translation (II)	3	0	0	3	610 311
610 414	English Language and Culture	3	0	0	3	610 308
610 415	Arabic-English Translation (I)	3	0	0	3	610 311
610 516	Arabic-English Translation(II)	3	0	0	3	610 415
610 517	Linguistics II	3	0	0	3	610 412
610 518	Contrastive Analysis	3	0	0	3	610 412
610 519	Language of Media	3	0	0	3	610 414
610 520	Translation of Legal Texts	3	0	0	3	610 413
610 621-6	Discourse Analysis	3	0	0	3	610 517
610 622	Consecutive Interpreting I	3	0	0	3	610 413
610 623	Introduction to English Literary Genres	3	0	0	3	610 414
610 624	Translation of Financial Texts	3	0	0	3	610 517
610 625	Translation Theory	3	0	0	3	610 516
610 726	Linguistics III	3	0	0	3	610 517
610 727	Literary Translation	3	0	0	3	610 623
610 728	Consecutive Interpreting II	3	0	0	3	610 622
610 729	Introduction to Computer Assisted Translation	3	0	0	3	610 625
610 831	Translation Project	3	0	0	3	610 625
610 832	Sociolinguistics	3	0	0	3	610 726
610 833	Training	3	0	0	3	Completion of 75 Credit Hours

(b) Major Electives (9 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
610 542	Translation for Electronic Media	3	0	0	3	610 519
610 543	Translation for Specialized Press	3	0	0	3	610 542
610 631	Critical Theories in Communication and Translation	3	0	0	3	610 625
610 635	French I	3	0	0	3	-
610 736	French II	3	0	0	3	610 635
610 738	Survey of 20th Century English Literature	3	0	0	3	610 623

## University General Education Requirements

(a) University Required Courses (15 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
101 000	Orientation	1	0	0	0	-
102 110	Islamic Culture	3	0	1	3	-
102 140	Communication Skills in Arabic Language	3	0	0	3	-
103 110-2	Statistics	2	2	0	3	-
103 130	Research Methodology	3	0	0	3	-
104 110	Computer Applications	2	2	0	3	-

(b) University Elective Courses (9 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
102 120-1	The Miraculousness of the Holy Koran	3	0	0	3	-
112 110	Principles of Art and Architecture	3	0	0	3	-
112 120	Principles of Interior Design	3	0	0	3	-
112 130	Modern Technology and Society	3	0	0	3	-
113 110	Internet Concepts	2	2	0	3	-
113 120	Introduction to Information Systems	3	0	0	3	-
114 110	Economic Concepts	3	0	0	3	-
114 120	Entrepreneurship Development	3	0	0	3	-
115 110	History of Science in Islam	3	0	0	3	-
115 120	Scientific Pioneering	3	0	0	3	-
115 130	General Psychology	3	0	0	3	-
115 140	Principle of Mathematics	3	0	0	3	-
115 150	The Art of Expression and Writing	3	0	0	3	-
115 160	Emirates Society	3	0	0	3	-
115 170	Education Technology	3	0	0	3	-
117 110	General Chemistry	2	2	0	3	-
117 120	Fundamentals of Human Nutrition	3	0	0	3	-
117 130	First Aid	3	0	0	3	-
117 140	Energy, Water and Environment	3	0	0	3	-
117 150	Applications of Remote sensing	3	0	0	3	-
118 110	Principles of Ethics	3	0	0	3	-
118 120	General Biology	2	2	0	3	-
118 130	Oral Health	3	0	0	3	-
118 140	General Principles of Epidemiology	3	0	0	3	-
118 150	CPR-Cardio Pulmonary Resuscitation	2	2	0	3	-
119 110	Communication Skills	3	0	0	3	-
119 120	Introduction to Communication Sociology	3	0	0	3	-
119 130	Information Society	3	0	0	3	-
120 115	Legal Culture	3	0	0	3	-

Degree Requirements

The BA degree in English Language and Translation requires the completion of 132 Credit Hours distributed according to the following plan:

Types of Course	Credit Hours
1. University General Education Requirements	
(a) University Required Courses	15
(b) University Elective Courses	9
2. Major Requirements	
(a) Major Requirements	93
(b) Major Electives	9
Total Credit Hours	126



# College of Information, Mass Communication & Humanities

The College of Information, Mass Communication and Humanities strives to produce graduates who are able to construct and innovate as well as develop life-long learning capacities.

## Mission

The mission of the College of Information, Mass Communication and Humanities is to provide a foundation in academic and professional education via programs designed to raise the intellectual and creative potential of students.

## Degree Programs

The college offers three programs, each of which requires four years of study:

- BA in English Language and Translation
- BA in Communication and Translation
- BA in Mass Communication and Public Relations

## Department of English Language and Translation

The English Language and Translation Department has three main areas of responsibility:

- to realize the university's philosophy and vision by linking theory to practice, and academic knowledge to business fields
- to prepare graduates with constructive and innovative tools to face the challenges of communication and the information age, and better serve society
- to provide students with conventional, multi-media and virtual technology facilities

## Bachelor of Arts in English Language and Translation

### Mission

The mission of the English Language and Translation program of is two-fold. Firstly, it aims to provide students with the academic and professional knowledge they need to become responsible citizens. Secondly, it seeks to bridge the gap between the academic community and society at large, thus contributing to the development of the nation.

## Program Outcomes

By the end of the program students are expected to

- demonstrate proficiency in listening comprehension and communicative skills
- write essays and research papers and use critical thinking skills
- translate texts of various registers (media, legal, financial, literary, etc.) from English- Arabic- English and utilize translation software programs in the translation process
- work as consecutive interpreters and demonstrate the use of note-taking techniques, shorthand conventions, consecutive interpreting strategies and professional ethics

## Admission Requirements

- A UAE high school certificate, or its equivalent, with a minimum grade of 60 percent
- A minimum score of 500 in the Test of English as a Foreign Language (TOEFL) examination, or its equivalent

## Career Opportunities

Graduates are equipped to take up careers which include:

- News and conference translators and interpreters
- Public relations, personnel and executive officers
- Sworn-in legal translators/interpreters

## Graduation Requirements

The degree of Bachelor in English language and Translation is awarded upon the fulfillment of the following: successful completion of 126 credit hours, which normally takes eight semesters, and a minimum cumulative grade point average of 2.0.

## **290 326 SELECTED TOPICS IN FURNITURE DESIGN**

**(3 Credit Hours 1-4-0: 3)**

**Pre-requisite:** Furniture Design - 290 217

This course will look at the unexplored possibilities of furniture design by means of approaching the subject in a different philosophical approach leading to the development of drawings and the construction of a scaled model or a prototype. Format includes class discussions, field trips and individual research. Design of a chair and construction of half-scale prototype.

## **290 320 INTERIOR DESIGN PRACTICAL TRAINING**

**(4 Credit Hours)**

**Pre-requisite:** None

The aim of this training is to enable students gaining basic professional interior design knowledge, such as; interior finishing materials, suppliers, materials specification, bill of quantity, cost estimation.

### **290 318 INTERIORS IN THE UAE (3 Credit Hours 3-0-0: 3)**

**Pre-requisite:** Interior Design III - 290 213

This theoretical course aims to provide the students with extensive knowledge on UAE traditional and contemporary interiors.

### **290 319 WORKING DRAWINGS I (3 Credit Hours 2-2-0: 3)**

**Pre-requisite:** Interior Construction II - 290 317

This course is an introduction to construction and detail drawings. It enables students to gain knowledge of interior finishes, and to implement that knowledge in their drawings.

### **290 321 INTERIOR LANDSCAPE (3 Credit Hours 1-4-0: 3)**

**Pre-requisite:** Interior Design III - 290 213

This course aims to provide students with the knowledge and skills for successful landscape design, with emphasis on planning, design, resources and technologies.

### **290 323 PRACTICE IN INTERIOR DESIGN**

**(3 Credit Hours 3-0-0: 3)**

**Pre-requisite:** Interior Design III - 290 213

This course deals with the theoretical characteristics of business in the interior design field. Through the examination of the various factors of business practices, students would be well equipped to work successfully in the interior design field, as well as for future opportunities to set up their own design office.

### **290 420 WORKING DRAWINGS II (2 Credit Hours 1-2-0: 2)**

**Pre-requisite:** Working Drawings I - 290 319

This course follows-up the construction and detail drawings course. It enables students to gain additional knowledge on basic interior detailing, millwork and cabinetry design. This course focuses on detailing, technical drawings, specifications and scheduling.

### **298490 GRADUATION PROJECT I (3 Credit Hours 2-2-0: 3)**

**Pre-requisite:** Interior Design V - 290 315

This research oriented course enables the students to successfully develop in information gathering and analysis, to insure the success of their interior design graduation project.

### **298495 GRADUATION PROJECT II (6 Credit Hours 2-8-0: 6)**

**Pre-requisite:** Graduation Project I - 298490

The course gives the student an opportunity to explore his ability and

knowledge of dealing with actual existing project in interior design. By using the suitable furnishing requirements, student can create an aesthetic and functional interior design.

### **290 484 SELECTED TOPICS IN INTERIOR DESIGN (3 Credit Hours 2-2-0: 3)**

**Pre-requisite:** None

This course consists of an advanced research project on problems related to interior design. The chosen topic is determined on the basis of the students' interest, under the supervision of a college member.

### **290 480 ISLAMIC INTERIORS (3 Credit Hours 3-0-0: 3)**

**Pre-requisite:** None

A theoretical course covering major regional styles of the Islamic World, with special emphasis on the Arab World.

### **290 481 INTERIOR PHOTOGRAPHY (3 Credit Hours 1-4-0: 3)**

**Pre-requisite:** None

The main goal of this course is to give students the useful tools of photography techniques necessary for documenting their work, and to enhance their artistic taste in general.

### **290 482 ADVANCED CAAD APPLICATION (3 Credit Hours 1-4-0: 3)**

**Pre-requisite:** CAAD II - 290 235

Three dimensional studies of architectural graphic programs principles of electronic drafting and its capabilities to achieve an outstanding result to student presentations, projects, and design concepts.

### **290 483 THEORY OF INTERIOR DESIGN (3 Credit Hours 3-0-0: 3)**

**Pre-requisite:** Interior design II - 290 212

This course is an introduction to the significant theories concerning interaction between people and their environments. It would include scientific explanatory theories about people, materials and systems in relationship to design.



### **290 213 INTERIOR DESIGN III (4 Credit Hours 1-6-0: 4)**

**Pre-requisite:** Interior Design II - 290 212

This course deals mainly with the implementation of design concepts in the public sector. These include retail, cafés, restaurants and hair salons. Students are also encouraged to develop their knowledge in materials, wall treatments and finishes.

### **290 214 HISTORY OF INTERIOR DESIGN I (3 Credit Hours 3-0-0: 3)**

**Pre-requisite:** None

This course aims to provide students with the historical background to interior design. (pre-historic art, the historic periods of Egypt and Mesopotamia, Greek structures and art, Roman structures and art, Early Christian interiors, Byzantine structures and interiors, Romanesque interiors and Islamic structures and interiors).

### **290 215 HISTORY OF INTERIOR DESIGN II (3 Credit Hours 3-0-0: 3)**

**Pre-requisite:** History of Interior Design I - 290 214

The course deals with the theoretical concepts of interior design and decoration of contemporary movements and developments, which led to modern features in interior design.

### **290 216 INTERIOR CONSTRUCTION I (3 Credit Hours 2-2-0: 3)**

**Pre-requisites:** Engineering Graphics - 201 102 & Interior Design II - 290 212

This course provides an understanding of the elements and materials of interior construction and the graphic methods used to communicate this information.

### **290 217 FURNITURE DESIGN (3 Credit Hours 1-4-0: 3)**

**Pre-requisite:** Interior Design I - 290 111

This course aims to provide students with a historical study of furniture design through historical periods, while studio time is used for design exercises and model making projects.

### **290 222 LIGHTING & ACOUSTICS FOR INTERIOR DESIGN (2-2-0: 3)**

**Pre-requisite:** Interior Design I - 290 111

This theoretical course aims to provide students with the basics of lighting and acoustics in interiors. The course covers the various types of lighting and acoustics available, acoustics in interior spaces and the effect of noise on human beings.

### **290 257 PSYCHOLOGY OF DESIGN (3 Credit Hours 2-2-0: 3)**

**Pre-requisite:** Interior Design II - 290 212

This course deals with the psychological relationship between people and design. It explores the way design is directed at satisfying people's needs, and its impact on the creative process.

### **290 314 INTERIOR DESIGN IV (4 Credit Hours 1-6-0: 4)**

**Pre-requisite:** Interior Design III - 290 213

This course deals mainly with the implementation of design concepts in administrative buildings. These include public, private and executive offices. Students are also encouraged to develop their knowledge in creating environments suitable for high performance activities.

### **290 315 INTERIOR DESIGN V (4 Credit Hours 1-6-0: 4)**

**Pre-requisite:** Interior design IV - 290 314

This course deals mainly with the implementation of design concepts in commercial buildings. These include hotels, motels and resorts. Students are also encouraged to develop their knowledge in creating environments suitable for high performance activities, whilst acquiring knowledge in materials, wall treatments and finishes.

### **290 316 TEXTILE & ACCESSORIES (3 Credit Hours 2-2-0: 3)**

**Pre-requisite:** Color in Interior Design - 290 105

The course gives the ideas and techniques needed for the use and application of textiles and accessories to create aesthetic and functional interior spaces. It also gives an understanding of dealing with different styles of textiles and accessories.

### **290 317 INTERIOR CONSTRUCTION II (3 Credit Hours 2-2-0: 3)**

This course provides more advanced and specialized aspects of interior construction elements and systems, which define the space and provide character to interior spaces.

# Course Descriptions

## **200 101 INTRODUCTION TO DESIGN**

**(3 Credit Hours 1-4-0: 3)**

**Pre-requisite:** None

The course covers design elements; material symbols; techniques of surface treatments; treatments of interior spaces and volumes; small project: color drawings and scale- models.

## **200 102 PERSPECTIVE, SHADES & SHADOW**

**(3 Credit Hours 1-4-0: 3)**

**Pre-requisite:** Engineering Graphics - 201 102

The course covers shade and light for 2D drawings; basics for drawing perspectives; architectural rendering and shade and light for 3D drawings.

## **270 234 CAAD I (3 Credit Hours 1-4-0: 3)**

**Pre-requisite:** IT Fundamentals – 310 100

The course covers the advantages of CAAD over the traditional design process, mastering AutoCAD 2000 software as a tool of CAAD design and places emphasis on the 2D AutoCAD with an introduction of 3D AutoCAD.

## **270 335 CAAD II (3 Credit Hours 1- 4-0: 3)**

**Pre-requisite:** CAAD I – 270 234

The course covers AutoCAD orders and tools, integrating presentation work through sharing (importing, exporting) drawing files with other presentation programs such as 3d Max and Photoshop. 3D Max and its implementation to basic architectural concepts is presented, including modeling and presentation, modeling tools, creating objects, primitives, compound objects, surfaces, modifiers, helpers, materials, textures, environmental controls, light and cameras. In addition maneuvering these capabilities and the creation of realistic images and scenes are also covered in addition to the application of key frames animation, controllers and expressions to create movies with full architectural, artistic and environmental touching.

## **290 103 FREEHAND DRAWING I (4 Credit Hours 2-4-0: 4)**

**Pre-requisite:** None

An introductory studio course aimed at exploring the wide variety of concepts, methods and theories of freehand drawing. Students are

taught to draw still-lives, interiors, buildings, landscapes and the human figure in color, and black and white.

## **290 104 FREEHAND DRAWING II (2 Credit Hours 1-2-0: 2)**

**Pre-requisite:** Freehand Drawing I - 290 103

This studio course will expand on representational techniques and is aimed at exploring and investigating the wide variety of concepts, methods and theories of freehand drawing studied previously. Students are taught techniques to be used in the presentation of their design concepts.

## **290 105 COLOR IN INTERIOR DESIGN**

**(3 Credit Hours 2-2-0: 3)**

**Pre-requisite:** None

This course is planned to provide the student with information on how color plays a role in our lives and in design by examining the properties, theories, meanings and effects of color. It offers a cross-circular approach by making connections between the art, the science, the psychology and/or sociology of each aspect of color.

## **290 111 INTERIOR DESIGN I (4 Credit Hours 1-6-0: 4)**

**Pre-requisite:** Introduction to Design – 200 101

This course introduces students to the primary elements and principles of small residential spaces. Through simple functional assignments, such as bathrooms and kitchens, students begin to understand the design of interior spaces. Students are also introduced to wall treatments, flooring, ceiling and finishing materials.

## **290 211 WORKSHOP (3 Credit Hours 1-4-0: 3)**

**Pre-requisites:** Engineering Graphics - 201 102 & Perspective, Shades & Shadows – 200 102

This course is planned to train the student in the execution of scale models. It enables students to gain knowledge in different materials and the ability to use workshop tools.

## **290 212 INTERIOR DESIGN II (4 Credit Hours 1-6-0: 4)**

**Pre-requisite:** Interior Design I - 290 111

This course deals with the interior design of residential places or retail environments. Students are also introduced to external finishing and cladding, with an emphasis on wall treatments, flooring and finishing materials.

## Semester 5

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
290 314	Interior Design IV	4	1	---	6	290 213
290 316	Textile & Accessories	3	2	---	2	290 105
290 317	Interior Construction II	3	2	---	2	290 216
290 318	Interiors in the UAE	3	3	---	0	290 213
270 335	CAAD II	3	1	---	4	270 234
290 323	Practice in Interior Design	3	3	---	0	290 213
Total		19				

## Semester 6

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
290 315	Interior Design V	4	1	---	6	290 314
290 319	Working Drawings I	3	2	---	2	290 317
290 321	Interior Landscape	3	1	---	4	290 213
-----	Special Elective I	3	3	---	0	--
-----	Special Elective II	3	3	---	0	--
-----	University Elective II	3	3	---	---	---
Total		19				

## Semester 7

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
298 490	Graduation Project I	3	2	---	2	290 315
290 420	Working Drawings II	2	1	---	2	290 319
-----	University Elective III	3				
Total		8				

## Semester 8

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
298 495	Graduation Project II	6	2	8	8	298 490
-----	Special Elective III	3				
Total		9				

## Proposed Sequence of Study

### Semester 1

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
200 101	Introduction to Design	3	1	-	4	-
201 102	Engineering Graphics	3	2	-	2	-
290 103	Freehand Drawing I	4	2	-	4	-
104 110	Computer Applications	3	2	-	2	-
102 110	Islamic Studies	3	3	1	-	-
-----	University Elective I	3	3	-	-	-
Total		19				

### Semester 2

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
290 111	Interior Design I	4	1	-	6	200 101
200 102	Perspective, Shade & Shadow	3	1	-	4	201 102
290 104	Freehand Drawing II	2	1	-	2	290 103
290 105	Color in Interior Design	3	2	-	2	-
110 140	Math. for Management	3	3	2	-	-
103 130	Research Methodology	3	3	-	-	-
Total		18				

### Semester 3

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
290 212	Interior Design II	4	1	-	6	290 111
290 214	History of Interior Design I	3	3	-	0	-
290 211	Workshop	3	1	-	4	201 102
200 102						
290 217	Furniture Design	3	1	-	4	290 111
290 322	Lighting & Acoustics in Interior Design	3	2	-	2	290 111
103 110	Statistics	3	2	2	0	
Total		19				

### Semester 4

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
290 213	Interior Design III	4	1	-	6	290 212
290 215	History of Interior Design II	3	3	-	0	290 214
290 216	Interior Construction I	3	2	-	2	290 212
200 457	Psychology of Design	3	3	-	0	290 212
270 234	CAAD I	3	1	-	4	104 110
102 140	Communication Skills in Arabic Language	3	3	-	0	-
Total		19				

Department Requirements (Compulsory: 91 Credit Hours)

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
200 101	Introduction to Design	3	1	-	4	-
200 102	Perspective, Shades & Shadow	3	1	-	4	201 102
270 234	CAAD I	3	1	-	4	104 110
270 335	CAAD II	3	1	-	4	270 234
290 103	Freehand Drawing	4	2	-	4	-
290 104	Freehand Drawing II	2	1	-	2	290 103
290 105	Color in Interior Design	3	2	-	2	-
290 111	Interior Design I	4	1	-	6	200 101
290 211	Workshop	3	1	-	4	201 102
290 212	Interior Design II	4	1	-	6	200 102
290 213	Interior Design III	4	1	-	6	290 111
290 214	History of Interior Design I	3	3	-	0	290 212
290 215	History of Interior Design II	3	3	-	0	-
290 216	Interior Construction I	3	2	-	2	290 214
290 217	Furniture Design	3	1	-	4	201 102
290 322	Lighting & Acoustics in Interior Design	3	2	-	2	290 111
200 457	Psychology of Design	3	2	-	2	290 212
290 314	Interior Design IV	4	1	-	6	290 213
290 315	Interior Design V	4	1	-	6	290 314
290 316	Textile & Accessories	3	2	-	2	290 105
290 317	Interior Construction II	3	2	-	2	290 216
290 318	Interiors in the UAE	3	3	-	0	290 213
290 319	Working Drawings I	3	2	-	2	290 317
290 320	Interior Design Practical Training	4	4	-	0	-
290 321	Interior Landscape	3	1	-	4	290 213
290 323	Practice in Interior Design	3	3	-	0	290 213
290 420	Working Drawings II	2	1	-	2	290 319
298 490	Graduation Project I	3	2	-	2	290 315
298 495	Graduation Project II	6	2	-	8	298 490

Major Requirements (electives: 9 Credit Hours)

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
Selected Topics in Furniture Design	290 326	3	3	1	4	290 217
Islamic Interiors	290 480	3	3	0	-	-
Interior Photography	290 481	3	3	1	4	-
Advanced CAAD App.	290 482	3	3	1	4	270 335
Theory of Interior Design	290 483	3	3	3	0	290 212
Selected Topics in Interior Design	290 484	3	3	2	2	-

## University Requirements

Compulsory Courses (15 Credit Hours) and Elective Courses (9 Credit Hours)

Course Name	Course #	Credit Hours	Lectures	Tut =1/ - Lab=2	Pre-requisite
<b>Compulsory Courses</b>					
Orientation	101 000	0	1	0	-
Research Methodology	103 130	3	3	0	-
Statistics	103 110	3	2	2	-
Islamic Studies	102 110	3	3	1	-
Communication Skills in Arabic Language	102 140	3	3	0	-
Computer Applications	104 110	3	2	2	-
<b>Elective Courses (3 courses from the list)</b>					
Scientific Pioneering	115 120	3	3	0	-
History of Science in Islam	115 110	3	3	0	-
General Psychology	115 130	3	3	0	-
Economic Concepts	114 110	3	3	0	-
Introduction to Communication Sociology	119 120	3	3	0	-

College Requirements (6 Credit Hours)

Course Name	Course #	Credit Hours	Lectures	Tut =1/ - Lab=2	Pre-requisite
Engineering Graphics	201 102	3	2	2	-
Math For Management	110 140	3	3	2	-

# Interior Design

Mission

Admission Requirements



### **273 508 GEOGRAPHIC INFORMATION SYSTEMS**

**(2, 2, 0: 3) Pre-requisite: 270 335**

The course covers the development and history of GIS and present applications of the technology. Essential elements of a Geographic Information System are also presented, as are basic concepts and principles of Geographic Information Systems.

### **273 504 PHOTOGRAPHY**

**(1, 4, 0: 3) Pre-requisite: None**

This is an introductory course to photography. It deals with the principles of photography such as light exposures, compositions and film developing. Types and uses of cameras, lenses, flashes, filters and other accessories are discussed and applied. The course also involves photographing buildings and student projects, portfolio design and the use of digital cameras.

### **273 509 CONTEMPORARY ARAB ARCHITECTURE**

**(3, 0, 0: 3) Pre-requisite: 270 316**

This course will introduce students to recent architectural trends and developments in the Arab world during the 20th century and up to the present. Architectural change and transformation from tradition to modernity during the 20th century are investigated. The different architectural trends and attitudes in Arab countries are explored through analyzing examples of the pioneers of contemporary Arab architecture, such as Fathy, Badran, Makkiyyeh and Chadirji.

### **273 510 INTERIOR ARCHITECTURE**

**(3, 0, 0: 3) Pre-requisite: None**

*This course will enhance students' skills in interior space drawing and coloring, identify color theories and applying them in interior spaces, color plans with different techniques, develop basic color skills for residential and public spaces, and producing 3d drawings using water and poster color.*

### **273 511 SUSTAINABLE ARCHITECTURE**

**(3, 0, 0: 3) Pre-requisites: 270 243 & 270 447**

This course will give the student general background about sustainable development and its application in architecture through the impact in the main principles of good design and Principles of Sustainable Design such as Sustainable Construction, Environmental Architecture, Ecological Building, Green Building, Sustainable Design, and Sustainable Urban Design.



## **270 459 URBAN DESIGN**

**(2, 6, 0: 5) Pre-requisite: 270 407**

The course introduces urban design concepts and urban scale architecture, urban design structure and elements, the urban design process; surveying, analysis and evaluation. Project management and presentation are also covered.

## **270 458 URBAN PLANNING**

**(3, 0, 0: 3) Pre-requisite: 270 356**

Course topics include the evolution of city form and structure, the development of order and organization in cities, theories of planning, the politics of planning, social and cultural contexts, the planning process and models, and planning management and implementation.

## **270 468 HERITAGE CONSERVATION**

**(2, 2, 0: 3) Pre-requisite: 270 214**

The course introduces the history of the conservation movement, international and local conservation programs, regulatory instruments, methods and techniques. Case studies are presented, and conservation experience in the UAE is covered.

## **270 589 GRADUATION PROJECT I**

**(3, 4, 0: 5) Pre-requisites: 270 459 & 270 346**

Students carry out a substantial work of design research presented as a short thesis report, entailing practical application to a researched topic of a specific building type (a complex multi-use design problem). Project selection is based on the real needs of UAE society. Methodology in architectural design through a process of programming is covered, together with a literature review, data collection, statistics, case study critique, developed architectural program and schematic design concepts.

## **270 559 ARCHITECTURE PRACTICE**

**(3, 0, 0: 3) Pre-requisite: None**

An overview to the professional practice in architecture in general with special emphasis on the UAE. Professionalism, the architect's role in the building process in real life, how architects work and get work, becoming and being an architect are also covered. Course topics also include code of ethics, team work, design and design approvals,

decision making field investigation, engineers and other consultants, construction contractors, building contracts, bill of quantities and book of specifications, phases of construction and construction management process.

## **270 590 GRADUATION PROJECT II**

**(1, 8, 0: 5) Pre-requisite: 270 589**

The course covers the development of the schematic concept formulated during Graduation Project I, the development of design preliminary drawings in accordance with the architectural design program formulated in Graduation Project I, rendering and presentation of the design final drawings, and the use of advanced CAAD application.

## **273 500 SELECTED TOPICS IN ARCHITECTURE**

**(3, 0, 0: 3) Pre-requisite: None**

Selected topics are researched and discussed according to the educational needs of the students involved.

## **273 501 INTERIOR DESIGN AND COLORING**

**(1, 4, 0) Pre-requisite: None**

The course covers interior design and coloring with emphasis on water color technique, poster color and pencil color and interior space coloring.

## **273 506 ADVANCED CAAD APPLICATION**

**(1, 4, 0: 3) Pre-requisite: 270 335**

The course concentrates on scientific study basics of the architectural graphic program (ArchiCAD). Principles of electronic drafting and its capabilities comparing most available drawing programs, especially AutoCAD and ArchiCAD is also covered, as are philosophy and characters in achieving general two- and three-dimensional engineering drawings.

## **273 507 DESIGN AND RESEARCH METHODS**

**(3, 0, 0: 3) Pre-requisite: None**

A comprehensive survey of qualitative and quantitative research methods and their method-specific hypothesis formulation, data acquisition, verification and analysis. Writing-intensive.

### **270 306 ARCHITECTURAL DESIGN V**

**(2, 6, 0: 5) Pre-requisite: 270 305**

The course introduces the manipulation of a complex multi-use/mixed-used project(s), and experimentation with the vocabulary of architectural form, space and order. Aspects of the inter-relationship of architectural form and function are analyzed and evaluated to be applicable to the potential design concept. Expression in the context of traditional architecture is a considerable aspect for developing design solution(s).

### **270 316 HISTORY AND THEORY OF ARCHITECTURE IV**

**(3, 0, 0: 3) Pre-requisite: 270 315**

New theories in Architecture, based on revolutionary design concepts, unique built forms, the use of new materials and techniques are introduced. Emphasis is placed on understanding the process of design and building through the masterpieces of pioneering architects of selected historic eras. A review of the various early 19C revivals of historic forms and eclecticism, which triggered the rise of modern architecture, is presented. Post-modern theories and the current evolution of architectural theories are also explored.

### **271 326 WORKING DRAWINGS I**

**(1, 4, 0: 3) Pre-requisite: 271 325**

The course covers the preparation of working drawings for an architectural project applying all theoretical and practical knowledge gained during the study of engineering graphics, building construction and related courses.

### **270 346 HOUSING THEORY & DESIGN**

**(2, 2, 0: 3) Pre-requisite: 270 204**

The course covers the major processes, design considerations and computations for accomplishing residential housing development projects. Other topics include phases of the development process, site evaluation considerations include those relating to boundary surveys, topographic evaluation, soil analysis, traffic evaluation, hydrographic analysis, plus environmental, aesthetic and cultural considerations.

### **270 356 LANDSCAPE ARCHITECTURE**

**(2, 2, 0: 3) Pre-requisite: 270 203**

The course offers an introduction to the history and development of

landscape architecture, and the technology and methods of landscape design. The processes of landscape design as applied to complex projects in landscape architecture, including proposal, programming, analysis, concept development and presentation are also covered.

### **270 243 ARCHITECTURE IN HOT CLIMATES**

**(3, 0, 0: 3) Pre-requisite: 270 101**

Course material covers climatic zones, bioclimatic charts, psychometric chart, human thermal comfort and traditional architecture as response to climate.

### **270 407 ARCHITECTURAL DESIGN VI**

**(2, 6, 0: 5) Pre-requisite: 270 306**

The course covers process of developing a program for functional/environmental requirements of the determined project, setting up solutions for the concerned design problem and selecting the relevant site for the developed program. Taking into account the real needs of local society, students are also introduced to the process of analysis and synthesis, and evaluation of large scale design problems.

### **271 448 LIGHTING & ACOUSTICS IN ARCHITECTURE**

**(3, 0, 0: 3) Pre-requisite: 270 101**

The course introduces lighting and acoustic terms and means of measurement and design, characteristics of light and sound, building standards and materials.

### **271 427 WORKING DRAWINGS 2**

**(1, 4, 0: 3) Pre-requisite: 271 326**

The course covers plans, layouts, schedules and details. Building systems such as architectural, structural, mechanical, electrical and telephone systems are also covered.

### **270 447 ACTIVE THERMAL ENVIRONMENTAL CONTROL**

**(2, 0, 0: 2) Pre-requisite: 270 243**

The course covers the basics of active thermal systems and their technology, energy demand limits, heat loss and gain, calculations, measurements and applications, and offers a link up with architectural design.

and light weight material are applied. Contextual design elements of site, topography, climate and traditional architecture are identified, and conceptual design solution(s) analyzed.

## **270 214 HISTORY AND THEORY OF ARCHITECTURE II**

**(3, 0, 0: 3) Pre-requisite: 270 213**

The course provides an overview of the architecture of major periods of Western history, ranging from the Early Christian Period to the Renaissance. The course introduces students to the ancient philosophies relating to space, urban space and conceptual meaning in architectural design. Also presented are the concepts underlying heritage, ranging from the Early Christian era and passing through the Byzantine, Romanesque, Gothic and Renaissance eras.

## **271 224 BUILDING CONSTRUCTION II**

**(2, 2, 0: 3) Pre-requisite: 271 223**

Topics covered include wood systems and carpentry and means of vertical circulation (stairs, elevators and escalators). The course provides an insight of materials and detailing of walls, floors, false ceilings, doors, windows, thermal insulation, sound isolation, water proofing and building joints.

## **275 204 STRUCTURAL DESIGN FOR ARCHITECTS I**

**(2, 2, 0: 3) Pre-requisites: 270 101 & 217 101**

The course provides an introduction to the statics of structures and structural members and deals with supports and springs. It discusses the analysis of determinate and indeterminate structures.

## **270 234 CAAD I**

**(1, 4, 0: 3) Pre-requisites: 104 110 & 201 102**

The course covers the advantages of CAAD over the traditional design process, mastering AutoCAD 2000 software as a tool of CAAD design, and places emphasis on the 2D AutoCAD, with an introduction of 3D AutoCAD.

## **270 305 ARCHITECTURAL DESIGN IV**

**(2, 6, 0: 5) Pre-requisite: 270 204**

The course offers a comprehensive approach to context in response to vital aspects in design process, site analysis/selection,

environmental/climatic impacts, culture and tradition. Problem-solving techniques in terms of complexity, form of the circulation path, configuration of path-space interaction, structural system, and building form are manipulated by students throughout the course (e.g., recreational facilities, local library, bank).

## **270 315 HISTORY AND THEORY OF ARCHITECTURE III**

**(3, 0, 0: 3) Pre-requisite: 270 214**

The course presents the social, political, economic and religious values that have helped the evolution of the built environment and the ensuring of significant architectural development. Examples of historical Islamic buildings of various countries are selected to analyze their unique design concepts. A study and comparative analysis is made of key elements of Islamic architecture: cities and buildings such as mosques, market, places and housing.

## **271 325 BUILDING CONSTRUCTION & TECHNOLOGY**

**(2, 2, 0: 3) Pre-requisites: 271 224 & 275 204**

The course covers advanced building systems and technologies, and means of deploying them in buildings. Emphasis is placed on prefabrication, modular coordination, mechanization, super structures and long spans in concrete, steel and wood.

## **275 305 STRUCTURAL DESIGN FOR ARCHITECTS II**

**(2, 2, 0: 3) Pre-requisite: 275 204**

The course covers the strength of materials, the design of tension and compression members, beams and columns, with a major concentration on steel design.

## **270 335 CAAD II**

**(1, 4, 0: 3) Pre-requisite: 270 234**

The course covers AutoCAD orders and tools, integrating presentation work through sharing (importing, exporting) drawing files with other presentation programs such as 3d Max and Photoshop. 3D Max and its implementation to basic architectural concepts is presented, including modeling and presentation, modeling tools, creating objects, primitives, compound objects, surfaces, modifiers, helpers, materials, textures, environmental controls, light and cameras. In addition maneuvering these capabilities and the creation of realistic images and scenes are also covered.

# Course Descriptions

## **200 101 INTRODUCTION TO DESIGN**

**(1, 4, 0: 3) Pre-requisite: None**

The course covers the development of the sensory perception of abstract form and its ultimate conversion into specific architectonic configurations, relevant to a variety of solutions to a specific problem and leading to the process of selection and decision making. Basic principles of aesthetics through the study of form, space, proportion, texture analysis of color theory conditioned by different media and materials are also covered.

## **201 102 ENGINEERING GRAPHICS**

**(2, 2, 0: 3) Pre-requisite: None**

The course covers the basics of 2-D and 3-D architectural drawing and presentation. Parallel-line drawings and orthogonal projections are covered. Drawing of all architectural elements, renderings (abstraction, textures, and materials), and lettering are also practiced.

## **270 101 BUILDING SCIENCES**

**(3, 0, 0: 3) Pre-requisite: None**

This course aims to familiarize students with the basic principles and means of measurement and design of technical aspects of building science. It also covers incorporating structural design, environmental principles, material science and human factors and how these topics rely upon and influence one another in architectural design.

## **270 102 ARCHITECTURAL DESIGN I**

**(2, 4, 0: 4) Pre-requisite: 200101**

The course covers elements and principles of architectural design; form, space/volume, and function and their interrelationships, in addition to basic design requirements through a small-scale project(s) (e.g. single family house, studio).

## **200 102 PERSPECTIVE, SHADES AND SHADOWS**

**(1, 4, 0: 3) Pre-requisite: 201 102**

The course covers one point and two points exterior and interior perspectives, and fundamentals of drawing shades and shadows as presented in two-dimensional and three-dimensional parallel-line drawings by applying projection.

## **270 203 ARCHITECTURAL DESIGN 2**

**(2, 4, 0: 3) Pre-requisite: 270 102**

The course covers simple and single-use architectural project(s); aspects of spatial arrangements, site, climate and traditions are to be examined. (e.g., kindergarten, small clinic, art workshop).

## **270 213 HISTORY AND THEORY OF ARCHITECTURE I**

**(3, 0, 0: 3: 3) Pre-requisite: None**

The course provides an overview of the prehistoric, early historic and classical periods. Emphasis is laid upon design concepts shaping both secular and religious buildings that made up the built environment. Comparative analysis of several buildings is presented in their contextual settings reflecting socioeconomic aspects, culture and traditions, climatic conditions, religious beliefs and building needs of societies.

## **271 223 BUILDING CONSTRUCTION I**

**(2, 2, 0: 3) Pre-requisite: 201 102**

The course provides an overview of basic concepts and properties of building structural components and their materials. The course discusses elements and types of superstructure, substructure and foundations. It covers linear and planner, vertical and horizontal, structural systems and their members such as short medium span roofing, flooring, walls, columns, girders and beams.

## **275 203 SURVEYING FOR ARCHITECTS**

**(1, 2, 0: 3) Pre-requisite: None**

The course covers basic surveying, errors in surveying operations, distance measurements, chain surveying, angles measurements and bearings, coordinate geometry, leveling of profiles and cross section contour lines, areas and volume computations. Lab work includes the use of the theodolite and planimeter for area measurement.

## **270 204 ARCHITECTURAL DESIGN III**

**(2, 6, 0: 3) Pre-requisite: 270 203**

Design process, conceptualization, and creativity are practiced by students. The problem of space formation, and form/function interaction are also covered. Students handle design problems related to large span single-use spaces; issues of structural systems

## Semester 7

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
270 407	Architectural Design VI	5	2	6	0	270 306
270 458	Urban Planning	3	3	0	0	270 356
271 427	Working Drawing II	3	1	4	0	271 326
270 447	Active Thermal Environmental Control	2	2	0	0	270 243
270 346	Housing Design and Theory	3	2	2	0	270 204
102 110	Islamic Culture	3	3	0	1	-
TOTAL		19				

## Semester 8

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
270 459	Urban Design	5	2	6	0	270 407
270 460	Environmental Behavior	3	3	0	0	-
271 448	Lighting and Acoustics in Architecture	3	3	0	0	270 101
270 468	Heritage Conservation	3	2	2	0	270 214
-	University Elective III	3	3	0	0	-
TOTAL		17				

## Semester 9

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
270 589	Graduation Project I	5	3	4	0	-
270 559	Architectural Practice	3	3	0	0	-
-----	Specialization Elective I	3				-
TOTAL		11				

## Semester 10

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
270 590	Graduation Project II	5	1	8	0	270 589
	Specialization Elective II	3				-
	Specialization Elective III	3				-
210 300	Engineering Training	4	4	0	0	-
TOTAL		15				

## Semester 3

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
270 203	Architectural Design II	4	2	4	0	270 102
270 213	History and Theory of Architecture I	3	3	0	0	
271 223	Building Construction I	3	2	2	0	201 102
275 203	Surveying for Architects	2	1	2	0	-
270 234	CAAD I	3	1	4	0	201 102 104 110
-	University Elective II	3	3	0	0	-
TOTAL		18				

## Semester 4

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
270 204	Architectural Design III	5	2	6	0	270 203
270 214	History and Theory of Architecture II	3	3	0	0	270 213
271 224	Building Construction II	3	2	2	0	271 223
275 204	Structural Design for Architects I	3	2	2	0	
270 335	CAAD II	3	1	4	0	270 234
TOTAL		17				

## Semester 5

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
Course code	Course Title	Credit Hours	Lec. Hours	Lab. Hours	Tut. Hours	Pre-requisite
270 305	Architectural Design IV	5	2	6	0	270 204
270 315	History and Theory of Architecture IV	3	3	0	0	270 214
271 325	Building Construction and Technology	3	2	2	0	271 224 275 204
275 305	Structural Design for Architects II	3	2	2	0	275 204
270 356	Building Sciences	3	2	2	0	270 203
103 110	Statistics	3	2	2	0	
TOTAL		20				

## Semester 6

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
270 306	Architectural Design V	5	2	6	0	270 305
270 316	History and Theory of Architecture IV	3	3	0	0	270 315
271 326	Working Drawings I	3	1	4	0	271 325
271 327	Building Services	3	2	2	0	271 325
270 243	Architecture in Hot Climates	3	3	0	0	
TOTAL		17				

Major Electives (9 Credit Hours)

Students will select 3 courses from the following:

Course code	Course Title	Credit Hours	Lec.	Lab.	Tut.	Pre-requisite
273 500	Selected Topics in Architecture	3	3	0	0	-
273 501	Interior Design and Coloring	3	1	4	0	-
273 502	Real Estate Development	3	3	0	0	-
273 504	Photography	3	1	4	0	-
273 506	Advanced CAAD Applications	3	1	4	0	270 234-0
273 508	Geographic Information System	3	2	2	0	270 335-0
273 509	Contemporary Arab Architecture	3	3	0	0	270 316-0
273 510	Interior Architecture	3	1	4	0	-
273 511	Sustainable Architecture	3	3	0	0	270 243-0 and 270 447

## Proposed Sequence of Study

Semester 1

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
200 101	Introduction to Design	3	1	4	0	-
104 110	Computer Applications	3	2	2	0	-
290 103	Freehand Drawing I	4	2	4	0	-
102 140	Communication Skills in Arabic Language	3	3	0	0	-
102 110	Building Sciences	3	3	0	0	-
201 012	Engineering Graphics	3	2	2	0	-
TOTAL		19				

Semester 2

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
270 102	Architectural Design I	4	2	4	0	200 101
200 102	Perspective Shades and Shadow	3	1	4	0	200 102
103 130	Research Methodology	3	3	0	0	-
217 101	Engineering Math I	3	3	0	2	-
-	University Elective I	3	3	0	0	-
TOTAL		16				

## MAJOR COURSES (127 Credit Hours)

Course code	Course Title	Credit Hours	Lec.	Lab.	Tut.	Pre-requisite
200 101	Introduction to Design	3	1	4	0	
200 102	Perspective, Shadow and Shadows	3	1	4	0	201 102-0
210 300	Engineering Training	4	4	0	0	
270 102	Architectural Design I	4	2	4	0	200 101-0
270 203	Architectural Design II	4	2	4	0	270 102-0
270 204	Architectural Design III	5	2	6	0	270 203-0
270 213	History and Theory of Architecture I	3	3	0	0	
270 214	History and Theory of Architecture II	3	3	0	0	270 213
270 234	CAAD I	3	1	4	0	201 102-0 and 104 110-0
270 243	Architecture in Hot Climates	3	3	0	0	
270 335	CAAD II	3	1	4	0	270 234-0
270 305	Architectural Design IV	5	2	6	0	270 204-0
270 306	Architectural Design V	5	2	6	0	270 305-1
270 315	History and Theory of Arch. III	3	3	0	0	270 214-0
270 316	History and Theory of Arch. IV	3	3	0	0	270 315
270 346	Housing Design and Theory	3	2	2	0	270 204-0
270 356	Landscape Architecture	3	2	2	0	270 203-0
270 407	Architectural Design VI	5	2	6	0	270 306-0
270 447	Active Thermal Control	2	2	0	0	270 243-0
270 458	Urban Planning	3	3	0	0	270 356-0
270 459	Urban Design	5	2	6	0	270 407-0
270 460	Environmental Behavior	3	3	0	0	
270 468	Heritage Conservation	3	2	2	0	270 214-0
270 559	Architectural Practice	3	3	0	0	
270 589	Graduation Project I	5	3	4	0	
270 590	Graduation Project II	5	1	8	0	270 589-0
271 223	Building Construction I	3	2	2	0	201 102-0
270 224	Building Construction II	3	2	2	0	271 223-0
271 325	Building Construction and Technology	3	2	2	0	271 224-0 and 275 204-0
271 326	Working Drawing I	3	1	4	0	271 325-0
271 327	Building Services	3	2	2	0	271 325-0
271 427	Working Drawing II	3	1	4	0	271 326-0
271 448	Lighting and Acoustics	3	3	0	0	270 101-0
275 203	Surveying for Architects	2	1	2	0	
275 204	Structural Design for Architects I	3	2	2	0	
275 305	Structural Design for Architects II	3	2	2	0	275 204-0
290 103	Freehand Drawing	4	2	4	0	



## UNIVERSITY REQUIREMENTS

### Compulsory Courses (15 Credit Hours)

Course code	Course Title	Credit Hours	Lec.	Lab.	Tut.	Pre-requisite
101 000	Orientation	0	1	0	0	-
104 110	Computer Applications	3	2	2	0	-
103 110	Statistics	3	2	2	0	-
102 140	Communication Skills in Arabic Language	3	3	0	0	-
102 110	Islamic Studies	3	3	0	1	-
103 130	Research Methodology	3	3	0	0	-

### Compulsory Courses (15 Credit Hours)

Course code	Course Title	Credit Hours	Lec.	Lab.	Tut.	Pre-requisite
112 130	Modern Technology and Society	3	3	0	0	Advisor's Approval
114 110	Economic Concepts	3	3	0	0	Advisor's Approval
114 120	Entrepreneurship Development	3	3	0	0	Advisor's Approval
115 110	History of Science in Islam	3	3	0	0	Advisor's Approval
115 120	Scientific Pioneering	3	3	0	0	Advisor's Approval
115 130	General Psychology	3	3	0	0	Advisor's Approval
117 140	Energy, Water and Environment	3	3	0	0	Advisor's Approval
117 150	Applications of remote sensing and GIS	3	3	0	0	Advisor's Approval
119 120	Introduction to Communication Sociology	3	3	0	0	Advisor's Approval

### COLLEGE REQUIREMENTS (9 Credit Hours)

Course code	Course Title	Credit Hours	Lec.	Lab.	Tut.	Pre-requisite
201 102	Engineering Graphics	3	2	2	0	-
217 101	Engineering Math. I	3	3	0	2	-
270 101	Building Sciences	3	3	0	0	-

# Bachelor of Science (B.SC) in ARCHITECTURAL ENGINEERING

## Mission

Architecture is the science and art of shaping the built environment and establishing habitable and enjoyable communities. The architectural engineering program is a five-year course designed to equip students with a sound knowledge and understanding of building design, landscape design, structure, construction, history of architecture, heritage conservation as well as many other related subjects.

## Objectives

The main objectives of the architectural engineering curriculum are to provide its students with:

1. a strong foundation in basic skills to apply in their design process and presentations
2. a broad theoretical and practical knowledge related to their practice of architectural design and building construction
3. the skills and abilities for required for data collection, analysis, design and evaluation of architectural design projects
4. the information and ability required to produce building construction drawings and working details
5. the ability to utilize modern technology, for example computer aided design and other software application packages for architectural design, working drawings and presentation purposes in the field of architecture, urban design and urban planning
6. good oral and written communication skills
7. the ability to work effectively as members of a multidisciplinary team
8. the ability to compete professionally and function successfully in the diverse and fast-developing architectural engineering environment of the UAE
9. the knowledge to preserve both the built and natural environments, and the sensibility to understand the impact of architecture on its broader physical and cultural contexts, fulfilling both their professional as well as their ethical responsibilities
10. the ability for critical thinking and lifelong self-learning, so that they are capable of updating their technical knowledge while working as professional architects

## Admission Requirements

Admission to the Architectural Engineering program requires a UAE secondary school certificate (science major), or its equivalent, with a minimum acceptable grade of 70 percent. For more information please refer to the university admissions policy.

## Career Opportunities

Because of the multidisciplinary nature of the curriculum, graduates are qualified for employment in a variety of areas. They can work, for example, as designers and construction managers, or join city planning or community agencies and governmental authorities. Alternatively they can become building contractors. As graduates are trained in problem solving they are able to adapt to a range of jobs in both the public and private sector.

## Graduation Requirements

The Bachelor of Science in Architectural engineering is awarded upon fulfillment of the following:

1. Successful completion of all courses in the prescribed curriculum (165 credit hours)
2. Successful completion of four months' engineering training (four credit hours)
3. A final CGPA (Cumulative Grade Point Average) of not less than 2.0.

**218 472 BIOMEDICAL IMAGING SYSTEM II CREDIT  
HOURS: 4 (3: 2: 0)**

Medical ultrasound imaging techniques, modes of operation, magnetic resonance imaging techniques (MRI), principles of operation, components of MRI machines, computer based reconstruction, biological effects of magnetic fields, static magnetic fields, radio frequency fields, gradient magnetic fields.  
Pre-requisite: Medical Imaging System I

**218 458 BIOMEDICAL SAFETY CREDIT HOURS: 2 (2: 0: 2)**

Introduction to the types of hazards in hospitals and clinics, electrical hazards safety requirements of power distribution in hospitals, biological, safety codes and standards for biomedical equipments and facilities, test instruments for checking safety parameters of medical instruments.  
Pre-requisite: Medical Instrumentation II

**210 400 ENGINEERING TRAINING CREDIT HOURS: 4**

Pre-requisite: Approval of Academic Advisor

**218 512 PHYSIOLOGICAL MOD AND CONTROL CREDIT  
HOURS: 3 (2: 2: 0)**

Physiological modelling, static analysis of physiological systems, time domain analysis, frequency domain analysis, stability analysis.  
Pre-requisite: Human Physiology II

**218 518 TISSUE ENGINEERING CREDIT HOURS: 3  
(3: 0: 0)**

Tissue engineering principles, cell, Intracellular signaling, control of cell growth, scaffolds, cell traction and migration, tissue regeneration and replacement, artificial organs, orthopedic tissue engineering, bioreactors and bio expansion.  
Pre-requisite: Biomaterials

**218 511 ARTIFICIAL ORGANS CREDIT HOURS: 3 (3: 0: 0)**

Major types of artificial organs, artificial blood, artificial skin and dermal equivalents, artificial pancreas. Prosthetics and orthotics; artificial limbs, major joint implants, dental implants.  
Pre-requisite: Human Physiology II

**218 515 BIO-FLUID MECHANICS CREDIT HOURS: 3  
(3: 0: 0)**

Fundamentals of fluid mechanics. Flow properties of blood, applications describing flow of air in the airways and flow of blood in large arteries.  
Pre-requisite: Biomechanics

**218 513 IT AND COMPUTER NETWORKS IN HEALTH-CARE  
CREDIT HOURS: 3 (2: 2: 0)**

Types and classification of computer networks, networks topology and wiring type, OSI layering model, design process of computer network, hospital information system, and modern application of computer networks in health-care.  
Pre-requisite: Microprocessors and Computer Interfacing

**218 514 REHABILITATION ENGINEERING CREDIT HOURS:  
3 (3: 0: 0)**

Introduction to rehabilitation engineering, disability, rehabilitation engineering technology, assistive devices, physiological and biomedical measurement techniques, disability assessment, application of rehabilitation engineering, prosthetics and orthotics.  
Pre-requisite: Medical Instrumentation I

**218 516 ARTIFICIAL NEURAL NETWORKS AND FUZZY  
LOGIC CREDIT HOURS: 3 (3: 0: 0)**

Fuzzy logic fundamentals, fuzzy sets, types of membership functions, linguistic variables, creation of fuzzy logic rule base, fuzzy logic operations, neural network fundamentals, neural type learning process, single layer perceptron, artificial neural networks architectures, training algorithms, genetic algorithms and evolution computing, neuro-fuzzy technology, fuzzy control systems and applications related to biomedical engineering.  
Pre-requisite: Engineering Mathematics I

**218 517 BIOMEDICAL IMAGE PROCESSING CREDIT  
HOURS: 3 (2: 2: 0)**

Digital image fundamentals, image transforms image enhancement, image restoration, image segmentation, representation and description, recognition and interpretation, image compression.  
Pre-requisite: Signals and Systems

**218 356 BIOMECHANICS CREDIT HOURS: 3 (3: 0: 2)**

Basics of anatomy and mechanics, applications involving forces and moments, statics and dynamics, Applications to human joints, Properties of deformable bodies, kinematics and kinetics, applications from real-life problems, contemporary issues: Motion analysis.

Pre-requisite: Engineering Physics I, Human Anatomy

**218 118 BIOCHEMISTRY CREDIT HOURS: 3 (2: 2: 0)**

Structural organization and function of the major components of living cells, metabolism and energy production, and biosynthesis of small molecular weight compounds and macromolecules.

Pre-requisite: Chemistry for Engineers

**218 375 SIGNALS AND SYSTEMS CREDIT HOURS: 3 (3: 0: 2)**

Continuous- and discrete-time signals and systems. Basic system properties. Linear Time-Invariant (LTI) systems. Properties of LTI systems. Convolution sum. Fourier series of periodic signals. Amplitude, phase, and power spectra. Fourier transform of non-periodic signals. Laplace transform, analysis of continuous-time LTI systems using Laplace transform. Z-Transform.

Pre-requisite: Engineering Mathematics III

**218 365 BIOMEDICAL INSTRUMENTATION I CREDIT HOURS: 3 (3: 0: 0)**

Introduction to biomedical instrumentation, biomedical sensors and transducers, basic concepts of measurements and instrumentation, bio potential electrodes, clinical laboratory instrumentation.

Pre-requisite: Medical Electronics, Human Physiology II

**218 254 BIOMATERIALS CREDIT HOURS: 3 (3: 0: 2)**

Introduction to biomaterials, structure and properties of materials, crystalline and non-crystalline materials, properties of biologic materials, biocompatibility, Metallic implant materials, ceramic implant materials, polymeric implant materials, composite implant materials.

Pre-requisite: Chemistry for Engineers, Human Anatomy

**218 376 BIO-SIGNAL PROCESSING CREDIT HOURS: 4 (3: 2: 2)**

Nature of biomedical signals, frequency response, DFT, FFT, DCT, design of digital filters, nonlinear models of biomedical signals, DSP

applications of bio-signals.

Pre-requisite: Signals and Systems, Human Physiology II

**218 466 MEDICAL INSTRUMENTATION II CREDIT HOURS: 4 (3: 2: 0)**

Design procedure of medical equipment, bio-potential recording systems, blood pressure, flow and volume instrumentation systems, blood gas analyzers, pace-makers and defibrillators, electro-surgical, physiotherapy instruments, respiratory systems instruments

Pre-requisite: Medical Instrumentation I

**218 391 BIOMEDICAL DESIGN CREDIT HOURS: 2 (1: 2: 2)**

Amplifiers and filters, bio-potential amplifiers, design of power supplies, oscillator circuits, and biomedical data acquisition circuits, mini projects related to biomedical engineering applications.

Pre-requisite: Medical Electronics

**218 495 BIOMEDICAL DESIGN PROJECT I CREDIT HOURS: 3 (1: 4: 0)**

Teams of three to four students shall design, implement, test and demonstrate their graduation project in two semesters. Biomedical design Project I is to be completed in one semester and includes a literature survey, action plan, design of complete project taking into account realistic constraints, computer simulation (if applicable).

Pre-requisite: Completion of 100 Credit Hours

**218 496 BIOMEDICAL DESIGN PROJECT II CREDIT HOURS: 3 (1: 4: 0)**

It is continuation of biomedical design project I in the second semester. Students will complete the implementation and testing of remaining part of their design. They will integrate the complete project, test it, and prepare a PCB. Report writing, oral presentation, poster presentation, and project demonstration.

Pre-requisite: Biomedical Design Project I

**218 471 BIOMEDICAL IMAGING SYSTEM I CREDIT HOURS: 3 (3: 0: 2)**

Radioactivity, X - ray physics and imaging techniques, Computed tomography (CT imaging), introduction to SPECT and PET imaging techniques, biological effects of radiation and safe handling.

Pre-requisite: Engineering Physics II, Human Anatomy

**218 151 INTRODUCTION TO BIOMEDICAL ENGINEERING**  
**CREDIT HOURS: 1 (1: 0: 2)**

History of biomedical engineering, disciplines of biomedical engineering, role of biomedical engineers in health care sector, challenges and future directions in biomedical engineering, moral and ethical issues in biomedical engineering, visits to hospitals, student seminars  
Pre-requisites: None

**218 229 CIRCUIT ANALYSIS CREDIT HOURS: 4 (3: 2: 2)**

Basic circuit variables, elements and Kirchhoff's law, resistive circuit analysis and theorems, network theorems, time domain analysis, AC analysis, frequency characteristics of electric circuits, magnetic coupled circuits and two port elements.  
Pre-requisite: Engineering Physics II

**104 110 COMPUTER APPLICATION CREDIT HOURS: 3**  
**(2: 2: 0)**

Introduction to information technology, operating systems, information systems, graphics and multimedia, networks and their uses, internet and information retrieval, electronic mail and news, computers and society, ethical issues, computer security issues.  
Pre-requisites: None

**213 235 LOGIC DESIGN CREDIT HOURS: 4 (3: 2: 2)**

Basic theorems and properties of Boolean Algebra and boolean functions. Simplification of Boolean Functions: Karnaugh Map and Tabulation (Quine-McCluskey) Method. Product of Sums (POS) and Sum of Products (SOP) forms. Combinational logic circuits: design and analysis procedures. Decoders, encoders, multiplexers, demultiplexers, ROM, PLA and PAL. Sequential logic circuits: Flip Flops (RS, D, JK, T), design procedure for clocked sequential circuits, counters. Registers and shift registers.  
Pre-requisite: Computer Applications

**218 221 COMPUTER PROGRAMMING CREDIT HOURS: 3**  
**(3: 0: 2)**

Flow charts and problem solving, data types, input output statements, C++ basics, functions, arrays and strings, pointers structures and unions, C++ preprocessor, MATLAB programming.  
Pre-requisite: Computer Applications

**218 242 HUMAN ANATOMY CREDIT HOURS: 3 (2: 2: 0)**

An Introduction to the human body, the skeletal system, the axial skeleton and ribs, the appendicular skeleton, joints, the muscular system, thorax, abdomen, upper limb, lower limb  
Pre-requisite: Biology

**218 243 HUMAN PHYSIOLOGY I CREDIT HOURS: 3**  
**(2: 2: 0)**

Cell physiology, nervous system, muscles, cardiovascular systems, respiratory system, digestive system, urinary system, endocrine system.  
Pre-requisite: Human Anatomy

**218 344 HUMAN PHYSIOLOGY II CREDIT HOURS: 3**  
**(2: 2: 0)**

Basics of electro-physiology, membrane models, resting potential, action potential, bio electrodes, the electrophysiology of bio potential signals- ECG, EEG, EMG, EOG, ERG etc.  
Pre-requisite: Human Physiology I

**218 233 ELECTRONICS CIRCUITS CREDIT HOURS: 4**  
**(3: 2: 2)**

Semiconductors and PN Junction, bipolar junction transistor (BJT) DC analysis, bipolar Junction Transistor (BJT) AC analysis, junction field effect transistor (JFET), biasing and amplifiers circuits.  
Pre-requisite: Circuit Analysis

**218 337 MICROPROCESSORS AND MICROCONTROLLERS**  
**CREDIT HOURS: 4 (3: 2: 0)**

The 8086 architecture and programming modes, assembly programming, the 8086 microprocessor instruction set, memory interface and I/O interface, interrupt processing, microcontrollers and applications.  
Pre-requisite: Logic Design

**218 361 MEDICAL ELECTRONICS CREDIT HOURS: 3**  
**(2: 2: 2)**

Amplifiers and filters, bio-potential amplifiers, design of power system in medical electronics, oscillator circuits, Analog to digital converter (ADC), digital to analog converter (DAC) and data acquisition circuits.  
Pre-requisite: Electronic Circuits, Human Physiology I

# Course Descriptions

## **217 116 CHEMISTRY FOR ENGINEERS CREDIT HOURS: 3 (2: 2: 0)**

Matter: classification, physical and chemical properties. Energy change in chemical reactions, enthalpy, calorimetry, kinetic molecular theory, crystal structure, bonding in solids. Redox reaction and electrochemistry: galvanic cells, standard electrode potentials, spontaneity of Redox reaction, electrolysis, electrometallurgy. Thermodynamics: Laws of Thermodynamics, entropy, thermodynamics in living systems. Nuclear energy, nuclear reactions, natural radioactivity, nuclear fission, use of isotopes, biological effect of radiation. Properties, synthesis and uses of polymers of polymers. Pre-requisites: None

## **217 116 ENGINEERING MATHEMATICS I CREDIT HOURS: 3 (3: 0: 2)**

Limit of function, theorems about limits, evaluation of limit at point and infinity, continuity, derivatives of algebraic/trigonometric functions, maxima/minima, applications of derivatives in engineering, definite integral, area between two curves, volumes, indefinite integral, applications of integration in engineering. Functions: Differentiation/integration of trigonometric functions, inverse trigonometric functions, logarithmic functions, exponential functions, hyperbolic/inverse hyperbolic functions. Pre-requisites: None

## **217 102 ENGINEERING MATHEMATICS II Credit Hours: 3 (3: 0: 2)**

Integration by parts, integration using powers of trigonometric functions, integration using trigonometric substitution, integration by partial fractions, integration of improper integrals, integration using software packages, double/triple integrals in rectangular/polar coordinates, applications of multiple integrals in engineering. Matrices/determinants, solution of linear equations, eigenvalues/eigenvectors, infinite series, tests for convergence, power series expansion of functions. Taylor, Laurent and Fourier series.

Pre-requisite: Engineering Mathematics I

## **217 203 ENGINEERING MATHEMATICS III CREDIT HOURS: 3 (3: 0: 2)**

First order Differential Equations (DE): Homogeneous linear second-

order DE, non-homogeneous linear second-order DE, higher-order linear DE, power series solution of DE, applications of ordinary DE in engineering. Laplace transform: Inverse transform, Laplace transform of derivatives/integrals. Transformation of ordinary DE, partial fractions, unit step function, periodic functions, table of Laplace transforms.

Pre-requisite: Engineering Mathematics II

## **217 204 ENGINEERING MATHEMATICS IV CREDIT HOURS: 3 (3: 0: 2)**

First- and second-order Partial Differential Equations. Boundary value problems, vectors in plane, dot and cross products, lines and planes in space, polar coordinate system. Line integrals, Green's theorem, surface integrals, line integration in complex plane. Cauchy's integral theorem, Cauchy's integral formula. Derivatives of analytic functions, Taylor/Laurent's series, review of sets and relations.

Pre-requisite: Engineering Mathematics III

## **217 121 ENGINEERING PHYSICS I CREDIT HOURS: 4 (3: 2: 2)**

Conservation of momentum, rotation of rigid bodies, dynamics of rotational motion. Equilibrium and elasticity. Stress and strain. Periodic motion. Fluid mechanics and its engineering applications. Thermodynamics with engineering applications.

Pre-requisites: None

## **217 121 ENGINEERING PHYSICS II CREDIT HOURS: 4 (3: 2: 2)**

Electric charge and electric field. Coulomb's law and Gauss's law with applications. Capacitance and dielectrics. DC circuits. Magnetic fields. Ampere's law and its applications. Electromagnetic induction, Faraday's law, Lenz's law, induced electric fields. Self- and mutual-inductance. Electromagnetic waves and Maxwell's equations. Optics and its engineering applications.

Pre-requisite: Engineering Physics I

## **218 141 BIOLOGY CREDIT HOURS: 4 (3: 2: 0)**

Cell biology, cell membrane, mediated transport system, bulk transport, cytoplasm and nuclear cell biology, cell cycle and cell division, meiosis and gameto-genesis, primary tissues, connective tissues, muscle tissues, nerve tissues.

Pre-requisites: None

## Semester 5

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
218 337	Microprocessors and Computer Interfacing	4	3	2	0	218 225
218 361	Medical Electronics	3	2	2	2	218 333
218 243						
218 356	Biomechanics	3	3	0	2	217 121
218 242						
218 344	Human Physiology II	3	2	2	0	218 243
102 110	Islamic Studies	3	3	0	0	
Total		16				

INTERNAL TRAINING (Two weeks in Spring Break)

## Semester 6

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
Course #	Course Title	Credit Hours	Lec. Hours	Lab. Hours	Tut. Hours	Pre-requisite
217 204	Eng. Mathematics IV	3	3	0	2	217 203
218 233	Electronic Circuits	4	3	2	2	218 229
218 243	Human Physiology I	3	2	2	0	218 242
103 110	Statistics	3	2	2	0	None
102 140	Communication Skills in Arabic Language	3	3	0	0	None
Total		16				

210 400: ENGINEERING EXTERNAL TRAINING I (Six Weeks in Summer Vacation)

## Semester 7

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
218 476	Bio-Signal Processing	4	3	2	2	218 375
218 471	Biomedical Imaging Systems I	3	3	0	2	218 361
218 466	Medical Instrumentation II	4	3	2	0	218 365
218 498	Biomedical Design Project-I	3	1	4	0	218 391
218 xxx	BME Specialization Elective II	3	0	0	0	Advisor's Approval
Total		17				

## Semester 8

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
218 499	Biomedical Design Project II	3	1	4	0	218 498
218 472	Biomedical Imaging Systems II	4	3	2	0	218 471
218 458	Biomedical Safety	2	2	0	2	218 466
xxx xxx	University Elective III	3	0	0	0	Advisor's Approval
218 497	Directed Study in Biomedical Engineering	2	0	0	2	218 466
Total		14				

ENGINEERING EXTERNAL TRAINING II (6 Weeks)

## Proposed Sequence of Study

### SEMESTER 1

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
217 101	Eng. Mathematics I	3	3	0	2	None
217 121	Eng. Physics I	4	3	2	2	None
104 110	Computer Applications	3	2	2	0	None
217 141	Chemistry for Engineers	3	2	2	0	None
xxx xxx	University Elective I	3	3	0	0	None
Total		16				

### Semester 2

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
217 102	Eng. Mathematics II	3	3	0	2	217 101
217 122	Eng. Physics II	4	3	2	2	217 121
218 118	Biochemistry	3	2	2	0	218 116
218 141	Biology	4	3	2	0	None
218 151	Introduction to Biomedical Engineering	1	1	0	2	None
Total		15				

### Summer Session

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
xxx xxx	University Elective II	3	3	0	0	None
Total		3				

### Semester 3

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
217 203	Eng. Mathematics III	3	3	0	2	217 102
217 229	Circuit Analysis	4	3	2	2	217 122
218 225	Logic Design	4	3	2	2	104 110
218 221	Computer Programming	3	3	0	2	104 110
218 242	Human Anatomy	3	2	2	0	218 141
Total		17				

### Semester 4

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
218 391	Biomedical Design	2	1	2	0	218 361
218 365	Medical Instrumentation I	3	3	0	0	218 361
218 354	Biomaterials	3	3	0	2	218 116
218 242						
218 xxx	BME Specialization Elective I	3	3	0	0	Advisor's Approval
103 130	Research Methodology	3	3	0	0	
Total		17				



Department Requirements (77 Credit Hours)

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
218 391	Biomedical Design	2	1	2	2	218 361
218 141	Biology	4	3	2	0	
218 151	Introduction to Biomedical Engineering	1	1	0	2	
217 229	Circuit Analysis	4	3	2	2	217 122
213 235	Logic Design	4	3	2	2	104 110
218 221	Computer Programming	3	3	0	2	104 110
218 242	Human Anatomy	3	2	2	0	218 141
218 243	Human Physiology I	3	2	2	0	218 242
218 233	Electronic Circuits	4	3	2	2	218 229
218 337	Microprocessors and Computer Interfacing	4	3	2	0	213 235
218 361	Medical Electronics	3	2	2	2	218 233, 218 243
218 356	Bio-mechanics	3	3	0	2	217 121, 218 242
218 118	Biochemistry	3	2	2	0	217 141
218 375	Signals and Systems	3	3	0	2	
218 365	Medical Instrumentation I	3	3	0	0	218 361, 218 344
218 354	Bio Materials	3	3	0	2	217 141, 218 242
218 476	Bio-Signal Processing	4	3	2	2	218 375, 218 344
218 466	Medical Instrumentation II	4	3	2	0	218 365
218 495	Biomedical Design Project I	3	1	4	0	218 391
218 492	Directed Study in Biomedical Engineering	2	0	0	2	
218 496	Biomedical Design Project II	3	1	4	0	218 498
218 471	Biomedical Imaging Systems I	3	3	0	2	217 122, 218 242
218 472	Biomedical Imaging Systems II	4	3	2	0	218 471
218 458	Biomedical Safety	2	2	0	2	218 466
218 344	Human Physiology II	3	2	2	0	218 243

Department Requirements – Electives (6 Credit Hours)

Two of the following BMF specialization electives should be selected based on the recommendations of the academic advisor.

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
218 512	Physiological Modeling and Control Systems	3	3	2	0	218 344
218 518	Tissue Engineering	3	3	0	0	218 354
218 515	Bio fluid Mechanics	3	3	0	0	218 356
218 513	IT and Computer Networks in Healthcare	3	3	0	2	218 337
218 516	Artificial Neural Networks and Fuzzy Logic	3	3	0	2	217 204
218 517	Biomedical Image Processing	3	2	2	0	218 375
218 511	Artificial Organs	3	3	0	0	218 344
218 519	Selected topics in Biomedical Engineering	3	3	0	0	
218 514	Rehabilitation Engineering	3	3	0	0	218 365

## University Requirements

### 1. Compulsory (15 Credit Hours)

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
104 110	Computer Applications	3	2	2	0	None
103 110	Statistics	3	2	2	0	None
102 140	Communication Skills in Arabic Language	3	3	0	0	None
102 110	Islamic Culture	3	3	0	0	None
103 130	Research Methodology	3	3	0	0	None

### 2. University Elective Courses

Students will select 9 credit hours (3 courses) from the following

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
112 130	Modern Technology and Society	3	3	0	0	None
114 110	Economic Concepts	3	3	0	0	None
114 120	Entrepreneurship Development	3	3	0	0	None
115 110	History of Science in Islam	3	3	0	0	None
115 120	Scientific Pioneering	3	3	0	0	None
115 130	General Psychology	3	3	0	0	None
117 140	Energy, Water and Environment	3	3	0	0	None
117 150	Applications of Remote Sensing and GIS	3	3	0	0	None
119 120	Introduction to Communication Sociology	3	3	0	0	None
102 120	The Miraculousness of the Holy Koran	3	3	0	0	None
106 120	CEC/TEFL	3	3	0	0	None
117 130	First Aid	3	3	0	0	None
119 110	Communication Skills	3	3	0	0	None
115 130	Information Society	3	3	0	0	None

### College Requirements (23 Credit Hours)

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
217 116	Chemistry For Engineers	3	2	2	0	
217 101	Eng. Mathematics I	3	3	0	2	
217 102	Eng. Mathematics II	3	3	0	2	217 101
217 203	Eng. Mathematics III	3	3	0	2	217 102
217 204	Eng. Mathematics IV	3	3	0	2	217 203
217 111	Eng. Physics I	4	3	2	2	
217 112	Eng. Physics II	4	3	2	2	

# BACHELOR OF SCIENCE (B.Sc) IN BIOMEDICAL ENGINEERING

## Mission

The mission of the biomedical engineering program is to produce graduates equipped with the theoretical knowledge and practical skills necessary for pursuing a successful professional career in the healthcare industry. The program also aims to prepare its students for graduate study in the field of biomedical engineering.

## Objectives

The objective of the biomedical engineering program is to produce graduates who are equipped with:

- a) The life knowledge which will enable them to bridge the gap between conventional engineering and life science for applications in healthcare and medicine
- b) The skills to use the modern engineering tools necessary for engineering practice
- c) The ability to communicate effectively
- d) The ability to work with professionals from a variety of backgrounds in multidisciplinary teams
- e) A strong sense of professional ethics
- f) The skills and knowledge which will enable them to engage in life-long learning

## Admission Requirements

Admission to the biomedical engineering program requires a UAE secondary school certificate (science major) or its equivalent with a minimum grade of 70 percent. For more information please refer to the university admissions policy.

## Career Opportunities

Graduates will be qualified to work in the following areas:

- Healthcare facilities: program graduates are ideally suited to work as design and maintenance engineers for healthcare facilities such as hospitals and clinics
- Manufacturer's representatives and sales engineers: program graduates have the specialist knowledge required to communicate with a variety of health-care professionals, which enables them to act as representatives for manufacturers and retrials of medical equipment and services

- Design and development: program graduates are equipped to work in companies on the design, development and testing of medical devices and systems.
- Management: program graduates' background in technology will allow them to train as managers in organizations dealing with healthcare and biological products
- Consultancy: program graduates are equipped to join consultancy agencies which provide advice for health authorities regarding standards and quality evaluation of clinical facilities and services.

## Graduation Requirements

The Bachelor of Science Degree is awarded upon the fulfillment of the following:

1. Successful completion of all courses in the study curriculum (131 credit hours)
2. Successful completion of the equivalent of four months of engineering external training (four credit hours)
3. A final CGPA (Cumulative Grade Point Average) not less than 2.0 (on a scale of 4.5).

Pre-requisite: 217 203

### **217 305 Engineering Mathematics V (3-0-2:3)**

Special functions: Gamma, beta, Green's, Bessel's. Polynomials: Legendre, Hermite, Laguerre and Chebyshev. Sturm-Liouville equations, Eigen functions, orthogonality, root finding by iterative methods, interpolation and extrapolation, numerical integration/differentiation, numerical solution of linear equations, numerical solution of differential equations, stationary/non-stationary random processes, auto-correlation and cross-correlation functions, power spectral density function, white random processes, narrow-band random processes.

Pre-requisites: 103 110, 217 204

### **217 200 Report Writing and Presentation (1-0-2:1)**

Writing of technical reports, brief reports and progress reports. Business communication: business letters and memos, executive summary, business reports. Oral presentation: planning, preparation of visuals and delivering of an oral presentation.

Pre-requisite: 217 150

### **21x 491 Graduation Project I (1-4-0:3)**

Teams of three to four students shall design, implement, test, and demonstrate their graduation project in two semesters. Graduation Project I is to be completed in first semester and includes a literature survey, action plan, design of complete project taking into account realistic constraints, computer simulation (if applicable), partial implementation and testing. Report writing and oral presentation.

Pre-requisite: Advisor's Approval

### **21x 492 Graduation Project II (1-6-0:4)**

It is continuation of Graduation Project I in the second semester. Students will complete the implementation and testing of remaining part of their design. They will integrate the complete project, test it and prepare a PCB. Report writing, oral presentation, poster presentation and project demonstration.

Pre-requisite: 21x 491

### **216 335 Electrical Machines and Power System (3-2-0:4)**

Introduction to electrical machines and energy conversion, magnetic circuits, ideal and practical transformers, instrument and autotransformers, DC motors and generators and their characteristics, DC motors speed control, voltage regulation, performance and efficiency, AC machines, induction motors characteristics, synchronous generators, AC machines frequency and speed control, linear machines, power systems formulation, transmission and distribution systems, control of voltage, power frequency control, load flow and stability.

Pre-requisites: 215 212, 217 122

### **217 101 Engineering Mathematics I (3-0-2:3)**

Limit of function, theorems about limits, evaluation of limit at point and infinity, continuity, derivatives of algebraic/trigonometric functions, maxima/minima, applications of derivatives in engineering, definite integral, area between two curves, volumes, indefinite integral, applications of integration in engineering. Functions: differentiation/integration of trigonometric functions, inverse trigonometric functions, logarithmic functions, exponential functions, hyperbolic/inverse hyperbolic functions.

Pre-requisites: None

### **217 102 Engineering Mathematics II (3-0-2:3)**

Integration by parts, integration using powers of trigonometric functions, integration using trigonometric substitution, integration by partial fractions, integration of improper integrals, integration using software packages, double/triple integrals in rectangular/polar coordinates, applications of multiple integrals in engineering. Matrices/determinants, solution of linear equations, eigenvalues/eigenvectors, infinite series, tests for convergence, power series expansion of functions, Taylor, Laurent and Fourier series.

Pre-requisite: 217 101

### **217 121 Engineering Physics I (3-2-2:4)**

Conservation of momentum, rotation of rigid bodies, dynamics of rotational motion. Equilibrium and elasticity. Stress and strain. Periodic motion. Fluid mechanics and its engineering applications. Thermodynamics with engineering applications.

Pre-requisites: None

### **217 122 Engineering Physics II (3-2-2:4)**

Electric charge and electric field. Coulomb's law and Gauss's law with

applications. Capacitance and dielectrics. DC circuits. Magnetic fields. Ampere's law and its applications. Electromagnetic induction, Faraday's law, Lenz's law, induced electric fields. Self- and mutual-inductance. Electromagnetic waves and Maxwell's equations. Optics and its engineering applications.

Pre-requisites: None

### **217 141 Chemistry for Engineers (2-2-0:3)**

Matter: Classification, physical and chemical properties. Energy change in chemical reactions, enthalpy, calorimetry, kinetic molecular theory, crystal structure, bonding in solids. Redox reaction and electrochemistry: Galvanic cells, standard electrode potentials, spontaneity of Redox reaction, electrolysis, electrometallurgy. Thermodynamics: Laws of Thermodynamics, entropy, thermodynamics in living systems. Nuclear energy, nuclear reactions, natural radioactivity, nuclear fission, use of isotopes, biological effect of radiation. Properties, synthesis and uses of polymers of polymers.

Pre-requisites: None

### **217 150 Introduction to Engineering (1-0-1:1)**

Engineering profession and the role of engineers in modern developments, engineering ethics, and engineering disciplines. Electrical engineering, importance of math and science to engineers. Engineering design and analysis, lab skills for engineers, computer skills for engineers. Engineering curriculum, curriculum planning and management. Critical thinking, soft skills for engineers, creativity, engineering communications.

Pre-requisites: None

### **217 203 Engineering Mathematics III (3-0-2:3)**

First order Differential Equations (DE): Homogeneous linear second-order DE, non-homogeneous linear second-order DE, higher-order linear DE, power series solution of DE, applications of ordinary DE in engineering. Laplace transform: Inverse transform, Laplace transform of derivatives/integrals. Transformation of ordinary DE, partial fractions, unit step function, periodic functions, table of Laplace transforms.

Pre-requisite: 217 101

### **217 204 Engineering Mathematics IV (3-0-2:3)**

First- and second-order Partial Differential Equations. Boundary value problems, vectors in plane, dot and cross products, lines and planes in space, polar coordinate system. Line integrals, Green's theorem, surface integrals, line integration in complex plane. Cauchy's integral theorem, Cauchy's integral formula. Derivatives of analytic functions, Taylor/Laurent's series, review of sets and relations.

### **214 426 Intelligent Systems and Robotics (3-0-0:3)**

Introduction to robotics, applications of robots in industry and other workplaces, block diagram representation and explanation of various parts of a robot. Robot kinematics: Position and motion analysis of a robot with different degrees of freedom. Different types of sensors, characteristics and comparison of actuating systems, vision and voice systems, some commonly used programming languages for robots. Artificial Intelligence: the use of artificial intelligence in robots. Fuzzy logic and its applications in robotics.

Pre-requisites: 211 352, 213 334

### **214 443 Industrial Control Systems (3-2-0:4)**

Predictive, adaptive, optimal control and automation. Distributed Control Systems, intelligent automation systems, intelligent controllers. Controller communications. SCADA systems. PLCs: architecture, sequential programming, ladder diagrams, programming practice. Safety, security, reliability, and environment control of industrial systems. Industrial power supplies. Case studies from various industries.

Pre-requisites: 214 322, 214 352

### **214 455 Computer Interfacing for Instrumentation and Control (3-2-0:4)**

PC based instrumentation and control, industrial instrumentation and control, Bus interfacing. Standard bus types: ISA, EISA, PCI, PXI. IEEE 488 and RS-232 standards. Hardware and software interrupts, interrupt service routines, DMA control and controllers, parallel port interfacing, serial port interfacing, ADC/DAC interfacing, data acquisition and SCADA systems, PLC interfacing systems and distributed controls, applications.

Pre-requisites: 211 367, 213 334

### **214 464 Virtual Instrumentation (3-0-0:3)**

Virtual instrumentation and control basics and applications, industry standard LabVIEW system, front panel and block diagram, building VI and sub-VI, structures, clusters, arrays and cases, DAQ systems and hardware, RS-233 and GPIB interfacing, signal processing with LabVIEW, remote control instrumentation, data visualization and report generation, VI control over the networks, Internet and web browser, examples and projects.

Pre-requisites: 211 367, 214 322

### **214 466 Process Control and Instrumentation (3-0-0:3)**

Introduction: process control principles, identification of process control elements, block diagram representation of process control. Signal conditioning: Principles of analog signal conditioning, design of analog signal conditioning circuits, principles of digital signal conditioning. Sensors and actuators in process control, actuators in process control, application examples. Computers in process control: data logging, supervisory control, computer based controller. Process control networks: Foundation Fieldbus and Profibus.

Pre-requisites: 214 322, 214 352

### **214 488 Instrumentation and Control Applications (3-0-0:3)**

Instrumentation in the oil extraction industry, on-shore and off-shore, instrumentation in the oil refineries, instrumentation in the chemical industry, instrumentation in electrical power stations, instrumentation in the car industry, instrumentation in the steel and aluminum industry, instrumentation and control in mechatronics, antenna control, Boring machine control, vehicle cruise control, robot control systems, orbiting satellite control, industrial turntable speed control, Insulin delivery control system, printer belt drive control, X-Y plotter control, engraving machine control system.

Pre-requisite: 214 322

### **215 211 Circuit Analysis I (3-2-2:4)**

Basic quantities: charge, current, voltage, resistance, energy and power. Analysis of series, parallel and series-parallel DC resistive circuits using Ohm's law, power law and Kirchhoff's voltage and current laws. Operational amplifiers: characteristics and circuit analysis. Analysis of more complex circuits using loop and nodal methods, superposition, Thevenin's and Norton theorems. Transient analyses of RC, RL, and RLC circuits.

Pre-requisites: 217 101, 217 122

### **215 212 Circuit Analysis II (3-2-2:4)**

AC circuits: introduction, impedance and admittance, phasors and phasor diagrams, series and parallel circuits, power and power factor correction. Steady-state response using phasor method. Nodal and loop analysis, application of circuit theorems. Frequency response, series and parallel resonance. Two-port networks. Magnetically-coupled circuits. Analysis of balanced three phase circuits.

Pre-requisites: 215 211, 217 203

formatting. IF and SWITCH, WHILE, DO-WHILE and FOR. Function definition and calling, library functions, arrays and strings, pointers, pointers and functions/arrays. Structures: accessing structure members, structures and functions. Enumeration, macros, file input/output.

Pre-requisite: 104 110

### **213 235 Logic Design (3-2-2:4)**

Basic theorems and properties of Boolean Algebra and boolean functions. Simplification of Boolean Functions: Karnaugh Map and Tabulation (Quine-McCluskey) Method. Product of Sums (POS) and Sum of Products (SOP) forms. Combinational logic circuits: Design and analysis procedures. Decoders, encoders, multiplexers, demultiplexers, ROM, PLA and PAL. Sequential logic circuits: Flip Flops (RS, D, JK, T), design procedure for clocked sequential circuits, counters. Registers and shift registers.

Pre-requisite: 104 110

### **213 246 Programming II (3-0-2:3)**

Classes and objects, encapsulation of data and functions in classes, inheritance, recursion, dynamic memory allocation, linked lists, graphics and GUI, computer interfacing using C++, root finding using bisection and secant methods, numerical integration using trapezoidal and Simpson's rules, linear system solvers, Gauss elimination, finite difference method for partial differential equations.

Pre-requisite: 213 145

### **213 334 Microprocessors (3-2-2:4)**

8086 basic architecture. 8086, 80286, 80386, 80486, 80586 and Pentium versions. Bus interfacing modules, memory mapping, memory interfacing, memory addressing, partial, biased and complete addressing, addressing with gates, DEC's and PLD's. 8255 PPI structure and programming modes, applications on I/O interfacing, interrupts and 8259 module, interrupt types applications, UART and communication interfacing, DMA modules.

Pre-requisites: 213 235, 213 246

### **213 440 Digital System Design (3-2-0:4)**

SSI, MSI, LSI overview, timing diagrams, TT, ST, FT. Expansion of DEC, MUX, ENC, DMUX, applications on combinational digital systems, counters types, counters expansion, synchronous and asynchronous counters, cascading counters, registers types, series and parallel registers. PIPO, SISO, PISO, SIPO, FIFO registers. Applications on

sequential circuits, PLD and FPGA systems, PAL, PLA and PROM, HDL languages.

Pre-requisite: 213 235

### **213 451 Fuzzy Logic and Neural Networks (3-0-0:3)**

Fuzzy logic fundamentals, fuzzy sets, types of membership functions, linguistic variables, creation of fuzzy logic rule base, fuzzy logic operations, neural network fundamentals, neural type learning process, single layer perceptron, artificial neural networks architectures, training algorithms, genetic algorithms and evolution computing, neuro-fuzzy technology, fuzzy control systems and applications.

Pre-requisites: 213 235, 214 352

### **213 458 Microcontrollers and Applications (3-2-0:4)**

Overview of embedded systems, microcontroller architectures, standard microcontroller specifications, instruction sets, addressing and configuring ports and registers, program development and assembly, PIC and Intel microcontrollers programming, interrupt control and synchronization, timing, testing and verification, microcontroller interfacing methods, smart sensors and remote sensing, design applications.

Pre-requisite: 213 334

### **214 322 Instrumentation and Measurements (3-2-0:4)**

Basic measurement concepts, sources and types of measurement errors, sources of noise and interference. DC and AC Bridges and their applications. Analog DC and AC meters. Oscilloscopes: types, specifications, operation, measurements with oscilloscopes. Electronic voltmeters, digital multimeters, electronic counters. Transducers and their applications.

Pre-requisites: 211 352, 215 212

### **214 352 Control Systems (3-2-2:4)**

Introduction to Control Systems: Characteristics, time response, steady-state error. Open loop and closed loop concepts, transfer function, time domain, frequency domain, stability of linear feedback control systems, Root Locus method, Bode diagram. Design of feedback control systems: principles of design, design with the PD, PI, and PID controllers. Performance evaluation of feedback control systems. Compensation: phase-lead, phase-lag and lead-lag compensation.

Pre-requisite: 212 221

antennas. Theory and features of common antennas: folded dipoles, monopole antennas, different types of antenna arrays, and microwave antennas.

Pre-requisite: 212 385

### **212 445 Radar Systems (3-0-0:3)**

Radar fundamentals: Radar frequencies, radar cross section, radar equation. Surveillance radar, PRF, RCS, clutter, noise. Tracking radar. Radar studies of the atmosphere: scattering mechanisms, Mesosphere-stratosphere-troposphere, meteor wind radar. Over the horizon radar: surface wave radar, Skywave radar, the over-the-horizon radar equation. Electronic warfare.

Pre-requisites: 212 315, 212 385

### **212 456 Communication and Switching Networks (3-2-0:4)**

Introduction to computer networks, protocol architecture and OSI reference model. Local Area Network (LAN): Topologies and transmission media. high-speed LAN. Token-Ring, FDDI. Circuit switching and packet switching, ISDN, DSL, packet switching network, X.25, frame relay, ATM. Internetworking devices. UDP, TCP architecture, basic protocol functions, Internet protocols, TCP/IP. Application Layer: client-server model, socket interface, SMTP, FTP, HTTP, and WWW. Wireless LAN.

Pre-requisite: 212 315

### **212 463 Satellite Communications (3-0-0:3)**

Communication satellite systems, satellite signal processing, satellite channel, carrier-to-noise ratio, satellite link analysis. Multiple access techniques: Frequency division multiple access, time division multiple access, direct sequence code division multiple access. Modern satellite technologies, global positioning system, very small aperture technology.

Pre-requisites: 212 315, 212 385

### **212 466 Microwave Engineering (3-2-0:4)**

Microwave transmission lines: Transmission line equations and solutions, reflection coefficient and transmission coefficient, standing wave and S.W. ratio, line impedance and line admittance, Smith chart, impedance matching. Microwave waveguides and components: Rectangular and circular waveguides, microwave cavities, microwave hybrid circuits, directional couplers, circulators, and isolators. Strip lines: Microstrip lines, parallel, coplanar, and shielded strip lines.

Pre-requisite: 212 385

### **212 467 Wireless Communications (3-0-0:3)**

Introduction to cellular mobile radio systems: Cellular-concept system design fundamentals, trunking and grade of service. Mobile channel, large scale and small scale fading. Multiple access techniques for mobile communication. Modern wireless communication systems: Second-generation (2G) cellular networks, Third-generation (3G) and Fourth generation (4G) wireless systems.

Pre-requisites: 212 315, 212 385

### **212 471 Optical Communications (3-0-0:3)**

Optical principles: Reflection and refraction, refractive index, angle of reflection. Fiber optic cables properties: Numerical aperture, single-mode and multi-mode cables, graded and step index cables, propagation through optical fiber, optical dispersion, losses, bit rate, power budget. Optical transmitters and receivers: Light sources and light detectors, wavelength-division multiplexing, complete digital optical communication systems.

Pre-requisites: 212 315, 212 385

### **212 483 Information Theory and Coding (3-0-0:3)**

Discrete sources and entropy. Coding: Source coding, Huffman coding, dictionary coding and Lempel-Ziv coding, arithmetic coding. Channels and channel capacity, channel capacity and the binary symmetric channel. Block coding and Shannon's second theorem, linear block error-correcting codes, Hamming codes, cyclic codes, convolutional codes. The Viterbi Algorithm, hard-decision and soft-decision decoding of Viterbi code.

Pre-requisite: 212 315

### **212 485 Data Communication and Telemetry (3-0-0:3)**

Telecommunications technology fundamentals, types of networks, electromagnetic spectrum, bandwidth, analog transmission, digital transmission. Multiplexing: FDM, TDM, STDM, and WDM. Transmission media characteristic and applications, microwave links, satellite networks, fiber optics and optical networks. Public Switching Terminal Network (PSTN), circuit switched network and packet-switched networks. Internet basics, telemetry engineering, industrial telemetry systems, telemetry sensing systems. Emerging trends and developments.

Pre-requisite: 212 315

### **213 145 Programming I (3-0-2:3)**

Problem solving using flowcharts, structure of a C++ program, data types, operators, variables and constants. Input and output, output



### **211 444 Optoelectronics (3-0-0:3)**

Fundamental concepts of optoelectronics. Interferometry and methods of testing optical systems. Optical detectors and electro-optical imaging systems. Light sources, principles of operation and applications of common lasers. Linear optics and electromagnetic propagation. Basic non-linear optics issues. Design of complete optical systems.

Pre-requisites: 211 352, 212 385

### **211 462 Solid-State Electronics (3-0-0:3)**

Basic physics and transport mechanisms inside semiconductors. Bipolar and Field Effect devices: I-V characteristics, dependence of performance limits on device and circuit parameters. Metal-semiconductor devices: physics of operation and high frequency performance enhancement. Optoelectronic devices: illumination-current relation, dependence of the performance on device structure and material parameters.

Pre-requisite: 211 352

### **211 485 Nanodevices and Technology (3-0-0:3)**

Overview of microelectronics evolution and materials, physical, chemical and biological properties and phenomena and processes, MOSFET structures and DRAM/SRAM layouts. Scaling technologies: 6.5 $\mu$ m, 0.13 $\mu$ m, 90nm, 22nm systems. Small scale measurements, nano measurement devices, carbon nanotubes, quantum wires, thin films, DNA-based structures, laser emitters, MEMS overview, MEMS applications, MEMS simulation with Simulink. Special devices: biochips, Aharonov Bohm interferometer, Y-branch switch, Josephson junction, single electron transistor SET.

Pre-requisite: 211 352

### **212 221 Signals and Systems (3-0-2:3)**

Continuous- and discrete-time signals and systems. Basic system properties. Linear Time-Invariant (LTI) systems. Properties of LTI systems. Convolution sum. Fourier series of periodic signals. Amplitude, phase, and power spectra. Fourier transform of non-periodic signals. Laplace transform, analysis of continuous-time LTI systems using Laplace transform. Z-Transform.

Pre-requisite: 211 / 203

### **212 315 Principles of Communication (3-2-2:4)**

Amplitude Modulation (AM): Modulation index, spectrum of AM signals, AM circuits. Single side band modulation, frequency division multiplexing. Frequency Modulation (FM): spectrum of FM signals, FM

circuits. FM versus AM. Sampling, quantization, coding, pulse code modulation, delta modulation, time division multiplexing.

Pre-requisite: 212 221

### **212 385 Electromagnetic Fields and Wave Propagation (3-0-2:3)**

Time-varying fields and Maxwell's equations: Faraday's law, displacement current, Maxwell's equations in point and integral forms, interaction between fields and materials, boundary conditions. Uniform plane wave propagation: propagation in perfect dielectric, lossy dielectric, and conductors, Poynting vector and average power, polarization, reflection, and refraction of EM waves, input impedance for a medium of propagation, and SWR. Radio wave propagation: propagation paths, diffraction, and fading.

Pre-requisites: 217 122, 217 204

### **212 433 Digital Communication (3-2-0:4)**

Random processes. Baseband Pulse Transmission: Analog Pulse Modulation (PAM, PWM and PPM), and TDM. Digital signaling over channels without and with ISI and AWGN. Pulse shaping, equalization, and eye-pattern. Noise in digital modulation techniques and error probability analysis. Matched filter and optimum receivers. Passband Digital Transmission: Signal and system models of binary and M-level ASK, FSK, PSK. Signal space representation and receiver model. Spread Spectrum Communication.

Pre-requisite: 212 315

### **212 434 Digital Signal Processing (3-0-2:3)**

Introduction: Review of discrete-time signals and systems. Transform-domain representations of signals: Discrete-time Fourier Transform, Fast-Fourier Transform, applications of Z-Transform. Transform-domain representations of LTI systems: Types of transfer functions, stability condition and test. Frequency response of a Rational Transfer Function. Concept of filtering: Finite Impulse Response (FIR) and Infinite Impulse Response (IIR) Filters.

Pre-requisite: 212 221

### **212 444 Antenna Theory and Design (3-0-0:3)**

Fundamental parameters of antennas: radiation pattern, radiation zones, radiation power, directivity, gain, efficiency, beamwidth, polarization, bandwidth, radiation resistance, effective area, Friis transmission equation. Analysis of wire antenna: electric and magnetic potentials, infinitesimal dipole, small magnetic loops, integral technique of radiation, short, half-wave, and long dipole

# Course Descriptions

## 211 251 Electronic Devices and Circuits I (3-2-2:4)

Basic properties of semiconductor materials. Theory of operation and applications of p-n junction diodes, zener diodes and photodiodes. Theory of operation, biasing circuits, and small signal analysis of bipolar junction transistor and junction field effect transistor. Transistor configurations and two-port network representation of transistor AC equivalent circuits. Analysis and design of transistor amplifier circuits.

Pre-requisite: 215 211

## 211 352 Electronic Devices and Circuits II (3-2-2:4)

MOSFETs: theory of operation and characteristics of depletion and enhancement type MOSFETs, analysis of various biasing circuits. Small-signal model and AC analysis of amplifiers. Frequency response of amplifiers. Multistage amplifiers. Operational amplifiers and their applications. Feedback amplifiers and oscillator circuits. Power amplifiers.

Pre-requisite: 211 251

## 211 367 Design with Integrated Circuits (3-2-0:4)

Design of power supplies using IC regulators. Design of analog signal conditioning circuits. Applications of ADC, DAC, and counter ICs. Optoisolators, triacs and control of high-voltage systems and actuators. Design of signal generators. Applications of commonly used ICs such as VCO, PLL, Timer IC, F/V and V/F ICs. Introduction to microcontrollers.

Pre-requisite: 211 352

## 211 412 Computer-Aided Circuit Design (3-0-0:3)

CAD types, Pspice overview, Pspice design center, Pspice in designing DC/AC & transient circuits, OpAmp circuits design with Pspice, frequency analysis with Pspice. Devices, models and parts. Communication application designs with Pspice. Digital circuits design with Pspice. CAD Windows platforms, CAD analyses, Monte Carlo, worst case and performance analyses, CAE packages, Abel and Palasm programming languages in designing PLD and FPGA.

Pre-requisite: 211 352

## 211 415 Digital Integrated Circuits (3-0-0:3)

Properties and definitions of digital ICs, ideal inverter. Logic families: RTL, DTL, TTL, STTL, ECL, I<sup>2</sup>L. Implementing different gates from logic families, CMOS and nMOS technologies and their applications.

Astable, monostable, bistable, FF, Schmitt trigger. Interfacing between logic families, and their comparison, BiCMOS technology, error detection in gates, signal transmission in gates.

Pre-requisites: 211 352, 213 235

## 211 418 VLSI Design (3-0-0:3)

Silicon layers manufacturing process and lithography, PLD, CPLD and FPGA chips. CMOS, nMOS, pMOS, BiCOMS design. Pass transistors, TGs and MUXs building units, buffers and latches. CMOS configurations: dynamic CMOS, C2MOS. Stick diagrams, pattern diagrams, floor-planning and routing, DRAM, SRAM, ROM designs, microprocessor, ALU and micro control circuits, VHDL and Verilog in prototyping.

Pre-requisites: 211 352, 213 235

## 211 429 Power Electronics (3-2-0:4)

Introduction to power electronics and power electronic devices. Power diodes and power transistors BJTs, MOSFETs, IGBTs, and SITs. Thyristor, thyristor firing circuits, triggering circuits using UJTs and PUTs. Analysis and design of single-phase/three-phase half-wave/full-wave uncontrolled/controlled rectifiers with resistive and inductive loads. AC voltage controllers: Principles of on-off and phase control, single-phase controllers with resistive load/inductive load. DC choppers: step-down and step-up operations. Three-phase inverters, DC and AC drives.

Pre-requisites: 211 352, 215 212

## 211 433 Communication Electronics (3-0-0:3)

Introduction. Communication Systems. Types of electronic communications. Amplitude modulation (AM) systems: Transmitters, Receivers. Single side band SSB communication Systems. Communication circuits, Oscillators, Power amplifiers, Mixers, Modulators and demodulators. Typical transmitter and receiver circuits. TV systems. TV cameras, TV signal, TV transmitter, TV receiver. Color TV. (this said colored – I changed it)

Pre-requisites: 211 352, 212 315

## 211 437 Microwave Electronics (3-0-0:3)

Introduction. Interaction between electrons and fields. Microwave linear beam tubes-"O" type: conventional tubes, Klystrons, traveling wave tubes. Microwave crossed field tubes-"M" type, magnetrons. Microwave transistors. Microwave diodes.

Pre-requisites: 211 352, 217 385

## Semester 5

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
211 352	Electronic Devices and Circuits II	4	3	2	2	211 251
212 315	Principles of Communication	4	3	2	2	212 221
212 385	Electromagnetic Fields and Wave Propagation	3	3	--	2	217 122 217 204
103 130	Research Methodology	3	3	--	--	-----
217 305	Engineering Mathematics V	3	3	--	--	217 204 103 110
		18	15	6	8	

INTERNAL TRAINING (Two Weeks in Spring Break)

## Semester 6

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
211 367	Design with Integrated Circuits	4	3	2	--	211 352
213 334	Microprocessors	4	3	2	2	213 235 213 246
214 322	Instrumentation and Measurements	4	3	2	--	211 352
215 212						217 122
216 335	Electrical Machines and Power Systems	4	3	2	--	215 212
214 352	Control Systems	4	3	2	2	212 221
		19	15	8	2	

210 400: ENGINEERING EXTERNAL TRAINING I (Six Weeks in Summer Vacation)

## Semester 7

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
214 443	Industrial Control Systems	4	3	2	--	214 352
214 455	Computer Interfacing for Instrumentation and Control	4	3	2		213 334 211 367
214 491	Graduation Project I	3	1	4	--	Advisor's Approval
214 4xx	Specialization Elective I	3	3	--	--	Advisor's Approval
214 4xx	Specialization Elective II	3	3	--	--	Advisor's Approval
		17	13	8	--	

## Semester 8

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
214 466	Process Control and Instrumentation	3	3	--	--	214 322 214 352
214 492	Graduation Project II	4	1	6	--	214 491
214 4xx	Specialization Elective III	3	3	--	--	Advisor's Approval
21x 4xx	Specialization Elective IV	3	3	--	--	Advisor's Approval
xxx xxx	University Elective III	3	3	--	--	Advisor's Approval
		16	13	6	--	

210 400: ENGINEERING EXTERNAL TRAINING II (Six Weeks in Summer Vacation)

## Proposed Sequence of Study

### Semester 1

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
101 000	Orientation	0	1	-	-	-
217 101	Engineering Mathematics I	3	3	-	2	-
217 121	Engineering Physics I	4	3	2	2	-
217 141	Chemistry for Engineers	3	2	2	-	-
104 110	Computer Applications	3	2	2	-	-
102 140	Communication Skills in Arabic Language	3	3	-	-	-
		16	14	6	4	

### Semester 2

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
213 145	Programming I	3	3	-	2	104 110
217 102	Engineering Mathematics II	3	3	-	2	217 101
217 122	Engineering Physics II	4	3	2	2	-
217 150	Introduction to Engineering	1	1	-	1	-
102 110	Islamic Culture	3	3	-	1	-
xxx xxx	University Elective I	3	3	-	-	Advisor's Approval
		17	16	2	8	

### Semester 3

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
213 235	Logic Design	4	3	2	2	104 110
213 246	Programming II	3	3	-	2	213 145
215 211	Circuit Analysis I	4	3	2	2	217 101 217 122
217 203	Engineering Mathematics III	3	3	-	2	217 101
103 110	Statistics	3	2	2	-	-
		17	14	6	8	

### Semester 4

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
211 251	Electronic Devices and Circuits I	4	3	2	2	215 211
212 221	Signals and Systems	3	3	-	2	217 203
215 212	Circuit Analysis II	4	3	2	2	215 211 217 203
217 204	Engineering Mathematics IV	3	3	-	2	217 203
xxx xxx	University Elective II	3	3	-	-	Advisor's Approval
218 200	Report Writing and Presentation	1	1	-	2	217 150
		18	16	4	10	

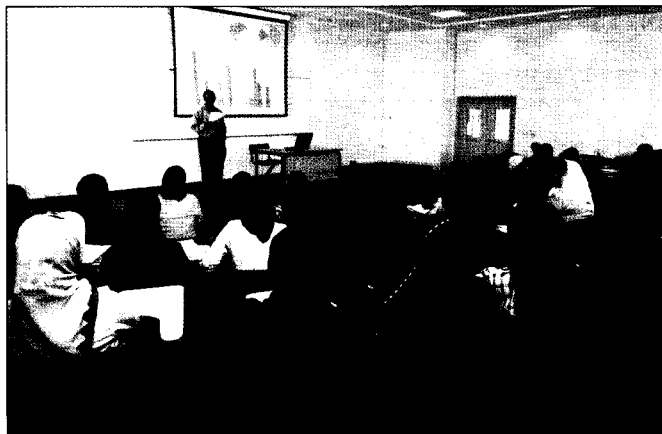
### Graduation Projects (7 Credit Hours)

Course #	Course Title	Credit Hours	Pre-requisite
214 491	Graduation Project I	3	Advisor's Approval
214 492	Graduation Project II	4	214 491

### Major Electives for Instrumentation and Control

The student will take four of the following specialization electives as approved by the academic advisor. At least three of these courses must have the course code 214 4xx.

Course #	Course Title	Credit Hours	Pre-requisite
211 429	Power Electronics	4	211 352, 216 335
212 434	Digital Signal Processing	3	212 221
212 485	Data Communication and Telemetry	3	212 315
213 440	Digital System Design	4	213 235
213 451	Fuzzy Logic and Neural Networks	3	213 235, 214 352
213 458	Microcontrollers and Applications	4	213 334
214 426	Intelligent Systems and Robotics	3	213 334, 211 352
214 445	Digital Control Systems	3	214 352, 212 221
214 464	Virtual Instrumentation	3	214 322, 211 367
214 472	Biomedical Instrumentation	3	214 322
214 488	Instrumentation and Control Applications	3	214 322
214 490	Selected Topics in Instrumentation and Control	3	Senior Standing



COLLEGE REQUIREMENTS (31 Credit hours)

Course #	Course Title	Credit Hours	Pre-requisite
217 101	Engineering Mathematics I	3	-
217 121	Engineering Physics I	4	-
217 141	Chemistry for Engineers	3	-
213 145	Programming I	3	104 110
217 102	Engineering Mathematics II	3	217 101
217 122	Engineering Physics II	4	-
217 150	Introduction to Engineering	1	-
218 200	Report Writing and Presentation	1	217 150
217 203	Engineering Mathematics III	3	217 101
217 204	Engineering Mathematics IV	3	217 203
217 305	Engineering Mathematics V	3	217 204, 103 110

INSTRUMENTATION AND CONTROL ENGINEERING SPECIALIZATION COURSES (53 Credit Hours)

Course #	Course Title	Credit Hours	Pre-requisite
213 235	Logic Design	4	104 110
213 246	Programming II	3	213 145
215 211	Circuit Analysis I	4	217 101, 217 122
211 251	Electronic Devices and Circuits I	4	215 211
212 221	Signal and Systems	3	
215 212	Circuit Analysis II	4	215 211, 217 203
211 352	Electronic Devices and Circuits II	4	211 251
212 315	Principles of Communications	4	212 221
212 385	Electromagnetic Fields and Wave Propagation	3	217 122, 217 204
214 352	Control Systems	4	212 221
211 367	Design with Integrated Circuits	4	211 352
213 334	Microprocessors	4	213 235, 213 246
214 322	Instrumentation and Measurements	4	211 352, 215 212
216 335	Electrical Machines and Power Systems	4	217 122, 215 212

Major Courses (23 Credit Hours)

Course #	Course Title	Credit Hours	Pre-requisite
214 443	Industrial Control Systems	4	214 352
214 455	Computer Interfacing for Instrumentation and Control	4	213 334, 211 367
214 4xx	Specialization Elective I	3	Advisor's Approval
214 4xx	Specialization Elective II	3	Advisor's Approval
214 466	Process Control and Instrumentation	3	214 322, 214 352
214 4xx	Specialization Elective III	3	Advisor's Approval
21x 4xx	Specialization Elective IV	3	Advisor's Approval

## INSTRUMENTATION AND CONTROL ENGINEERING CURRICULUM (138 Credit Hours)

The electronic engineering curriculum comprises:

1- University Requirements (Compulsory)	15 credit hours
2- University Requirements (Elective)	9 credit hours
3- College Requirements	31 credit hours
4- EE Core Courses	53 credit hours
5- Specialization Courses	23 credit hours
6- Graduation Projects (I and II)	7 credit hours

## UNIVERSITY REQUIREMENTS (24 Credit Hours)

Compulsory Courses (15 Credit hours)

Course #	Course Title	Credit Hours	Pre-requisite
101 000	Orientation	0	-
104 110	Computer Applications	3	-
102 140	Communication Skills in Arabic Language	3	-
102 110	Islamic Culture	3	-
103 110	Statistics	3	-
103 130	Research Methodology	3	-

Elective Courses (9 Credit Hours)

Course #	Course Title	Credit Hours	Pre-requisite
112 130	Modern Technology and Society	3	-
114 110	Economic Concepts	3	-
114 120	Entrepreneurship Development	3	-
117 140	Energy, Water and Environment	3	-
117 150	Applications of Remote Sensing and GIS	3	-
118 120	General Biology	3	-
102 120	The Miraculousness of the Holy Koran	3	-
112 110	Principles of Art and Architecture	3	-
115 160	Emirates Society	3	-
117 130	First Aid	3	-
119 110	Communications Skills	3	-
119 130	Information Society	3	-
115110	History of Science in Islam	3	-
115120	Scientific Pioneering	3	-
115130	General Psychology	3	-
119120	Introduction to Communication Sociology	3	-

# Bachelor Of Science (B.Sc) In Instrumentation And Control Engineering

Considering the recent significant developments in the fields of instrumentation and control and the rapid industrialization of the UAE, the demand for engineers specializing in instrumentation and control engineering is on the rise. Instrumentation and control engineering has applications in modern industries which manufacture a variety of products. It also has extensive applications in a variety of control systems that encountered in everyday life. The Instrumentation and Control Engineering program prepares students to deal with modern techniques used in instrumentation and control systems. In addition to developing a strong theoretical basis, it provides students with the laboratory experience they need to enhance their practical skills. It also develops their generic skills so that upon graduation they are well prepared to start their professional careers.

## Mission

To provide students with a broad theoretical knowledge base and equip them with strong practical application skills so that they can meet the competitive requirements of the job market in instrumentation and control engineering, and are well prepared to pursue higher study in this fast-developing field.

## Objectives

The instrumentation and control engineering program aims to produce graduates who have:

8. a strong foundation of basic sciences and mathematics and are able to apply this knowledge to analyze and solve engineering problems
9. broad theoretical as well as practical knowledge related to related to instrumentation and control specialization.
10. the skills needed for designing, analyzing, and trouble-shooting communication circuits or systems
11. proficiency in computer aided design tools and software packages to design projects or systems to meet specified requirements
12. good communication skills, and can work effectively as team members
13. the generic skills needed to function in the multidisciplinary,

diverse, competitive and fast-changing engineering environment of the UAE

14. the ability for critical thinking and lifelong learning and are capable of updating their technical knowledge while working as professional engineers

## Admission Requirements

Admission to the Instrumentation and Control Engineering program requires a UAE secondary school certificate (science major) or its equivalent with a minimum grade of 70 percent. For further information please refer to the university admissions policy.

## Career Opportunities

Graduates of the instrumentation and control engineering specialization can pursue careers in a wide range of areas, for example the petroleum industry, the chemical industry, power plants, the auto industry, robotics, the manufacturing industry and in engineering companies designing various control systems for industry and smart homes.

## Graduation Requirements

The Bachelor of Science Degree is awarded upon the fulfillment of the following:

1. Successful completion of all courses in the program curriculum (138 credit hours)
2. Successful completion of two weeks of internal training and 12 weeks of external training at engineering sites (four credit hours)
3. A final Cumulative Grade Points Average (CGPA) of not less than 2.0 (on a scale of 4.5)



## Semester 5

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
211 352	Electronic Devices and Circuits II	4	3	2	2	211 251
212 315	Principles of Communication	4	3	2	2	212 221
212 385	Electromagnetic Fields and Wave Propagation	3	3	--	2	217 122
103 130	Research Methodology	3	3	--	--	217 204
217 305	Engineering Mathematics V	3	3	--	--	217 204
		18	15	6	8	103 110

INTERNAL TRAINING (Two Weeks in Spring Break)

## Semester 6

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
211 367	Design with Integrated Circuits	4	3	2	--	211 352
213 334	Microprocessors	4	3	2	2	213 235
214 322	Instrumentation and Measurements	4	3	2	--	213 246
215 212						211 352
216 335	Electrical Machines and Power Systems	4	3	2	--	217 122
215 212						
214 352	Control Systems	4	3	2	2	212 221
		19	15	8	2	

210 400: ENGINEERING EXTERNAL TRAINING I (Six Weeks in Summer Vacation)

## Semester 7

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
212 433	Digital Communication	4	3	2	--	212 315
212 434	Digital Signal Processing	3	3	--	2	212 221
212 491	Graduation Project I	3	1	4	--	Advisor's Approval
212 4xx	Specialization Elective I	3	3	--	--	Advisor's Approval
212 4xx	Specialization Elective II	3	3	--	--	Advisor's Approval
		16	13	6	2	

## Semester 8

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
212 466	Microwave Engineering	4	3	2	--	212 385
212 492	Graduation Project II	4	1	6	--	212 491
212 4xx	Specialization Elective III	3	3	--	--	Advisor's Approval
21x 4xx	Specialization Elective IV	3	3	--	--	Advisor's Approval
xxx xxx	University Elective III	3	3	--	--	Advisor's Approval
		17	13	8	--	

210 400: ENGINEERING EXTERNAL TRAINING II (Six Weeks in Summer Vacation)

## Proposed Sequence of Study

### Semester 1

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
101 000	Orientation	0	1	--	--	---
217 101	Engineering Mathematics I	3	3	--	2	---
217 121	Engineering Physics I	4	3	2	2	---
217 141	Chemistry for Engineers	3	2	2	--	---
104 110	Computer Applications	3	2	2	--	---
102 140	Communication Skills in Arabic Language	3	3	--	--	---
		16	14	6	4	

### Semester 2

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
213 145	Programming I	3	3	--	2	104 110
217 102	Engineering Mathematics II	3	3	--	2	217 101
217 122	Engineering Physics II	4	3	2	2	---
217 150	Introduction to Engineering	1	1	--	1	---
102 110	Islamic Culture	3	3	--	1	---
xxx xxx	University Elective I	3	3	--	--	Advisor's Approval
		17	16	2	8	

### Semester 3

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
213 235	Logic Design	4	3	2	2	104 110
213 246	Programming II	3	3	--	2	213 145
215 211	Circuit Analysis I	4	3	2	2	217 101
217 203	Engineering Mathematics III	3	3	--	2	217 122
103 110	Statistics	3	2	2	--	217 101
		17	14	6	8	---

### Semester 4

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
211 251	Electronic Devices and Circuits I	4	3	2	2	215 211
212 221	Signals and Systems	3	3	--	2	217 203
215 212	Circuit Analysis II	4	3	2	2	215 211
217 204	Engineering Mathematics IV	3	3	--	2	217 203
xxx xxx	University Elective II	3	3	--	--	217 203
218 200	Report Writing and Presentation	1	1	--	2	Advisor's Approval
		18	16	4	10	

### Graduation Projects (7 Credit Hours)

Course #	Course Title	Credit Hours	Pre-requisite
212 491	Graduation Project I	3	Advisor's Approval
212 492	Graduation Project II	4	212 491

### Major Electives for Communication Concentration

The student will take four of the following specialization electives as approved by the academic advisor. At least three of these courses must have the Course # 212 4xx.

Course #	Course Title	Credit Hours	Pre-requisite
211 433	Communication Electronics	3	211 352, 212 315
211 437	Microwave Electronics	3	211 352, 212 385
212 444	Antenna Theory and Design	3	212 385
212 445	Radar Systems	3	212 315, 212 385
212 456	Communication and Switching Networks	4	212 315
212 463	Satellite Communications	3	212 315, 212 385
212 467	Wireless Communications	3	212 315, 212 385
212 471	Optical Communications	3	212 315, 212 385
212 483	Information Theory and Coding	3	212 315
212 490	Selected Topics in Communication	3	Senior Standing
213 440	Digital System Design	4	213 235
213 451	Fuzzy Logic and Neural Networks	3	213 235, 214 352
213 458	Microcontrollers and Applications	4	213 334
214 443	Industrial Control Systems	4	214 322, 214 352



COLLEGE REQUIREMENTS (31 Credit hours)

Course #	Course Title	Credit Hours	Pre-requisite
217 101	Engineering Mathematics I	3	---
217 121	Engineering Physics I	4	---
217 141	Chemistry for Engineers	3	---
213 145	Programming I	3	104 110
217 102	Engineering Mathematics II	3	217 101
217 122	Engineering Physics II	4	---
217 150	Introduction to Engineering	1	---
217 200	Report Writing and Presentation	1	217 150
217 203	Engineering Mathematics III	3	217 101
217 204	Engineering Mathematics IV	3	217 203
217 305	Engineering Mathematics V	3	217 204, 103 110

COMMUNICATION ENGINEERING SPECIALIZATION COURSES (53 Credit Hours)

Course #	Course Title	Credit Hours	Pre-requisite
213 235	Logic Design	4	104 110
213 246	Programming II	3	213 145
215 211	Circuit Analysis I	4	217 101, 217 122
211 251	Electronic Devices and Circuits I	4	215 211
212 221	Signal and Systems	3	
215 212	Circuit Analysis II	4	215 211, 217 203
211 352	Electronic Devices and Circuits II	4	211 251
212 315	Principles of Communications	4	212 221
212 385	Electromagnetic Fields and Wave Propagation	3	217 122, 217 204
214 352	Control Systems	4	212 221
211 367	Design with Integrated Circuits	4	211 352
213 334	Microprocessors	4	213 235, 213 246
214 322	Instrumentation and Measurements	4	211 352, 215 212
216 335	Electrical Machines and Power Systems	4	217 122, 215 212

Major Courses (23 Credit Hours)

Course #	Course Title	Credit Hours	Pre-requisite
212 433	Digital Communication	4	212 315
212 434	Digital Signal Processing	3	212 221
212 4xx	Specialization Elective I	3	Advisor's Approval
212 4xx	Specialization Elective II	3	Advisor's Approval
212 466	Microwave Engineering	4	212 385
212 4xx	Specialization Elective III	3	Advisor's Approval
21x 4xx	Specialization Elective IV	3	Advisor's Approval

## COMMUNICATION ENGINEERING CURRCULUM (138 Credit Hours)

The electronic engineering curriculum comprises:

1- University Requirements (Compulsory)	15 credit hours
2- University Requirements (Elective)	9 credit hours
3- College Requirements	31 credit hours
4- EE Core Courses	53 credit hours
5- Specialization Course	23 credit hours
6- Graduation Projects (I and II)	7 credit hours

## UNIVERSITY REQUIREMENTS (24 Credit Hours)

Compulsory Courses (15 Credit Hours)

Course #	Course Title	Credit Hours	Pre-requisite
101 000	Orientation	0	—
104 110	Computer Applications	3	—
102 140	Communication Skills in Arabic Language	3	—
102 110	Islamic Culture	3	—
103 110	Statistics	3	—
103 130	Research Methodology	3	—

Elective Courses (9 Credit Hours)

Course #	Course Title	Credit Hours	Pre-requisite
112 130	Modern Technology and Society	3	—
114 110	Economic Concepts	3	—
114 120	Entrepreneurship Development	3	—
117 140	Energy, Water and Environment	3	—
117 150	Applications of Remote Sensing and GIS	3	—
118 120	General Biology	3	—
102 120	The Miraculousness of the Holy Koran	3	—
112 110	Principles of Art and Architecture	3	—
115 160	Emirates Society	3	—
117 130	First Aid	3	—
119 110	Communications Skills	3	—
119 130	Information Society	3	—
115120	Scientific Pioneering	3	—
115130	General Psychology	3	—
119120	Introduction to Communication Sociology	3	—

# Bachelor Of Science (B.Sc) In Communication Engineering

Communication engineering is concerned with modern techniques of transmitting various forms of information. This information can be digital or analog and transmitted by wired or wireless media, for example radio waves, cables and optical fibers. Radio, television, telephone and computer networks are examples of communication systems. The widespread use of modern communication systems demands qualified communication engineers to deal with the various technical aspects of these systems. The Communication Engineering program equips its graduates with technical knowledge and skills in areas such as communication systems, digital data communication, microwave engineering, satellite communication, mobile communication and computer networks.

## Mission

The mission of the Communication Engineering program is to provide high quality communication engineering education to its students. It places special emphasis on developing the technical as well as generic skills of its students so that they are well qualified for immediate employment in their area of specialization and can contribute effectively to the advancement of the community. It also aims to prepare its students for graduate study in communication engineering.

## Objectives

The communication engineering program aims to produce graduates who have:

1. a strong foundation of basic sciences and mathematics and are able to apply this knowledge to analyze and solve engineering problems
2. broad theoretical as well as practical knowledge related to Communication Engineering specialization
3. the skills needed for designing, analyzing, and trouble-shooting communication circuits or systems
4. proficiency in computer aided design tools and software packages to design projects or systems to meet specified requirements
5. good communication skills, and can work effectively as team members

6. the generic skills needed to function in the multidisciplinary, diverse, competitive and fast-changing engineering environment of the UAE
7. the ability for critical thinking and lifelong learning and are capable of updating their technical knowledge while working as professional engineers

## Admission Requirements

Admission to the Communication Engineering program requires a UAE secondary school certificate (science major) or its equivalent with a minimum grade of 70 percent. For further information please refer to the university admissions policy.

## Career Opportunities

Graduates of the communication engineering specialization can pursue careers in a wide range of areas, for example in:

- local or international telecommunication companies to work as design, maintenance or marketing engineers
- the digital data communication industry i.e. computer networks
- the mobile telephone industry
- television and radio stations

## Graduation Requirements

The Bachelor of Science Degree is awarded upon the fulfillment of the following:

1. Successful completion of all courses in the program curriculum (138 credit hours)
2. Successful completion of two weeks of internal training and 12 weeks of external training in engineering companies (four credit hours)
3. A final Cumulative Grade Point Average (CGPA) of not less than 2.0 (on a scale of 4.5)

## Semester 5

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
211 352	Electronic Devices and Circuits II	4	3	2	2	211 251
212 315	Principles of Communication	4	3	2	2	212 221
212 385	Electromagnetic Fields and Wave Propagation	3	3	--	2	217 122 217 204
103 130	Research Methodology	3	3	--	--	217 204
217 305	Engineering Mathematics V	3	3	--	--	103 110
		18	15	6	8	

PRE-EXTERNAL TRAINING (Two Weeks in Spring Break)

## Semester 6

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
211 367	Design with Integrated Circuits	4	3	2	--	211 352
213 334	Microprocessors	4	3	2	2	213 235 213 246
214 322	Instrumentation and Measurements	4	3	2	--	211 352 215 212
216 335	Electrical Machines and Power Systems	4	3	2	--	217 122 215 212
214 352	Control Systems	4	3	2	2	212 221
		19	15	8	2	

210 400: ENGINEERING EXTERNAL TRAINING I (Six Weeks in Summer Vacation)

## Semester 7

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
211 429	Power Electronics	4	3	2	--	211 352
215 212						
213 440	Digital System Design	4	3	2	--	213 235
211 491	Graduation Project I	3	1	4	--	Advisor's Approval
211 4xx	Specialization Elective I	3	3	--	--	Advisor's Approval
211 4xx	Specialization Elective II	3	3	--	--	Advisor's Approval
		17	13	8	--	

## Semester 8

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
211 418	VLSI Design	3	3	--	--	211 352
213 235						
211 492	Graduation Project II	4	1	6	--	211 491
211 4xx	Specialization Elective III	3	3	--	--	Advisor's Approval
21x 4xx	Specialization Elective IV	3	3	--	--	Advisor's Approval
xxx xxx	University Elective III	3	3	--	--	Advisor's Approval
	16	13	6	--	--	

210 400: ENGINEERING EXTERNAL TRAINING II (Six Weeks in Summer Vacation)

## Proposed Sequence of Study

### Semester 1

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
101 000	Orientation	0	1	--	--	---
217 101	Engineering Mathematics I	3	3	--	2	---
217 121	Engineering Physics I	4	3	2	2	---
217 141	Chemistry for Engineers	3	2	2	--	---
104 110	Computer Applications	3	2	2	--	---
102 140	Communication Skills in Arabic Language	3	3	--	--	---
		16	14	6	4	

### Semester 2

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
213 145	Programming I	3	3	--	2	104 110
217 102	Engineering Mathematics II	3	3	--	2	217 101
217 122	Engineering Physics II	4	3	2	2	---
217 150	Introduction to Engineering	1	1	--	1	---
102 110	Islamic Culture	3	3	--	1	---
xxx xxx	University Elective I	3	3	--	--	Advisor's Approval
		17	16	2	8	

### Semester 3

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
213 235	Logic Design	4	3	2	2	104 110
213 246	Programming II	3	3	--	2	213 145
215 211	Circuit Analysis I	4	3	2	2	217 101
217 122						
217 203	Engineering Mathematics III	3	3	--	2	217 101
103 110	Statistics	3	2	2	--	
		17	14	5	8	

### Semester 4

Course #	Course Title	Credit Hours	L/C	Lb/T	Cr/H	Pre-requisite
211 251	Electronic Devices and Circuits I	4	3	2	2	215 211
212 221	Signals and Systems	3	3	--	2	217 203
215 212	Circuit Analysis II	4	3	2	2	215 211 217 203
217 204	Engineering Mathematics IV	3	3		2	217 203
xxx xxx	University Elective II	3	3			Advisor's Approval
217 200	Report Writing and Presentation	1	1	--	2	
		18	16	4	10	



### Graduation Projects (7 Credit Hours)

Course #	Course Title	Credit Hours	Pre-requisite
211 491	Graduation Project I	3	Advisor's Approval
211 492	Graduation Project II	4	211 491

### Major Electives for Electronics Concentration

The student will take four of the following specialization electives as approved by the academic advisor. At least three of these courses must have the course code 211 4xx.

Course #	Course Title	Credit Hours	Pre-requisite
211 412	Computer-Aided Circuit Design	3	211 352
211 415	Digital Integrated Circuits	3	211 352, 213 235
211 433	Communication Electronics	3	211 352, 212 315
211 437	Microwave Electronics	3	211 352, 212 385
211 444	Optoelectronics	3	211 352, 212 385
211 462	Solid-State Electronics	3	211 352
211 485	Nanodevices and Technology	3	211 352
211 490	Selected Topics in Electronics	3	Senior Standing
212 434	Digital Signal Processing	3	212 221
212 456	Communication and Switching Networks	4	212 315
213 451	Fuzzy Logic and Neural Networks	3	213 235, 214 352
213 458	Microcontrollers and Applications	4	213 334
214 443	Industrial Control Systems	4	214 322, 214 352

COLLEGE REQUIREMENTS (31 Credit Hours)

Course #	Course Title	Credit Hours	Pre-requisite
217 101	Engineering Mathematics I	3	-
217 121	Engineering Physics I	4	-
217 141	Chemistry for Engineers	3	-
213 145	Programming I	3	104 110
217 102	Engineering Mathematics II	3	217 101
217 122	Engineering Physics II	4	-
217 150	Introduction to Engineering	1	-
217 200	Report Writing and Presentation	1	
217 203	Engineering Mathematics III	3	217 101
217 204	Engineering Mathematics IV	3	217 203
217 305	Engineering Mathematics V	3	217 204, 103 110

ELECTRONIC ENGINEERING SPECIALIZATION COURSES (53 Credit Hours)

Course #	Course Title	Credit Hours	Pre-requisite
213 235	Logic Design	4	104 110
213 246	Programming II	3	213 145
215 211	Circuit Analysis I	4	217 101, 217 122
211 251	Electronic Devices and Circuits I	4	215 211
212 221	Signal and Systems	3	
215 212	Circuit Analysis II	4	215 211, 217 203
211 352	Electronic Devices and Circuits II	4	211 251
212 315	Principles of Communications	4	212 221
212 385	Electromagnetic Fields and Wave Propagation	3	217 122, 217 204
214 352	Control Systems	4	212 221
211 367	Design with Integrated Circuits	4	211 352
213 334	Microprocessors	4	213 235, 213 246
214 322	Instrumentation and Measurements	4	211 352, 215 212
216 335	Electrical Machines and Power Systems	4	217 122, 215 212

Major Courses (23 Credit Hours)

Course #	Course Title	Credit Hours	Pre-requisite
211 429	Power Electronics	4	211 352, 215 212
213 440	Digital System Design	4	213 235
211 4xx	Specialization Elective I	3	Advisor's Approval
211 4xx	Specialization Elective II	3	Advisor's Approval
211 418	VLSI Design	3	211 352, 213 235
211 4xx	Specialization Elective III	3	Advisor's Approval
21x 4xx	Specialization Elective IV	3	Advisor's Approval

## ELECTRONIC ENGINEERING CURRICULUM (138 Credit hours)

The electronic engineering curriculum comprises:

1- University Requirements (compulsory)	15 credit hours
2- University Requirements (elective)	9 credit hours
3- College Requirements	31 credit hours
4- EE Core Courses	53 credit hours
5- Specialization Courses	23 credit hours
6- Graduation Projects (I and II)	7 credit hours

## UNIVERSITY REQUIREMENTS (24 Credit Hours)

Compulsory Courses (15 Credit Hours)

Course #	Course Title	Credit Hours	Pre-requisite
101 000	Orientation	0	—
104 110	Computer Applications	3	—
102 140	Communication Skills in Arabic Language	3	—
102 110	Islamic Culture	3	—
103 110	Statistics	3	—
103 130	Research Methodology	3	—
103 130	Research Methodology	3	—

Elective Courses (9 Credit Hours)

Course #	Course Title	Credit Hours	Pre-requisite
112 130	Modern Technology and Society	3	—
114 110	Economic Concepts	3	—
114 120	Entrepreneurship Development	3	—
117 140	Energy, Water and Environment	3	—
117 150	Applications of Remote Sensing and GIS	3	—
118 120	General Biology	3	—
102 120	The Miraculousness of the Holy Koran	3	—
112 110	Principles of Art and Architecture	3	—
115 160	Emirates Society	3	—
117 130	First Aid	3	—
119 110	Communications Skills	3	—
119 130	Information Society	3	—
115110	History of Science in Islam	3	—
115120	Scientific Pioneering	3	—
115130	General Psychology	3	—
119120	Introduction to Communication Sociology	3	—

# Bachelor Of Science (B.Sc) In Electrical Engineering/ Electronics

Modern life has become increasingly dependent on electronic devices and systems. Electronic engineering plays a major role in a wide range of industries and is one of the fastest developing specialization fields. Competent electronics engineers are needed in a wide range of industries involving electronic equipment and systems. The electronic engineering program equips its graduates with technical knowledge and skills in areas such as electronic circuits, microprocessors, instrumentation, control systems, CAD and integrated circuit applications.

## Mission

The mission of the electronic engineering program is to provide high quality electronic engineering education to its students. It places special emphasis on developing the technical as well as generic skills of its students so that they are well qualified for immediate employment in their area of specialization and are able to contribute effectively to the advancement of the community. The program also aims to prepare its students for graduate study in electronic engineering.

## Objectives

The electronic engineering program is designed to produce graduates who have:

1. a strong foundation of basic sciences and mathematics and are able to apply this knowledge to analyze and solve engineering problems
2. broad theoretical as well as practical knowledge related to electronic engineering specialization
3. the skills needed for designing, analyzing and trouble-shooting electronic circuits or systems
4. proficiency in computer-aided design tools and software packages to design projects or systems to meet specified requirements
5. good communication skills, and can work effectively as team members
6. the generic skills needed to function in the multidisciplinary, diverse, competitive and fast-changing engineering environment of the UAE

7. abilities for critical thinking and lifelong learning and are capable of updating their technical knowledge while working as professional engineers

## Admission Requirements

Admission to the electronic engineering program requires a UAE secondary school certificate (science major) or its equivalent with a minimum grade of 70 percent. For further information please refer to the university admissions policy.

## Career Opportunities

Graduates of the electronic engineering specialization pursue careers in a wide range of industries and services, including the computer industry, industrial instrumentation and process control, radio and television broadcast stations, design and development companies and service companies

## Graduation Requirements

The Bachelor of Science Degree is awarded upon the fulfillment of the following:

1. Successful completion of all courses in the program curriculum (138 credit hours)
2. Successful completion of two weeks of internal training and 12 weeks of external training at engineering companies (four credit hours)
3. A final Cumulative Grade Point Average (CGPA) of not less than 2.0 (on a scale of 4.5)

### ***3- Studios***

The college accommodates modern studios equipped with a variety of drawing, drafting and printing instruments and tools for architectural engineering and interior design students.

### ***4- Lecture Rooms***

Lecture rooms are equipped to facilitate the use of audiovisual aids such as overhead projectors, slide projectors, computer projection devices and video players. Many lecture rooms are also connected to the university computer network.

### ***5- Other Facilities***

College of Engineering students have access to a wide range of university facilities including computer rooms, learning and information resources, a bookshop, sports and recreation facilities, cafeteria and clinic.

External training is an essential part of the curriculum of all College of Engineering programs. Students are required to complete external training lasting from three to four months (depending on the program). The college has extensive links with local organizations, for example engineering companies, hospitals, power plants, interior design companies and telecommunication firms, who offer on-site external training to AUST students. The aim of the external training program is to enable students to acquire practical skills, gain an understanding of the work environment and improve their communication skills.

Prior to the external training, students studying electronics, communication and biomedical engineering take part in an internal training program to enhance their basic practical and professional skills. The internal training program for architecture and interior design students is designed to enhance students' skills in free-hand drawing, coloring and rendering.

# Introduction

Engineering is the profession of applying theories and fundamentals of pure science to solve practical problems and develop new equipment, instruments and techniques to meet the needs of society in a variety of fields, for example in communication, IT, architecture, medicine, transportation and agriculture.

## Mission

In line with the university's mission, the College of Engineering provides high quality engineering education. College programs focus on teaching students how the fundamental principles of engineering can be applied in real-world situations. Programs place special emphasis on developing the technical as well as generic skills of students so that they are well qualified for immediate employment in their area of specialization and are able to contribute effectively to the advancement of the community. The college's programs also seek to prepare students for graduate study in their area of specialization.

## Objectives

The academic programs of the College of Engineering are designed to produce graduates who are:

- Competent engineers with sound knowledge and a professional attitude
- Capable of applying theoretical knowledge to solve practical problems
- Equipped with the skills required for productive engineering careers
- Able to perform as individuals and team members
- Proficient in oral and written communication
- Motivated for life-long learning throughout their careers
- Capable of pursuing graduate studies

## Departments

- Department of Electrical Engineering
- Department of Biomedical Engineering
- Department of Architectural Engineering
- Department of Interior Design

## Programs Offered

The College of Engineering offers the following programs:

- 1 Bachelor of Science (BSc) in Electrical Engineering (Electronics)
- 2 Bachelor of Science (BSc) in Electrical Engineering
- 3 Bachelor of Science (BSc) in Electrical Engineering (Instrumentation and Control)
- 4 Bachelor of Science (BSc) in Biomedical Engineering
- 5 Bachelor of Science (BSc) in Architectural Engineering
- 6 Bachelor in Interior Design

## Admission Requirements

Admission to the College of Engineering requires a UAE secondary school certificate (science major) or its equivalent with a minimum of 70 percent for the AUST electronics, communication, instrumentation and control, biomedical and architectural engineering programs. For admission to the interior design program, the minimum acceptable standard is 60 percent science or arts major.

For further information please refer to the university admissions policy.

## Facilities

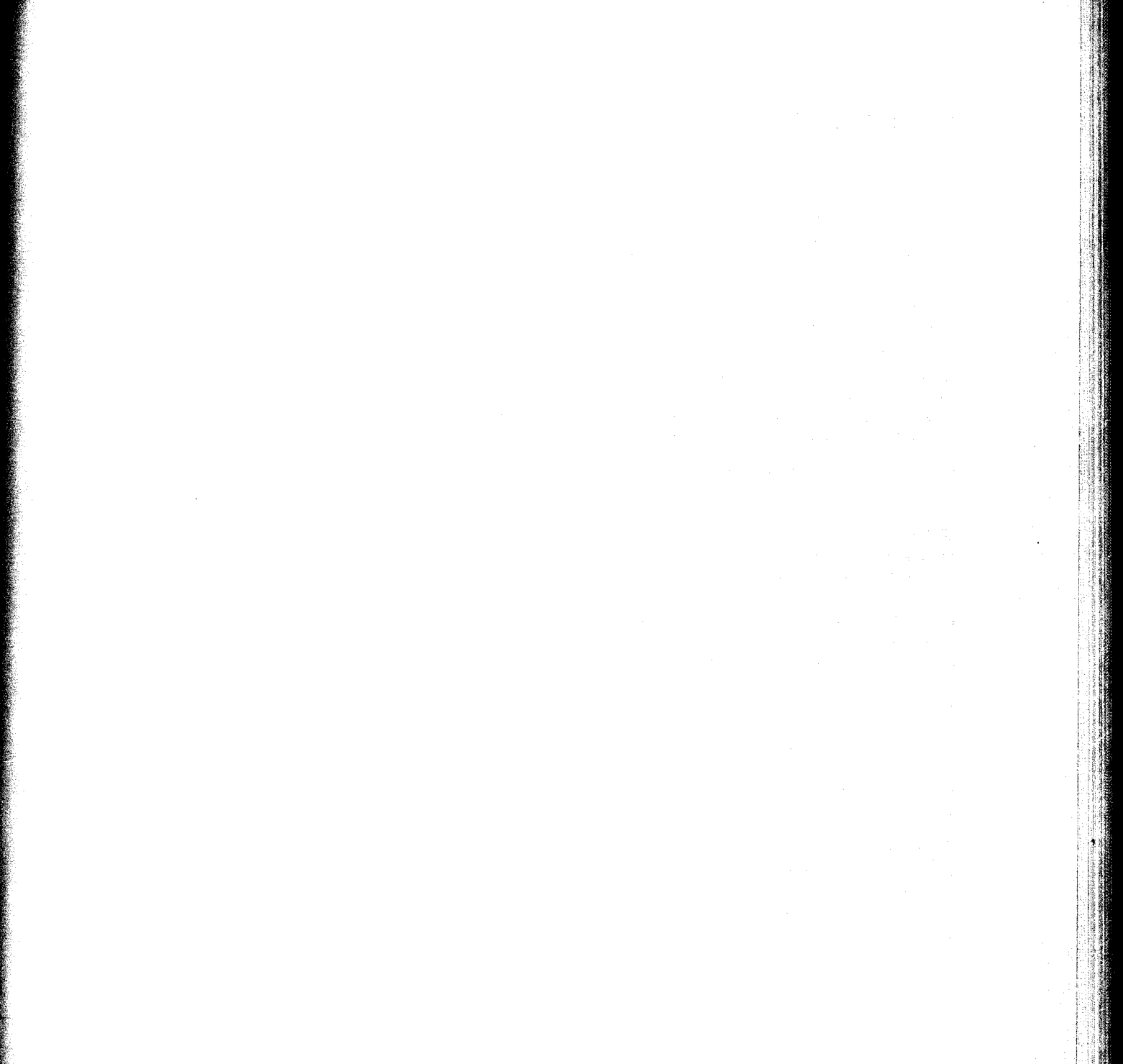
### 1- Academic Staff

College members hold terminal degrees from internationally-recognized universities and are well versed in their areas of specialization.

### 2- Laboratories

The College of Engineering has well-equipped laboratories which provide practical hands-on experience to engineering students of all specializations. The major laboratories in the college are as follows:

- Electronics Laboratory
- Communication Laboratory
- Biomedical Laboratory
- Computer Aided Design Laboratory
- Power Electronics Laboratory
- Electromechanical Energy Conversion Laboratory
- Measurements Laboratory
- Digital Laboratory
- Projects Laboratory



### **806 223 Dental Office Emergencies (2-0-0-2)**

Students gain experience in diagnosing and managing patients with acute dental emergencies, including placement of temporary restorations and performing emergency treatments under the supervision of college members.

Pre-requisites: 806 212, 806 213

### **806 224 Prevention and Nutrition for Health Sciences (3-0-0-3)**

This course provides students with a basic knowledge of the essential nutrient materials in both health and disease and discusses the role of the nutrition on the development, prevention and treatment of oral and dental diseases.

Pre-requisites: 806 121, 806 212

### **806 226 Clinical Dental Hygiene II (2-12-0-5)**

Advanced lectures and demonstrations in the clinical practice of dental hygiene with clinic time devoted to experience in rendering preventive care are provided. Lectures emphasize patients with special needs.

Pre-requisite: 806 216

### **806 229 Fundamentals of Speech and Communication (2-0-0-2)**

The course covers communication theory, interviewing, proficiency in speaking and listening, and the development of informative and persuasive presentations. Theory, preparation, appropriate form and delivery techniques are studied and evaluated.

Pre-requisites: None

### **806 314 Dental Public Health and Ethics (2-2-0-3)**

This preventive dentistry course introduces the student to the philosophy and methods of prevention, providing information on etiology of dental caries, periodontal disease and methods of preventing and controlling dental disease through a preventive treatment plan and health education programs. There is also an introduction to the ethical responsibilities and principles of general biomedical ethics, as well as a discussion of professional malpractice, and the legal and ethical responsibilities of fulfilling the doctors'

obligations to patients, the profession and the community.

Pre-requisites: 806 223, 806 224

### **806 316 Clinical Dental Hygiene III (0-12-0-3)**

Demonstrations are provided in advanced clinical skills with enhancement in clinics and hospitals.

Pre-requisite: 806 226

### **806 319 Practice Management (1-0-0-1)**

Review of topics essentials for new graduates planning to establish a dental practice. Issues include referral mechanisms, recall systems, financing, purchasing equipment and government regulations which affect dental practitioners.

Pre-requisites: None





carbohydrates and lipids. Also the general chemistry of enzymes, blood constituents and hormones are studied.

Pre-requisites: None

### **806 114 Microbiology (1-2-0-2)**

The course covers the fundamentals of microbiology with emphasis on oral microbiota, pathogens and defense mechanisms in the dental environment. Hygiene covering pathogenesis of bacterial, infections, etiology, clinical picture, lab diagnosis, treatment, prevention and control of diseases caused by different bacteria.

Pre-requisites: None

### **806 124 Infection and Hazard Control (2-0-0-2)**

The course discusses the basic concepts of infectious diseases spread, emphasis on the actual practice of infection control procedures. Specific infection control procedures used, supplies and equipment needed for disease prevention and dental office safety are explained.

Pre-requisite: 806 114

### **806 125 Dental Anatomy and Physiology (2-2-0-3)**

This course deals with nomenclature and morphology of the natural dentition and includes laboratory exercises in the wax carving of anatomically accurate teeth. Analysis of occlusal patterns and correction of occlusal disharmonies are integrated with courses in operative dentistry, prosthodontics, periodontics and orthodontics.

Pre-requisite: 806 111

### **806 126 Pre-Clinical Dental Hygiene (2-9-0-5)**

This course deals with an introduction to dental hygiene care. Laboratory instruction examines the use of instruments, develops instrumentation techniques and introduces clinical experience.

Pre-requisites: None

### **806 212 General Pathology and Clinical Dental Pharmacology (3-0-0-3)**

The course describes the principles of the pharmacokinetics and pharmacodynamics of biological actions, mechanism, uses, side effects, toxicity, interactions and adverse reactions of drugs acting on the autonomic nervous system, cardiovascular system, central nervous system, gastro-intestinal system, endocrine system, renal system, autacoids, antibiotics and other anti-infective agents and

anticancer drugs, with an emphasis on dental applications.

Pre-requisites: 806 113, 806 114, 806 121

### **806 215 Dental Materials (2-2-0-3)**

The course allows students to understand the mechanical and physical properties of dental materials and their clinical applications. Biomechanical principles and the latest advances in dental material technology are integrated into appropriate dental specialties.

Pre-requisites: None

### **806 216 Clinical Dental Hygiene I (1-8-0-3)**

Lectures and clinical practice in the area of preventive dentistry are offered. Students study the principles and procedures for prevention of oral disease including dietary control, oral hygiene measures and the use of fluorides and sealants. The principles and application of root planning are also emphasized.

Pre-requisite: 806 126

### **806 217 Periodontics (2-0-0-2)**

The course provides students with a basic understanding of the normal periodontium, early pathologic changes, their etiologic factors and basic therapeutics and preventive procedures. Students learn to probe and examine gingival tissues and develop proficiency in the use of instruments for calculus and root planning in-patient-simulating units.

Pre-requisite: 806 122

### **806 218 Oral Radiology (2-4-0-4)**

The course deals with the basic principles of x-ray production, the biological effects of ionizing radiation and radiation safety, with special emphasis on intra-oral and extra-oral radiographic techniques. Students learn to take and interpret oral radiographs and perform initial screening examination and diagnosis. The course is integrated with the different dental specialties.

Pre-requisite: 806 121

### **806 222 Oral Pathology (2-0-0-2)**

Students learn the fundamentals of basic disease process affecting the head and neck regions, and how to identify the histopathological lesions.

Pre-requisites: 806 122, 806 212

### **804 527 Lasers and Modern Technology (1-1-0-1)**

Lectures and demonstrations provide students with latest technology in dental practice, using lasers in oral surgery, periodontics and operative dentistry.

Pre-requisites: 804 422, 804 423

### **805 435 Internal Clinical Training Fourth Year(0-20-0-2)**

Students are assigned patients with a comprehensive approach to the dental practice, including patient and clinic management, stressing inter- and multidisciplinary treatment of more challenging cases. Emphasis is on comprehensive treatment planning, diagnosis and management of the medically compromised patient.

Pre-requisites: All Clinical Courses

### **805 511 Treatment Planning and Seminars I (2-0-0-2)**

Topics covered review assessment of advanced clinical diagnosis and sequential comprehensive treatment plan, with special emphasis on the rationale for decision making. Students develop analytic skills in assessing the various treatment plans for patients seen during the comprehensive patient management sessions.

Pre-requisites: 804 324, 804 410

### **805 521 Treatment Planning and Seminars II (2-0-0-2)**

Topics related to advanced and newer concepts in the field are presented in a multidisciplinary series of seminars. Issues such as ethics in dentistry, health care delivery and practice management are also discussed.

Pre-requisite: 805 511

### **805 522 Research Project (1-0-0-1)**

Under the guidance of a college advisor, students choose, explore and develop an interest in a relevant specific field of basic sciences or dental sciences. Students learn how to read and evaluate scientific literature, gather data and subject it to critical analysis. Students present and defend their project before an academic committee.

Pre-requisite: 103 130

### **805 523 Practice Management (1-0-0-1)**

Review of topics essentials for new graduates, planning to establish a dental practice. Issues include referral mechanisms, recall systems,

financing, purchasing equipment and government regulations which affect dental practitioners.

Pre-requisites: None

### **805 524 Equipment Maintenance (1-1-0-1)**

This course introduces the students to the basic knowledge of a dental unit, parts and maintenance.

Pre-requisites: None

### **805 535 Internal Clinical Training Fifth Year (0-20-0-2)**

Similar to internal clinical training fourth year. Dental students are encouraged to take up complex multi-problems cases and work along a comprehensive treatment plan.

Pre-requisites: All Clinical Courses

### **806 111 Integrated Biological Sciences I (2-2-0-3)**

### **806 121 Integrated Biological Sciences II (2-2-0-3)**

These courses provide students with basic principles of anatomy, and an introduction to embryology, a foundation that is necessary for their further dental education and clinical practice. The courses are intended primarily to help the students understand the fundamentals of human body structure and development. The systemic arrangement of the topics helps the student to better understand the subject, and to correlate structure and function of different organs.

Pre-requisites: For 806 111 - none; for 806 121- 806 111

### **806 112 Histology and Cell Biology (2-1-0-2)**

### **806122 Oral Histology (2-2-0-3)**

These courses describe the structural organization of cells, tissues, and organ systems, at microscopic level, and include the general principles of cell biology. Students are provided with a basic knowledge of general histology, cell biology and oral histology.

Pre-requisites: For 806 112 - none; for 806 122 - 806 112

### **806 113 Introduction to Biochemistry (Dental Hygiene) (2-0-0-2)**

The course covers the study of the constituents of living cells and their chemical reactions. Emphasis is made on intermediary metabolism and biologically important reactions of proteins,

### **804 322 Pre-Clinical Periodontics II (1-3-0-2)**

Lectures focus on the periodontal lesions, their etiologic factors, treatment planning and the management of the periodontal diseases.

Pre-requisite: 804 312

### **804 323 Pre-Clinical Oral Surgery II and CPR (3-2-0-3)**

Students learn the principles of tissue repair, pre-surgical health status evaluation, principles of surgical asepsis, uncomplicated and complicated exodontia. The course introduces the students to the basic life support. It focuses on the assessment and the early active management of the acute cardiac arrest. Students should be CPR certified before entering the clinical phase.

Pre-requisites: 801 226, 804 313

### **804 324 Oral Pathology II (2-2-0-3)**

This course provides a comprehensive clinical evaluation and management of oral mucosal diseases with emphasis on differential diagnosis and current therapeutic means.

Pre-requisite: 804 314

### **804 410 Oral Diagnosis/Oral Medicine (2-4-0-3)**

The course deals with training the students in developing a doctor-patient relationship and evaluating the patient, by taking a detailed case history and conducting extra- and intra-oral examination in the head and neck region. Based on discussion, students learn to arrive at a differential diagnosis, leading to the provisional diagnosis and framing the appropriate treatment plan.

Pre-requisites: All Pre-Clinical Courses

### **804 411 Oral Radiology II (1-2-0-2)**

The course deals with advanced techniques in dental radiology. Students learn how to assess clinical cases and make differential diagnosis.

Pre-requisite: 804 221

### **804 412 Clinical Periodontics I (1-4-0-2)**

Students initiate periodontal procedures on patients with gingivitis and early to moderate stages of periodontitis.

Pre-requisites: All Pre-Clinical Courses

### **804 413 Clinical Oral Surgery I (1-4-0-2)**

Students gain more experience in various minor surgical procedures and learn to manage emergency cases. The course introduces the student to assessment of surgery for impacted teeth, biopsies, suturing techniques and treatment of odontogenic infections.

Pre-requisites: All Pre-Clinical Courses

### **804 422 Clinical Periodontics II (1-4-0-2)**

This advanced clinical periodontics course focuses on objectives of periodontal therapy, treatment planning and treatment techniques, including preprosthetic surgery, reconstructive and plastic surgery.

Pre-requisite: 804 412

### **804 423 Clinical Oral Surgery II (1-4-0-2)**

This course covers advanced oral surgery subjects, including fractures, cysts, benign and malignant neoplasm, TMJ disorders, and its surgical/medical management. Students gain additional experience in various clinical procedures along with physical diagnosis.

Pre-requisite: 804 413

### **804 515 Emergency Dental Care (1-4-0-2)**

Students gain experience in diagnosing and managing patients with acute dental emergencies, including placement of temporary restorations and performing emergency treatments.

Pre-requisites: All Clinical Courses

### **804 518 Implantology (1-1-0-1)**

This comprehensive lecture course presents the scientific basis and clinical applications of modern dental implantology techniques, and covers both surgical procedures and periodontic and prosthodontic considerations in implant dentistry. Students perform implantology procedures in a laboratory setting.

Pre-requisites: All Clinical Courses

### **804 526 Hospital Dentistry (0-8-0-2)**

Clinical rotations allow students to gain more experience in procedures and protocol related to hospital dentistry, operating room dentistry, anesthesia for dentistry and systemic patient management.

Pre-requisite: 804 515

treatment planning. Principles of child psychology and changing concepts in caries formation are introduced.

Pre-requisite: 802 221

### **803 322 Pre-Clinical Pediatric Dentistry II (1-3-0-2)**

The course introduces the principles of dentistry specific to the child and pays special attention to emotional development. Procedures and specific techniques are developed to manage dental conditions.

Pre-requisite: 803 312

### **803 323 Pre-Clinical Orthodontics (1-3-0-2)**

This course is an introduction to orthodontics, its terminology and scope. Topics include physiology of stomatognathic system, description of various malocclusions and systematic study of etiology of orthodontic problems.

Pre-requisites: 801 122, 802 222

### **803 412 Clinical Pediatric Dentistry I (1-4-0-2)**

Students develop their skills in clinical treatment of a wide variety of childhood conditions, with emphasis on tooth preparation and fabrication of the stainless steel crown.

Pre-requisites: All Pre-Clinical Courses

### **803 413 Clinical Orthodontics I (1-4-0-2)**

This course deals with the treatment of minor orthodontic procedures. Students learn to achieve removable orthodontic appliances for correction of minor malocclusions.

Pre-requisites: All Pre-Clinical Courses

### **803 422 Clinical Pediatric Dentistry II (1-4-0-2)**

Students learn clinical procedures and specific techniques to manage the dental condition of the child patient, and perform clinical treatment for paediatric patients.

Pre-requisite: 803 412

### **803 423 Clinical Orthodontics II (1-4-0-2)**

This course introduces the systematic methods of recognizing, classifying and treatment planning of various types of malocclusions, with emphasis on analysis of the cephalometric X-ray in diagnosing clinical cases.

Pre-requisite: 803 413

### **803 510 Applied Biostatistics (2-0-0-2)**

This course provides dental students with the necessary background of specific statistics relevant to the medical/dental fields.

Pre-requisite: 103 110

### **804 221 Oral Radiology I (2-2-0-3)**

The course deals with the basic principles of x-ray production, the biological effects of ionizing radiation and radiation safety. It places emphasis on intra-oral and extra-oral radiographic techniques. Students learn to take and interpret oral radiographs, and perform initial screening examination and diagnosis. The course is integrated with the different dental specialties.

Pre-requisites: 120 101, 801 123

### **804 312 Pre-Clinical Periodontics I (1-1-0-1)**

The course provides the students with a basic understanding of the normal periodontium, early pathologic changes, their etiologic factors, and basic therapeutics and preventive procedures.

Students learn to probe and examine gingival tissues, and develop proficiency in the use of instruments for calculus and root planning in-patient-simulating units.

Pre-requisite: 801 122

### **804 313 Pre-Clinical Oral Surgery I and Pain Control (2-2-0-3)**

The course introduces the basic principles of surgery, which include the essentials of medical history and physical evaluation. Topics include fundamentals of asepsis, inflammation and repair, exodontia, and head and neck pathology. Students learn to master techniques of tooth removal and minor surgery procedures in the laboratory. It provides the understanding of pain and its management, and the academic aspects of administration of local anesthetics, nitrous oxide and intravenous sedation. Laboratory training help students to gain more practice and improve their skills.

Pre-requisites: 700 240, 801 210, 801 214, 801 227

### **804 314 Oral Pathology I (2-2-0-3)**

Students learn the fundamentals of basic disease process affecting the head and neck regions, and how to identify histopathological lesions.

Pre-requisites: 801 215, 802 221

### **802 416 Clinical Prosthodontics I (1-4-0-2)**

The course provides the students with concepts of clinical fixed and removable prosthodontics. Students treat a number of clinical cases of partial and full dentures, and concentrate on tooth preparation procedures and laboratory techniques.

Pre-requisites: All Pre-Clinical Courses

### **802 417 Clinical Endodontics I (1-4-0-2)**

The course covers in depth the pathology of the pulpal tissues and their clinical manifestations. Topics include pulpal and periapical emergencies, and differential diagnosis of the pulpal pathology. Students perform non-surgical endodontic therapy and learn to relieve pain in emergencies.

Pre-requisites: All Pre-Clinical Courses

### **802 425 Clinical Operative Dentistry II (1-4-0-2)**

This advanced operative dentistry course focuses on a full range of challenging cases as related to other disciplines. Students develop their clinical skills, using latest techniques in cosmetic dentistry. A lecturer is provided to fourth year students to emphasize more complex and sophisticated techniques.

Pre-requisite: 802 415

### **802 426 Clinical Prosthodontics II (1-4-0-2)**

Lecture course on advanced procedures in fixed and removable prosthodontics, with emphasis on occlusal registration, and integration of periodontal – endodontic considerations. Students perform complex clinical cases and accomplish all assigned laboratory procedures associated with the treatment of the above clinical cases.

Pre-requisite: 802 416

### **802 427 Clinical Endodontics II (1-4-0-2)**

This lecture course deals with advanced endodontic concepts, including peripheral surgery and endodontic-periodontic relationship. Students perform non-surgical root canal treatment on single and multi-rooted teeth, and learn how to assess the success and failure in endodontic treatments.

Pre-requisite: 802 417

### **802 510 Ethics (1-0-0-1)**

Introduction to the ethical responsibilities and principles of general biomedical ethics. Discussion of professional malpractice, legal and ethical responsibilities in fulfilling the doctors' obligations to the patients, the profession and the community.

Pre-requisites: None

### **802 511 Geriatric Dentistry (1-0-0-1)**

This course provides a framework for assessing the ageing process with evaluation of the psychological aspects and pathological changes. Comprehensive geriatric patient care will be discussed.

Pre-requisites: All Clinical Courses

### **802 519 Clinical Dentistry I (0-24-0-6)**

Students are assigned patients with a comprehensive approach to the dental practice, including patient and clinic management, stressing inter – and multidisciplinary treatment of more challenging cases. Emphasis is on comprehensive treatment planning, diagnosis and management of the medically compromised patient

Pre-requisites: All Clinical Courses

### **802 529 Clinical Dentistry II (0-28-0-7)**

Continuation of Clinical Dentistry I.

Pre-requisite: 802 519

### **803 311 Preventive Dentistry and Nutrition (3-2-0-4)**

The preventive dentistry course introduces the student to the philosophy and methods of prevention, including information on etiology on dental caries, periodontal disease and methods of preventing and controlling dental diseases through a preventive treatment plan and health education programs. This course provides the students with a basic knowledge of the essential nutrient materials in both health and disease, and discusses the role of the nutrition on the development, prevention and treatment of the oral and dental diseases.

Pre-requisites: 801 226, 802 221

### **803 312 Pre-Clinical Pediatric Dentistry I (2-0-0-2)**

The course focuses on development and growth of the orofacial structures of the child and adolescent and the diagnosis and

### **802 221 Introduction to Oral and Dental Diseases (2-2-0-3)**

This is an introduction to the profession of dentistry with a summary of dental history to familiarize students with the background to enable them to understand new issues and events through the ages. In addition this course provides students with knowledge and understanding of oral and dental diseases, their etiology, pathogenesis and the different stages of these lesions and their clinical manifestations.

Pre-requisite: 801 215

### **802 222 Dental Anatomy and Occlusion (3-2-0-4)**

This course deals with nomenclature and morphology of the natural dentition and includes laboratory exercises in the wax carving of anatomically accurate teeth. Analysis of occlusal patterns and correction of occlusal disharmonies are integrated with courses in operative dentistry, prosthodontics, periodontics and orthodontics. This course, based on biological and behavioral sciences, will give students a multi-disciplinary approach.

Pre-requisite: 801 123

### **802 228 Four Handed Dentistry and Infection Control (2-0-0-2)**

Topics include the review of medical history, transmission and pathogenesis, and oral and systemic manifestations. Students learn the mechanisms by which infectious diseases are transmitted and the risk for transmission in dental practice, such as HIV, viral hepatitis and others. Through lectures, demonstrations and clinical practice, students are trained to effectively utilize dental auxiliaries to improve the quality of service while preventing undue stress and fatigue.

Pre-requisite: 801 214

### **802 315 Pre-Clinical Operative Dentistry I (2-3-0-3)**

This course introduces concepts of the carious process, diagnosis and treatment of the dental disease. The course also covers cavity design, preparation, and insertion of various restorative materials. Pre-clinical laboratory sessions and clinical demonstrations help students to develop their skills.

Pre-requisites: 802 213, 802 222

### **802 316 Pre-Clinical Prosthodontics I (2-6-0-4)**

Students are introduced to basic principles in treating the partially or totally edentulous patient with removable dentures with focus on understanding the physical biomechanical characteristics of the denture components. The course also teaches the basic principles and techniques related to tooth preparation, impression techniques and crown-bridge construction. Laboratory sessions and demonstrations allow the students to gain more confidence.

Pre-requisites: 802 213, 802 222

### **802 317 Pre-Clinical Endodontics I (1-3-0-2)**

The course provides a clear understanding of the biological foundation of the pulp and periapical disease, the etiology and progression of the endodontic pathology and the diagnosis and root canal treatment with emphasis on radiographic interpretation of the pulp and periapical disease. Laboratory sessions help students to gain practical skills in endodontic procedures.

Pre-requisites: 802 213, 802 222

### **802 325 Pre-Clinical Operative Dentistry II (2-3-0-3)**

Lecture series focus on differential diagnosis and management of caries with emphasis on more complete and advanced techniques.

Pre-requisite: 802 315

### **802 326 Pre-Clinical Prosthodontics II (2-3-0-3)**

Students learn various methods and techniques for fixed and removable prosthodontics.

Pre-requisites: 802315, 802316

### **802 327 Pre-Clinical Endodontics II (1-3-0-2)**

The course deals with pathology, diagnosis and treatment of the dental pulp and periapical tissues. Students perform advanced root canal treatment during the laboratory sessions.

Pre-requisite: 802 317

### **802 415 Clinical Operative Dentistry I (1-4-0-2)**

Students apply their newly acquired skills in diagnosing and treating patients under the supervision of qualified staff members.

Pre-requisites: All Pre-Clinical Courses

### **801 121 Integrated Biological Sciences II (3-2-0-4)**

Continuation of Integrated Biological Sciences I. The course is intended to help dental students understand the basic concepts of anatomy and physiology simultaneously with emphasis on topics related to dental practice. The course covers the study of the main systems of the body with strong emphasis on practical aspects.

Pre-requisite: 801 111

### **801 122 Oral Histology (3-2-0-4)**

The course consists of a study of the development and structure of the oral cavity and teeth. The microscopic organization of all oral organs and tissues are studied in detail.

Pre-requisite: 801 112

### **801 123 Head and Neck Anatomy I (2-2-0-3)**

The students study the normal structure and function of the oral cavity, head, neck, and nervous system, with areas of clinical importance.

Pre-requisite: 801 111

### **801 210 Psychology and Behavioral Sciences (3-0-0-3)**

This course introduces the science of mind and behavior, clinical psychology and the psychological relations between the dentist and the patient.

Pre-requisites: None

### **801 213 Head and Neck Anatomy II (2-2-0-3)**

This course deals with structures in the region of the neck as well as the neuroanatomy of the head and neck as related to dentistry. Laboratory sessions help students deepen their knowledge in areas related to dentistry through dissections.

Pre-requisite: 801 123

### **801 214 Microbiology and Immunology (3-2-0-4)**

The course covers:

- The fundamentals of microbiology with emphasis on oral microbiota, pathogens and defence mechanisms in the dental environment.
- The basics of immunology including the immune system and organisms of medical and dental significance.

- Virology: virus structure and classification, viral pathogenesis and mechanisms of host defence.
- Hygiene, covering pathogenesis of bacterial, infections, etiology, clinical picture, lab diagnosis, treatment, prevention and control of diseases caused by different bacteria.

Pre-requisites: None

### **801 215 Pathology (3-1-0-3)**

The course covers the fundamentals of the basic disease processes of the body. Gross, microscopic and biochemical features of pathologic conditions of the organ systems are studied in detail in order to establish a sound foundation for clinical practice.

Pre-requisite: 801 112

### **801 226 General Medicine and Infectious Diseases (4-1-0-4)**

This comprehensive course covers topics specific to the medical field, with interest to medically - compromised patient as related to dental care. It also deals with diseases caused by microorganisms and related to dentistry. It introduces students to the means of transmission, features, diagnosis, prevention and treatment of infectious diseases.

Pre-requisites: 801 214, 801 215

### **801 227 General Surgery and ENT (2-1-0-2)**

This course introduces students to the basic principles of surgery, with emphasis on essentials of history and physical evaluation related to maxillofacial area. This course also includes knowledge on the diseases of the ENT as related to the oral cavity with emphasis on sensitive areas (ophthalmic nerve, sinus, etc.)

Pre-requisites: 801 123, 801 215

### **802 213 Biomaterials (2-1-0-2)**

The course allows students to understand the mechanical and physical properties of dental materials and their clinical applications. Biomechanical principles and latest advances in dental materials technology are integrated into appropriate dental specialties.

Pre-requisite: 120 101

# Course Descriptions

## University Requirements

### A) Compulsory Courses

As described in the University Catalog (Study Plan of College of University Requirements and Advising).

### B) Elective Courses

As described in the University Catalog (Study Plan of College of University Requirements and Advising).

Students must register for three elective courses for the DDS program and two elective courses for the DipDH program after consulting with the academic advisor, as stated in the curriculum.

## College Requirements

### 120 101 Physics (Dentistry) (3-0-0-3)

The course covers the basic principles of the generation, energy, conduction and measurement of electrical and mechanical forces.

Pre-requisites: None

### 700 126 General Chemistry (Dentistry) (2-2-0-3)

This course provides dental students with basic knowledge in organic and inorganic general chemistry. Laboratory sessions serve as an introduction to the principles of qualitative analysis including ionic equilibrium, ionic separation and the identification of selected simple and complexions.

Pre-requisites: None

### 700 236 Biochemistry (Dentistry) (3-2-0-4)

The course covers the study of the constituents of living cells and their chemical reactions. Emphasis is placed upon intermediary metabolism and biologically important reactions of proteins, carbohydrates and lipids. The general chemistry of enzymes, blood constituents and hormones is also covered.

Pre-requisite: 700 126

### 700 239 Pharmacology I (Dentistry) (2-0-0-2)

This course describes the principles of the pharmacokinetics and pharmacodynamics of biological actions, mechanism, uses, side effects, toxicity, interactions and adverse reaction of drugs acting on the autonomic nervous system, cardiovascular system, central nervous system, gastro-intestinal system, endocrine system, renal system, autotoxins, antibiotics and other anti-infective agents and anticancer drugs, with an emphasis on dental applications.

Pre-requisite: 801 121

### 700 240 Pharmacology II (Dentistry) (2-0-0-2)

Continuation of Pharmacology I (Dentistry).

Pre-requisite: 700 239

### 801 110 English for Special Purposes (Dentistry) (3-0-0-3)

This course is taught at the intermediate level in the student's major. The course provides practice in language skills while emphasizing the structures, vocabulary and registers appropriate to the student's field. There is also a review, continuing from English I, of structures in a general setting.

Pre-requisites: None

### 801 111 Integrated Biological Sciences I (2-2-0-3)

This course provides dental students with basic principles of anatomy and an introduction to embryology - a foundation that is necessary for their further dental education and clinical practice. The course is intended primarily to help students understand the fundamentals of the structure of the human body and its development. The systemic arrangement of topics helps the student to better understand the subject and to correlate the structure and function of organs.

Pre-requisites: None

### 801 112 Histology and Cell Biology (2-2-0-3)

This course describes the structural organization of cells, tissues and organ systems at the microscopic level, and includes the general principles of cell biology. Students are provided with a basic knowledge of general embryology and genetics.

Pre-requisites: None



SEMESTER 2

Course #	Course Title	L/C	Lb/T	Cr/H	Pre-requisite
801 110	English for Special Purposes (Dentistry)	3	-	3	xxx xxx
806 121	Integrated Biological Sciences II	2	2	3	806 111
806 122	Oral Histology	2	2	3	806 112
806 124	Infection and Hazard Control	2	-	2	806 114
806 125	Dental Anatomy and Physiology	2	2	3	806 111
806 126	Pre-Clinical Dental Hygiene**	2	9	5	xxx xxx
Total		13	15	19	

SEMESTER 3

Course #	Course Title	L/C	Lb/T	Cr/H	Pre-requisite
806 212	General Pathology and Clinical Dental Pharmacology	3	-	3	806 113, 806 114 806 121
806 213	Anesthesiology	1	2	2	806 113, 806 121
806 215	Dental Materials	2	2	3	xxx xxx
806 216	Clinical Dental Hygiene I**	1	8	3	806 126
806 217	Periodontics	2	-	2	806 122
806 218	Oral Radiology	2	4	4	806 121
Total		11	16	17	

SEMESTER 4

Course #	Course Title	L/C	Lb/T	Cr/H	Pre-requisite
801 210	Psychology and Behavioral Sciences	3	-	3	xxx xxx
806 222	Oral Pathology	2	-	2	806 122, 806 212
806 223	Dental Office Emergencies	2	-	2	806 212, 806 213
806 224	Prevention and Nutrition for Health Sciences	3	-	3	806 121, 806 212
806 226	Clinical Dental Hygiene II	2	12	5	806 216
806 229	Fundamentals of Speech and Communication	2	-	2	xxx xxx
Total		14	12	17	

SEMESTER 5

Course #	Course Title	L/C	Lb/T	Cr/H	Pre-requisite
102 110	Islamic Culture	3	-	3	xxx xxx
102 140	Communication Skills in Arabic Language	3	-	3	xxx xxx
806 310	Research Project	1	-	1	103 130, 806 217, 806 222, 806 226
806 314	Dental Public Health and Ethics	2	2	3	806 223, 806 224
806 316	Clinical Dental Hygiene III	-	12	3	806 226
806 317	Treatment Planning and Seminar	2	-	2	All 1st and 2nd Year Course
806 319	Practice Management	1	-	1	xxx xxx
Total		12	14	16	

\* Two practical hours = 1 credit hour

\* Four clinical training hours = 1 credit hour

**TOTAL CREDIT HOURS: 84**

(b) ) Elective Courses

As stated in the curriculum, students must register for two elective courses, after consultation with his/her academic advisor.

Course #	Course Title	L/C	Lb/T	Cr/H	Pre-requisite
118 120	General Biology	2	2	3	xxx xxx
118 130	Oral Health	2	2	3	xxx xxx
118 150	CPR-Cardio Pulmonary Resuscitation	2	2	3	xxx xxx
117 110	General Chemistry	2	2	3	xxx xxx
117 120	Fundamentals of Human Nutrition	3	-	3	xxx xxx
117 130	First Aid	3	-	3	xxx xxx
117 140	Energy, Water and Environment	3	-	3	xxx xxx
117 150	Applications of Remote Sensing and GIS.	3	-	3	xxx xxx
115 110	History of Science in Islam	3	-	3	xxx xxx
115 120	Scientific Pioneering	3	-	3	xxx xxx
115 130	General Psychology	3	-	3	xxx xxx
115 140	Principles of Mathematics	3	-	3	xxx xxx
115 150	_____	3	-	3	xxx xxx
115 160	Emirates Society	3	-	3	xxx xxx
112 110	Principles of Art and Architecture	3	-	3	xxx xxx
112 120	Principles of Interior Design	3	-	3	xxx xxx
112 130	Modern Technology and Society	3	-	3	xxx xxx
113 110	Internet Concepts	2	2	3	xxx xxx
113 120	Introduction to Information Systems	3	-	3	xxx xxx
114 110	Economic Concepts	3	-	3	xxx xxx
114 120	Entrepreneurship Development	3	-	3	xxx xxx
119 120	Introduction to Communication Sociology	3	-	3	xxx xxx
119 130	Information Society	3	-	3	xxx xxx
120 115	_____	3	-	3	xxx xxx

## Proposed Sequence of Study

### SEMESTER 1

Course #	Course Title	L/C	Lb/T	Cr/H	Pre-requisite
103 130	Research Methodology	3	-	3	xxx xxx
104 110	Computer Applications	2	2	3	xxx xxx
806 111	Integrated Biological Sciences I	2	2	3	xxx xxx
806 112	Histology and Cell Biology	2	1	2	xxx xxx
806 113	Introduction to Biochemistry (Dental Hygiene)	2	-	2	xxx xxx
806 114	Microbiology	1	2	2	xxx xxx
Total		12	7	15	

Degree Requirements

The BA degree in English Language and Translation requires the completion of 132 Credit Hours distributed according to the following plan:

Types of Course	Credit Hours
1. University General Education Requirements	
(a) University Required Courses	15
(b) University Elective Courses	9
2. College Requirements	60
TOTAL	84

Proposed Sequence of Study

University Requirements

(a) Compulsory Courses

Course #	Course Title	L/C	Lb/T	Cr/H	Pre-requisite
102 110	Islamic Culture	3	—	3	xxx xxx
102 140	Communication Skills in Arabic Language	3	—	3	xxx xxx
103 130	Research Methodology	3	—	3	xxx xxx
104 110	Computer Applications	2	2	3	xxx xxx

The College of Dentistry has adopted the following system for DipDH course coding:

College	Department	Year	Semester	Course
8	06	1-3	1-2	0-9

Example:

Oral Pathology 806 222

College	Department	Year	Semester	Course
8	06	2	2	2

# Diploma in Dental Hygiene (DipDH) Program

The Diploma in Dental Hygiene (DipDH) is a two-and-a-half year program and study is undertaken in the College of Dentistry at AUST. The goal of the program is to facilitate the development of graduates with the contemporary knowledge and clinical skills required to work as hygienists in dental practice.

## Objectives

The objectives of the program are to train students to:

1. conduct a clinical education program which provides quality dental hygiene care for patients and to develop competency in all professional skills required for dental hygiene
2. work as oral health professionals to increase patient awareness of oral hygiene education and appreciation of efforts for improvement of the patient's oral health
3. function within the dental team at an appropriate level and carry out treatment for patients delegated by the dentist with good collaboration
4. plan, implement and evaluate oral health promotional and educational activities for groups and individuals
5. carry out procedures to measure and assess the levels of oral health, oral hygiene and loss of periodontal attachment in the mouth

## Admission Requirements

A total of forty female students will be selected based on the following criteria:

1. A UAE secondary school certificate, science section, or its equivalent, with a grade of not less than C (70 percent). Priority is given to students with a higher grade in the following subjects:
  - Biology
  - Physics
  - Chemistry
- English proficiency test (minimum TOEFL score of 500, or the equivalent)
3. Personal interview
4. Health Certificate

If an applicant does not meet the above requirement, an individual evaluation is performed through the personal interview in accordance with AUST/FOD policies. This individual evaluation measures the following:

- **Manual Dexterity:** ability to use hand(s) or terminal devices with coordination

- **Fine Motor:** ability to manipulate small objects with fingertips or adaptive devices
- **Mobility:** ability to maneuver in the laboratory and around instruments in patient-care settings
- **Vision:** ability to distinguish red, yellow, and blue colors; distinguish clear from cloudy and see through a microscope
- **Hearing:** ability to adapt with assistive devices such as a telephone receiver, hearing aid, etc.
- **Speech:** ability to communicate effectively in spoke English
- **Writing:** ability to communicate effectively in written English
- **Reading:** ability to read, understand and follow directions printed in English

If the student is accepted he/she will be registered in five courses for the Fall semester and must achieve a grade of at least "C" in each, otherwise his/her admission will be cancelled. Students must sign a declaration stating that they must maintain a GPA of not less than 2.0 (C) in the first two academic semesters of the program. If a student fails to do so, he/she will be transferred to another program (as per AUST/FOD policies) or have their registration cancelled.

## Career Opportunities

The program prepares students to be dental hygienists employed in private practices, community clinics, hospitals and educational institutions. Increasingly dental hygienists find employment with specialists, for example orthodontists, periodontists and prosthodontists.

Dental hygiene is an excellent choice of profession for a woman due to the fact that the working day can be arranged according to her needs. In addition it provides a high level of job satisfaction, security and a good income.

## Graduation Requirements

Students will be awarded the Diploma in Dental Hygiene (DipDH) after fulfilling the following requirements:

1. Successful completion of the required credit hours (84), including the university requirement courses, with a Cumulative Grade Point Average (CGPA) of not less than C. Any student who fails to fulfill this graduation requirement may repeat courses during the following semester(s), as recommended by their academic advisor
2. Successful completion of the required clinical cases during the clinical phase

SEMESTER 9

Course #	Course Title	L/C	Lb/T	Cr/H	Pre-requisite
802 510	Ethics	1	-	1	xxx xxx
802 511	Geriatric Dentistry	1	-	1	All Clinical Courses
802 519	Clinical Dentistry I	-	24	6	All Clinical Courses
803 510	Applied Biostatistics	2	-	2	103 110
804 515	Emergency Dental Care	1	4	2	All Clinical Courses
804 518	Implantology	1	1	1	All Clinical Courses
805 511	Treatment Planning and Seminars I	2	-	2	804 324, 804 410
xxx xxx	Elective Course	3	-	3	xxx xxx
Total		11	29	18	

SEMESTER 10

Course #	Course Title	L/C	Lb/T	Cr/H	Pre-requisite
802 529	Clinical Dentistry II	-	28	7	802 519
804 526	Hospital Dentistry	-	8	2	804 515
804 527	Lasers and Modern Technology	1	1	1	804 422, 804 423
805 521	Treatment Planning and Seminars II	2	-	2	805 511
805 522	Research Project	1	-	1	103 130
805 523	Practice Management	1	-	1	xxx xxx
805 524	Equipment Maintenance	1	1	1	xxx xxx
xxx xxx	Elective Course	3	-	3	xxx xxx
Total		9	38	18	

\* Four (04) Clinical Training Hours = 1 Credit Hour

Internal Training Program \*

The internal clinical training program is held at the end of the tenth semester

Course #	Course Title	L/C	Lb/T	Cr/H	Pre-requisite
805 535	Internal Clinical Training Fifth Year	-	20	2	All Clinical Courses

**TOTAL CREDIT HOURS: 199**

SEMESTER 7					
Course #	Course Title	L/C	Lb/T	Cr/H	Pre-requisite
802 415	Clinical Operative Dentistry I	1	4	2	All
802 416	Clinical Prosthodontics I	1	4	2	
802 417	Clinical Endodontics I	1	4	2	
803 412	Clinical Pediatric Dentistry I	1	4	2	Pre-Clinical
803 413	Clinical Orthodontics I	1	4	2	
804 410	Oral Diagnosis/Oral Medicine	2	4	3	Courses
804 412	Clinical Periodontics I	1	4	2	
804 413	Clinical Oral Surgery I	1	4	2	
804 411	Oral Radiology II	1	2**	2	804 221
Total		10	34	19	

\*\* Two (02) Practical hours = 1 Credit Hour

SEMESTER 8					
Course #	Course Title	L/C	Lb/T	Cr/H	Pre-requisite
103 130	Research Methodology	3	-	3	103 110
802 425	Clinical Operative Dentistry II	1	4	2	802 415
802 426	Clinical Prosthodontics II	1	4	2	802 416
802 427	Clinical Endodontics II	1	4	2	802 417
803 422	Clinical Pediatric Dentistry II	1	4	2	803 412
803 423	Clinical Orthodontics II	1	4	2	803 413
804 422	Clinical Periodontics II	1	4	2	804 412
804 423	Clinical Oral Surgery II	1	4	2	804 413
Total		10	28	17	

\* Four Clinical Training Hours = 1 Credit Hour

#### On-Campus Training Program \*

This in-campus clinical training program is held at the end of the eighth semester.

Course #	Course Title	L/C	Lb/T	Cr/H	Pre-requisite
805 435	Internal Clinical Training Fourth Year	-	20	2	All Clinical Courses

SEMESTER 4					
Course #	Course Title	L/C	Lb/T	Cr/H	Pre-requisite
700 240	Pharmacology II (Dentistry)*	2	-	2	700 239
801 226	General Medicine and Infectious Diseases*	4	1	4	801 214, 801 215
801 227	General Surgery and ENT*	2	1	2	801 123, 801 215
802 221	Introduction to Oral and Dental Diseases	2	2	3	801 215
802 222	Dental Anatomy and Occlusion*	3	2	4	801 123
802 228	Four Handed Dentistry and Infection Control*	2	-	2	801 214
804 221	Oral Radiology I*	2	2	3	120 101, 801 123
Total		17	8	20	

\* THIS IS A FOUNDATION COURSE FOR THE DDS PROGRAM. EVERY DENTAL STUDENT MUST PASS THIS COURSE BEFORE PROCEEDING TO THE CLINICAL COMPONENT OF THE DEGREE PROGRAM.

\*\* Two (02) Practical Hours = 1 Credit Hour

SEMESTER 5					
Course #	Course Title	L/C	Lb/T	Cr/H	Pre-requisite
802 315	Pre-Clinical Operative Dentistry I*	2	3	3	802 213, 802 222
802 316	Pre-Clinical Prosthodontics I*	2	6	4	802 213, 802 222
802 317	Pre-Clinical Endodontics I*	1	3	2	802 213, 802 222
803 311	Preventive Dentistry and Nutrition	3	2***	4	801 226, 802 221
803 312	Pre-Clinical Pediatric Dentistry I*	2	-	2	802 221
804 312	Pre-Clinical Periodontics I*	1	1	1	801 122
804 313	Pre-Clinical Oral Surgery I and Pain Control*	2	2	2	700 240, 801 210, 801 214, 801 227
804 314	Oral Pathology I*	2	2***	3	801 215, 802 221
Total		15	19	21	

SEMESTER 6					
Course #	Course Title	L/C	Lb/T	Cr/H	Pre-requisite
802 325	Pre-Clinical Operative Dentistry II*	2	3	3	802 315
802 326	Pre-Clinical Prosthodontics II*	2	3	3	802 315, 802 316
802 327	Pre-Clinical Endodontics II*	1	3	2	802 317
803 322	Pre-Clinical Pediatric Dentistry II*	1	3	2	803 312
803 323	Pre-Clinical Orthodontics*	1	3	2	801 122, 802 222
804 322	Pre-Clinical Periodontics II*	1	3	2	804 312
804 323	Pre-Clinical Oral Surgery II and CPR *	3	2	3	801 226, 804 313
804 324	Oral Pathology II*	2	2***	3	804 314
Total		13	22	20	

\* THIS IS A FOUNDATION COURSE FOR THE DDS PROGRAM. EVERY DENTAL STUDENT MUST PASS THIS COURSE BEFORE PROCEEDING TO THE CLINICAL COMPONENT OF THE DEGREE PROGRAM.

\*\* Three (03) Pre-Clinical Training Hours=1 Credit Hour

\*\*\* Two (02) Practical Hours = 1 Credit Hour

## Proposed Sequence of Study

SEMESTER 1					
Course #	Course Title	L/C	Lb/T	Cr/H	Pre-requisite
103 110	Statistics	2	2	3	xxx xxx
104 110	Computer Applications	2	2	3	xxx xxx
120 101	Physics (Dentistry)*	3	-	3	xxx xxx
700 126	General Chemistry (Dentistry)*	2	2	3	xxx xxx
801 110	English for Special Purposes (Dentistry)	3	-	3	xxx xxx
801 111	Integrated Biological Sciences I*	2	2	3	xxx xxx
801 112	Histology and Cell Biology*	2	2	3	xxx xxx
Total		16	10	21	

SEMESTER 2					
Course #	Course Title	L/C	Lb/T	Cr/H	Pre-requisite
102 140	Communication Skills in Arabic Language	3	-	3	xxx xxx
700 236	Biochemistry (Dentistry)*	3	2	4	700 126
801 121	Integrated Biological Sciences II*	3	2	4	801 111
801 122	Oral Histology*	3	2	4	801 112
801 123	Head and Neck Anatomy I*	2	2	3	801 111
xxx xxx	Elective Course	3	-	3	xxx xxx
Total		17	8	21	

\* THIS IS A FOUNDATION COURSE FOR THE DDS PROGRAM. EVERY DENTAL STUDENT MUST PASS THIS COURSE BEFORE PROCEEDING TO THE CLINICAL COMPONENT OF THE DEGREE PROGRAM.

\*\* Two (02) Practical Hours = 1 Credit Hour

SEMESTER 3					
Course #	Course Title	L/C	Lb/T	Cr/H	Pre-requisite
102 110	Islamic Culture	3	-	3	xxx xxx
700 239	Pharmacology I (Dentistry)*	2	-	2	801 121
801 210	Psychology and Behavioral Sciences	3	-	3	xxx xxx
801 213	Head and Neck Anatomy II*	2	2	3	801 123
801 214	Microbiology and Immunology*	3	2	4	xxx xxx
801 215	Pathology*	3	1	3	801 112
802 213	Biomaterials *	2	1	2	xxx xxx
Total		18	6	20	



(b) University Option

As stated in the curriculum, students must register for three elective courses, after consultation with his/her academic advisor.

Course #	Course Title	L/C	Lb/T	Cr/H	Pre-requisite
102 120	The Miraculousness of the Holy Koran	3	0	3	xxx xxx
106 120	CEC/TEFL	0	15	0	xxx xxx
118 120	General Biology	2	2	3	xxx xxx
118 130	Oral Health	2	2	3	xxx xxx
118 150	CPR-Cardio Pulmonary Resuscitation	2	2	3	xxx xxx
117 110	General Chemistry	2	2	3	xxx xxx
117 120	Fundamentals of Human Nutrition	3	--	3	xxx xxx
117 130	First Aid	3	--	3	xxx xxx
117 140	Energy, Water and Environment	3	--	3	xxx xxx
117 150	Applications of Remote Sensing and GIS	3	--	3	xxx xxx
115 110	History of Science in Islam	3	--	3	xxx xxx
115 120	Scientific Pioneering	3	--	3	xxx xxx
115 130	General Psychology	3	--	3	xxx xxx
115 140	Principles of Mathematics	3	--	3	xxx xxx
115 150	-----	3	--	3	xxx xxx
115 160	Emirates Society	3	--	3	xxx xxx
112 110	Principles of Art and Architecture	3	--	3	xxx xxx
112 120	Principles of Interior Design	3	--	3	xxx xxx
112 130	Modern Technology and Society	3	--	3	xxx xxx
113 110	Internet Concepts	2	2	3	xxx xxx
113 120	Introduction to Information Systems	3	--	3	xxx xxx
114 110	Economic Concepts	3	--	3	xxx xxx
114 120	Entrepreneurship Development	3	--	3	xxx xxx
119 120	Introduction to Communication Sociology	3	--	3	xxx xxx
119 130	Information Society	3	--	3	xxx xxx
120 115	-----	3	--	3	xxx xxx

## Proposed Sequence of Study

The College of Dentistry has adopted the following system for DDS courses coding:

College	Department	Year	Semester	Course
8	01-05	1-5	1-3	0-9

Example:

Preclinical Operative Dentistry I 802 315

College	Department	Year	Semester	Course
8	02	3	1	5

1. Successful completion of the required credit hours (199 credit hours), including the university requirement courses, with a cumulative grade point average (CGPA) of not less than C, (other depts. Give a number ie 2.5), otherwise during the following semester(s) students should take courses in clinical subjects as suggested by their academic advisor to fulfill this graduation requirement.
2. Successful completion of the required clinical cases during the clinical phase in addition to two months required internship period
3. The submission and defense of the research project before an academic committee

## Degree Requirements

The BA degree in English Language and Translation requires the completion of 132 Credit-Hours distributed according to the following plan:

Types of Course	Credit Hours
1. University General Education Requirements	
(a) University Required Courses	15
(b) University Elective Courses	9
2. College Requirements	175
TOTAL	199

## Proposed Sequence of Study

(a) University Requirements

Course #	Course Title	L/C	Lb/T	Cr/H	Pre-requisite
101 000	Orientation	1	0	0	xxx xxx
102 110	Islamic Culture	3	—	3	xxx xxx
102 140	Communication Skills in Arabic Language	3	—	3	xxx xxx
103 110	Statistics	2	2	3	xxx xxx
103 130	Research Methodology	3	—	3	xxx xxx
104 110	Computer Applications	2	2	3	xxx xxx

1. Clinical information gathering - taking a full patient history, undertaking a comprehensive patient examination and arranging and interpreting appropriate investigations
2. Treatment planning - planning a suitable course of treatment in line with the patient's needs and wishes, and recognizing when referral is appropriate
3. Treatment procedures - carrying out specific treatment interventions required to restore/maintain the patient's oral health

These tasks represent the practical aspects of patient care, but the dentist brings much more than practical skills to the patient encounter.

5. "How a dentist approaches his/her practice" - or what a dentist brings to the treatment of each patient:
4. Application of basic clinical sciences - using knowledge of the basic medical and clinical sciences to ensure appropriate diagnosis and treatment.
5. Clinical reasoning and judgment - using knowledge, evidence and professional judgment to arrive at solutions appropriate to the patient's needs and wishes.
6. Communication - demonstrating appropriate communication skills with patients, relatives and other healthcare professionals.
7. Health promotion - recognizing the importance of disease prevention and health promotion and conveying this as appropriate to individual patients and the wider community.
8. Attitudes, ethical stance and legal responsibilities - recognizing ethical, professional and legal responsibilities and displaying appropriate attitudes and behavior.
9. Information handling - demonstrating accurate record keeping and knowing where and how to source and analyze information relevant to effective clinical practice.
- C. "The dentist as a professional":
10. Role of the dentist within the health service - understanding the different dimensions of the dental profession and accepting the responsibilities that being part of that profession implies.
11. Personal development - accepting responsibility for personal, career and continuing professional development.

## Admission Requirements

The College of Dentistry follows the policy established by AUST which stipulates a credit hour system based on two academic semesters of sixteen weeks each. Admission is based on the following requirements:

1. A UAE secondary school certificate, science section, or its equivalent, with a grade of not less than B (80 percent). Priority is given to students with higher grades in the following subjects:

- Biology
- Physics
- Chemistry

2. English proficiency test (TOEFL score of 500 or above, or the equivalent)

3. Personal interview

4. Health Certificate

## Career Opportunities

Graduates of the College will have a wide range of career opportunities to choose from, in addition to continuing higher education (Masters and PhD degrees) in one of the following specialties:

- 1) Endodontics
- 2) Periodontics
- 3) Prosthodontics
- 4) Operative Dentistry
- 5) Paediatric Dentistry
- 6) Orthodontics
- 7) Oral and Maxillofacial Surgery
- 8) Oral Radiology and Oral Medicine

Graduates may wish to take advanced courses in Oral Surgery, Implantology and other clinical specialties, or they may choose to work in a research facilities. Further opportunities in the academic field are also available.

Those who prefer to practice will be able to do so providing that they pass the UAE Ministry of Health (MOH) Licensing Exam or any other equivalent competency examination in another country. Graduates are subject to the regulations of the MOH authority with regard to the type of examination and certification criteria.

## Graduation Requirements

Students will be awarded the Doctor of Dental Surgery (DDS) upon fulfillment of the following requirements:

# College of Dentistry

The College of Dentistry (FOD) was established in academic year 1997-1998 as the first oral and dental health teaching institution in the United Arab Emirates. The college's programs are tailored to meet the oral and dental health needs of the UAE community, focusing on the prevention of oral and dental disease.

## Mission

The College of Dentistry reflects the mission of Ajman University of Science and Technology to provide dental educational programs in the UAE, to initiate and develop basic and clinical research and to offer high quality oral healthcare to meet the needs of the region. The College of Dentistry aims to prepare graduates who are highly qualified in dental sciences to deliver compassionate and ethical orofacial healthcare services.

## Objectives

The College of Dentistry aims to:

- educate and train a new generation of oral health professionals to world-class standards
- implement a comprehensive healthcare program with emphasis on prevention
- provide community dentistry services that meet world-class standards
- initiate scientific research in oral health in collaboration with prestigious international dental and medical institutions, and companies related to dentistry

## Degree Programs

The College of Dentistry currently offers two dental programs, both accredited by the UAE Ministry of Higher Education and Scientific Research. These are:

1. Doctor of Dental Surgery (DDS) degree (5 year program)
2. Diploma in Dental Hygiene (DipDH) (2 year program)

## Facilities

The College of Dentistry is equipped to deliver world class dental education. Spacious lecture halls with audio-visual and video conferencing facilities provide students with an exciting learning experience. State-of-the-art laboratories with the latest medical and

dental education equipment enhance students' knowledge and skills. The college's dental clinics have a contemporary design with modern dental units and x-ray rooms, and are provided with the latest dental materials, instruments and equipment. Free-of-charge comprehensive dental treatment for all patients ensures a regular flow of dental cases for clinical training, skills development and research requirements during the clinical phase of dental education programs.

## Doctor of Dental Surgery (DDS) Degree Program

This is a five-year undergraduate degree program leading to the degree of Doctor of Dental Surgery (DDS). The study program and curriculum is on a par with that of renowned international universities and dental institutes.

## Program Objectives

The DDS program aims to:

1. educate and train a new generation of competent dental surgeons, who will be able to provide high quality comprehensive oral healthcare with emphasis on prevention
2. emphasize on the prevention and early detection of oral and dental diseases as an integral part of the curriculum
3. provide educational experiences for students using a comprehensive patient care model
4. provide community dentistry services that meet world-class standards
5. establish national recognition in term of academia by the concerned authorities and public

## Program Outcomes

The FOD has specified learning outcomes based on the three dimensions of the work of a dentist. The definition of the three essential elements of a competent and reflective practitioner are:

- A. What the dentist is able to do - technical intelligence
- B. How a dentist approaches his/her practice - intellectual, emotional, analytical and creative intelligence
- C. The dentist as a professional - personal intelligence

Eleven domains related to the three essential elements have been identified.

These are:

- A. "What the dentist is able to do":

**COLLEGE OF DENTISTRY**

### **314 370 Wireless Programming (2-2-0-3)**

The aim of the course is to develop programming skills for wireless devices using Java 2 Micro Edition, or J2ME, through the Mobile Information Device Profile, or MIDP. The course begins with a description of the J2ME architecture, focusing on wireless programming via the Connected, Limited Device Configuration, or CLDC, and the MIDP. Topics include: user-interface design; high- and low-level UI frameworks; using commands and events; MIDP Record Management System for limited persistent storage on the device; mobile networking; multithreading, both using the basic Thread/Runnable model and the CLDC's Timer and TimerTask classes. Pre-requisite: 310 211

### **314 430 Web Design Project (1-4-0-3)**

The aim of the course is to give students the opportunity to create a Web application by integrating all knowledge and skills which will be learned by working as a member of a group of 2-3 students under the supervision of a college. Projects can be undertaken in the area of Web Site design and development, Data warehousing and data mining, e-commerce, and other related areas.

Pre-requisite: 80 credit hours

### **314 436 Advanced Web Administration (2-2-0-3)**

This course teaches students how to implement mission-critical services on the Windows and Linux platforms. Students install and configure Web related products, Newsgroup, e-mail and proxy servers; receive in-depth understanding of how to connect e-commerce databases to Web servers and learn how to enable CGI on Windows and Linux. Students also learn about backup and load balancing issues and receive foundational knowledge concerning Internet security.

Pre-requisite: 314 336

### **314 440 Multimedia Project (1-4-0-3)**

This course aims at integrating all knowledge and skills learned in the major to further develop the experience in the production of a multimedia product. Projects can be undertaken in the area of presentations, short animations, multimedia databases, audio and image processing, authoring, and other related areas. Students will work as members of small groups of two to three students under the supervision of a college member.

Pre-requisite: 80 credit hours

### **314 445 Digital Photography (2-2-0-3)**

This course concentrates on capturing and processing of digital images. Included in this course are a survey of digital still cameras and other hybrid imaging devices; preparing of imagery for print via color management procedures; Immersive Imaging (QuickTime VR). It also includes advance techniques and issues related to still digital images.

Pre-requisites: 314 242 and 314 345

### **314 447 Digital Video Production (2-2-0-3)**

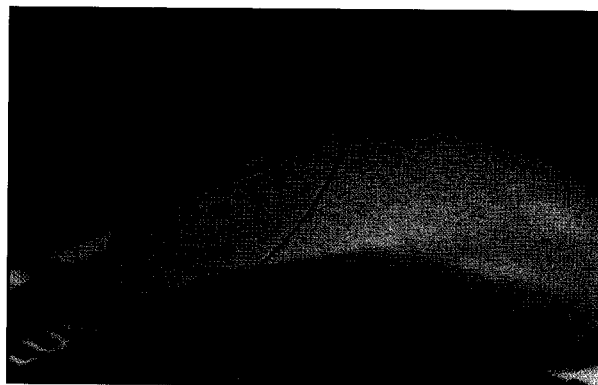
This course aims to introduce students to the necessary technical skills required to originate basic digital video material for multimedia. It incorporates production and editing procedures for multimedia. Students will learn to produce and edit a short video sequence, including basic titling, superimpositions and effects for output to multimedia/CD/Web environments. The tools used may change each semester depending upon the latest trends in the digital video production community.

Pre-requisites: 314 242 and 314 345

### **314 450 Selected Topics in Multimedia (2-2-0-3)**

This course aims to introduce new developments in multimedia not specifically covered in the curriculum and in which the instructor has developed interest and proficiency. The intention is to provide a rapid response to current trends and to widen student's knowledge in the multimedia field. Course content may change with department approval.

Pre-requisite: 60 credit hours



maintain the server side on the Web. These tools include: Perl, Java Server Pages, PHP, ASP.Net and ways to access a database.

Pre-requisite: 314 231

### **314 241 Multimedia Technology (2-2-0-3)**

In this course, students will be introduced to principles and current technologies of multimedia systems and gain hands-on experience in this area. Issues in effectively representing, processing, and retrieving multimedia data such as sound and music, graphics, image and video will be addressed.

Pre-requisite: 310 112

### **314 242 Multimedia Authoring (2-2-0-3)**

This course is designed to give students a fundamental understanding of computer authoring techniques used in multimedia and hypermedia production. Students will develop authoring skills using Flash, Macromedia Director and the Lingo authoring language. The emphasis of the course is on applying media design and development techniques to authoring systems and to nonlinear content presentations. Students are required to develop a multimedia authoring application.

Pre-requisite: 314 241

### **314 245 Computer Organization and Computer Architecture (2-2-0-3)**

This course is an introduction to the organization and design of hardware and software of digital computers. The course also includes coverage of some low level topics such as data representations.

Pre-requisite: 310 211

### **314 300 Training (0-0-0-3)**

Training familiarizes students with real world working environments. It prepares students to step into the industrial enterprise to integrate and apply their knowledge and skills to Multimedia/Web Development applications learned throughout the courses. Training gives the student a feeling of what is involved in working on actual IT problems. It also gives the student an opportunity to develop communication skills and develop the ability to work with team members.

Pre-requisite: 60 credit hours

### **314 332 Web Design (2-2-0-3)**

This course teaches students the basics of the Web page and Web site design. The following topics will be covered: WWW page layout design, organization and basic typography, Visual design theory and working with graphic tools Hypertext Markup (HTML) and XML, Cascading style sheet (CSS) design for accessibility.

Pre-requisite: 314 232

### **314 336 Web Server Administration (2-2-0-3)**

This course teaches foundational Web Server Competencies. Students will learn how to install, configure and administer Web Server products and services, including security, in both the Microsoft and UNIX environments. User management concepts, Domain Name System (DNS) services, Microsoft WINS, Samba, Telnet, and FTP will be addressed. Students also learn about choosing appropriate Internet system platforms and receive training on how to calculate throughput, choose appropriate Internet connections. By the end of this course, students will be able to provide essential TCP/IP services for any business interested in establishing an effective e-commerce presence.

Pre-requisite: 311 381

### **314 345 Audio and Image processing (2-2-0-3)**

The course covers: audio processing: introduction to analogue and digital audio systems, sampling and transformation, time stretching, delay lines, sound filtering and composition, audio file format and storage devices, image processing: digital images, image filtering, image representation and transformation, enhancement techniques, segmentation, image file format and storage devices, and image coding.

Pre-requisites: 314 241 and 300 200

### **314 347 Computer Animation (2-2-0-3)**

This course covers the concepts and techniques of 2D and 3D computer animation. The topics covered include modeling 2D and 3D objects; rendering; animation techniques; composition and special effects and recording. Students will learn how to develop a storyboard on a computer-animated sequence using various modeling and animation tools. The course includes small projects leading to the production of a short computer animation by each student.

Pre-requisite: 314 242

### **312 532 Project II (1-4-0-3)**

All students must undertake a second team project related to software engineering, hardware design or research. It could be a follow-up of the work done in Project I or a new topic or type of research. A software engineering project is one whose main purpose is to design and implement a software system that solves a well-understood problem. A hardware design project is one whose main purpose is to design and implement a hardware system. A research project is one whose main purpose is experimentation or investigation into a (possibly) ill-understood problem. The team is required to submit a formal project report along with a presentation of the software/hardware product developed. In case of a research project, results of experimentation or theoretical analysis and simulation must be presented.

Pre-requisite: 312 351

### **312 545 Computer Ethics (1-0-0-1)**

Legal, social and ethical issues relating to the use of information technology. It covers public policy, professional and ethical responsibilities, risks and liabilities, intellectual property rights, privacy and civil liberties and economic issues in computing.

Pre-requisite: 70 credit hours

### **312 552 Performance Evaluation of Computer Systems (3-0-0-3)**

Complexity of systems architectures and applications make benchmarking a difficult task. The objective of this course is to teach fundamental techniques to characterize computer systems and applications in order to analyze their performance. A sound understanding of the main techniques used in performance evaluation: statistical techniques, simulation, analytical modeling of processors, development of benchmarks and experiments for performance evaluation, characterization of processors and applications with adequate performance metrics.

Pre-requisite: 311 342

### **312 560 Digital Image Processing (3-1-0-3)**

The course covers: image representation, Sampling, Quantization, Color representation, Image transforms; DFT, DCT, Image Enhancement, spatial domain methods, Histogram processing, Linear

and nonlinear filters, frequency domain methods, Image restoration, Wiener filter, Constrained least square filters, Image Compression, Lossless predictive coding, Transform coding, JPEG, MPEG.

Pre-requisite: 70 credit hours

### **312 570 Fuzzy Logic and Neural Networks (3-0-0-3)**

The course covers: theory and applications of artificial neural networks and fuzzy logic: multi-layer perceptron, self-organization map, radial basis network, Hopfield network, recurrent network, fuzzy set theory, fuzzy logic control, adaptive fuzzy neural network, genetic algorithm, and evolution computing. Applications in control, pattern recognition, nonlinear system modeling, speech and image processing.

Pre-requisite: 311 471

### **314 131 Internet Technology (2-2-0-3)**

This course teaches students how to use Web browsers to access the services available on the Internet. Topics covered in this course are the World Wide Web, Internet, electronic mail, Telnet, Gopher, FTP, legal issues, ethical issues, privacy, security, and etiquette. Students will also learn how to create simple Web pages.

Pre-requisite: 104 110

### **314 210 Writing for the Web (3-0-0-3)**

The course will teach students to adapt the written and oral communication skills they have already acquired to the challenge of electronic communications where elements of expression and forms are blended in new ways.

Pre-requisite: 60 credit hours

### **314 231 Internet Programming (2-2-0-3)**

This course is an introduction to the programming tools and skills required to create Web applications. After reviewing the basic fundamentals of the Internet and the World Wide Web, some of the common Web programming tools are studied. These are markup languages: XHTML and XML, and scripting languages: JavaScript.

Pre-requisite: 310 112, 314 131

### **314 232 Web Development (2-2-0-3)**

The main aim of the module is to continue Web development by introducing the students to programming tools and skills required to



the main types of memory used and design of simple computer interface.

Pre-requisite: 312 211 and 312 242

### **312 302 Electronics I (3-2-0-4)**

The course content comprises: fundamental concepts of semiconductor devices (Diodes and Transistors) and their applications to: Rectifiers, Bipolar Transistor Electronic Switch, Field Effect Transistor (FET) Electronic Switch, Transistor (Bipolar, FET and MOS) Logic Gates, Logic families.

Pre-requisite: 312 201

### **312 303 Electronics II (2-2-0-3)**

The course provides an introduction to the theory and applications of transistors as amplifiers, Both BJT and FET amplifiers are discussed and analyzed. It is followed by a detailed coverage of operational amplifiers. Linear and non-linear circuits are discussed. Use of Op-amps for summing, integration, differentiation, waveform generation, filters and oscillators is explained. Analog to digital and digital to analog converters, Thyristors and regulated power supply circuits are also covered.

Pre-requisite: 312 302

### **312 305b Electrical and Electronic Measurements and Instrumentation (2-2-0-3)**

The course covers basic concepts of measurements, accuracy, tolerance, errors, measurement techniques used with a wide range of sensors, dc and ac measuring devices, electronic multi-meters, frequency generators, oscilloscopes, logic analyzers, automatic test equipment.

Pre-requisite: 312 302

### **312 348 Microprocessor Systems (3-2-0-4)**

The course covers concepts in microprocessor system design, microprocessor applications, and development techniques. Coverage includes microprocessor hardware, software, architecture and buses. 80x86 Intel families, real and protected mode, interrupts and interfacing techniques are explained. Advanced microprocessor system architectures such as the Intel Pentium are also covered.

Pre-requisite: 312 245

### **312 415 Integrated Circuit Design**

The course provides an introduction to various integrated circuit families and VLSI design technology, semiconductor memory circuits, IC design flow, fabrication steps of CMOS process, VLSI design abstractions.

Pre-requisite: none

### **312 441 Embedded Systems (2-2-0-3)**

The course offers a comprehensive understanding of the technologies behind embedded systems, particularly those using computing elements (microprocessor, microcontroller, DSP). The students develop an appreciation of the technology capabilities and limitations of the hardware, software components for building embedded systems using a microcontroller, and methods to evaluate design tradeoffs between different technology choices.

Pre-requisite: 312 348

### **312 530 Selected Topics in computer Engineering (3-0-0-3)**

This course covers some advanced topics related to computer science and engineering that are not covered in any of the above mentioned courses and are considered useful additional learning material for students majoring in computer engineering. Course contents are approved by the departmental and college curriculum committees.

Pre-requisite: 70 credit hours

### **312 531 Project I (1-4-0-3)**

All students must undertake a team project related to software engineering, hardware design or research. A software engineering project is one in which the main purpose is to design and implement a software system that solves a well-understood problem. A hardware design project is one in which the main purpose is to design and implement a hardware system. A research project is one in which the main purpose is experimentation or investigation into a (possibly) ill-understood problem. The team is required to submit a formal project report along with a presentation of the software/hardware product developed. In case of a research project, results of experimentation or theoretical analysis and simulation must be presented.

Pre-requisite: 90 credit hours

### **311 463 Database Design and Implementation (2-2-0-3)**

This course is designed to give students theoretical and practical knowledge concerning the design of database information systems. Topics covered include: extended E-R diagrams, physical design, and implementation aspects of databases (PL/SQL, forms and reports), client-server models, and database connectivity, managing multi-user databases: concurrency, recovery, and security; query optimization; distributed databases.

Pre-requisite: 311 332

### **311 471 Artificial Intelligence (2-2-0-3)**

The course aims to introduce the concepts and techniques of artificial intelligence. Topics covered include: intelligent systems, logic, prolog programming, search techniques, knowledge representation schemes (predicate logic, frames, and production rules), knowledge manipulation and inference, agents and multi-agents, machine planning and machine learning.

Pre-requisite: 60 credit hours

### **311 472 Compiler Theory and Design (3-0-0-3)**

The purpose of this course is to cover the underlying concepts and techniques used in compiler design. The notion of grammar is introduced to develop deterministic finite automata for scanning and top down or bottom up for parsing. The semantic analysis and IR are introduced. The translation phase generates the assembly languages as a tool to design the object code. The main objective of this course is to provide students with an understanding of how most computer languages and software are designed. The project in course introduces the idea of software development. The student can implement any phase using any high level language.

Pre-requisite: 311 223 and 311 319

### **311 474 Computer Simulation (2-2-0-3)**

This course aims to introduce students to elements and methodology of simulation. Topics include: basic concepts and types of simulation, discrete event simulation, a review of probability and statistics relating to simulation, selecting input probability distributions, generation of random variants, design of simulation experiments and output analysis, verification and validation of simulation models. Students are expected to submit a simulation

project.

Pre-requisite: 310 211

### **311 475 Expert Systems (2-2-0-3)**

The course provides an understanding of the principles, design, development and operation of expert systems; Topics covered include: knowledge representation with production rules; inference using forward chaining and backward chaining; uncertainty handling; frame based expert systems; fuzzy expert systems; knowledge acquisition and data mining; agents and multi-agents systems. Practical assignments are used to emphasize these topics.

Pre-requisite: 311 471

### **311 478 Fault Tolerant Computing (3-0-0-3)**

The course provides an introduction to functions of fault tolerance, fault detection techniques, fault prevention, roll-back mechanisms, roll-forward mechanisms, hardware redundancy, handling exceptions and estimation of reliability of systems. Case studies are employed.

Pre-requisite: 311 342

### **312 201 Electric Circuit Analysis (3-1-0-3)**

The course covers: fundamental concepts for DC and AC circuit analysis, Impedance and Admittance, Mesh, Nodal, Superposition, Thevenin's and Norton's theorem, transient response of RC and RLC circuits, sinusoidal steady state response, RMS values, phasor diagrams, resonance.

Pre-requisite: 121132

### **312 242 Digital Logic Design (3-2-0-4)**

The course covers: Boolean algebra and Boolean expressions, K-Map minimization, function realization, Techniques of designing digital circuits for a wide range of applications, including combinational circuits, sequential circuits and computer arithmetic systems. Considerations such as cost and speed of the circuit realization are discussed.

Pre-requisite: 104 110

### **312 245 Computer Organization (2-2-0-3)**

The course covers a variety of topics: the organization of the von Neumann machine, how instructions are fetched from memory and executed, how numerical values are represented in digital computers,

transmission of digital data as electronic signals is presented. The layered structure of network protocols is also discussed. Emphasis is placed on protocol and interface specifications, in particular those adhering to OSI and TCP/IP reference models. The application layer protocols of TCP/IP such as HTTP, FTP, Telnet, and SMTP will be studied.

Pre-requisite: 310 211

### **311 382 Computer Networks II (3-0-2-3)**

This course covers wide area networks and its applications in detail. WAN protocols, virtual private networks, web technologies, Web server installation and support are discussed. Wireless and mobile computing principles are introduced; mobile data access and software for mobile computing are covered in detail. Emerging technologies and performance evaluation of networks is also discussed.

Pre-requisite: 311 381

### **311 422 Organization of Programming Languages (3-0-0-3)**

This course investigates the design and implementation of multi-purpose high-level programming languages. It looks at concepts, not complete languages, touching on many programming languages. Students will learn what contributions each has made to the current state of language design. They will also learn about a variety of paradigms and be able to make a critical evaluation of language features within those paradigms.

Pre-requisite: 311 223

### **311 431 Project CS (1-4-0-3)**

This course aims to give students the opportunity to work in a guided but independent fashion to investigate a problem by making use of computer science knowledge, techniques, and methodologies acquired in the previous semesters to provide a suitable software solution. The course also aims to enhance communication skills, both oral and written.

Pre-requisite: 100 credit hours

### **311 435 Human Computer Interaction (3-0-0-3)**

The course highlights human-computer interaction strategies from a number of perspectives including that of the engineer, cognitive

psychologist and end-user. Major subjects include the design and evaluation of usable interfaces, matching computer systems with the cognitive capabilities of users, and an investigation of novel paradigms in HCI.

Pre-requisite: 310 211

### **311 442 Design And Analysis of Algorithms (3-0-0-3)**

This course will discuss fundamental concepts and techniques for designing efficient algorithms and analyzing their performance. Topics include the basic classes of algorithms: divide and conquer greedy methods, tree and graph traversals, backtracking and dynamic programming. Some advanced topics in algorithms may be selected from other areas of computer science. Types of problems such as satisfiability, traveling salesman, knapsack, vertex cover and others will be studied. Understanding of the inherent complexity of problems: polynomial time, NP-completeness and approximation algorithms will also be covered, as will proofs of NP completeness of some problems.

Pre-requisite: 311 223

### **311 450 Selected Topics in Computer Science (2-2-0-3)**

The purpose of this course is to introduce the student to new technologies and developments in the computer science field. Topics vary according to the area of computing considered for the course.

Pre-requisite: 60 credit hours

### **311 451 Operating Systems (3-0-2-3)**

The course covers the principles and concepts of modern operating systems. Topics include: operating system services: processes and process management, memory management, file systems, Input/Output and device control, deadlocks, case studies and distributed systems.

Pre-requisite: 312 245

### **311 453 Parallel Processing (3-0-0-3)**

Basic concepts of Parallel Processing techniques, forms of parallelism, algorithms and architectures for various parallel processing applications, case studies of parallel machines and their performance measures, software tools for parallel machines.

Pre-requisite: 311 342

### **311 311 Computational Mathematics (2-2-0-3)**

Introduction to numerical methods and concepts used in problem-solving, solution of linear systems, vector spaces and subspaces, linear transformations, Eigenvalues and Eigenvectors, solution of first and second order differential equations and conic sections.

Pre-requisite: 300 200/C

### **311 319 Introduction to Formal Languages and Automata (3-0-0-3)**

This course provides an introduction to the theory of formal languages and machines. We start by defining the three concepts: grammars, automata and languages. We present different classes of grammars with the Chomsky hierarchy of languages and corresponding machines. The first half of the course is centered on regular languages and finite state automata. The second half will be spent mostly on context free languages of various types, but we will define push down automata. Turing machines and linear bound automata are introduced for context sensitive languages.

Pre-requisite: 311 221

### **311 321 Computer Graphics (2-2-0-3)**

This course is designed to give students an understanding of computer graphics concepts, algorithms and application. Topics include: basic concepts, 2-D and 3-D modeling and transformations, viewing transformations, projections, clipping, and animation. Students will use OpenGL graphics API to reinforce concepts and implement graphics algorithms and applications in the lab.

Pre-requisite: 310 211

### **311 323 Operations Research (3-0-0-3)**

The aim of the course is to introduce students to the techniques of operational research. Topics include: Linear mathematical models, graphical solution of LP models, simplex method, post-optimality analysis transportation model, statistical decision-making, network analysis, and non linear-programming.

Pre-requisite: 103 110

### **311 332 Database Management Systems (2-2-0-3)**

This course is designed to give a theoretical and practical background in database techniques. It covers: database concepts, data models,

data dictionary, entity relationship diagrams, relational data model, converting E-R models to relational model, relational algebra, SQL language, and normalization. Oracle software is used in the Lab.

Pre-requisite: 310 211

### **311 335 Software Engineering I (3-0-0-3)**

The software engineering course is concerned with the theories, methods and tools which are needed to develop software. It presents a broad perspective on software systems engineering, concentrating on widely-used techniques for developing large-scale software systems. The course covers a wide spectrum of software processes from initial requirement elicitation, through design and development, to system evolution. Graphical system models are described in the standard UML. Many case studies are provided.

Pre-requisite: 310 211

### **311 336 Software Engineering II (3-0-0-3)**

Computer software is the product that software engineers design and build. This is an intermediate course on software engineering topics. It is a continuation for the course of Software Engineering I. It covers Software Validation and Testing Strategies and Tactics, Software Evolution, Software Reuse, and other Advanced Topics such as Web Engineering, Formal methods, Component-Based Development, and Reengineering. Students will be prepared to engineer high-quality Web applications. Many case studies are provided.

Pre-requisite: 311 335

### **311 342 Computer Architecture (3-0-0-3)**

This course deals with design alternatives in computer architecture: basic computer components and their functions, including central processing unit, arithmetic and logic unit, control unit, memory system organization (internal, external, and cache memories), Input /Output techniques (programmed I/O, interrupt I/O, and DMA).

Pre-requisite: 312 245

### **311 381 Computer Networks I (2-2-0-3)**

This course introduces the basic software and hardware components of computer networks. The role of physical components, for example network interface adapters, modems, cables, hubs and switches is explained. Basic network design using structured cabling and

### **310 450 Selected Topics in Information Systems (2-2-0-3)**

This course aims to introduce new developments in Information Systems not specifically covered in the curriculum, and in which the instructor has developed interest and proficiency. The intention is to provide a rapid response to current trends and to widen student knowledge in the Information Systems field. Course content may change from time to time.

Pre-requisite: 60 credit hours

### **310 455 E-Commerce (2-2-0-3)**

Electronic Commerce is one of today's most demanding disciplines in the area of Information Technology. This course covers the core ideas of electronic commerce infrastructure, the role of Intranet and Extranet in commerce transactions, security issues, electronic payment mechanisms, advertisement and direct marketing over the net, and the latest techniques for developing ecommerce base websites by using ASP and ASP. net.

Pre-requisite: 314 231

### **310 466 Computer Security (3-0-0-3)**

Computer security is the process through which information stored in a computer or in transit through a computer network or communication channels is secured against internal and external threats of various forms: viruses, hackers, eavesdropping and fraud. The security is implemented to protect information confidentiality, authenticity, availability and integrity using encryption, firewalls and back-up techniques.

Pre-requisite: 311 381

### **310 471 Knowledge Based Systems (2-2-0-3)**

This course introduces the concepts, principles and techniques of knowledge base systems, with a focus on the implementation of a working expert system. It covers knowledge representation, search methodologies, propositional and predicate logic, inference and resolution for problem solving, and rules and expert systems.

Pre-requisite: 60 credit hours

### **311 221 Discrete Structures (3-0-2-3)**

This course presents the mathematics underlying the technical aspects of computer science. It provides an introduction to discrete

mathematics and mathematical logic relevant to the area of computing. Topics covered include: introduction to set theory; propositional calculus; predicate calculus; induction; functions; and relations, finite state automata, counting, graphs and trees.

Pre-requisite: 300 100 and 104 110

### **311 223 Data Structures and Algorithms (3-0-0-3)**

The course covers concepts of program performance (time and space complexity); abstract data types; recursion; abstract data structures: lists, stacks, queues, graphs, trees, binary search trees, priority queues, heaps, and operations on them and their applications; sorting; searching and hashing.

Pre-requisite: 310 211

### **311 242 Digital Logic Design (3-0-2-3)**

This course focuses on the techniques necessary to design digital circuits for a wide range of applications, including computer systems. Considerations such as cost and speed of circuit realizations are essential components of the course. Topics covered include: combination logic; functional decomposition; circuit analysis and synthesis; logic arrays; sequential circuit analysis and memory devices.

Pre-requisite: 104 110

### **311 248 Micro-Processor Systems and Design (2-2-0-3)**

This course examines the concepts in microprocessor and embedded system design, microprocessor applications, and development techniques. Coverage includes microprocessor hardware, software, and architecture. 80x 86 Intel family, memory real and protected mode and interrupts will be considered and advanced microprocessor systems as the Intel Pentium will be examined.

Pre-requisite: 312 245

### **311 300 Training CS (3-0-0-3)**

Training familiarizes students with actual working environments. It gives students the opportunity to integrate their knowledge and skills learned in the course by applying them to real world problems encountered in business and industry. Training also gives the student a feeling of what is involved in working on actual information technology problems and develop communication skills.

Pre-requisite: 60 credit hours

an effective planning.  
Pre-requisite: 310 134

### **310 300 Training -Information Systems (3-0-0-3)**

Training familiarizes students with actual working environments. It gives them the opportunity to integrate their knowledge and skills learned by applying them to real world problems encountered in business and industry. Training also gives the student feel for what is involved in working on actual Information Technology problems; and also helps them to develop communication skills.

Pre-requisite: 60 credit hours

### **310 314 Computer Ethics (3-0-0-3)**

The course is intended to teach students to become effective professionals in the computer field by examining many of the challenging legal, social and ethical issues surrounding computer technology and its use.

Pre-requisite: 45 credit hours

### **310 334 IS Theory and Practice (3-0-0-3)**

This course provides an understanding of organizational systems, the planning and decision processes and their support by information systems. It covers: information and organization systems, the roles of information and information technology, the roles of people in using, developing and managing systems, network and telecommunication system management, quality control and reengineering, management and development of systems, end-user computing and the social and ethical issues related to information system development and use.

Pre-requisite: none

### **310 335 Data Mining (3-0-0-3)**

This course aims to introduce students to the concepts and techniques of data warehousing and mining. Topics covered include: data warehouse architecture, development life cycle, logical data modeling for a data warehouse, physical data design; Data mining concepts and tasks, data preprocessing and reduction, classification techniques, association analysis and algorithms, clustering analysis and algorithms, anomaly detection methods, and web mining.

Pre-requisite: 311 332

### **310 344 Computer Operating Systems (3-0-2-3)**

The principles and concepts of modern computer organization are studied at several levels. The course covers the basics of computer architecture (using examples such as the Pentium II, Ultra SPARC II and Java Virtual Machine) and operating system concepts (process management, memory management, file systems, Input/Output and device control). Distributed systems are also explored.

Pre-requisite: 60 credit hours

### **310 438 IS Project Management (3-0-0-3)**

Development of Information Systems is characterized by rapidly changing environments and technologies, high cost and a high degree of uncertainty. Furthermore, the actual value of these efforts is difficult to measure in most situations. These conditions have created a business environment in which project management is one of the fastest growing career fields. Today, powerful software is required to manage the tradeoff between time, cost and quality for a continuous array of development projects within all industries; even in "low-tech" industries, Information Systems projects demand a continuous flow of resources.

Pre-requisite: 311 335

### **310 440 IS Project (1-4-0-3)**

This course aims to give students the opportunity to work in a guided but independent fashion to investigate a problem by making use of Information Systems knowledge, techniques, and methodologies acquired in the previous semesters to provide a suitable software solution. The course also aims to enhance communication skills, both oral and written.

Pre-requisite: 100 credit hours

### **310 445 Selected Topics in Programming Languages (2-2-0-3)**

Designing Track. CIW is an information technology job curriculum and certification for the knowledge economy; designed to help career changers enter the IT industry and experienced and vendor-certified professionals build on existing IT skills.

Pre-requisite: 310 211

# Course Descriptions

## **300 100 Mathematics I/C (3-0-2-3) Mission**

This course covers the essential mathematical topics that students specializing in computer sciences are expected to know. The first part of the course deals with plane analytic geometry, and the second part covers basic matrices and determinants. The third part provides students with a foundation in real functions: limits, continuity, differentiability and integration with applications on simple derivatives and integrals.

Pre-requisite: none

## **300 200 Mathematics II/C (3-0-2-3)**

This course is designed to strengthen students knowledge of provide them with skills in calculus. The course deals with functions and related topics, for example limits, continuity, graphs and derivatives in addition to a preliminary to linear algebra and linear programming.

Pre-requisite: none

## **300 200 Mathematics II/Discrete Structures (3-0-2-3)**

This course presents the mathematics that underlies the technical aspects of computer science. It provides an introduction to the discrete mathematics and mathematical logic relevant to a broad area of computing. Topics covered are: sets; relations; elementary logic; proof techniques; recursion and recurrence relations; counting; graphs and trees; cryptography; theory of computing.

Pre-requisite: 300 100/ IS

## **310 112 Programming I (2-2-2-3)**

This course is an introduction to computer programming and object-oriented thinking in the C++ programming language. Contents include: C++ program format, compiling and running programs, basic elements of C++, standard and file input/output, conditional control structures, looping control structures, predefined and user defined functions, arrays and strings.

Pre-requisite: none

## **310 115 Financial Accounting (3-0-0-3)**

This course introduces students to the accounting function and how it

is used within the economy. It views accounting as an information-generating system that communicates financial data to support end-users in their economic decision-making. The course covers the theory and concepts of accounting, as well as their application to the recording of financial information for the three types of business organizations: sole proprietorship, partnership and corporation. Emphasis is placed on the corporate form of organization.

Pre-requisite: none

## **310 134 Information Systems for Business (2-2-0-3)**

In this course, students will study the ways in which organizations improve their business practices through the use of computer technology. It emphasizes systems technologies, enterprise integration, business applications and the critical analysis of organizational change through Information Systems.

Pre-requisite: 104 110

## **310 211 Programming II (2-2-2-3)**

This course extends the knowledge learned in Programming I. Contents include: user-defined simple data types, structures and arrays, classes and data abstractions, pointers, overloading and templates, recursion.

Pre-requisite: 310 112

## **310 217 Human Resources (3-0-0-3)**

This course will enable the student to identify principal human resources management functions within an organization. Topics covered include: personnel issues, performance appraisals, interviewing, communications, supervising, motivation, leadership.

Pre-requisite: 400 291

## **310 234 Management Information Systems (3-0-0-3)**

The aim of the course is to familiarize the student with the tools necessary to design, develop, and implement a management information system within an organization. The course also aims to show how management information systems can provide an information network necessary to achieve competitive advantage and

# SEMESTER 5

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
311 435	Human Computer Interaction	3	0	0	3	310 211
310 455	E-Commerce	3	0	0	3	314 231
314 210	Writing for the Web	3	0	0	3	60 Credit Hours
311 381	Computer Networks I	2	2	0	3	104 110 & 40 Credit Hours
314 332	Web Design	2	2	0	3	314 232
Total		13	4	0	15	

# SEMESTER 6

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
311 332	Database Management Systems	2	2	0	3	310 211
311 382	Computer Networks II	3	0	2	3	311 381
314 347	Computer Animation	2	2	0	3	314 242
314 345	Audio and Image Processing	2	2	0	3	314 241 and 300 200
310 314	Computer Ethics	3	0	0	3	45 Credit Hours
Total		12	6	2	15	

Summer Session: Industrial training for six weeks (1.5 Credit Hours)

# SEMESTER 7

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
311 451	Operating Systems	3	0	2	3	314 245
310 466	Computer Security	3	0	0	3	311 381
314 430	Web Design Project	1	4	0	3	314 332 & 80 Credit Hours
xxx xxx	Major Elective I	3	0	0	3	xxx xxx
xxx xxx	Major Elective II	3	0	0	3	xxx xxx
Total		13	4	2	15	

# SEMESTER 8

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
xxx xxx	Major Elective III	3	0	0	3	xxx xxx
xxx xxx	Major Elective IV	3	0	0	3	xxx xxx
314 336	Web Server Administration	2	2	0	3	311 381
314 370	Wireless Programming	2	2	0	3	310 211
314 440	Multimedia Project	1	4	0	3	80 Credit Hours
Total		11	8	0	15	

The minimum number of credit required for Bachelor of Science degree is 123 Credit Hours In addition, the student must complete a 12-week training period (3 Credit Hours)



## Proposed Sequence of Study

### SEMESTER 1

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
111 000	Orientation	1	0	0	0	-
102 110	Islamic Culture	2	0	2	3	-
102 140	Communication Skills in Arabic Language	3	0	0	3	-
300 100	Mathematics I / C	3	0	2	3	-
104 110	Computer Applications	2	2	0	3	-
103 130	Research Methodology	3	0	0	3	-
Total		14	2	4	15	

### SEMESTER 2

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
310 112	Programming I	2	2	2	3	-
314 131	Internet Technology	2	2	0	3	104 110
103 110	Statistics	2	2	0	3	-
300 200	Mathematics II / C	3	0	0	3	300 100
xxx xxx	University Elective I	3	0	0	3	-
Total		12	6	2	15	-

### SEMESTER 3

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
310 211	Programming II	2	2	2	3	310 112
314 231	Internet Programming	3	0	0	3	310 112 & 314 131
314 241	Multimedia Technology	2	2	0	3	310 112
xxx xxx	University Elective II	3	2	0	3	-
xxx xxx	University Elective III	3	0	0	3	-
Total		13	6	2	15	

### SEMESTER 4

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
314 232	Web Development	2	2	0	3	314 231
311 223	Data Structures and Algorithms	3	0	0	3	310 211
311 321	Computer Graphics	2	2	0	3	310 211
314 242	Multimedia Authoring	2	2	0	3	314 241
311 335	Software Engineering I	3	0	0	3	310 211
314 245	Computer Organization and Architecture	2	2	0	3	310 211
Total		12	6	0	18	

Summer Session: Industrial training for six weeks (1.5 Credit Hours)

## Proposed Sequence of Study

### SEMESTER 1

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
111 000	Orientation	1	0	0	0	-
102 110	Islamic Culture	2	0	2	3	-
102 140	Communication Skills in Arabic Language	3	0	0	3	-
300 100	Mathematics I / C	3	0	2	3	-
104 110	Computer Applications	2	2	0	3	-
103 130	Research Methodology	3	0	0	3	-
Total		14	2	4	15	

### SEMESTER 2

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
310 112	Programming I	2	2	2	3	-
314 131	Internet Technology	2	2	0	3	104 110
103 110	Statistics	2	2	0	3	-
300 200	Mathematics II / C	3	0	0	3	300 100
xxx xxx	University Elective I	3	0	0	3	-
Total		12	6	2	15	

### SEMESTER 3

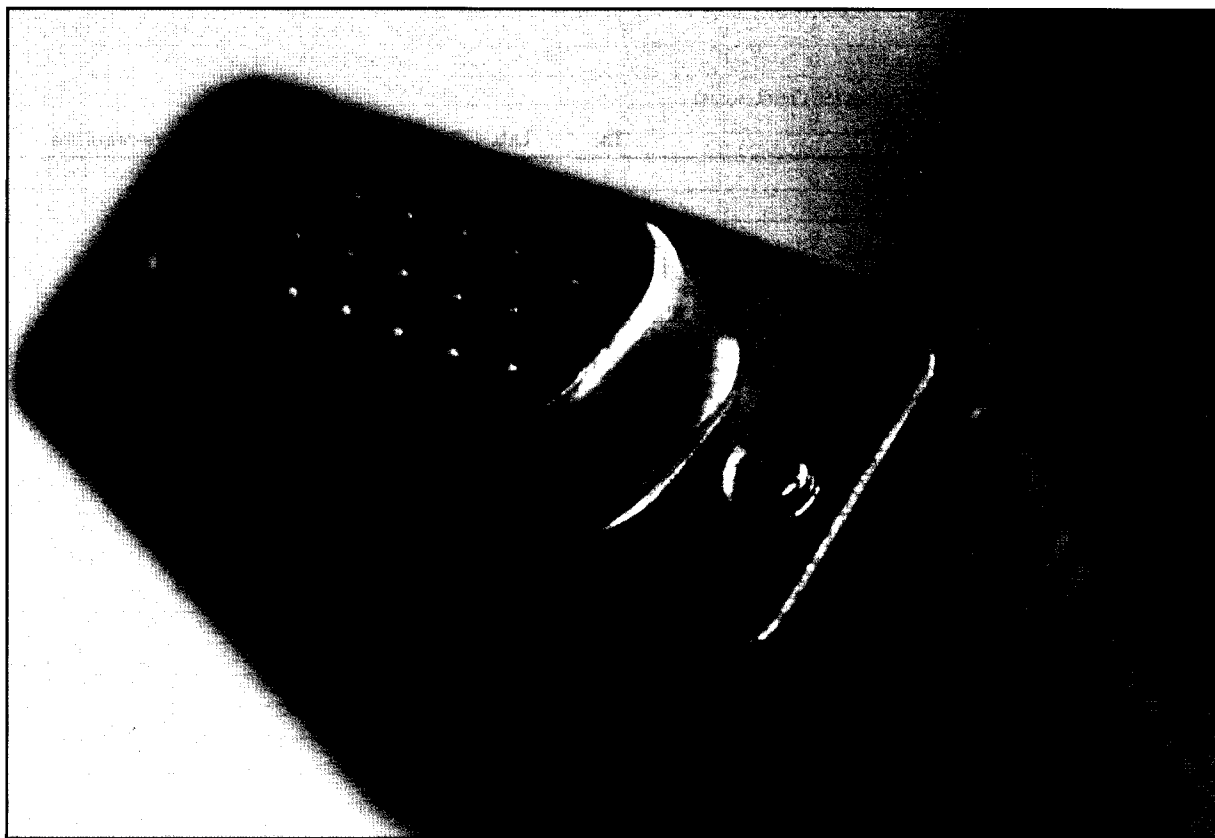
Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
310 211	Programming II	2	2	2	3	310 112
314 231	Internet Programming	3	0	0	3	310 112 and 314 131
314 241	Multimedia Technology	2	2	0	3	310 112
xxx xxx	University Elective II	3	2	0	3	-
xxx xxx	University Elective III	3	0	0	3	-
Total		13	6	2	15	

### SEMESTER 4

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
314 232	Web Development	2	2	0	3	314 231
311 223	Data Structures and Algorithms	3	0	0	3	310 211
311 321	Computer Graphics	2	2	0	3	310 211
314 242	Multimedia Authoring	2	2	0	3	314 241
311 335	Software Engineering I	3	0	0	3	310 211
314 245	Computer Organization and Architecture	2	2	0	3	310 211
Total		12	6	0	18	

(c) Major Electives - College courses (12 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
310 335	Data Mining	3	0	0	3	311 332
311 336	Software Engineering II	3	0	0	3	311 335
311 463	Database Design and Implementation	2	2	0	3	311 332
311 473	Computer Simulation	2	2	0	3	310 211 & 60 Credit Hours
314 436	Advanced Web Administration	2	2	0	3	314 336
314 445	Digital Photography	2	2	0	3	314 242 & 314 345
314 447	Digital Video Production	2	2	0	3	314 242 & 314 345
314 450	Selected Topics in Multimedia	2	2	0	3	60 Credit Hours
580 325	Web-Based Instruction	2	2	0	3	314 332



## COLLEGE REQUIREMENTS

(a) College General Education Requirements (6 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
300 100	Mathematics I /C	3	0	2	3	-
300 200	Mathematics II /C	3	0	2	3	300 100

(b) College Specialization Requirements (18 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
310 112	Programming I	2	2	2	3	-
310 211	Programming II	2	2	2	3	310 112
311 223	Data Structures and Algorithms	3	0	0	3	310 211
311 335	Software Engineering I	3	0	0	3	310 211
311 381	Computer Networks I	2	2	0	3	104 110 & 40 Credit Hours
311 382	Computer Networks II	3	0	2	3	311 381

## MAJOR REQUIREMENTS

(a) Major Requirements -College Courses (66 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
310 314	Computer Ethics	3	0	0	3	60 Credit Hours
310 455	E-Commerce	3	0	0	3	314 231
310 466	Computer Security	3	0	0	3	311 381
311 321	Computer Graphics	2	2	0	3	310 211
311 332	Database Management Systems	2	2	0	3	310 211
311 435	Human Computer Interaction	3	0	0	3	310 211
311 451	Operating Systems	3	0	2	3	314 245
314 131	Internet Technology	2	2	0	3	104 110
314 210	Writing for the Web	3	0	0	3	60 Credit Hours
314 231	Internet Programming	2	2	0	3	310 112 & 314 131
314 232	Web Development	2	2	0	3	314 231
314 241	Multimedia Technology	2	2	0	3	310 112
314 242	Multimedia Authoring	2	2	0	3	314 241
314 245	Computer Org. and Architecture	2	2	0	3	310 211
314 300	Training (Multimedia)	-	-	-	3	60 Cr. Hrs.
314 332	Web Design	2	2	0	3	314 232
314 336	Web Server Administration	2	2	0	3	311 381
314 345	Audio and Image Processing	2	2	0	3	314 241 & 300 200
314 347	Computer Animation	2	2	0	3	314 242
314 370	Wireless Programming	2	2	0	3	310 211
314 430	Web Design Project	1	4	0	3	314 332 & 80 Credit Hours
314 440	Multimedia Project	1	4	0	3	80 Credit Hours

## University General Education Requirements

(a) University Required Courses (15 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
101 000	Orientation /CS	1	0	0	0	-
102 110	Islamic Culture	3	0	1	3	-
102 140	Communication Skills in Arabic Language	3	0	0	3	-
103 110-1	Statistics	2	2	0	3	-
103 130	Research Methodology	3	0	0	3	-
104 110	Computer Applications	2	2	0	3	-

(b) University Elective Courses (9 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
102 120-1	The Miraculousness of the holy Koran	3	0	0	3	-
112 110	Principles of Art and Architecture	3	0	0	3	-
112 120	Principles of Interior Design	3	0	0	3	-
112 130	Modern Technology and Society	3	0	0	3	-
113 110	Internet Concepts	3	0	0	3	-
113 120	Introduction to Information Systems	3	0	0	3	-
114 110	Economic Concepts	3	0	0	3	-
114 120	Entrepreneurship Development	3	0	0	3	-
115 110	History of science in Islam	3	0	0	3	-
115 120	Scientific pioneering	3	0	0	3	-
115 130	General psychology	3	0	0	3	-
115 140	Principle of mathematics	3	0	0	3	-
115 150	The Art of Expression and writing	3	0	0	3	-
115 160	Emirates Society	3	0	0	3	-
115 170	Education Technology	3	0	0	3	-
117 110	General chemistry	3	0	0	3	-
117 120	Fundamental of Human Nutrition	3	0	0	3	-
117 130	First Aid	3	0	0	3	-
117 140	Energy, Water and Environment	3	0	0	3	-
117 150	Applications of Remote sensing	3	0	0	3	-
118 110	Principles of Ethics	3	0	0	3	-
118 120	General Biology	3	0	0	3	-
118 130	Oral Health	3	0	0	3	-
118 140	General principles of Epidemiology	3	0	0	3	-
118 150	CPR-Cardio Pulmonary Resuscitation	3	0	0	3	-
119 110	Communication Skills	3	0	0	3	-
119 120	Introduction to Communication Sociology	3	0	0	3	-
119 130	Information Society	3	0	0	3	-
120 115	Legal Culture	3	0	0	3	-

# Degree Requirements

The BSc degree in Multimedia and Web Development requires the completion of 126 Credit Hours distributed according to the following plan:

Types of Course	Credit Hours
1. University General Education Requirements	
(a) University Required Courses	15
(b) University Elective Courses	9
2. College Requirements	
(a) College General Education Requirements	6
(b) College Specialization Requirements	18
3. Major Requirements	
(a) Major Requirements - College Courses	66
(b) Major Electives - College Courses	12
Total Credit Hours	126

# Department of Multimedia and Web Development

The Department of Multimedia and Web Development offers a Bachelor degree in Multimedia and Web Development, a four-year course that requires the completion of 126 credit hours. The program is accredited by the UAE Ministry of Higher Education.

## Bachelor of Science in Multimedia and Web Development

### Mission

The program's mission is to provide quality education in the field of multimedia and web development that equips graduates to pursue a professional career in the use and development of multimedia and web technologies, and adapt to evolving technologies in this area of computing.

### Objectives

The objectives of the program are produce graduates who are equipped with:

- The knowledge and skills that enable them to specialize in multimedia
- The knowledge and skills that enable them to specialize in web development
- Problem-solving skills, communication skills and the ability to work in a team
- The ability to carry out graduate study and research

In addition the program seeks to provide a learning environment in which students are exposed to the ethical and legal issues associated with the field of IT.

### Program Outcomes

The Bachelor of Science in Multimedia and Web Development program aims to create graduates with the capability to:

- Analyze user needs, integrate the available technology, and design and implement multimedia computing systems
- Specify and develop multimedia systems for a wide range of applications, for example the World Wide Web, imaging systems, animation and user interface

- Develop, design and publish a web design project using industry-standard software and apply overall industry design standards
- Create a professional web site with e-commerce elements built in
- Develop teamwork ability, communication skills, problem solving and design skills through projects, presentations and assignments
- Develop multimedia and web applications on a network-based system
- Understand and practice computer ethics
- Store, retrieve and manipulate multimedia objects
- Write programs that manipulate multimedia objects
- Pursue postgraduate study

### Admission Requirements

The normal entry requirement for an applicant is the UAE secondary certificate (scientific section), or an equivalent qualification, with a minimum average grade of 60 percent.

### Career Opportunities

AUST Multimedia and Web Development graduates are equipped for a variety of careers in the following fields: web site design, animation programming, web authoring systems, multimedia programming, system design (integration of software and hardware components), video and audio processing, teaching and training, and marketing of multimedia software and hardware products. In addition they are prepared for graduate study and research.

### Graduation Requirements

Students will be awarded the degree of Bachelor in Multimedia and Web Development after the successful completion of 126 credits hours, which normally takes eight semesters. In addition, students must undertake 12 weeks of industrial training in a summer session, which is equivalent to three credit hours. The minimum cumulative grade point average required for graduation is 2.0.

SEMESTER 5

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
310 455	E-Commerce	3	0	0	3	314 231
311 332	Database Management Systems	2	2	0	3	310 211
311 422	Organization of Programming Languages	3	0	0	3	311 223
311 336	Software Engineering II	3	0	0	3	311 335
311 381	Computer Networks I	2	2	0	3	104 110 & 40 Credit Hours
TOTAL		13	4	0	15	

SEMESTER 6

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
311 463	Database Design and Implementation	2	2	0	3	311 332
310 438	IS Project Management	3	0	0	3	311 335
400 395	Principles of Marketing	3	0	0	3	
310 334	IS Theory and Practice	3	0	0	3	310 234
311 382	Computer Networks II	3	0	2	3	311 381
TOTAL		14	2	2	15	

Summer Session: Industrial training for six weeks (1.5 Credit Hours)

SEMESTER 7

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
310 344	Computer Operating Systems	3	0	2	3	60 Credit Hours
310 466	Computer Security	3	0	0	3	311 381
311 435	Human Computer Interaction	3	0	0	3	310 211
310 471	Knowledge Based Systems	2	2	0	3	60 Credit Hours
xxx xxx	Major Elective I	x	x	x	3	-
TOTAL		x	x	x	15	

SEMESTER 8

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
310 440	IS Project	1	4	0	3	100 Credit Hours
310 314	Computer Ethics	3	0	0	3	45 Credit Hours
xxx xxx	Major Elective II	x	x	x	3	-
xxx xxx	Major Elective III	x	x	x	3	-
xxx xxx	Major Elective IV	x	x	x	3	-
TOTAL		x	x	x	15	

The minimum number of credit required for Bachelor of Science in Information Systems degree is 123 Credit Hours. In addition the student must complete a 12-week training period (3 Credit Hours).



## Proposed Sequence of Study

### SEMESTER 1

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
111 000	Orientation	1	0	0	0	-
102 110	Islamic Culture	3	0	1	3	-
102 120	Communication Skills in Arabic Language	3	0	0	3	-
104 110	Computer Applications	2	2	0	3	-
300 100	Mathematics I / IS	3	2	2	3	-
103 130	Research Methodology	3	0	0	3	-
TOTAL		14	2	4	15	

### SEMESTER 2

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
300 200	Mathematics II / Discrete Structure	3	2	2	3	300 100
103 110	Statistics	2	2	0	3	-
310 112	Programming I	2	2	2	3	-
Xxx xxx	University Elective I	3	0	0	3	-
Xxx xxx	University Elective II	3	0	0	3	-
TOTAL		13	4	2	15	

### SEMESTER 3

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
310 134	Information Systems for Business	3	2	0	3	104 110
310 211	Programming II	2	2	2	3	310 112
314 231	Internet Programming	2	2	0	3	310 112
310 115	Financial Accounting	3	0	0	3	-
400 291	Introduction to Management	3	0	0	3	-
TOTAL		13	6	2	15	

### SEMESTER 4

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
311 223	Data Structures and Algorithms	3	0	0	3	310 211
xxx xxx	University Elective III	3	0	0	3	-
310 234	Management Information Systems	3	0	0	3	310 134
310 217	Human Resources	3	0	0	3	400 291
311 335	Software Engineering I	3	0	0	3	310 211
400 393	Microeconomics	3	0	0	3	-
TOTAL		18	0	0	18	

Summer Session: Industrial training for six weeks (1.5 Credit Hours)

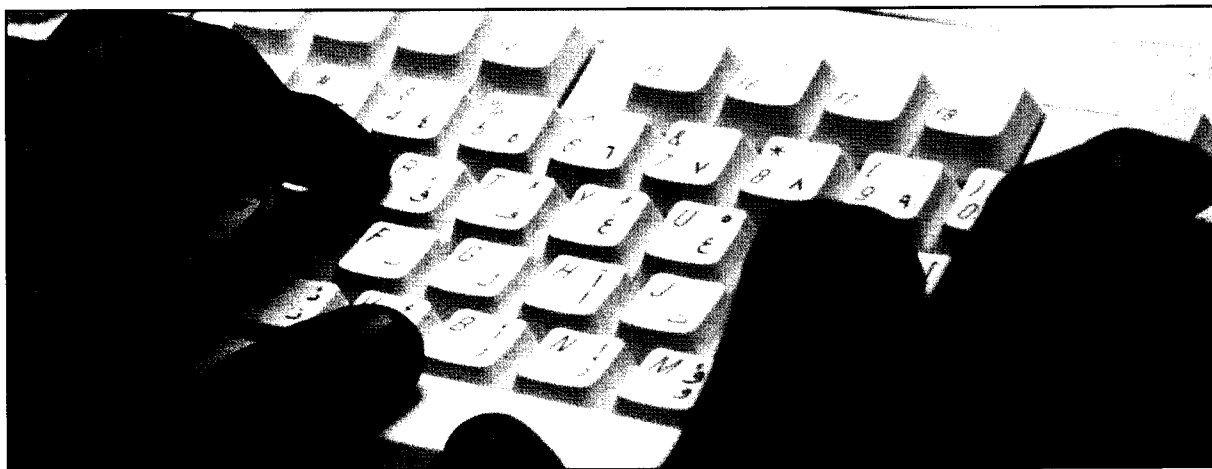
(b) Major Requirements - Non-College courses (9 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
400 291	Introduction to Management	3	0	0	3	-
400 393	Microeconomics	3	0	0	3	-
400 395	Principles of Marketing	3	0	0	3	-

(c) Major Electives - College courses (12 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
Course #	Course Title	Th.	Tut.	Lab.	Credit Hours	Pre-requisite
310 335	Data Mining	3	0	0	3	311 332
310 445	Selected Topics in Programming Languages	2	0	2	3	310 211
310 450	Selected Topics in Information Systems	2	0	2	3	60 Credit Hours
311 321	Computer Graphics	2	0	2	3	310 211
311 473	Computer Simulation	2	0	2	3	310 211 & 60 Credit Hours
311 475	Expert Systems and Applications	2	0	2	3	310 471
314 232	Web Development	2	0	2	3	314 231
314 241	Multimedia Technology	2	0	2	3	310 112
314 242	Multimedia Authoring	2	0	2	3	310 241
314 370	Wireless Programming	2	0	2	3	310 211 & 60 Credit Hours
314 477	Game Programming	2	0	2	3	310 211 & 60 Credit Hours

Note: A student may take one elective course from the Computer Science or Multimedia curricula.



## COLLEGE REQUIREMENTS

(a) College General Education Requirements (6 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
300 100-1	Mathematics I / IS	3	0	2	3	-
300 200-1	Mathematics II / Discrete Structure	3	0	2	3	300 100

(b) College Specialization Requirements (18 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
310 112	Programming I	2	2	2	3	-
310 211	Programming II	2	2	2	3	310 112
311 223	Data Structures and Algorithms	3	0	0	3	310 211
311 335	Software Engineering I	3	0	0	3	310 211
311 381	Computer Networks I	2	2	0	3	104 110 & 40 Credit Hours
311 382	Computer Networks II	3	0	2	3	311 381

## MAJOR REQUIREMENTS

(a) College Courses (57 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
310 115	Financial Accounting	3	0	0	3	-
310 134	Information Systems for Business	2	2	0	3	104 110
310 217	Human Resources	3	0	0	3	400 291
310 234	Management Information Systems	3	0	0	3	310 134
310 300	Training (Information Systems)	-	-	-	3	60 Credit Hours
310 314	Computer Ethics	3	0	0	3	45 Credit Hours
310 334	IS Theory and Practice	3	0	0	3	310 234
310 344	Computer Operating Systems	3	0	2	3	60 Credit Hours
310 438	IS Project Management	3	0	0	3	311 335
310 440	IS Project	1	4	0	3	100 Credit Hours
310 455	E-Commerce	3	0	0	3	314 231
310 466	Computer Security	3	0	0	3	311 381
310 471	Knowledge Based Systems	2	2	0	3	60 Credit Hours
311 332	Database Management Systems	2	2	0	3	310 211
311 336	Software Engineering II	3	0	0	3	311 335
311 422	Organization of Programming Languages	3	0	0	3	311 223
311 435	Human Computer Interaction	3	0	0	3	310 211
311 463	Database Design and Implementation	2	2	0	3	311 332
314 231	Internet Programming	2	2	0	3	310 112

## University General Education Requirements

(a) University Required Courses (15 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
111 000	Orientation ACS	1	0	0	0	-
102 110	Islamic Culture	3	0	1	3	-
102 140	Communication Skills in Arabic Language	3	0	0	3	-
103 110	Statistics	2	2	0	3	-
104 110	Computer Applications	2	2	0	3	-
103 130	Research Methodology	3	0	0	3	-

(b) University Elective Courses (9 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
102 120	The Miraculousness of the Holy Koran	3	0	0	3	-
112 110	Principles of Art and Architecture	3	0	0	3	-
112 120	Principles of Interior Design	3	0	0	3	-
112 130	Modern Technology and Society	3	0	0	3	-
113 110	Internet Concepts	3	0	0	3	-
113 120	Introduction to Information System	3	0	0	3	-
114 110	Economic Concepts	3	0	0	3	-
114 120	Entrepreneurship Development	3	0	0	3	-
115 110	History of Science in Islam	3	0	0	3	-
115 120	Scientific Pioneering	3	0	0	3	-
115 130	General Psychology	3	0	0	3	-
115 140	Principle of Mathematics	3	0	0	3	-
115 150	The Art of Expression and Writing	3	0	0	3	-
115 160	Emirates Society	3	0	0	3	-
115 170	Education Technology	3	0	0	3	-
117 110	General Chemistry	3	0	0	3	-
117 120	Fundamental of Human Nutrition	3	0	0	3	-
117 130	First Aid	3	0	0	3	-
117 140	Energy, Water and Environment	3	0	0	3	-
117 150	Applications of Remote Sensing	3	0	0	3	-
118 110	Principles of Ethics	3	0	0	3	-
118 120	General Biology	3	0	0	3	-
118 130	Oral Health	3	0	0	3	-
118 140	General principles of Epidemiology	3	0	0	3	-
118 150	CPR-Cardio Pulmonary Resuscitation	3	0	0	3	-
119 110	Communication Skills	3	0	0	3	-
119 120	Introduction to Communication Sociology	3	0	0	3	-
119 130	Information Society	3	0	0	3	-
120 115	Legal Culture	3	0	0	3	-

# Degree Requirements

The BSc degree in Information Systems requires the completion of a 126 Credit Hours distributed according to the following plan:

Types of Course	Credit Hours
1. University General Education Requirements	
(a) University Required Courses	15
(b) University Elective Courses	9
2. College Requirements	
(a) College General Education Requirements	6
(b) College Specialization Requirements	18
3. Specialization Requirements	
(a) Specialization Requirements - College Courses	57
(b) Specialization Requirements- Non-College Courses	9
(c) Specialization Electives - College Courses	12
Total Credit Hours	126

# Department of Information Systems

The Department of Information Systems (IS) offers a 4-year Bachelor of Science degree in Information Systems. The program requires the completion of 126 credit hours, and is accredited by the UAF Ministry of Higher Education.

## Bachelor of Science in Information Systems

### Mission

The mission of the program is to provide quality education in Information Systems that allows graduates to pursue a rewarding career and adapt to evolving technologies in the IS field.

### Objectives

The objectives of the program are:

- Provide students with quality education to understand, design, implement, use and manage Information Systems
- Prepare students for professional career in Information Systems
- Offer a broad and in-depth curriculum that prepares students to pursue graduate study

### Program Outcomes

The program's desired outcomes are to enable students to:

- Acquire, convert, store and retrieve data and information
- Understand and solve critical problems
- Understand organizational processes and data
- Define, design and implement technical solutions and manage projects
- Apply both traditional and new concepts and skills to develop applications
- Integrate IS in different organizational levels and business functions
- Work both individually/independently and as team members
- Communicate effectively orally, written and listening
- Apply ethical and legal codes of conduct
- Pursue postgraduate study and research

### Admission Requirements

The normal entry requirements are the UAF secondary certificate, or an equivalent qualification, with:

1. A minimum average grade of 60 percent for scientific sections
2. A minimum average grade of 65 percent for arts sections

### Career Opportunities

Information Systems graduates of Ajman University of Science and Technology are in great demand and targeted by both by organizations that use Information Technology as well as by software companies developing information systems. Graduates are equipped for work in a variety of areas, including the information systems development or management, information systems teaching or training, database applications development, web affiliations development, information systems software marketing, or graduate study and research.

### Graduation Requirements

Students are awarded the degree of Bachelor in Information Systems after the successful completion of 123 credit hours, which normally takes eight semesters. In addition, students must undertake 12 weeks of industrial training in a summer session, which is equivalent to three credit hours. The minimum Cumulative Grade Point Average (CGPA) required for graduation is 2.0 for a total of 126 credit hours.

# SEMESTER 5

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
214 441	Signals and Systems	3	1*	0	3	217 204
311 311	Computational Mathematics	2	2	0	3	300 200
311 332	Database Management Systems	2	2	0	3	310 211
312 303	Electronics II	2	2	0	3	312 302
311 381	Computer Networks I	2	2	0	3	104 110 & 60 Credit Hours
xxx xxx	University Elective III	3	0	0	3	
Total		14	0	0	18	

\*Non-credit Internship training (1 credit hour)

# SEMESTER 6

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
311 335	Software Engineering I	3	0	0	3	310 211
311 342	Computer Architecture	3	0	0	3	312 245
311 442	Design and Analysis of Algorithms	3	0	0	3	311 223
312 305	Electrical and Electronic Measurements and Instrumentation	2	2	0	3	312 302
311 382	Computer Networks II	3	0	2	3	311 381
xxx xxx	Major Elective I	3	0	0	3	70 Credit Hours
Total		17	2	2	18	

\*Non-credit

Summer Session: Internship training (3 credit hours)

# SEMESTER 7

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
212 523	Digital Data Communications	3	1*	0	3	214 441
310 466	Computer Security	3	0	0	3	311 382
311 451	Operating Systems	3	0	2	3	312 245
312 348	Microprocessor Systems	3	2	0	4	312 245
312 531	Project I	1	4	0	3	90 Credit Hours
312 545	Computer Ethics	1	0	0	1	70 Credit Hours
Total		14	7	2	17	

\*Non-credit

# SEMESTER 8

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
312 415	Integrated Circuit Design	3	1*	0	3	312 303
312 441	Embedded Systems	2	2	0	3	312 348
312 532	Project II	1	4	0	3	312 531
xxx xxx	Major Elective II	3	0	0	3	70 Credit Hours
xxx xxx	Major Elective III	3	0	0	3	70 Credit Hours
xxx xxx	Major Elective IV	3	0	0	3	70 Credit Hours
Total		15	7	0	18	

\*Non-credit

## Proposed Sequence of Study

### SEMESTER 1

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
101 000	Orientation/CS	1	0	0	0	-
102 140	Communication Skills in Arabic Language	3	0	0	3	-
103 130	Research Methodology	3	0	0	3	-
104 110	Computer Applications	2	2	0	3	-
121 131	Physics I	2	2	2	3	-
300 100	Mathematics I/C	3	0	2	3	-
Total		14	4	4	15	

\* Non-credit course

### SEMESTER 2

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
102 110	Islamic Culture	3	0	1	3	-
103 110	Statistics	2	2	0	3	-
121 132	Physics II	2	2	2	3	121 131
300 200	Mathematics II /C	3	0	2	3	300 100
310 112	Programming I	2	2	2	3	104 110
312 242	Digital Logic Design	3	2	0	4	104 110
Total		15	8	7	19	

\* Non credit course

### SEMESTER 3

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
217 203	Mathematics III	3	0	2	3	300 200
310 211	Programming II	2	2	2	3	310 112
311 221	Discrete Structures	3	0	0	3	300 100, 104 110
312 201	Electric Circuit Analysis	3	1*	0	3	121 132
xxx xxx	University Elective I	3	0	0	3	-
Total		14	3	4	15	

### SEMESTER 4

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
217 204	Mathematics IV	3	0	2	3	217 203
311 223	Data Structures and Algorithms	3	0	0	3	310 211
312 245	Computer Organization	2	2	0	3	310 211, 312 242
312 302	Electronics I	3	2	0	4	312 201
xxx xxx	University Elective II	3	0	0	3	-
Total		14	4	2	16	



(b) Major Requirements - Non-College courses (18 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
121 131	Physics I	2	2	2	3	-
121 132	Physics II	2	2	2	3	121 131
212 523	Digital Data Communications	3	1*	0	3	214 441
214 441	Signals and Systems	3	1*	0	3	217 204
217 203	Mathematics III	3	0	2	3	300 200
217 204	Mathematics IV	3	0	2	3	217 203

\*Non-credit

(c) Major Electives - College courses (12 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
212 531	Digital Signal Processing	3	1	0	3	214 441
311 321	Computer Graphics	2	2	0	3	311 223
311 336	Software Engineering II	3	0	0	3	311 335
311 453	Parallel Processing	3	0	0	3	311 342
311 471	Artificial Intelligence	2	2	0	3	/0 Credit Hours
311 472	Compiler Theory and Design	3	0	0	3	311 223
311 473	Computer Simulation	2	2	0	3	310 211, /0 Credit Hours
311 475	Expert Systems and Applications	3	0	0	3	311 471
311 478	Fault Tolerant Computing	3	0	0	3	311 342
312 530	Selected Topics in Computer Engineering	3	0	0	3	/0 Credit Hours
312 552	Performance Evaluation of Computer Systems	3	0	0	3	311 342
312 560	Digital Image Processing	3	1	0	3	/0 Credit Hours
312 570	Fuzzy Logic and Neural Networks	3	0	0	3	311 471
314 241	Multimedia Technology	2	2	0	3	/0 Credit Hours
314 370	Wireless Programming	2	2	0	3	60 Credit Hours
314 477	Game Programming	2	2	0	3	60 Credit Hours

Note: Students may register for at most one course not listed above from courses offered by other departments within the College subject to approval of the academic advisor and the head of department.

## COLLEGE REQUIREMENTS

(a) College General Education Requirements (6 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
300 100	Mathematics I /C	3	0	2	3	
300 200	Mathematics II /C	3	0	2	3	300 100

(b) College Specialization Requirements (18 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
310 112	Programming I	2	2	2	3	104 110
310 211	Programming II	2	2	2	3	310 112
311 223	Data Structures and Algorithms	3	0	0	3	310 211
311 335	Software Engineering I	3	0	0	3	310 211
311 381	Computer Networks I	2	2	0	3	104 110 & 60 Credit Hours
311 382	Computer Networks II	3	0	2	3	311 381

## MAJOR REQUIREMENTS

(a) Major Requirements - College Courses (62 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
310 466	Computer Security	3	0	0	3	311 382
311 221	Discrete Structures	3	0	2	3	300 100
311 311	Computational Mathematics	2	2	0	3	300 200
311 332	Database Management Systems	2	2	0	3	310 211
311 342	Computer Architecture	3	0	0	3	312 245
311 442	Design and Analysis of Algorithms	3	0	0	3	311 223
311 451	Operating Systems	3	0	2	3	312 245
312 201	Electric Circuit Analysis	3	1	0	3	121 132
312 242	Digital Logic Design	3	2	0	4	104 110
312 245	Computer Organization	2	2	0	3	310 211, 312 242
312 300	Training		-	-	4	75 Credit Hours
312 302	Electronics I	3	2	0	4	312 201
312 303	Electronics II	2	2	0	3	312 302
312 305	Electronic Meas. and Instrumentation	2	2	0	3	312 302
312 348	Microprocessor Systems	3	2	0	4	312 245
312 415	Integrated Circuit Design	3	0	0	3	312 303
312 441	Embedded Systems	2	2	0	3	312 348
312 531	Project I	1	4	0	3	90 Credit Hours
312 532	Project II	1	4	0	3	312 531
312 545	Computer Ethics	1	0	0	1	70 Credit Hours

## University General Education Requirements

(a) University Required Courses (15 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
101 000	Orientation VCS	1	0	0	0	-
102 110	Islamic Culture	3	0	1	3	-
102 140	Communication Skills in Arabic Language	3	0	0	3	-
103 110	Statistics	2	2	0	3	-
103 130	Research Methodology	3	0	0	3	-
104 110	Computer Applications	2	2	0	3	-

(b) University Elective Courses (9 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
102 120	The Miraculousness of the Holy Koran	3	0	0	3	-
112 110	Principles of Art and Architecture	3	0	0	3	-
112 120	Principles of Interior Design	3	0	0	3	-
112 130	Modern Technology and Society	3	0	0	3	-
113 110	Internet Concepts	3	0	0	3	-
113 120	Introduction to Information System	3	0	0	3	-
114 110	Economic Concepts	3	0	0	3	-
114 120	Entrepreneurship Development	3	0	0	3	-
115 110	History of Science in Islam	3	0	0	3	-
115 120	Scientific Pioneering	3	0	0	3	-
115 130	General Psychology	3	0	0	3	-
115 140	Principle of Mathematics	3	0	0	3	-
115 150	The Art of Expression and Writing	3	0	0	3	-
115 160	Emirates Society	3	0	0	3	-
115 170	Education Technology	3	0	0	3	-
117 110	General Chemistry	3	0	0	3	-
117 140	Energy, Water and Environment	3	0	0	3	-
117 120	Fundamental of Human Nutrition	3	0	0	3	-
117 150	Applications of Remote sensing and GIS.	3	0	0	3	-
117 130	First Aid	3	0	0	3	-
118 110	Principles of Ethics	3	0	0	3	-
118 120	General Biology	3	0	0	3	-
118 130	Oral Health	3	0	0	3	-
118 140	General Principles of Epidemiology	3	0	0	3	-
118 150	CPR-Cardio Pulmonary Resuscitation	3	0	0	3	-
119 110	Communication Skills	3	0	0	3	-
119 120	Introduction to Communication Sociology	3	0	0	3	-
119 130	Information Society	3	0	0	3	-
120 111	Legal Culture	3	0	0	3	-

# Degree Requirements

The BSc degree in Computer Engineering requires the completion of 140 Credit Hours distributed according to the following plan:

Types of Course	Credit Hours
1. University General Education Requirements	
(a) University Required Courses	15
(b) University Elective Courses	9
2. College Requirements	
(a) College General Education Requirements	6
(b) College Specialization Requirements	18
3. Major Requirements	
(a) Major Requirements - College Courses	62
(b) Major Requirements- Non-College Courses	18
(c) Major Electives - College Courses	12
Total Credit Hours	140

# Department of Computer Engineering

The Department of Computer Engineering offers a BSc degree in Computer Engineering. In May 2006 the degree program was re-accredited for a period of five years. In the new study plan the total number of credit hours required by students to graduate has been reduced to 140.

## Bachelor of Science in Computer Engineering

### Mission

The mission of the program is to:

- Produce computer engineers who are able to apply the theories and principles of science and mathematics to the design of hardware, software and networks in emerging IT fields
- Produce computer engineers capable of building prototypes, working both with hardware and software aspects of systems design and development
- Prepare students for professional careers and to pursue advanced studies in computer engineering

### Objectives

The objectives of the Computer Engineering program are to provide its graduates with:

- Knowledge and skills in hardware and software design and implementation
- An understanding of how to implement and manage computer networks
- An ability to communicate effectively both orally and in writing
- Self-learning skills

### Program Outcomes

The program's goals will be achieved through the following program objectives, which are designed to provide students with:

- skills in analysis, design and implementation of logic circuits
- an understanding of the organization and interaction of various parts of a computer system

- the ability to design a software component and implement it using high level programming language
- an understanding of how computers communicate in a network
- skills in implementing client/server based local area networks
- knowledge and hands-on practice in securing LANs using routers and firewalls
- the ability to formulate and explain a solution to a technical problem orally and in writing
- self-learning and research skills

### Admission Requirements

The normal entry requirements for applicants are the UAE secondary certificate (Grade 12), with a minimum overall score of 70 percent (science section) or an equivalent qualification certified by the UAE Ministry of Education. In addition to this applicants must have obtained a minimum score of 70 percent, or grade C, in mathematics and physics.

### Career Opportunities

Graduates will be equipped for a wide range of job opportunities, for example design engineer (computer hardware, software and systems), network administrator, network (systems) engineer, network programmer/analyst and network/information systems manager.

### Graduation Requirements

Students will be awarded the degree of Bachelor in Computer Engineering after the successful completion of 140 credit hours. This includes industrial training in summer sessions that is equivalent to four credit hours. The minimum Cumulative Grade Point Average required for graduation is 2.0. For students transferring credits from other institutions, at least 50 percent of third and fourth year courses must be completed at AUSI.

SEMESTER 5

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
311 319	Introduction to Formal Languages and Automata	3	0	0	3	311 221
311 332	Database Management Systems	2	2	0	3	310 211
311 422	Organization of Programming Languages	3	0	0	3	311 223
311 336	Software Engineering II	3	0	0	3	311 335
311 381	Computer Networks I	2	2	0	3	104 110 & 40 Credit Hours
TOTAL		13	0	4	15	

SEMESTER 6

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
311 342	Computer Architecture	3	0	0	3	312 245
311 442	Design and Analysis of Algorithms	3	0	0	3	311 223
311 463	Database Design and Implementation	2	2	0	3	311 332
311 472	Compiler Theory and Design	3	0	0	3	311 223, 311 319
311 382	Computer Networks II	3	0	2	3	311 381
TOTAL		14	2	2	15	

Summer Session: Industrial training for six weeks (1.5 Credit Hours)

SEMESTER 7

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
311 451	Operating Systems	3	0	2	3	312 245
311 471	Artificial Intelligence	2	2	0	3	60 Credit Hours
311 435	Human Computer Interaction	3	0	0	3	310 211
xxx xxx	Major Elective I	x	x	0	3	xxx xxx
xxx xxx	Major Elective II	x	x	0	3	xxx xxx
TOTAL		x	x	2	15	

SEMESTER 8

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
311 321	Computer Graphics	2	2	0	3	310 211
311 431	Computer Science Project	1	4	0	3	100 Credit Hours
310 314	Computer Ethics	3	0	0	3	45 Credit Hours
xxx xxx	Major Elective III	x	x	0	3	xxx xxx
xxx xxx	Major Elective IV	x	x	0	3	xxx xxx
TOTAL		x	x	0	15	

The minimum number of credit required for Bachelor of Science degree is 123 Credit Hours plus, the student must complete a 12 week training period (3 Credit Hours)

## Proposed Sequence of Study

### SEMESTER 1

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
101 000	Orientation	1	0	0	0	-
102 110	Islamic Culture	3	0	1	3	-
102 140	Communication Skills in Arabic Language	3	0	0	3	-
104 110	Computer Applications	2	2	0	3	-
300 100	Mathematics I /C	3	0	2	3	-
103 130	Research Methodology	3	0	0	3	-
TOTAL		15	2	3	15	

### SEMESTER 2

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
103 110	Statistics	2	2	0	3	-
310 112	Programming I	2	2	2	3	-
300 200	Mathematics II /C	3	0	2	3	300100
311 242	Digital Logic Design	3	0	2	3	104110
xxx xxx	University Elective I	3	0	0	3	-
xxx xxx	University Elective II	3	0	0	3	-
TOTAL		16	4	6	18	

### SEMESTER 3

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
310 211	Programming II	2	2	2	3	310 112
311 221	Discrete Structures	3	0	2	3	300 100, 104 110
400 292	Principles of Accounting I	3	0	0	3	-
400 291	Introduction to Management	3	0	0	3	-
Xxx xxx	University Elective III	3	0	0	3	-
TOTAL		14	2	4	15	

### SEMESTER 4

Course #	Course Title	Lec.	Lab.	Tut.	Credit Hours	Pre-requisite
311 223	Data Structures and Algorithms	3	0	0	3	310 211
311 335	Software Engineering I	3	0	0	3	310 211
311 323	Operational Research	3	0	0	3	103110
312 245	Computer Organization	2	2	0	3	310 211, 312 242
314 241	Multimedia Technology	2	2	0	3	310 112
TOTAL		13	0	4	15	

Summer Session: Industrial training for Six Weeks (1.5 Credit Hours)

(b) Major Requirements - Non-College courses (6 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
400 291	Introduction to Management	3	0	0	3	-
400 292-6	Principles of Accounting I	3	0	0	3	-

(c) Major Electives - College courses (12 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
310 335	Data Mining	3	0	0	3	311 332
310 445	Selected Topics in Programming Languages	2	2	0	3	310 211
310 455	E-Commerce	3	0	0	3	314 231
310 466	Computer Security	3	0	0	3	311 381
311 248	Microprocessor Systems and Design	2	2	0	3	312 245
311 450 2	Selected Topics in Computer Science	2	2	0	3	60 Credit Hours
311 453-6	Parallel Processing	3	0	0	3	310 211
311 473	Computer Simulation	2	2	0	3	310 211, 60 Credit Hours
311 475	Expert Systems and Applications	2	2	0	3	311 471
311 478	Fault Tolerant Computing	3	0	0	3	311 342
314 231	Internet Programming	2	2	0	3	310 112
314 232	Web Development	2	2	0	3	314 231
314 242	Multimedia Authoring	2	2	0	3	314 241
314 370	Wireless Programming	2	2	0	3	310 211
314 477	Game Programming	2	2	0	3	310 211

Note: A student can take one elective course from Computer Engineering, Information Systems, or Multimedia and Web Development curricula.





## COLLEGE REQUIREMENTS

(a) College General Education Requirements (6 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
300 100	Mathematics I /C	3	0	2	3	-
300 200	Mathematics II /C	3	0	2	3	300 100

(b) College Specialization Requirements (18 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
310 112	Programming I	2	2	2	3	-
310 211	Programming II	2	2	2	3	310 112
311 223	Data Structures and Algorithms	3	0	0	3	310 211
311 335	Software Engineering I	3	0	0	3	310 211
311 381	Computer Networks I	2	2	0	3	104 110 & 40 Credit Hours
311 382	Computer Networks II	3	0	2	3	311 381

## MAJOR REQUIREMENTS

(a) Major Requirements -College Courses (60 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
310 314	Computer Ethics	3	0	0	3	45 Credit Hours
311 221-6	Discrete Structures	3	0	2	3	300 100, 104 110
311 242-6	Digital Logic Design	3	0	2	3	104 110
311 300-6	Training (Computer Science)	0	0	0	3	60 Credit Hours
311 319	Introduction to Formal Languages and Automata	3	0	0	3	311 221
311 321	Computer Graphics	2	2	0	3	310 211
311 323	Operational Research	3	0	0	3	103 110
311 332	Database Management Systems	2	2	0	3	310 211
311 336	Software Engineering II	3	0	0	3	311 335
311 342	Computer Architecture	3	0	0	3	312 245
311 422	Organization of Programming Languages	3	0	0	3	311 223
311 431-6	Computer Science Project	1	4	0	3	100 Credit Hours
311 435	Human Computer Interaction	3	0	0	3	310 211
311 442	Design and Analysis of Algorithms	3	0	0	3	311 223
311 451-6	Operating Systems	3	0	2	3	312 245
311 463	Database Design and Implementation	2	2	0	3	311 332
311 471	Artificial Intelligence	2	2	0	3	60 Credit Hours
311 472	Compiler Theory and Design	3	0	0	3	311 223, 311 319
312 245	Computer Organization	2	2	0	3	310 211, 311 242
314 241	Multimedia Technology	2	2	0	3	310 112

# University General Education Requirements

(a) University Required Courses (15 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
101 000	Orientation \CS	1	0	0	0	-
102 110	Islamic Culture	3	0	1	3	-
102 140	Communication Skills in Arabic Language	3	0	0	3	-
103 110-1	Statistics	2	2	0	3	-
103 130	Research Methodology	3	0	0	3	-
104 110	Computer Applications	2	2	0	3	-

(b) University Elective Courses (9 Credit Hours)

Course #	Course Title	Th.	Lab.	Tut.	Credit Hours	Pre-requisite
102 120-1	The Miraculousness of the Holy Koran	3	0	0	3	-
112 110	Principles of Art and Architecture	3	0	0	3	-
112 120	Principles of Interior Design	3	0	0	3	-
112 130	Modern Technology and Society	3	0	0	3	-
113 110	Internet Concepts	3	0	0	3	-
113 120	Introduction to Information Systems	3	0	0	3	-
114 110	Economic Concepts	3	0	0	3	-
114 120	Entrepreneurship Development	3	0	0	3	-
115 110	History of Science in Islam	3	0	0	3	-
115 120	Scientific Pioneering	3	0	0	3	-
115 130	General Psychology	3	0	0	3	-
115 140	Principle of Mathematics	3	0	0	3	-
115 150	The Art of Expression and Writing	3	0	0	3	-
115 160	Emirates Society	3	0	0	3	-
115 170	Education Technology	3	0	0	3	-
117 110	General chemistry	3	0	0	3	-
117 120	Fundamental of Human Nutrition	3	0	0	3	-
117 130	First Aid	3	0	0	3	-
117 140	Energy, Water and Environment	3	0	0	3	-
117 150	Applications of Remote sensing	3	0	0	3	-
118 110	Principles of Ethics	3	0	0	3	-
118 120	General Biology	3	0	0	3	-
118 130	Oral Health	3	0	0	3	-
118 140	General principles of Epidemiology	3	0	0	3	-
118 150	CPR-Cardio Pulmonary Resuscitation	3	0	0	3	-
119 110	Communication Skills	3	0	0	3	-
119 120	Introduction to Communication Sociology	3	0	0	3	-
119 130	Information Society	3	0	0	3	-
120 115	Legal Culture	3	0	0	3	-

**Degree Requirements**

The BSc degree in Computer Science requires the completion of 126 Credit Hours, distributed according to the following plan:

Types of Course	Credit Hours
1. University General Education Requirements	
(a) University Required Courses	15
(b) University Elective Courses	9
2. College Requirements	
(a) College General Education Requirements	6
(b) College Specialization Requirements	18
3. Major Requirements	
(a) Major Requirements - College Courses	60
(b) Major Requirements- Non-College Courses	6
(c) Major Electives - College Courses	12
Total Credit Hours	126

## Department of Computer Science

The Department of Computer Science offers the degree of Bachelor of Science in Computer Science. This is a four year program accredited by the UAE Ministry of Higher Education and requires the completion of 126 credit hours.

## Bachelor of Science in Computer Science

### *Mission*

The mission of the program is to provide high quality education in the field of computer, science that allows graduates to pursue a rewarding career and adapt to evolving technologies in the computing field.

### *Program Educational Objectives*

The program's objectives are to:

- Provide students with current core knowledge of computer science that allows them to investigate and provide solutions to computer science-related problems
- Prepare students for a professional career in computer science and related areas
- Offer a broad and in-depth curriculum that prepare students to pursue graduate studies or engage in life-long learning in computer science and related disciplines

### *Program Outcomes*

The desired outcomes of the program are that students will be equipped with:

- An understanding of the theoretical foundations of computer science
- Analytical and critical thinking ability for problem-solving
- An understanding of the principles of efficient program design techniques and strategies
- The knowledge and skills required to use a variety of system and application software, hardware, computational algorithms, programming languages and human computer interfaces techniques
- The knowledge and skills required to store, retrieve and manipulate

information

- The ability to analyze, design, implement, test and evaluate a computer-based system
- The ability to work both independently and as team members
- The ability to communicate effectively both orally and in writing
- An awareness of the ethical issues affecting computer science and the impact of computers on society
- The ability to pursue research and postgraduate study

### *Admission Requirements*

The normal entry requirement is a UAE secondary certificate (science section), or an equivalent qualification, with a minimum average grade of 60 percent.

### *Career Opportunities*

Computer science graduates of AUST are equipped for a variety of careers and jobs, in particular as: software engineer (analysis, design, testing, evaluation and maintenance of software), applications software programmer, systems software programmer, algorithms designer and analyst, computer science teacher/trainer, manager of an IT department, marketer of computer software and hardware. In addition they are equipped to pursue graduate studies and research.

### *Graduation Requirements*

Students are awarded the degree of Bachelor in Computer Science after completion of 126 credits hours, which normally takes eight semesters. In addition, students must undertake 12 weeks of industrial training in a summer session, which is equivalent to three credit hours. The minimum Cumulative Grade Point Average (CGPA) required for graduation is 2.0.

# College Of Information Technology

Rapid growth in the development of computer hardware, software, information technology and their widespread application in many areas of life have created considerable demand for computer graduates in all specialization. The AUST College of Information Technology has the reputation of offering high quality teaching and training programs which prepare its students for a rewarding career in the dynamic and rapidly-evolving computing industry of today.

## Mission

The mission of the College of Information Technology is to:

- Participate in the overall mission of the university with commitment to high standards of teaching and training
- Provide its graduates with the knowledge, training and skills they need to tackle emerging Information Technology problems
- Break down the barriers between academia and the market
- Prepare students for graduate study in the various disciplines of computing
- Contribute to the development of UAE society and the region in the area of IT

## Degree Programs

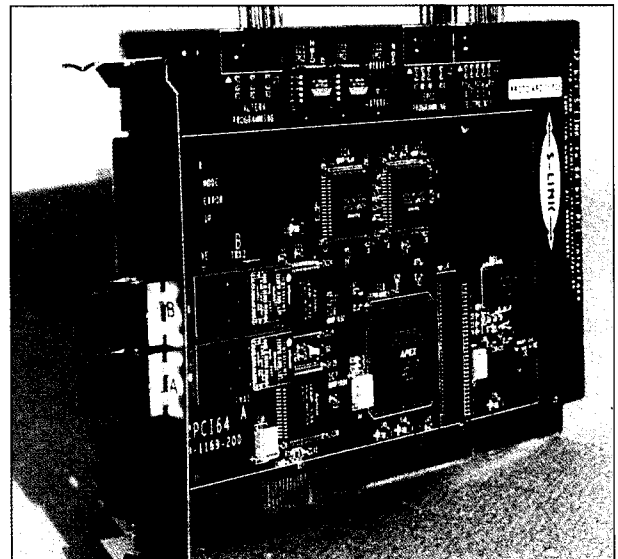
The college offers four bachelor programs which provide the student with an excellent foundation for satisfying his/her career requirements or for future study in addition to a sound theoretical and practical background. In addition, the college offers a masters' program in Information Systems. Currently, all programs are reaccredited by the UAE Ministry of Higher Education and Scientific Research.

The programs offered are:

- 1- Bachelor in Computer Science (4 years)
- 2- Bachelor in Computer Engineering (4 years)
- 3- Bachelor in Information Systems (4 years)
- 4- Bachelor in Multimedia and Web Development (4 years)
- 5- Master in Information Systems

## Facilities

The college is equipped with state-of-the-art computing facilities which are among the best in the region. These facilities are regularly upgraded. All university computers are connected through local and wide area networks (ATM). Multimedia facilities are provided in all university labs. Other facilities include electronics, microprocessor and computer network labs. In addition to WINDOWS 2000 servers, there are dedicated UNIX, SQL and ORACLE servers. All staff and student computers are linked to the Internet. A dedicated Internet lab is also available on each campus of the university. The laboratories as well as the computer equipment provide students with excellent support in their lower and upper level undergraduate courses. The college also maintains a library of computer textbooks which is regularly updated with the latest books in the field for the benefit of both students and college members.



**COLLEGE OF INFORMATION TECHNOLOGY**

achieve his/her financial goals. Financial and personal satisfaction is the result of an organized process referred to as personal money management.

Pre-requisite: 400 396

### **440 715 Islamic Banking (3,0,0,3)**

This course will equip students with a strong background in the banking industry. It describes both the theory and practice of Islamic banking from a financial-management point of view. Focusing on the dynamic and rapidly changing financial services industry, it explores modern financial management decision-making and highlights the importance of adapting to change and creating value as the way for firms to succeed. The following areas will be discussed; introduction to Islamic economy and Islamic banks, Islamic banks financial instruments, strategic and financial management and the measurement of bank performance, management of Islamic banks' investment risk, managing bank financing functions, bank capital (theory, management and regulation), financial innovations, Information technology, and corporate restructuring in the financial services industry.

Pre-requisite: 440 604

### **440 611 Portfolio Management and Theory (3,0,0,3)**

This course is designed to introduce an overview of portfolio management, more specifically securities and security analyses, risk and return, environment analyses, company analyses, bond analyses, options, rights, warrants and convertibles, futures, efficient-market theory, portfolio analyses and selection, capital market theory, managed portfolios and performance measurements.

Pre-requisite: 440 705

### **440 602 Financial Risk and Insurance (3,0,0,3)**

This course assumes a reasonable knowledge of corporate finance and financial markets. It explores the various corporate and financial risks, for examples accounting exposures, transaction exposures and economic exposures. Key issues of measuring and managing these exposures will be covered. The course also explains management techniques with the help of sophisticated financial tools, for example futures, options, swaps, weather and other derivatives. The course covers topics relating to risk management in treasury operations and asset/liability management.

Pre-requisite: 440 501

### **400 420 Money and Financial System (3,0,0,3)**

This course is designed to introduce basic economic and financial concepts related to money, banking and financial systems. It uses basic economic principles to introduce the structure of financial markets, financial institution management, the foreign exchange markets, the internationalization of financial markets and the role of monetary policy in the economy. This course offers students a well-balanced picture of the interactions between money, the financial system and the economy.

Pre-requisite: 400 396

### **410 707 Management of Financial Institutions (3,0,0,3)**

This course offers a detailed coverage of financial institutions and strategies involved in their effective management. The course looks at the modes of operations of different financial institutions and examines the strengths and limitations of each. Problems and issues relating to the management of assets and liabilities in financial institutions are also considered at length in this course. The role of non-bank financial institutions, such as insurance companies and credit unions will also receive attention.

Pre-requisites: 400 396, 400 410

This commercial bank management course will equip students with a strong background in the banking industry. It describes both the theory and practice of commercial banking from a financial-management perspective. Focusing on the dynamic and rapidly changing financial-services industry, it explores modern financial management decision-making and highlights the importance of adapting to change and creating value as the way for firms to succeed. The following areas will be explained and discussed carefully: introduction to bank management, strategic and financial management and the measurement of bank performance, the portfolio risks of banking and their management, managing the bank lending functions, bank capital (theory, management and regulation), deposit insurance, financial innovations, information.

Pre-requisite: 400 396

#### **440 705 Financial Markets (3,0,0,3)**

The aim of this course is to build a strong background in the understanding of financial markets and the different participants in these markets. Topics covered include the determination of interest rates; fixed income, mortgage, foreign exchange, futures, options, and money markets; commercial banks, savings banks, and credit unions; insurance companies, securities firms, finance companies, mutual funds, and pension funds. We will also study financial institution and market regulation, past and present banking crises, management and hedging of risk, central banking and monetary policy.

Pre-requisite: 440 604

#### **440 707 International Finance (3,0,0,3)**

This course is designed to introduce an overview of the environment of global finance, the international dimension of corporate finance, balance of payments and exchange market, the international monetary system, political risk, international cash management, international portfolio diversification, foreign direct investment and international and other developmental international financial issues.

Pre-requisite: 440 501

#### **440 808 Selected Topics in Finance (3,0,0,3)**

Among the topics considered are recent thinking on capital structure, including its evolution this century, (21st century?) and studies of investor reaction to changes in a firm's capitalization. The role of various types of

new securities will be assessed. Islamization in the banking industry will also be studied as a topical issue. We will also look at the market's response to investment announcements, the cost, (under)pricing, and performance of new issues, the role of venture capital and the market's reaction to spin-off, mergers and takeovers. The course will also address recent studies concerned with dividend policy. The shareholder manager conflict can be expected to enter the fray on numerous occasions, along with other key issues of corporate governance.

Pre-requisite: 440 501

#### **440 809 Investments (3,0,0,3)**

This module assumes no prior education in finance. It develops fundamental models of valuation and investment from first principles and applies them to problems of corporate and individual decision-making. Topics covers include the net present value investment criterion, valuation of annuities, perpetuities, bonds and stocks, the basics of the securities markets and capital budgeting decisions. The second half of the course introduces portfolio theory and the tradeoff between risk and return. It presents two asset pricing models, the Capital Asset Pricing Model and the Arbitrage Pricing Theory, and applies them to the calculation of the firm's cost of capital. Students are introduced to the fundamental concepts of finance: the time-value of money, portfolio theory and the determinants of expected security returns.

Pre-requisite: 440 602

#### **440 810 Computer Applications in Finance (2,2,0,3)**

This course will equip students with a good practical background in computer application in finance, focusing on the dynamic and rapidly changing aspects of finance and highlighting the importance of adapting to change. The following areas will be applied using computers: financial ratios analysis, break-even analysis, time-value of money, IRR, measurement of risk and return, credit scoring models, measuring yield and advanced models in finance.

Pre-requisites: 306460, 440 501

#### **440 612 Personal Finance (3,0,0,3)**

This personal finance course assumes the student's desire to maximize financial resources over his/her lifetime. This course will discuss the latest financial planning tools and techniques that will enable an individual to



The course looks at the relationships between the customer, competition and the company. It explores ways for the company to differentiate itself from competition by providing superior value to the customer.

Pre-requisites: 430 602,430 501

### **430 810 Computer Applications in Marketing (2,2,0,3)**

The course represents an attempt to explore the potential of certain computerized software and programs in summarizing, organizing, interpreting and analyzing marketing data, in addition to the use of a host of advanced statistical packages in predicting specific marketing phenomena.

Pre-requisite: 430 809

### **430 612 Electronic Marketing (3,0,0,3)**

The course introduces students to the Internet and Internet marketing, in a sense enabling them to use the Internet to market goods and services worldwide. Towards this end students will learn how to create and publish web pages, develop Web marketing skills, promote and sell products over the World Wide Web.

Pre-requisite: 400 395

### **430 613 Product and Brand Management (3,0,0,3)**

The product (and/or service) plays a central role in the activities of all organizations for it is the medium through which they seek to achieve their objectives and at the same time satisfy their customers. This course is designed to shed light on issues relevant to product and brand management processes. Specifically the course focuses on two major problems: the development and introduction of new products/brands from the idea inception to commercialization, and the marketing of existing brands with emphasis on building, measuring and managing brand equity.

Pre-requisite: 400 395

### **430 714 Retail Marketing (3,0,0,3)**

The course provides an overview of the field of retailing and endeavors to familiarize the student with the basic concepts and issues that are deemed pertinent in today's world of retailing and retail marketing. These include, but are not limited to, the nature and structure of retail industry, the determinants of successful retail marketing strategies and the fundamental principles of sound retail management.

Pre-requisite: 400 395

### **430 715 Selected Topics in Marketing (3,0,0,3)**

This course caters for specific issues, topics and recent developments in marketing thought and practice that are new or controversial in nature and that have not adequately covered or addressed in other marketing courses.

Pre-requisite: 400 395

### **400 516 Supervised Training (3,0,0,3)**

After the completion of 96 credit hours, including seven major core courses. The aim of supervised training is to enable students to practice the learnt theories and concepts in a business organization. Students from any business discipline undergo a training period that is closely monitored by an instructor and the manager/supervisor of the organization to ensure that the student cultivates sound professional attitudes and ethics needed in work places.

### **430 606 Personal Selling (3,0,0,3)**

This course focuses on familiarizing students with the concepts, theory and practice of personal selling. Through emphasis on professional salesmanship the course deals with interpersonal communication and understanding consumer motivation for buying as the foundation to effective selling.

Pre-requisites: 400 395,400 408

### **440 501 Corporate Finance (3,0,0,3)**

This course is designed to introduce an overview of corporate finance, financial statements and long-term financial planning, valuation of future cash flows, capital budgeting, risk and return, cost of capital and long-term financial policy, short term financial planning and management.

Pre-requisite: 400 396

### **440 603 Financial Planning and Control (3,0,0,3)**

This course provides students with a knowledge of financial markets and how they interact with companies, and the role of accounting and financial information. It also covers the concepts upon which preparation and analysis are built upon the following fundamental concepts in quantitative methods: knowledge of the main financial analysis techniques, the influence of financial systems on an organization and the elements of financial planning ensuring financial stability.

Pre-requisite: 400 396

### **440 604 Commercial Banking (3,0,0,3)**

accounting reports are prepared, as well as why. The course places particular emphasis on valuation procedures and alternative accounting treatments of various assets and abilities.

Pre-requisite: 400 394

### **420 501 Intermediate Accounting II (3,0,0,3)**

Like other human activities, accounting is largely a product of its environment. Therefore, accounting objectives are not the same today as they were in the past. To provide managers and other interested parties with useful information, they must know how this information can be generated. "Accountants must act as well as think," therefore it is important for business administration students to understand how accounting reports are prepared, as well as why. The course places particular emphasis on valuation procedures and alternative accounting treatments of various assets and abilities.

Pre-requisite: 420 401

### **420 802 Financial Management and Control (3,0,0,3)**

This course aims to provide with an understanding of financial statements and the analytical tools available for use in properly managing and adding value to an organization. It focuses on analysis of financial and accounting information and its impact on financial decision-making and profit planning. The course uses some basic applications of statistics in analyzing the impact on financial markets and consequently setting up standards in the field of financial planning in order to ensure the financial stability.

Pre-requisites: 420 604, 420 502

### **430 501 Marketing Research (3,0,0,3)**

This course offers a closer review and examination of research techniques applicable to problem-solving and decision-making in marketing and other management fields. The course exposes the students to the complete research process starting with problem formulation and definition of key concepts and analytical techniques, data collection, analysis, interpretation and presentation of findings. Students are required to develop a major marketing research project using appropriate field techniques.

Pre-requisites: 102 211, 103 130

### **430 602 Consumer Behavior (3,0,0,3)**

The course introduces students to the study of consumer behavior. In so doing, the course borrows key concepts and theories from the behavioral sciences and examines their relevance and usefulness in

understanding shopping behavior. Specifically the course traces those forces that shape, constrain and color consumer's buying decisions and their implications for mapping out marketing strategies.

Pre-requisite: 400 395

### **430 603 Advertising and Promotion (3,0,0,3)**

The prime focus of this course is on the communication function of marketing which is known in the marketing literature as the promotional mix, i.e. advertising, public relations, sales promotion and personal selling. As such the course provides an understanding as to how these variables interact in an integrated field.

Pre-requisite: 430 602

### **430 604 Marketing Channels (3,0,0,3)**

The course follows an institutional approach to marketing by concentrating on the main institutions which are involved in making goods and services available for use and consumption. Given such a premise, the course sheds light on these institutions and dwells on their nature, types, history, functions and patterns of development.

Pre-requisite: 400 395

### **430 706 Business-to-Business Marketing (3,0,0,3)**

The focus of this course is on studying and analyzing the unique aspects of marketing goods and services to organizational buyers rather than to ultimate consumers. Towards this end the course constitutes a description and analysis of the institutions and functions of business markets.

Pre-requisite: 400 395

### **430 808 International Marketing (3,0,0,3)**

The interdependence among countries has forced business organizations to practice marketing beyond domestic boundaries. This course addresses this issue and endeavors to expose the students to international marketing and the application of marketing techniques and strategies in a global environment.

Pre-requisite: 400 395

### **430 809 Marketing Management (3,0,0,3)**

This is the capstone course in the marketing major. It is intended to help the students integrate the knowledge he acquired in other marketing courses. As such, it is a managerial decision-making process aimed at matching organizational strengths with market opportunities.

number of topics of a controversial nature in accounting. The course deals specifically with the theoretical basis and recent professional pronouncements related to some problems in financial reporting and disclosure, application and implications of accounting profit, profit-sharing under the Islamic accounting system, accounting for mergers and acquisitions, as well as accounting under inflationary conditions.

Pre-requisite: 420 401

### **420 810 Computerized Accounting Information Systems (2,2,0,3)**

The computerized accounting information system combines the skill sets of two areas experiencing rapid growth and change - accounting and information technology. Electronic commerce, direct-business-to-business communication, paperless work process and many other technology-intensive innovations have created new challenges and opportunities for accountants who also have expertise in information systems. Many traditional accounting functions are now embodied in systems that require a different combination of technical and financial knowledge. The CAIS course is designed to provide the combination of knowledge and skill sets to meet the new challenges and opportunities of the information technology world.

Pre-requisites: 311 102, 420 401

### **420 612 International Accounting (3,0,0,3)**

The global economy is best characterized by a new economic and corporate world in which national boundaries are losing their importance. Multinational and local firms need to be aware of the linkages, ramifications, conditions and demands of the global economy. This course looks at how accounting information that reflects this international reality for both external and internal users can be produced. International accounting takes in all the technical accounting problems in financial accounting, cost accounting, management accounting and auditing that have a bearing on the conduct of foreign operations.

Pre-requisite: 420 401

### **420 613 Islamic Accounting (3,0,0,3)**

It is argued that "What makes accounting an activity concerned with how we should live...(is) giving an account of our past actions and their sequences....That is of ascribing accountability ex. Post facto" (Schwiker 1993, pp. 234-241). Recently, there have been moves towards the Islamization of most, if not all, aspects of life in many countries in the Arab

world and the world at large. Islam possesses its own paradigm of economic relations within the context of an entire economic system based on injunctions and norms derived from the holy Koran and Sunna, called the Sharia's doctrine which constitutes divine of Islam. Over the past decade, growth in Islamic financial institutions has outstripped that of conventional Arab banking. As far as the Arabian Gulf region is concerned, there has been a serious move towards the Islamization of financial dealings. The conceptual framework of accounting, accounting policy, operationalization of terms, financial reporting standardization of accounting practice and profit and loss sharing in Islam on the most controversial issues at the academic and professional levels. This course provides a broad framework of the structure of Islamic accounting thought.

Pre-requisite: 420 401

### **420 714 Oil and Gas Accounting (3,0,0,3)**

Since the early 1970s, oil revenues have transformed the Arabian Gulf region into a modern sophisticated industrialized economy. Crude oil exports, which are the preserve of the Arabian Gulf region, remain the mainstay of economic activity. Oil and gas accounting is concerned with the models and concepts that together form the foundation and practice of financial and cost accounting for oil and gas industry.

What does this course teach?

Pre-requisite: 420 401

### **420 716 Taxation Accounting (3,0,0,3)**

Managers of local and multinational corporations face different tax systems in different countries that require adequate tax planning and knowledgeable people in the field of taxation accounting. Taxation of business does vary from one country to another. Not only are tax rates different, but also opinions differ as to definitions of taxable income and types of taxes to be used.

Pre-requisite: 420 401

### **420 401 Intermediate Accounting I (3,0,0,3)**

Like other human activities, accounting is largely a product of its environment. Therefore, accounting objectives are not the same today as they were in the past. To provide managers and other interested parties with useful information, they must know how this information can be generated. "Accountants must act as well as think," therefore it is important for business administration students to understand how

Auditing is interdisciplinary in its scope and methodology, encompassing accounting theory and applications, legal aspects, managerial issues, environmental factors and computer processing. In its modern sense, an audit is a process whereby the accounts of business entities and managerial performance are subjected to scrutiny to develop an opinion on fairness of financial statements and effectiveness of management. The general concern of auditing could be derived from the famous statement of Confucius: "The aim of the superior man is truth." This course is designed to introduce students to basic concepts and standards. Concentration is mainly on auditing standards, ethics, principles and procedures used by external auditors in conducting financial and managerial audit.

Pre-requisite: 420 401

### **420 603 Cost Accounting (3,0,0,3)**

The relevance of information depends on the decision being made. Decision-making is essentially choosing among several courses of action. Accountants have an important role in the decision-making process, not as decision-makers but as collectors and reporters of relevant information. The accountant's role in decision-making is primarily that of a technical expert on cost analysis, cost control and cost reduction, information that will lead to the best decision on production, marketing, profitability, performance evaluation, transfer pricing and capital budgeting. The study of the basic concepts and practical aspects of cost accounting is the primary concentration of this course.

Pre-requisite: 400 394

### **420 604 Advanced Accounting (3,0,0,3)**

In most business combinations, one company acquires control over the net assets of another. The transfer of control from one group of owners to another affects the economic interests of many people, including the owners, managers, creditors and customers. Although the single proprietorship is the most common form of business in the Arab world, and although the corporate form of organization accounts for the largest volume of business, the partnership form is widely used by smaller business entities in the Arabian Gulf region. The study of partnership and consolidated financial statements is the primary concentration of this course. Fundamentals of fair value and equity accounting methods are reviewed.

Pre-requisite: 420 501

### **420 705 Governmental Accounting (3,0,0,3)**

The ever-growing segment of nation's resources is allocated to non-business activities. (I can't understand this) Such organizations differ from business organizations in a number of ways. Perhaps the most striking difference is that the activities of non-business organizations are not profit seeking to any significant degree. These differences between non-business and business organization are reflected in the distinctive characteristics of the accounting and reporting systems of non-business organizations. This doesn't explain anything about the course.

Pre-requisite: 420 401

### **420 706 Advanced Auditing (3,0,0,3)**

Many accounting students will choose a career in auditing, either in public accounting, private industry or government. These students need to acquire technical expertise and to understand the theoretical concepts underlying current auditing practice. This course is designed to acquaint the student of accounting with the advanced practical aspects of auditing procedures and techniques with reference to the method of their application in commercial, industrial and other profit making organizations, paying particular attention to assessment of risk, concept of internal control and assertions of assets and liabilities.

Pre-requisite: 420 602

### **420 707 Accounting Theory (3,0,0,3)**

Accounting theory is concerned with the models, hypotheses and concepts that together form the foundation for financial accounting practice. This course traces the historical development of accounting to gain an understanding of how we arrived at current practices, together with the social, political and economic influences on accounting standards.

Pre-requisite: 420 604

### **420 809 Topical Issues in Accounting (3,0,0,3)**

Accountants and auditors help to ensure that the nation's firms are run more efficiently, its public records kept more accurately, and its taxes paid properly and on time. They perform these vital functions by offering an increasingly wide array of business and accounting services to their clients. Five major factors are causing change in accounting practice, profession and concepts; (a) increased global competition (b) a trend of mergers and acquisitions (c) advances in technology (d) the Islamization of financial dealings, and (e) a shift from a manufacturing based to a service-based economy. The object of the course is to deal with a

organizational structures and technology, and emerging design options will be extensively examined. The course also looks at the issues of information and control, organizational renewal and learning, technological change and adaptive capacity of organizations. Case studies and actual examples from a range of firms will be used to investigate the application of organization theory to management issues.

Pre-requisite: 400 409

### **410 909 *Selected Topics in Management (3,0,0,3)***

This is an advanced course in management. Its primary aim is to offer a more thorough examination of selected topics. The course instructor will select topics keeping in view students' interests and the availability of teaching material and resources. In general, an attempt will be made to include topics that have received little attention in other management courses, or topics in new areas that are not covered in the prescribed syllabus. The choice of topics is expected to vary from semester to semester.

Pre-requisite: 410 /06

### **410 612 *Management of Small Business (3,0,0,3)***

The course is designed to answer the fundamental question that students and aspiring entrepreneurs often ask: how can I start and manage my own business? With this objective, the course discusses different types of businesses, legal organizations, accounting and financial requirements. Other topics covered in the course include: obtaining capital, controlling inventory, setting prices, staffing, marketing strategies, growth and expansion decisions and strategies.

Pre-requisite: 400 291

### **410 712 *Total Quality Management (3,0,0,3)***

This course offers an introduction to principles and philosophy of Total Quality Management. It draws upon the work of experts such as Edwards Deming, Joseph Juran, Philip Crosby and Genichi Taguchi to develop an understanding of the concepts of quality from the perspectives of customers and product/service organizations. The course also evaluates the criteria used in well-known quality awards (e.g., The Malcolm Baldrige National Quality Award, and ISO 9000, as well as local UAE quality awards), and reviews the performance of selected quality-award winning companies.

Pre-requisite: 410 501

### **410 811, 420 811, 430 811, 440 811 *Graduation Project (3,0,0,3)***

This course takes the form of a dissertation carried out by graduating students in partial fulfillment of BSc in Management, Accounting, Marketing and Finance programs. Students choose an appropriate research project, justify it, work out the research methodology, and analyze, synthesize and evaluate information, then communicate significant knowledge and understanding. The proposed research should be related to the program. An academic advisor is assigned to advise the student at various stages of the research project. This course culminates in the preparation of a dissertation by each student. The course is an integral part of the curriculum, designed to train students to undertake scientific research and bridge the gap between theory and practice in management, accounting, marketing or finance.

Pre-requisite: 102 credit hours

### **400 394 *Principles of Accounting II (3,0,0,3)***

The users of accounting information need complete and comparable information to assess company profitability and financial position. The course provides details on the preparation of financial statements (balance sheet, income statement, and statement of cash flow) as well as the accounting treatments of their components

Pre-requisite: 400 292

### **430 707 *Service Marketing (3,0,0,3)***

The course explores the area of service marketing and identifies the main characteristics that set product and service marketing apart. As such the course represents an extension of the marketing management process beyond its traditional role in the physical products area.

Pre-requisite: 400 395

### **400 513 *Quantitative Analysis. (2,2,0,3)***

The aim of this course is to review basic quantitative methods used in business decision-making. The major focus of the course will be on decision-making under uncertainty and certainty such as linear programming. Some of the specific topics to be covered will include: problem formulation, graphic solutions and different forms of linear programming such as transportation and assignment models, queuing theory, decision analysis, inventory systems and forecasting.

Pre-requisites: 102 211, 110 140

### **420 602 *Auditing (3,0,0,3)***

science to examine how an organization can achieve its objectives most efficiently. It is an application of economic theory and analysis to the managerial decision-making process.

Pre-requisites: 400 410, 400 393

### **400 523 Public Relations (3,0,0,3)**

The course represents a survey of the fundamental principles, tools and practices of the public relations profession in addition to the issues involved in designing and evaluating public relations programs to solve specific internal and external communication problems.

Pre-requisite: 400 408

### **400 524 Feasibility Studies (3,0,0,3)**

Feasibility studies and project evaluation have become increasingly important, since they signal the success of any industrial, tourism or investment project. This course is designed to introduce students to the concepts and process of feasibility studies and project evaluation. It explains how to prepare feasibility studies and project evaluation, and how to benefit from them in the investment decision-making process. Feasibility studies and project evaluation depend on collecting and analyzing marketing, technical, administrative and financial data and information.

Pre-requisites: 400 393, 400 396

### **410 501 Production and Operations Management (3,0,0,3)**

This course is designed to cover the principles of production and operations management as they relate to both manufacturing and service operations. The course will examine the following topics: decision-making process, forecasting, operations strategy, production planning, scheduling, productivity, quality control, and future trends in production and operations management.

Pre-requisites: 103 110, 400 291

### **410 602 Human Resource Management (3,0,0,3)**

The aim of this course is to survey the principles and practices in managing human resources. The course covers a number of basic topics, for example job analysis and job design techniques, human resource policies, human resource acquisition and maintenance strategies, recruitment, selection, development and training, compensation, health and safety issues and policies. The topics of labor relations and collective bargaining also receive careful attention.

Pre-requisite: 400 291

### **410 603 International Business (3,0,0,3)**

This course covers a number of topics of both a general and specific nature. It examines the objectives and motives of international companies (MNCs) for operating internationally, and the strategies they use to achieve global presence. Special attention is given to the following topics: theories of international trade, domestic trade, free trade and protectionism, tariffs, foreign exchange, foreign direct investments (FDI), international financial institutions, international corporate planning and competitive strategies.

Pre-requisites: 400 291, 400 410

### **410 704 Purchasing and Materials Management (3,0,0,3)**

This course offers a survey of the principles and techniques used in purchasing and materials management. It examines the following topics: recognition of materials needs, the acquisition process and the overall supply management issues and policies. Within these broader topics, the course looks at techniques used in materials requirement planning, stock and inventory control, transportation, stores management, quality and quality assurance, JIT and TQM. The course also examines the purchasing and supply management processes and methods used by governments, non-profit and service organizations.

Pre-requisite: 410 501

### **410 706 Strategic Management (3,0,0,3)**

This advanced course focuses on all aspects of the strategic management process, including decision-making, company objectives, strategies, implementation and outcome assessment. The course develops a thorough understanding among students of policy formulation and evaluation with special attention to the capabilities and competencies of a firm. The course also addresses issues relating to resource analysis and allocation techniques, and the management of strategic change.

Pre-requisites: 400 291, 400 409

### **410 808 Organizational Theory and Design (3,0,0,3)**

The primary aim of this course is to expose students to the evolution of organization theory, and the contribution of different schools of thought to the development of classical and contemporary theoretical perspectives. The topics of bureaucracy, power and politics,

### **400 409 Organizational Behavior (3,0,0,3)**

This course surveys the background and development of organizational behavior, and examines major conceptual models in the field. A number of topics are explored in detail, including personality, perception, motivation, groups and teams, communication, leadership, conflict and negotiation, and organizational sources of stress and coping strategies. Issues relating to organizational change and development are given special attention.

Pre-requisite: 400 291

### **400 411 Business Law (3,0,0,3)**

The aim of this course is to review basic legal principles and sources of contract law, background of law and legal theory. The following topics are covered in detail: formation of contracts, modifications, terminations, remedies, award law, pricing, patent, business organizations, company law, sales of goods, transfer of ownership rights, employment and health and safety laws.

Pre-requisite: 400 291

### **400 410 Macroeconomics (3,0,0,3)**

This course is designed to introduce basic economic concepts related to aggregate economic relationships such as output and income, national income accounting, aggregate supply and aggregate demand, unemployment, inflation, economic growth and development, money and banking, and the international economy. The course emphasizes the main components of aggregate expenditure and determination of equilibrium level of income, in addition to the analysis of the effects of fiscal and monetary policies on the economy. It extends understanding of the ability of governments to influence economic performance.

Pre-requisite: 400 393

### **400 512 Economic Development of GCC (3,0,0,3)**

This course is designed to introduce the concepts, measurements and theories of broad-based sustainable development, as well as the relationships between economic development, human development and environment. Students will also become familiar with several theories of development, and the characteristics and the quality of life in GCC countries will be investigated and compared to those of other countries. The focus would be on the causes, problems and challenges associated with the development of GCC countries, such as population structure and localization policies, the feasibility of GCC states integration

and the impact of oil and non-oil production on development.

Pre-requisite: 400 393

### **420 502 Managerial Accounting (3,0,0,3)**

Managers in every organization are better equipped to perform their duties when they have a reasonable grasp of accounting data. Decision-making which is "the choice of alternative courses of action" is the core of the management process, that depends ultimately on useful accounting information. This type of information will be provided through management accounting, which refers to accounting information developed for managers within an organization. The course is designed primarily for students who have studied basic accounting for two semesters. Emphasis is placed on accounting as a tool for planning and control.

Pre-requisite: 420 603

### **400 615 Management Information Systems (3,0,0,3)**

This course provides an overview of computers and information processing. It covers the following topics in detail: management information system concepts, information processing applications, data handling process, data processing and automation, fundamentals of any system and system design, and development and implementation.

Pre-requisites: 400 291, 306460

### **400 419 Business Ethics (3,0,0,3)**

The aim of this course is to provide comprehensive and systematic coverage of a wide range of ethical issues in all functional areas of business. Using cases, vignettes and discussion points, the course will examine the ethical problems involved in real-life business situations. Some of the major topics to be covered include: ethical theory and business practice, corporate social responsibility, rights and obligations of employees and employers, ethical issues in international business, and social and economic justice.

Pre-requisite: 400 291

### **400 522 Managerial Economics (3,0,0,3)**

This course is designed to acquaint students of business administration with the economics of managerial decision-making, paying special attention to the criteria for rational decision making in private business, non-profit institutions and public agencies. The course emphasizes the application of economic theory and the tools of decision

# Course Descriptions

## **400 291 *Introduction to Management (3,0,0,3)***

This introductory course provides an overview of the field of management. The topics covered are designed around the key functions of management: planning, organizing, leading, and controlling. Students are exposed to the development of management theories and approaches, managerial decision-making, business environment, business ethics and social responsibility.

## **400 292 *Principles of Accounting I (3,0,0,3)***

Accounting is something that affects people in their personal lives just as much as it affects very large businesses. Financial accounting is concerned with the provision of accounting information to owners, investors and other external users. The term accounting may refer to different activities, for example collecting, recording, processing and communicating economic data to produce useful accounting information. This course is a fundamental study of the principles and procedures of accounting as applied to sole proprietorships, partnerships and corporations.

## **400 393 *Microeconomics (3,0,0,3)***

This course is designed to introduce basic economic concepts related to individual decision-makers in the economy - households, businesses and governments - and how they interact. Meaning, nature and methods of economic study are introduced. Supply, demand and elasticity are used to analyze consumer and firm behaviors in different types of markets. The rationale for various public policies designed to modify the workings of markets will be examined.

## **400 294 *Intermediate Accounting (3,0,0,3)***

Like other human activities, accounting is largely a product of its environment. Therefore accounting objectives are not the same today as they were in the past. To provide managers and other interested parties with useful information, accountants must know how this information can be generated. "Accountants must act as well as think," therefore we believe it is important for business administration students to understand how accounting reports are prepared, as well as why. The course places particular emphasis on valuation procedures and alternative accounting treatments of various assets and liabilities.

## **400 395 *Principles of Marketing (3,0,0,3)***

The course is an introductory one. It sheds light on the basic concepts of marketing, its varied definitions, origins and evolution through time. It also covers the main components of the marketing program (product, price, place and promotion) on which any attempts to plan marketing efforts rest.

Pre-requisite: 400 291

## **400 396 *Fundamentals of Finance (3,0,0,3)***

This introductory course discusses in detail basic terms commonly used in finance. Topics covered include financial analysis and planning, working capital management, the capital budgeting process and long term financing.

Pre-requisite: 400 292

## **400 307 *Business Research Methods (3,0,0,3)***

This course provides an introduction to research methods in social sciences in general and business administration in particular. The primary aim of the course is to equip students with the essential research techniques they would use in advanced specialized courses such as marketing research, feasibility studies and project planning, and the graduation project. The course will cover a range of topics including, in particular, research designs, sampling theory, data collection tools, questionnaire development and program evaluation methodology. The course will also cover basic data analysis methods involving both exploratory and hypothesis testing statistical techniques.

Pre-requisites: 102 211, 400 291

## **400 408 *Business Communications (3,0,0,3)***

The course aims to equip students with effective business communication skills, providing thorough practice in writing business letters, memos, reports, resumes and job applications. In addition to developing written communication, the course teaches verbal communication skills, for example public speaking, interviewing and other forms of communication. The entire teaching process is focused on building effective communication skills.

Pre-requisite: 400 291



College councils may give provisional admission in some cases (for example, to a candidate who does not fully satisfy the admission conditions). In this case the candidate must register for three courses set out by the FBA graduate studies (What does this mean?) and have achieved a CGPA of at least 3.0 at the end of the semester, otherwise his/her admission will be cancelled. Students who are accepted according to special conditions sign an undertaking saying that the AUST is not responsible for the transfer of students to any other university or institution, or for approving any admission requirement.

### **Transfer from other Institutions**

Students wishing to transfer to AUS should apply to the Admission and Registration Dearship. The admission committee will then make a decision based on the following conditions:

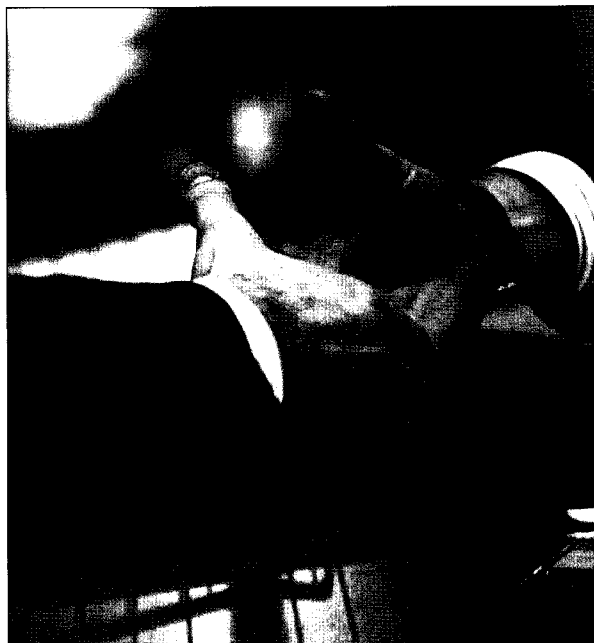
1. The university and the College of Business Administration must be satisfied with the admission and application procedures of the applicant
2. The UAF Ministry of Higher Education and Scientific Research must accredit the university of origin
3. The UAF Ministry of Higher Education and Scientific Research must accredit the specialization at the university of origin
4. Only students with a minimum grade of "B" for each course can be transferred
5. 50 percent of the core courses, and courses from the tracks of Human Resources, Marketing or Finance must be completed at AUST
6. In order to obtain the MBA degree from the AUST, the student must satisfy the rules and regulations of the university

### **Attendance Policy**

Students are expected to attend and fully participate in all classes. 75 percent attendance will be required in each subject registered, or the student will be given "I" or an incomplete status in the official grade form and must repeat that particular course. If the student's absence reaches ten percent of the total scheduled lectures in individual subjects, he/she will be issued a first probation. If a student's absence record reaches 20 percent, s/he will be given a second probation, and if the student's absence reaches 25 percent, he/she will receive an "F" grade.

A student will be awarded the degree of Master of Business Administration upon meeting the following requirements:

1. Completion of the MBA courses of 36 credit hours (12 courses of 3 credit hours each)
2. Achievement of a GPA of not less than 3.0 points (grade "B")
3. If the student's GPA is less than 3.0 after the second semester, he/she will be placed on probation. If the student does not improve their CGPA to 3.0 in the following semester, he/she will be placed on a second probation. If the GPA does not improve to 3.0 in the following semester the student's registration will be terminated
4. The study time for the MBA program is two years or four semesters. A can register for a maximum of four years or eight semesters if the GPA falls below 3.0, otherwise the student will be subjected to the university's rules and regulations
5. Upon successful completion of the stated 36 credit hours, and with a final GPA of not less than 3.0, the student will be awarded an MBA degree



	Management (3 credits)	Pre-requisite: FIN 532
d) FIN 536	International Finance (3 credits)	Pre-requisite: FIN 532
e) FIN 537	Project Finance (3 credits)	Pre-requisite: FIN 533

### ***Human Resource Management***

The courses in this track provide students with knowledge and skills relating to all aspects of Human Resource Management. A strategic perspective of the Human Resource Management area is highlighted. This track has the following courses.

a)HRM 551	Entrepreneurship Development (3 credits)	Pre-requisite: HRM 550
b ) HRM 552	Management of Change (3 credits)	Pre-requisite: HRM 505
c ) HRM 553	Training and Development of Human Resources (3 credits)	Pre-requisite: HRM 550
d ) HRM 554	Cross-Cultural Human Resource Management (3 credits)	Pre-requisite: HRM 550
e) HRM 555	Organization Development (3 credits)	Pre-requisite: HRM 550

### ***Capstone Course***

MBA 580 Strategic Management (3 credits) Pre-requisites: HRM 552, HRM 554 or FIN 533, FIN 535 or MKT 542, MKT 544.

### ***Learning Resources***

Students access to all the learning resources of by the AUST — the library, computer labs, the European Case Clearing Center's data bank, study areas, the Internet and web platforms, online international business game competitions with students of other eminent institutions, databases for academic journals and resources of collaborating institutions .

The MBA courses ensure an optimum classroom learning environment to achieve the program's objectives. Knowledge, comprehension, application, analysis, synthesis and evaluation are given great importance in the design and delivery of courses. Compared to traditional learning approaches, the systems of instruction employed on the MBA program provide a new learning approach that is student-centered and involves discussions,

participation, shared responsibility for learning, co operation, case analysis, examinations and expert role responsibilities. The use of technology, simulation and the synthesis of expert knowledge applicable to real business organizations in the new economic environment, will be key focus points designed to enhance and ensure the program's academic quality.

The need for professional skills development is a pressing one in GCC countries, but the development of these skills is challenging due to the variety of linguistic, academic and cultural backgrounds with which students enter business schools in GCC countries. In its drive to facilitate skills development the MBA program uses effective Western management concepts and techniques, within the GCC context, to facilitate the learning process.

### ***Admission Policy***

Candidates seeking admission to the MBA program must satisfy the following conditions:

- A bachelor's degree earned in a business discipline from an accredited institution, with a minimum GPA of B
- Holders of a bachelor's degree earned in a non-business discipline from an accredited institution with a minimum GPA of B will be eligible to continue with the MBA program if a GPA of B in the foundation courses is achieved
- A minimum of two years of work experience in a related field, preferably in administration (this is not a compulsory requirement)
- Completion of an MBA application form
- Interview with the MBA Admissions Committee
- Official TOEFL certificate showing a score of 550 or above, or its equivalent (e.g. IELTS)

### ***Admission Validity***

Once an applicant has met all admission requirements and been accepted, he/she may register for the MBA program. Admission to the university remains valid for a full semester. If the applicant fails to register, s/he may have the right to postpone his/her registration for no more than two successive semesters, provided that he/she submits an application expressing the intention to postpone registration. This application must be received before the expiry date of the admission period.

### ***Admission on Probation***

# Master of Business Administration (MBA)

The complex emerging business dynamics of the GCC region require organizations to be managed professionally in order to survive and grow. The AUST College of Business Administration has responded to the current business scenario by developing an MBA program that meets the needs of a range of organizations. Basing its course offerings on an international survey exercise which focused on a cross-section of organizations in GCC countries the AUST program is of strategic relevance, and is designed to meet the needs of the GCC labour market today.

## Distinguishing Features

The AUST MBA program seeks to satisfy the quality assurance standards set by world-class business programs accreditation organizations such as AACSB, US, and the Association of MBAs, UK. The program is designed to:

- Develop students' critical thinking skills thus enabling them, for example, to discern weaknesses in the arguments of others, to see beyond consultants' glossy presentations, and to ask searching questions in meetings
- Develop in students cutting edge knowledge and understanding across a broad range of vital business and management subjects including entrepreneurship, strategy, marketing, accounting and finance, human resources, international business, operations and quality, cross cultural and organizational development
- Prepare students for careers in management, consultancy and new business start-ups and development. The flexible program design enables students to choose a portfolio of electives to match their preferred career route, thus keeping their options open.
- Enhance the students' ability to translate theory into practice in order to be confident and purposeful when faced with complex problems
- Have an international orientation
- Promote team work in the analysis of case studies
- deliver courses using state-of-the-art technology
- offer study visits within the Arabian Gulf region in collaboration with business schools to provide students with international business exposure

## Curriculum

### *Core Courses* (21 Credits)

The compulsory courses provide a thorough grounding for the MBA program. They provide essential knowledge and skills in areas which may be entirely new, or act as a welcome refresher.

- a) FIN 531 Financial and Management Accounting (3 credits)
- b) MKT 540 Marketing Management (3 credits)
- c) MBA 503 Operations Management (3 credits)
- d) HRM 550 Human Resource Management (3 credits)
- e) FIN 532 Financial Planning and Control (3 credits)
- f) MBA 504 Business Research Methods (3credits)
- g) MBA 505 International Business (3 credits)

### *Track Options* (12 Credits)

#### *Marketing*

The courses in this track offer knowledge of marketing and also help develop a wide array of practical skills in the area of marketing management. This track has the following courses.

- a) MKT 541 Services Marketing (3 credits) Pre-requisite: MKT 540
- b) MKT 542 InternationalMarketing (3 credits) Pre-requisite: MKT 540
- c) MKT 544 Marketing Strategy (3 credits) Pre-requisite: MKT 540
- d) MKT 545 Retail Management (3 credits) Pre-requisite: MKT 540
- e) MKT 547 Promotional Strategy and Management (3 credits) Pre-requisite: MKT 540

#### *Financial Management*

The courses in this track provide students with knowledge of concepts, techniques and theories of financial management. The courses aim to teach students how to apply the theoretical knowledge of finance in business effectively and ethically. This track has the following courses.

- a) FIN 533 Corporate Finance and Policy (3credits) Pre-requisite: FIN 532
- b) FIN 534 Islamic Finance (3 credits) Pre-requisite: FIN 533
- c) FIN 535 Working Capital

# SEMESTER 5

Course Title	Course #	Credit Hours	Lec.	Tut /Lab	Pre-requisite 1	Pre-requisite 2
Database Management Systems	306 460	3	2	2	311 102	
Quantitative Analysis	400 513	3	3	0	102 211	110 140
Commercial Banking	440 604	3	3	0	400 396	
Financial Planning and Control	440 603	3	3	0	400 396	
Business Communications	400 408	3	3	0	400 291	
College Elective - 1		3	3	0		

# SEMESTER 6

Course Title	Course #	Credit Hours	Lec.	Tut /Lab	Pre-requisite 1	Pre-requisite 2
International Finance	440 707	3	3	0	440 501	
College Elective - 2		3	3	0		
Selected Topics in Finance	440 808	3	3	0	440 501	
Financial Risk and Insurance	440 602	3	3	0	440 501	
Management Information Systems	400 615	3	3	0	400 291	306 460
Department Elective - 1		3	3	0		

# SEMESTER 7

Course Title	Course #	Credit Hours	Lec.	Tut /Lab	Pre-requisite 1	Pre-requisite 2
Investments	440 809	3	3	0	440 602	
Financial Markets	440 705	3	3	0	400 396	440 604
Supervised Training	400 616	3	3	0		
Computer Applications in Finance	440 810	3		2	306 460	440 501

# SEMESTER 8

Course Title	Course #	Credit Hours	Lec.	Tut /Lab	Pre-requisite 1	Pre-requisite 2
Department Elective - 2		3	3	0		
Portfolio Management and Theory	440 611	3	3	0	440 705	
College Elective - 3		3	3	0		
Graduation Project	440 811	3	3	0	102 hrs	

## Proposed Sequence of Study

### SEMESTER 1

Course Title	Course #	Credit Hours	Lec.	Tut /Lab	Pre-requisite 1	Pre-requisite 2
Islamic Culture Islamic Culture	102 110	3	3	1		
Communication Skills in Arabic Language	102 140	3	3	0		
Research Methodology	103 130	3	3	0		
Statistics	103 110	3	2	2		
University Elective - 1		3	3	0		
Orientation/Academic Advising	111 000	0	1	0		

### SEMESTER 2

Course Title	Course #	Credit Hours	Lec.	Tut /Lab	Pre-requisite 1	Pre-requisite 2
Introduction to Management	400 291	3	3	0		
Principles of Accounting I	400 292	3	3	0		
University Elective - 2		3	3	0		
Statistics for Business	102 211	3	3	0	103 110	
Computer Applications	104 110	3	2	2		

### SEMESTER 3

Course Title	Course #	Credit Hours	Lec.	Tut /Lab	Pre-requisite 1	Pre-requisite 2
Principles of Accounting II	400 394	3	3	0	400 292	
PC Application	311 102	3	0	4	104 110	
Fundamentals of Finance	400 396	3	3	0	400 292	
Principles of Marketing	400 395	3	3	0	400 291	
University Elective - 3		3	3	0		
Microeconomics	400 393	3	3	0		

### SEMESTER 4

Course Title	Course #	Credit Hours	Lec.	Tut /Lab	Pre-requisite 1	Pre-requisite 2
IT in Business	310 202	3	2	2	311 102	
Corporate Finance	440 501	3	3	0	400 396	
Organizational Behavior	400 409	3	3	0	400 291	
Macroeconomics	400 410	3	3	0	400 393	
Business Law	400 411	3	3	0	400 291	
Math For Management	110 140	3	3	2		

## Departmental Requirements

### a) Compulsory Courses (33 Credit hrs)

Course Title	Course #	Credit Hours	Pre-requisite
1. Corporate Finance	440 501	3	400 396
2. Financial Risk and Insurance	440 602	3	440 501
3. Financial Planning and Control	440 603	3	400 396
4. Commercial Banking	440 604	3	400 396
5. Financial Markets	440 705	3	400 396, 440 604
6. International Finance	440 707	3	440 501
7. Selected Topics in Finance	440 808	3	440 501
8. Investments	440 809	3	440 604
9. Computer Application in Finance	440 810	3	306 460, 440 501
10. Graduation Project	440 811	3	Completion of 102 Credit Hours
11. Portfolio Management and Theory	440 611	3	440 705

### b. Elective Courses (6 Credit Hours)

Course Title	Course #	Credit Hours	Pre-requisite
1. Personal Finance	440 612	3	400 396
2. Intermediate Accounting 1	420 401	3	400 394
3. Islamic Banking	440 715	3	440 604
4. Management of Financial Institutions	410 707	3	400 396, 400 410
5. Money and Financial Systems	400 420	3	400 396

## College Requirements

### a. Compulsory Courses (54 Credit Hours)

Course Title	Course #	Credit Hours	Pre-requisite
1. Statistics for Business	102 211	3	103 110
2. PC Application	311 102	3	104 110
3. Principles of Accounting 1	400 292	3	-----
4. Quantitative Analysis	400 513	3	102 211
5. Principles of Accounting 2	400 394	3	400 292
6. Fundamentals of Finance	400 396	3	400 392
7. Introduction to Management	400 291	3	-----
8. Microeconomics	400 393	3	-----
9. Business Communication	400 408	3	400 291
10. Principles of Marketing	400 395	3	400 291
11. Business Law	400 411	3	400 291
12. MIS	400 615	3	400 291, 306 460
13. Organizational Behavior	400 409	3	400 291
14. Macroeconomics	400 410	3	400 393
15. Data Base Management Systems	306 460	3	311 102
16. Math for Management	110 140	3	
17. IT in Business	310 202	3	311 102
18. Supervised Training	400 516	3	Earning 96 hours including seven finance core courses

### b. Elective Courses (9 Credit Hours)

Course Title	Course #	Credit Hours	Pre-requisite
1. EDGCC	400 512	3	400 393
2. Business Research Methods	400 513	3	102 211
3. Managerial Economics	400 522	3	400 393, 400 410
4. Public Relations	400 523	3	400 408
5. Feasibility Studies	400 524	3	400 393, 400 395 or 400 396
6. Business Ethics	400 419	3	400 291

## University Requirements

### a. Compulsory Courses (15 Credit hours)

Course Title	Course #	Credit Hours
1.Orientation	111 000	0
2. Statistics	103 110	3
3. Islamic Culture	102 110	3
4. Computer Applications	104 110	3
5. Research Methodology	103 130	3
6. Communication Skills (in Arabic Language)	102 140	3
Total		15

### b. University Electives (9 Credit hours)

Course #	Course Title	Credit Hours
115 140	Principles of Mathematics	3
115 130	General Psychology	3
115 110	History of Science in Islam	3
115 120	Scientific Pioneering	3
115 150	Art of Writing and Expressing	3
115 160	UAE Society	3
112 110	Principles of Art and Architecture	3
112 120	Principles of Interior Design	3
112 130	Modern Technology and Society	3
113 110	Internet Concepts	3
113 120	Introduction to Information System	3
114 110	Economic Concepts	3
114 120	Entrepreneurship Development	3
118 120	General Biology	3
118 150	CPR Cardio Pulmonary Resuscitation	3
117 110	General Chemistry	3
117 120	Fundamental of Human Nutrition	3
117 130	First Aid	3
117 140	Energy, Water and Environment	3
117 150	Applications of Remote Sensing and GIS	3
119 120	Introduction to Communication Sociology	3
119 130	Information Society	3
120 111	Legal Culture	3



Degree Requirements

The BSc in Finance requires the completion of 126 credit hours distributed according to the following plan:

Types of Course	Credit Hours
1. University General Education Requirements	
(a) University Required Courses	15
(b) University Elective Courses	9
2. College Requirements	
(a) College Required Courses	54
(b) College Elective Courses	9
3. Major Requirements	
(a) Major Required Courses	33
(b) Major Electives Courses	6
Total Credit Hours	126

# Department of Finance

The BSc in Finance program is designed to develop students' technical and critical thinking and to provide them with an in-depth understanding of financial theory, analytical instruments, and dynamics of financial markets. The program prepares students for careers in finance in public, private, as well as non-profit organizations.

## Bachelor of Science in Finance

### *Mission*

The mission of the finance program is to provide an educational experience that develops our student's financial, technical, and critical thinking, communication skills, the ability to integrate both quantitative and qualitative factors into business and finance decisions, and to create and disseminate knowledge of concerning value management in each of these fields.

### *Goals*

The goals of the program are to:

- Deliver to students the functional aspects of all areas of finance
- Enable students to adapt to the changing environment of finance in the real world situation
- Build rational skills based on critical thinking, reasoning and communication
- Enable students to further their studies in postgraduate and professional programs

### *Objectives*

The objectives of the program are to enable students to:

- Gain an in-depth knowledge of the principles of finance
- Integrate knowledge of the various areas of finance to solve business and finance problems.
- Develop a broader understanding of the functions of finance to facilitate effective decision-making processes
- understand the principles of efficient financial management abilities and strategies
- Understand how changes in the business environment impact the various areas of finance
- Analyze and research problems in a business from the financial point of view
- Analyze current and emerging issues in finance
- Use financial analytical tools to evaluate financial markets behavior

- Be able to make financial projections for corporations, projects and financial institutions
- Demonstrate the proficiency in oral and written communication needed to make ethical and professional judgments in the financial world
- Demonstrate the theories and models of finance in the real world situation
- Develop the ability to prepare case studies and research projects

### *Admission Requirements*

The normal entry requirement for an applicant is the UAE secondary certificate (both sections), or an equivalent qualification, with a minimum average grade of 60 percent, & TOEFL certificate with a minimum score of 500.

### *Career Opportunities*

The degree in finance rightly qualifies graduates for the various corporate, financial, management positions such as Financial Analysis, Capital Budgeting, Cash or Risk Management, Portfolio Management, Analysts, Bank Management positions, (e.g. Lending Officers, Marketing Officers), or as entrepreneurs operating their own business.

### *Graduation Requirements*

Students will be awarded the Bachelor in Finance degree upon fulfillment of the following requirements:

- Successful completion of 126 credit hours, which normally takes eight semesters.
- 12 weeks of industrial internship (after the completion of 96 credit hours including seven finance core courses), which is equivalent to three credit hours.
- A minimum Cumulative Grade Point Average of 2.0.

# SEMESTER 5

Course Title	Course #	Credit Hours	Lec.	Tut /Lab	Pre-requisite 1	Pre-requisite 2
Database Management Systems	306 460	3	2	2	311 102	
Quantitative Analysis	400 513	3	3	0	102 211	110 140
Consumer Behavior	430 602	3	3	0	400 395	
Personal Selling	430 606	3	3	0	400 395	400 408
University Elective - 3			3	0		
College Elective - 2						

# SEMESTER 6

Course Title	Course #	Credit Hours	Lec.	Tut /Lab	Pre-requisite 1	Pre-requisite 2
Business-to-Business Marketing	430 706	3	3	0	400 395	
Services Marketing	430 707	3	3	0	400 395	
Marketing Research	430 501	3	3	0	102 211	103 130
Advertising and Promotion	430 603	3	3	0	430 602	
College Elective - 3	000 000	3	3	0		
Organizational Behavior	400 409	3			400 291	

# SEMESTER 7

Course Title	Course #	Credit Hours	Lec.	Tut /Lab	Pre-requisite 1	Pre-requisite 2
Department Elective - 1		3	3	0		
Management Information Systems	400 615	3	3	0	400 291	306 460
Supervised Training	400 516	3	3	0		
Marketing Management	430 809	3	3	0	430 602	430 501

# SEMESTER 8

Course Title	Course #	Credit Hours	Lec.	Tut /Lab	Pre-requisite 1	Pre-requisite 2
Graduation Project	430 811	3	3	0	102 hrs	
Department Elective - 2		3	3	0		
International Marketing	430 808	3	3	0	400 395	
Computer Applications in Marketing	430 810	3	2	2	430 809	

## Proposed Sequence of Study

### SEMESTER 1

Course Title	Course #	Credit Hours	Lec.	Tut /Lab	Pre-requisite 1	Pre-requisite 2
Statistics	103 110	3	2	2		
Islamic Culture	102 110	3	3	1		
Communication Skills in Arabic Language	102 140	3	3	0		
Research Methodology	103 130	3	3	2		
University Elective - 1		3	3	0		
Orientation/Academic Advising	111 000	0	1	0		

### SEMESTER 2

Course Title	Course #	Credit Hours	Lec.	Tut /Lab	Pre-requisite 1	Pre-requisite 2
Introduction to Management	400 291	3	3	0		
Principles of Accounting I	400 292	3	3	0		
Statistics for Business	102 211	3	3	0	103 110	
Math For Management	110 140	3	3	2		
Computer Applications	104 110	3	2	2		

### SEMESTER 3

Course Title	Course #	Credit Hours	Lec.	Tut /Lab	Pre-requisite 1	Pre-requisite 2
Microeconomics	400 393	3	3	0		
Principles of Accounting II	400 394	3	3	0	400 292	
PC Application\Management	311 102	3	0	4	104 110	
Principles of Marketing	400 395	3	3	0	400 291	
University Elective - 2		3	3	0		
Fundamentals of Finance	400 396	3	3	0	400 292	

### SEMESTER 4

Course Title	Course #	Credit Hours	Lec.	Tut /Lab	Pre-requisite 1	Pre-requisite 2
IT in Business	310 202	3	2	2	311 102	
Business Communications	400 408	3	3	0	400 291	
Macroeconomics	400 410	3	3	0	400 393	
Business Law	400 411	3	3	0	400 291	
College Elective - 1		3	3	0		
Marketing Channels	420 604	3	3	0	400 395	

## Major Requirements (39 Credit Hours)

### a. Compulsory Courses (33 Credit Hours)

Course #	Course Title	Pre-requisite	Credit Hours
430 501	Marketing Research	102 211, 103 130	3
430 602	Consumer Behavior	400 395	3
430 603	Advertising and Promotion	430 602	3
430 604	Marketing Channels	400 395	3
430 606	Personal Selling	400 395, 400 408	3
430 706	Business to Business Marketing	400 395	3
430 707	Service Marketing	400 395	3
430 808	International Marketing	400 395	3
430 809	Marketing Management	430 602, 430 501	3
430 810	Computer Application in Marketing	430 809	3
430 811	Graduation Project/Marketing	Completion of 102 credit hours	3

### b. Major Elective Courses (6 Credit hours)

Course #	Course Title	Pre-requisite	Credit Hours
430 612	E Marketing	400 395	3
430 613	Product and Brand Management	400 395	3
410 704	Purchasing and Material Management	400 291, 400 395	3
430 /14	Retail Marketing	400 395	3
430 /15	Selected Topics in Marketing	400 395	3

## COLLEGE REQUIREMENTS (63 Credit Hours)

### a. Compulsory Courses (54 Credit Hours)

Course #	Course Title	Pre-requisite	Credit Hours
110 140	Math for Management		3
102 211	Statistics for Business	103 110	3
311 102	PC Applications	104 110	3
400 292	Principles of Accounting I		3
400 513	Quantitative Analysis	102 211, 110 140	3
400 394	Principles of Accounting II	400 292	3
400 396	Fundamentals of Finance	400 292	3
400 291	Introduction to Management	-	3
400 393	Microeconomics	-	3
400 408	Business Communication	400 291	3
400 395	Principles of Marketing	400 291	3
400 411	Business Law	400 291	3
400 615	Management Information Systems	400 291, 306 460	3
400 409	Organization Behavior	400 291	3
400 410	Macroeconomics	400 393	3
306460	Data Base Management Systems	311 102	3
400 516	Supervised Training	96 Hours including 7 Marketing core courses	3
310 202	IT in Business	311 102	3

### b. College Elective Courses (9 Credit hours)

Course #	Course Title	Pre-requisite	Credit Hours
400 512	EDGCC	400 410	3
400 307	Business Research Methods	400 291, 102 211	3
400 522	Managerial Economics	400 410	3
400 523	Public Relations	400 408	3
400 524	Feasibility Studies	400 393, 400 396	3
400 419	Business Ethics	400 291	3

## University Requirements (24 Credit Hours)

### a. University Compulsory (15 Credit Hours)

Course #	Course Title	Pre-requisite	Credit Hours
111 000	Orientation		0
102 110	Islamic Culture		3
102 140	Communication Skills in Arabic		3
104 110	Computer Applications		3
103 110	Statistics		3
103 130	Research Methodology		3

### b. University Electives (9 Credit hours)

Course #	Course Title	Pre-requisite	Credit Hours
115 140	Principles of Mathematics		3
115 130	General Psychology		3
115 110	History of Science in Islam		3
115 120	Scientific Pioneering		3
115 150	Art of Writing and Expressing		3
115 160	UAE Society		3
112 110	Principles of Art and Architecture		3
112 120	Principles of Interior Design		3
112 130	Modern Technology and Society		3
113 110	Internet Concepts		3
113 120	Introduction to Information System		3
114 110	Economic Concepts		3
114 120	Entrepreneurship Development		3
118 120	General Biology		3
118 150	CPR Cardio Pulmonary Resuscitation		3
117 110	General Chemistry		3
117 120	Fundamental of Human Nutrition		3
117 130	First Aid		3
117 140	Energy, Water and Environment		3
117 150	Applications of Remote Sensing and GIS		3
119 120	Introduction to Communication Sociology		3
119 130	Information Society		3
120 111	Legal Culture		3

# Degree Requirements

The BSc degree in Marketing requires the completion of 126 credit hours distributed according to the following plan:

Types of Course	Credit Hours
1. University General Education Requirements	
(a) University Required Courses	15
(b) University Elective Courses	9
2. College Requirements	
(a) College Required Courses	54
(b) College Elective Courses	9
3. Major Requirements	
(a) Major Required Courses	33
(b) Major Elective Courses	6
Total Credit Hours	126



# Department of Marketing

The BSc in Marketing program offered at AUST provides education of international standard and caters to the needs of the labor market in the UAL and the region. Graduates are prepared for employment in both the public and the private sectors. The program also equips students with the academic credentials required to pursue higher education.

## Bachelor of Science in Marketing

### *Mission*

The mission of the marketing program is derived mainly from the philosophy and vision of AUST. Hence, the program's mission is in line with the mission and objectives of the College of Business Administration. The focus of this mission is to high provide high quality education that will develop the skills and knowledge of students in areas that will enable them to perform efficiently and effectively in their careers. Accordingly, both the structure of the course and the curricula are designed to achieve these ends.

### *Goals*

The goals of the program are to enable students to:

- Gain the knowledge and understanding of theoretical and applied aspects of marketing, as well as specialized areas, that will enable them to perform effectively in a variety of positions in the marketing profession
- Analyze and communicate marketing knowledge using information technology to facilitate decision-making processes
- Develop the communication, teamwork, critical thinking and problem solving skills required in marketing activities in organizations
- Conduct research in marketing and related areas

### *Objectives*

The objectives of the program are to enable students to:

- Understand the role and practice of marketing within an organization and develop an understanding of theoretical and applied aspects of marketing
- Understand international and industrial marketing strategies
- Understand core concepts and comprehend and apply distribution strategies
- Understand core concepts, comprehend and be adept in service marketing

- Become proficient in integrated marketing communications and comprehend buyer-seller behavior within the context of the overall market environment
- Use computer-based tools to identify and analyze marketing data and information to facilitate decision-making processes
- Consolidate marketing information with the various marketing activities
- communicate effectively and perform in and lead teams to achieve organizational objectives effectively
- Use marketing knowledge and information to develop the critical thinking and problem solving skills needed to function effectively in organizations
- Carry out research

### *Admission Requirements*

The normal entry requirement is the UAE secondary certificate (both sections), or an equivalent qualification, with a minimum average grade of 60 percent, & TOEFL certificate with a minimum score of 500.

### *Career Opportunities*

Graduates of the BSc in Marketing program are equipped for employment in marketing departments in the following sectors: government, multinational subsidiaries, national companies (especially those operating in distribution), manufacturing, advertising and marketing research. In addition, there are employment opportunities in the banking and hospitality sectors, the travel industry, insurance companies, advertising agencies, the media and other organizations that have marketing departments.

### *Graduation Requirements*

Students will be awarded the Bachelor in Marketing degree upon fulfillment of the following requirements:

- Successful completion of 126 credit hours, which normally takes eight semesters
- 12 weeks of industrial internship (after the completion of 96 credit hours including seven marketing core courses), which is equivalent to three credit hours
- A minimum Cumulative Grade Point Average of 2.0

## SEMESTER 5

Course Title	Course #	Credit Hours	Lec.	Tut /Lab	Pre-requisite 1	Pre-requisite 2
Quantitative Analysis	400 513	3	3	0		102 211, 110 140
Intermediate Accounting II	420 501	3	3	0		420 401
DBMS	306 460	3	2	2		311 102
Cost Accounting	420 603	3	3	0		400 394
Business Communication	400 408	3	3	0		400 291
College Elective - 2		3	3	0		

## SEMESTER 6

Course Title	Course #	Credit Hours	Lec.	Tut /Lab	Pre-requisite 1	Pre-requisite 2
Managerial Accounting	420 502	3	3	0		420 603
Auditing	420 602	3	3	0		420 401
Governmental Accounting	420 705	3	3	0		420 401
MIS	400 502	3	3	0		400 291, 306 460
Organizational Behavior	400 409	3	3	0		400 409
College Elective - 3		0	0	0		

## SEMESTER 7

Course Title	Course #	Credit Hours	Lec.	Tut /Lab	Pre-requisite 1	Pre-requisite 2
Advanced Accounting	420 604	3	3	0		420 501
Advanced Auditing	420 706	3	3	0		420 602
Supervised Training	400 516	3	3	0		96 Hours including
accounting courses						
Departmental Elective		3	3	0		
University Elective -1		3	3	0		

## SEMESTER 8

Course Title	Course #	Credit Hours	Lec.	Tut /Lab	Pre-requisite 1	Pre-requisite 2
Accounting Theory	420 707	3	3	0		420 604
Financial Management and Control	420 802	3	3	0		420 604, 420 502
CAIS	420 810	3	2	2		420 401, 311 102
Graduation Project	420 811	3	3	0		Earning 102 Cred
Hours						
University Elective - 1		3	3			

## Proposed Sequence of Study

### SEMESTER 1

Course Title	Course #	Credit Hours	Lec.	Tut /Lab	Pre-requisite 1	Pre-requisite 2
Islamic Culture	102 110	3	3	1		
Communication Skills in Arabic Language	102 140	3	3	0		
Statistics	103 110	3	2	2		
Research Methodology	103 130	3	3	0		
University Elective - 1		3	3	0		
Orientation/Academic Advising	111 000	0	1	0		

### SEMESTER 2

Course Title	Course #	Credit Hours	Lec.	Tut /Lab	Pre-requisite 1	Pre-requisite 2
Computer Applications	104 110	3	2	2		
Introduction to Management	400 291	3	3	0		
Principles of Accounting I	400 292	3	3	0		103 110
Statistics for Business	102 211	3	3	0		
University Elective - 2		3	3	0		

### SEMESTER 3

Course Title	Course #	Credit Hours	Lec.	Tut /Lab	Pre-requisite 1	Pre-requisite 2
Microeconomics	400393	3	3	0		
Principles of Accounting II	400 394	3	3	0		400 292
PC Applications	311 102	3	0	4		104 110
Principles of Marketing	400 395	3	3	0		400 291
Fundamentals of Finance	400 396	3	3	0		400 292
University Elective - 3		0	3	0		

### SEMESTER 4

Course Title	Course #	Credit Hours	Lec.	Tut /Lab	Pre-requisite 1	Pre-requisite 2
Math for Management	110 140	3	3	2		
Business Law	400 411	3	3	0		400 291
Intermediate Accounting I	420 401	3	3	0		400 394
Macroeconomics	400 410	3	3	0		400 393
IT in Business	310 202	3	2	2		311 102
College Elective - 1		3	3	0		

## Departmental Requirements (39 Credit Hours)

### a. Compulsory Courses (36 Credit Hours)

Course Title	Course #	Credit Hours	Pre-requisite
1. Intermediate Accounting I	420 401	3	400 394
2. Intermediate Accounting II	420 501	3	420 401
3. Cost Accounting	420 603	3	400 394
4. Managerial Accounting	420 502	3	420 603
5. Advanced Accounting	420 604	3	420 501
6. Auditing	420 602	3	420 401
7. Accounting Theory	420 707	3	420 604
8. Computerized Accounting Information Systems	420 810	3	311 102, 420 401
9. Advanced Auditing	420 706	3	420 602
10. Governmental Accounting	420 705	3	420 401
11. Financial Management and Control	420 802	3	420 604, 420 502
12. Graduation Project	420 811	3	Earning 102 credit hours

### b. Elective Courses (3 Credit Hours)

Course Title	Course #	Credit Hours	Pre-requisite
1. Taxation Accounting	420 716	3	420 401
2. Topical Issues in Accounting	420 809	3	420 401
3. Oil and Gas Accounting	420 714	3	420 401
4. International Accounting	420 612	3	420 401
5. Islamic Accounting	420 613	3	420 401

## COLLEGE REQUIREMENTS (63 Credit Hours)

### a. Compulsory Courses (54 Credit Hours)

Course Title	Course #	Credit Hours	Pre-requisite
1. Math for Management (GL)	110 140	3	-----
2. Micro Economics (GE)	400 393	3	-----
3. Statistics for Business	102 211	3	103 110
4. PC Application/Management	311 102	3	104 110
5. Principles of Accounting I	400 292	3	-----
6. Quantitative Analysis	400 513	3	102 211, 110 140
7. Principles of Accounting II	400 394	3	400 292
8. Fundamentals of Finance	400 396	3	400 292
9. Introduction to Management	400 291	3	-----
10. Business Communication	400 408	3	400 291
11. Principles of Marketing	400 395	3	400 291
12. Business Law	400 411	3	400 291
13. Management Information Systems	400 615	3	400 291, 306 460
14. Organizational Behavior	400 409	3	400 291
15. Macroeconomics	400 410	3	400 393
16. Data Base Management Systems	306 460	3	311 102
17. IT in Business	310 202	3	311 102
18. Supervised Training	400 516	3	Earning 96 hours including seven accounting core courses

### b. Elective Courses (9 Credit Hours)

Course Title	Course #	Credit Hours	Pre-requisite
1. Business Ethics	400 419	3	400 291
2. EDGCC	400 512	3	400 410
3. Business Research Methods	400 307	3	400 291, 102 211
4. Managerial Economics	400 522	3	400 410
5. Public Relation	400 523	3	400 408
6. Feasibility Studies	400 524	3	400 393, 400 396

## University Requirements (24 Credit Hours)

### a. University Compulsory (15 Credit Hours)

Course Title	Course #	Credit Hours	Pre-requisite
1.Orientation	111 000	0	
2. Statistics	103 110	3	
3. Computer Applications	104 110	3	
4. Islamic Culture	102 110	3	
5. Communication Skills in Arabic Language	102 140	3	
6. Research Methodology	103 130	3	

### (b) University Elective Courses (9 Credit Hours)

Course #	Course Title	Pre-requisite	Credit Hours
115 140	Principles of Mathematics		3
115 130	General Psychology		3
115 110	History of Science in Islam		3
115 120	Scientific Pioneering		3
115 150	Art of Writing and Expressing		3
115 160	UAE Society		3
112 110	Principles of Art and Architecture		3
112 120	Principles of Interior Design		3
112 130	Modern Technology and Society		3
113 110	Internet Concepts		3
113 120	Introduction to Information System		3
114 110	Economic Concepts		3
114 120	Entrepreneurship Development		3
118 120	General Biology		3
118 150	CPR Cardio Pulmonary Resuscitation		3
117 110	General Chemistry		3
117 120	Fundamental of Human Nutrition		3
117 130	First Aid		3
117 140	Energy, Water and Environment		3
117 150	Applications of Remote Sensing and GIS		3
119 120	Introduction to Communication Sociology		3
119 130	Information Society		3
120 111	Legal Culture		3

## Degree Requirements

The BSc degree in accounting requires the completion of 126 credit hours distributed according to the following plan:

Types of Course	Credit Hours
1. University General Education Requirements	
(a) University Required Courses	15
(b) University Elective Courses	9
2. College Requirements	
(a) College Required Courses	54
(b) College Elective Courses	9
3. Major Requirements	
(a) Major Required Courses	36
(b) Major Electives Courses	3
Total Credit Hours	126

# Department of Accounting

Accounting is described as "The Language of Business." Accounting is the study of the concepts and techniques used in reporting on matters related to an entity's financial status and performance. Because entities compete in both input and product markets, accounting information are essential for managers to plan and control activities. Information generated through the accounting process is required for business decision-making.

## Bachelor of Science in Accounting

### *Mission*

The mission of the Accounting Department is derived mainly from the larger vision and philosophy of the university and the college. Accordingly, the department is in pursuit of excellence in accounting education and professional practice via a rigorous academic program that promotes critical thinking, interpersonal skills, technical competence and, above all, ethical practice.

### *Goals*

The goals of the program are to:

- Provide students with adequate accounting knowledge that qualifies them for employment in accounting practice and the profession
- Enable students to prepare, analyze and communicate accounting information using information technology to facilitate the decision-making process
- Develop skills of ethical reasoning, critical thinking and problem-solving
- Prepare students to conduct research in accounting and related areas

### *Objectives*

The objectives of the program are to enable students to:

- Understand the conceptual framework of accounting and the mechanics of the accounting cycle
- Understand the core concepts of cost and management accounting and the uses of accounting information in the decision-making process
- Understand the auditing standards, practices and rules of professional conduct

- prepare financial statements for profit and non-profit organizations
- Use manual and computer-based tools to identify and analyze logical relations among accounting data
- Combine and consolidate financial information
- Make ethical and professional judgments in accounting and auditing
- Use accounting analytical tools to develop skills and critical thinking
- Understand the relevance and applicability of accounting models and theories
- Conduct research in accounting

### *Admission Requirements*

The normal entry requirement is the UAE secondary certificate (both sections), or an equivalent qualification, with a minimum average grade of 60 percent, & TOEFL certificate with a minimum score of 500.

### *Career Opportunities*

A career in accounting offers the potential of a larger number of job openings than in many other disciplines. A qualification in accounting today opens the door to careers in business, NGOs and government units, preparing graduates for work in any of the following areas: financial reporting, public practice, strategic business planning, cost and management accounting, information systems, insolvency and reconstruction, accounting and finance consulting, and business analysis and evaluation. In addition to employment our graduates are equipped to pursue postgraduate study in accounting and finance as well as professional certification, for example CPA, CMA, CFA, ACCA and CIA.

### *Graduation Requirements*

Students will be awarded the Bachelor in Accounting degree upon fulfillment of the following requirements:

- Successful completion of 126 credit hours, which normally takes eight semesters.
- 12 weeks of industrial internship (after the completion of 96 credit hours including seven accounting core courses), which is equivalent to three credit hours.
- A minimum Cumulative Grade Point Average of 2.0.



SEMESTER 5

Course Title	Course #	Credit Hours	Lec.	Tut /Lab	Pre-requisite 1	Pre-requisite 2
Quantitative Analysis	400 513	3	3	0	102 211	110 140
Business Communications	400 408	3	3	0	400 291	
Organizational Behavior	400 409	3	3	0	400 291	
Production and Operations Management	410 501	3	3	0	103 110	400 291
College Elective - 2		3	3	0		
Management Information Systems	400 615	3	3	0	400 291	306 460

SEMESTER 6

Course Title	Course #	Credit Hours	Lec.	Tut /Lab	Pre-requisite 1	Pre-requisite 2
Total Quality Management	410 712	3	3	0	410 501	
Purchasing and Materials Management	410 704	3	3	0	410 501	
International Business	410 603	3	3	0	400 291	400 410
Comp. Application/Mgt.	410 705	3	2	2	311 102	400 291
Management of Small Business	410 611	3	3	0	400 291	
College Elective - 3		3	3	0		

SEMESTER 7

Course Title	Course #	Credit Hours	Lec.	Tut /Lab	Pre-requisite 1	Pre-requisite 2
Strategic Management	410 706	3	3	0	400 291	400 409
Human Resource Management	410 602	3	3	0	400 291	
Department Elective - 1		3	3	0		
Supervised Training	400 516	3	3	0		

SEMESTER 8

Course Title	Course #	Credit Hours	Lec.	Tut /Lab	Pre-requisite 1	Pre-requisite 2
Department Elective - 2	000 000	3	3	0		
Selected Topics in Management	410 909	3	3	0	410 706	
Organizational Theory and Design	410 808	3	3	0	400 409	
Graduation Project	410 811	3	3	0	102 Credit Hours	

## Proposed Sequence of Study

### SEMESTER 1

Course Title	Course #	Credit Hours	Lec.	Tut /Lab	Pre-requisite 1	Pre-requisite 2
Islamic Culture	102 110	3	3	1		
Communication Skills in Arabic Language	102 140	3	3	0		
Statistics	103 110	3	2	2		
Research Methodology	103 130	3	3	0		
University Elective - 1		3	3	0		
Orientation/Academic Advising	111 000	0	1	0		

### SEMESTER 2

Course Title	Course #	Credit Hours	Lec.	Tut /Lab	Pre-requisite 1	Pre-requisite 2
Introduction to Management	400 291	3	3	0		
Principles of Accounting I	400 292	3	3	0		
University Elective - 2	000 000	3	3	0		
Statistics for Business	102 211	3	3	0	103 110	
Computer Applications	104 110	3	2	2		

### SEMESTER 3

Course Title	Course #	Credit Hours	Lec.	Tut /Lab	Pre-requisite 1	Pre-requisite 2
Microeconomics	400 393	3	3	0		
Principles of Accounting II	400 394	3	3	0	400 292	
PC Application	311 102	3	0	4	104 110	
Principles of Marketing	400 395	3	3	0	400 291	
University Elective - 3	000 000	3	3	0		
Fundamentals of Finance	400 396	3	3	0	400 292	

### SEMESTER 4

Course Title	Course #	Credit Hours	Lec.	Tut /Lab	Pre-requisite 1	Pre-requisite 2
College Elective - 1		3	3	0		
Math For Management	110 140	3	3	2		
Macroeconomics	400 410	3	3	0	400 393	
Database Management Systems	306 460	3	2	2	311 102	
IT in Business	310 202	3	2	2	311 102	
Business Law	400 411	3	3	0	400 291	

## Major Requirements (39 Credit Hours)

### a. Compulsory Courses (33 Credit Hours)

Course Title	Course #	Credit Hours	Pre-requisite
1. Production and Operations Management	410 501	3	103 110, 400 291,
2. Human Resources Management	410 602	3	400 291
3. International Business	410 603	3	400 291, 400 410
4. Purchasing and Material Management	410 704	3	410 501
5. Computer App. Management	410 705	3	311 102, 400 291
6. Strategic Management	410 706	3	400 291, 400 409
7. Management of Small Business	410 612	3	400 291
8. Total Quality Management	410 712	3	410 501
9. Org. Theory and Design	410 808	3	400 409
10. Selected Topics Management	410 909	3	410 706
11. Graduation Project/Management	410 811	3	Earned Credit Hours should be at least (102)

### (b) Major Elective Courses (6 Credit Hours)

Course Title	Course #	Credit Hours	Pre-requisite
1. Service Marketing	430 707	3	400 395
2. Personal Finance	440 612	3	400 396
3. Project Management	410 820	3	400 291
4. Electronic Business	410 830	3	400 291, 311 102

## College Requirements (63 Credit Hours)

### a. Compulsory Courses (54 Credit Hours)

Course Title	Course #	Credit Hours	Pre-requisite
1. Math for Management (G.E)	110 140	3	-----
2. Micro Economics (G.E)	400 393	3	-----
3. Statistics for Business	102 211	3	103 110
4. PC Application	311 102	3	104 110
5. Principles of Accounting I	400 292	3	-----
6. Quantitative Analysis	400 513	3	102 211, 110 140
7. Principles of Accounting II	400 394	3	400 292
8. Fundamentals of Finance	400 396	3	400 292
9. Introduction to Management	400 291	3	-----
10. Business Communication	400 408	3	400 291
11. Principles of Marketing	400 395	3	400 291
12. Business Law	400 411	3	400 291
13. Management Information Systems	400 615	3	400 291, 306 460
14. Organizational Behavior	400 409	3	400 291
15. Macroeconomics	400 410	3	400 393
16. Data Base Management Systems	306 460	3	311 102
17. IT in Business	310 202	3	311 102
18. Supervised Training	400 516	3	Earning 96 hours, including 7 management core courses

### (b) University Elective Courses (9 Credit Hours)

Course Title	Course #	Credit Hours	Pre-requisite
1. Business Ethics.	400 419	3	400 291
2. EDGCC	400 512	3	400 410
3. Business Research Methods	400 307	3	400 291, 102 211
4. Managerial Economics	400 522	3	400 410
5. Public Relations	400 523	3	400 408
6. Feasibility Studies	400 524	3	400 393, 400 396

# University General Education Requirements

1.University Requirements (24 Credit Hours)

a. University Compulsory (15 Credit Hours)

Course #	Course Title	Pre-requisite	Credit Hours
111 000	Orientation		0
103 110	Statistics		3
104 110	Computer Applications		3
102 110	Islamic Culture		3
102 140	Communication Skills in Arabic		3
103 130	Research Methodology		3

(b) University Elective Courses (9 Credit Hours)

Course #	Course Title	Pre-requisite	Credit Hours
115 140	Principles of Mathematics		3
115 130	General Psychology		3
115 110	History of Science in Islam		3
115 120	Scientific Pioneering		3
115 150	Art of Writing and Expressing		3
115 160	UAE Society		3
112 110	Principles of Art and Architecture		3
112 120	Principles of Interior Design		3
112 130	Modern Technology and Society		3
113 110	Internet Concepts		3
113 120	Introduction to Information Systems		3
114 110	Economic Concepts		3
114 120	Entrepreneurship Development		3
118 120	General Biology		3
118 150	CPR Cardio Pulmonary Resuscitation		3
117 110	General Chemistry		3
117 120	Fundamental of Human Nutrition		3
117 130	First Aid		3
117 140	Energy, Water and Environment		3
117 150	Applications of Remote Sensing and GIS		3
119 120	Introduction to Communication Sociology		3
119 130	Information Society		3
120 111	Legal Culture		3

## Degree Requirements

The BSc in Management degree requires the completion of 126 credit hours distributed according to the following plan:

Types of Course	Credit Hours
1. University General Education Requirements	
(a) University Required Courses	15
(b) University Elective Courses	9
2. College Requirements	
(a) College Required Courses	54
(b) College Elective Courses	9
3. Major Requirements	
(a) Major Required Courses	33
(b) Major Electives Courses	6
Total Credit Hours	126

# DEPARTMENT OF MANAGEMENT

The Department of Management offers a comprehensive and dynamic program leading to the Bachelor of Management, which combines courses from all core areas of business administration. Through the careful selection of teaching materials and real-life cases, the department builds the marketable skills of students to facilitate their entry into the global business arena as professional managers and entrepreneurs.

## **Bachelor of Science in Management** *Mission*

The mission of the management program is to achieve excellence in delivering management knowledge. It aims to contribute to the competitiveness of the organizations of the UAE and the GCC in the global market-place by producing highly skilled, ethical and well-rounded graduates in areas of strategic relevance to the global economy.

## *Program Goals*

The program's goals are to enable students to:

- deal effectively and efficiently with managerial responsibilities, tasks and challenges in a changing and complex business environment
- gain proficiency in modern analytical problem-solving, communication and decision-making skills
- gain broad managerial skills, abilities and competences required in a globalized world
- carry out research and postgraduate study

## *Program Educational Objectives*

The objectives of the program are to:

- Clarify management theories in leadership and justifications for the need of organizational reengineering, through professional programs and the managing of organizational assets
- Explain organizational objectives of specialization, coordination, adaptation and alignment to benefit the community and the business milieu, and what is beneficial to the community and the business milieu
- Identify quantitative and qualitative research and diagnosis tools and their appropriate end use through creative thinking and continuous learning
- Raise student awareness to the managerial, ethical and other principles of "what is measurable is manageable"
- Clarify the global multidimensional managerial challenges as they pertain to the various functions of the global corporation

- Clarify the importance of strategic change and development, and the need for alignment to the principle of management by performance and results linked to an increasingly competitive environment
- Explain the vital role of fundamental and quality standards in an applied business strategy, congruent with research for developing innovative products and services in tune with a highly competitive business environment
- Explain the need for creative thinking in the employment field, thus turning out graduates who are able to use skills such as "thinking out of the box," and intellectual capital-based innovation
- Provide knowledge and skills appropriate for the conducting of research and the pursuit of postgraduate study

## *Admission Requirements*

The normal admission requirement for an applicant is the UAE secondary certificate (both sections), or an equivalent qualification, with a minimum average grade of 60 percent, & IOEFL certificate with a minimum score of 500.

## *Career Opportunities*

Management is the art of getting things done by others. Hence, the need for future managers never stops, particularly for those who are equipped with the latest managerial knowledge skills and the ability to think analytically.

The Bachelor of Science in Management program has been carefully crafted to meet market demands qualitatively. The program is intended to produce graduates who will be efficient and effective managers able to achieve organizational objectives. AUST management graduates have been well received in the job markets of the UAE and other Arabian Gulf countries for their outstanding teamwork, creative and management leadership skills.

## *Graduation Requirements*

Students will be awarded the Bachelor in Management degree upon fulfillment of the following requirements:

- Successful completion of 126 credit hours, which normally takes eight semesters.
- 12 weeks of industrial internship (after the completion of 96 credit hours including seven management core courses), which is equivalent to three credit hours.
- A minimum Cumulative Grade Point Average of 2.0.

# COLLEGE OF BUSINESS ADMINISTRATION

The remarkable growth in economic and business activity in the Arabian Gulf region over the past decade has greatly stimulated the demand for skilled and competent business graduates. The College of Business Administration has built up a reputation for providing high quality teaching and training programs to equip its students with the knowledge, skills and attitudes they need to effectively address the challenges and opportunities of today's business environment.

## Mission

The college adheres to the fulfillment of AUST's overall mission, which seeks to meet the educational needs of local, regional and international students. As such the college philosophy is grounded in finding practical and scientific solutions to contemporary organizational and business problems through the programs offered in five areas of specialization: BSc in Management, BSc in Accounting, BSc in Marketing, BSc in Finance and the Master of Business Administration programs.

Stemming from this underlying philosophy, the college's strategic focus is to enhance the intellectual, professional and behavioral development of its students to meet the managerial challenges of the 21st century.

## Degree Programs

The college offers four bachelor programs and three MBA tracks, providing students with the theoretical and practical backgrounds that form an excellent foundation for satisfying career requirements or for future study. The department's undergraduate programs have been reaccredited by the UAE Ministry of Higher Education and Scientific Research, and the MBA is under eligible status.

The four bachelor degree programs require four years of study:

- 1- Management
- 2- Accounting
- 3- Marketing
- 4- Finance

The Master of Business Administration program has three tracks, each of which takes two years of study:

- 1- HR Management
- 2- Financial Management
- 3- Marketing

## Facilities

The college's current physical facilities, which include offices, labs and teaching rooms are equipped to meet its needs and are regularly upgraded. The library is regularly updated with the latest books in the field for the benefit of students and college members. IT facilities include:

- wireless internet connection, available in the university campus
- Internet labs available 14 hours per day
- multimedia facilities provided in all labs
- more than 12 business programs installed in the labs
- college computers connected through local and wide area networks







## 115160 - Emirates Society (English) (3)

This course covers topics related to the nature of UAE society before and after the discovery of oil, and its effect on the political, geographical, cultural, social and educational aspects of national life.

## 117130 - First Aid (3)

First aid is initial care in the event of sudden sickness or injury. Emergencies can occur at any time and in any place; if an emergency occurs those present should follow the correct procedures to follow. This course aims to teach the skills and knowledge critical to saving life and minimizing the severity of injury or sudden illness. Safety awareness and accident prevention are emphasized throughout.

## IEP Components

The components of the IEP program cover the four language skills (reading, writing, listening and speaking) in addition to grammar and vocabulary. These factors are carefully integrated to enable students perceive language in a holistic way. The rationale behind this is that the ultimate objective is to enable IEP participants to use language appropriately, accurately and fluently. These core components are described as follows.

### • Listening

The central object of the listening component is to enhance and develop student competence to enable him/her to understand the English language in both academic and social settings. At the beginning of the listening component, emphasis is given to skills such as understanding conversation, identifying main and detailed ideas, and interacting with other students and lecturers in social settings. Later, more emphasis will be placed on comprehending conversations and talks, and taking lecture notes and being aware of the structure of a lecture.

### • Speaking

The objective of the speaking component is to enable students to communicate in English appropriately, fluently and successfully in both academic and social settings where they are required to ask and answer questions, agree and disagree, express their opinions clearly with supporting evidence, give presentations and take part in short debates and discussions.

### • Reading

The main objective of the reading component is to enable students to become good readers, by developing in them reading skills such as text comprehension, appropriate speed, reading with a purpose, skimming, scanning, etc. In order to achieve these aims, students will be exposed to a diverse range of text forms and genres.

### • Writing

Since writing is viewed as a process, it is imperative that students acquire and develop the different steps of the writing process: generating ideas; organizing ideas; editing; revising, etc. Emphasis is also given to grammatical accuracy, lexical appropriateness, fluency and coherence.

### • Vocabulary

Rather than being developed in isolation, vocabulary is integrated into all skills. The main aim of the vocabulary component is to expand and enrich the student vocabulary repertoire and enable them to acquire academic vocabulary pertinent to their university studies

### • Grammar

Like vocabulary, grammar is not developed in isolation, and is also integrated into the four skills of listening, speaking, reading and writing. The ultimate aim of this component is to enable students to acquire both the rules of usage (accuracy) and at the same time to acquire the rules of use (appropriateness) in both spoken and written discourse.

### • Test-taking strategies

In addition to the components listed above, test-taking strategies are incorporated into the program.

# Course Descriptions

## 101000 - Orientation (English) (0)

This course will inform new students of academic policies and procedures, help with the academic and social transition to higher education, prepare students to make reasoned and well-informed choices, and enable them to become competent members of the university community. The course presents an overview of the foundations and objectives of the university and provides information on career and academic advising issues, policies and procedures and study skills and offers tips for success at university.

## 102110 - Islamic Culture (English) (3)

This course will provide students with a clear and detailed background on the religion and culture of Islam. It discusses the concept of culture, Islamic faith, beliefs, sources of legislation and characteristics of Islam. The course will also deal with some contemporary issues from an Islamic perspective such as the concept of human rights, the status of women, globalization and the environment.

## 102140 - Communication Skills in Arabic Language (English) (3)

This course aims to teach communication skills in the Arabic language to non-Arabic speaking students. The course focuses on the skills of reading, writing, speaking and listening. It also aims to encourage students to communicate in Arabic in their environment both at the university and outside.

## 103110 - Statistics (English) (3)

This basic course is designed for students who need to gain skills in basic statistics. It covers essential statistical topics required by students taking science courses. The first part of the course deals with data tabulation and calculation of descriptive measures. The second part covers notions of basic probability, such as population, sample, sample space and probability laws of addition and multiplication. The third part covers discrete and continuous distribution, where the emphasis on standard normal distribution. The fourth part covers linear regression analysis and correlation.

## 103130 - Research Methodology (English) (3)

This course aims to provide students with the concepts, principles and basic tools of research methods needed to gain knowledge and solve problems. It covers the entire research process including formulating research questions, sampling and surveying, measurement (scaling), data organization, data analysis, methods of extracting knowledge from readable materials, searching libraries and the Internet for references and writing a comprehensive research report.

## 104110 - Computer Applications (English) (3)

With the explosion of computer technology, a knowledge of computing applications as tools for all disciplines has become vital. This course is an introduction to the most common software packages and includes the hands-on use of microcomputers and major commercial software. These software packages include typical feature such as word processing, spreadsheets and presentations. On completion of the course students will exhibit proficiency with software applications and demonstrate knowledge of computer concepts and components.

## 113110 - Internet Concepts (3)

This course is designed as an introduction to the Internet and World Wide Web. It starts by introducing the history of the Internet and includes the use of internet applications and the basics of its technical infrastructure. It also covers the basics of web page and web site production, and continues with matters such as Internet Security, cookies, viruses, etc.

## 115130 - General Psychology (English) (3)

The course aims to provide students with basic concepts, methods, techniques and theories of psychology as applied to the field and practice of several academic discipline specialties. The course also introduces areas of psychology dealing with biology, learning, motivation, human development, personality, social, maladjustment and other topics.

6. provide students with academic training to enable them to manage the classroom environment to their advantage
7. enable students to acquire the relevant test-taking strategies
8. enable students to acquire the required TOEFL/IELTS score

## Admission Requirements

Students who have a score of 500 in TOEFL (Institutional Paper-Based Test), 61 in TOEFL iBT (Internet-Based Test), or band 5 in IELTS (Academic) may proceed directly to major programs which use English as the teaching medium. Those who have not acquired the required score are eligible for admission to the English Language Unit or the Intensive English Program (IEP).

Those below this minimum requirement may begin their university studies with conditional admission, provided they have a TOEFL score of at least 450, iBT 45, or an IELTS band 4. Furthermore, they will be required to enroll in, and successfully complete, the Intensive English Program (IEP).

## Academic Advising and Counseling Unit

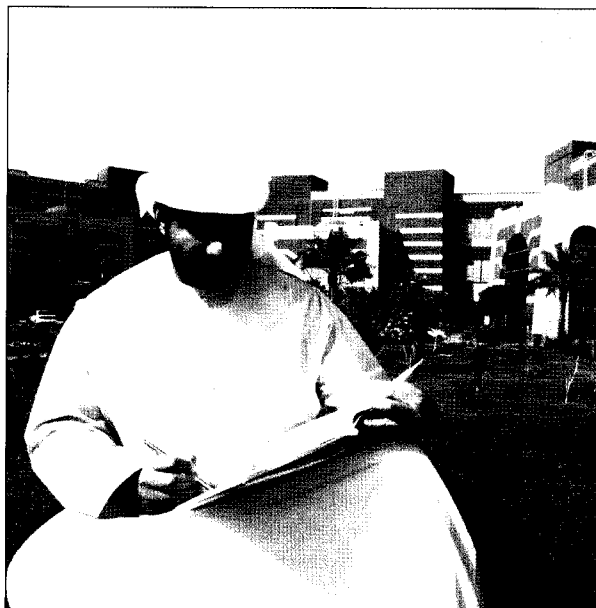
### Unit Mission

The mission of the Academic Advising and Counseling Unit is to help students adapt to the university environment and succeed in it, by providing them with academic advising knowledge and skills. The unit also provides students and their parents with information regarding career and academic objectives.

### Unit Objectives

The objectives of the Academic Advising and Counseling Unit are to:

1. Help students achieve a smooth and transition to university life
2. Promote the personal development that is essential for success
3. Provide students with skills and strategies designed to improve study behaviors
4. Help students apply study strategies and techniques appropriate to the development of an effective study plan
5. Introduce university facilities and resources; policies, procedures and programs
6. Provide guidance on topics such as study skills, time management, choosing friends, note taking, test taking, memory techniques, active reading strategies, critical thinking and goal setting
7. Provide students with academic and career counseling



## **Basic Education Unit**

### **Mission**

The Basic Education Unit seeks to develop students' Arabic language skills to enable them to communicate effectively in both academic and professional environments. This goal is in line with the institution's vision, emphasizing the importance of communication between the university and society.

### **Objectives**

The objectives of the Basic Education Unit are to:

- 1- Develop the student's sense of pride in the Arabic language
- 2- Enhance students' communication skills in Arabic (listening, speaking, reading, writing) to enable them to communicate effectively

## **Basic Science Unit**

### **Unit Mission**

The unit aims to provide students with basic scientific knowledge based on the careful integration of theory and practice, and to develop and improve student's abilities in collecting and analyzing information

### **Unit Objectives**

The objectives of the Basic Science Unit are to:

- 1- Offer a variety of scientific courses to provide students with basic knowledge required for their majors
- 2- Provide students with the skills required to deal with data collection and analysis by using scientific software packages.

## **Information Technology Unit**

### **Unit Mission**

The unit aims to provide students with innovative and relevant IT literacy skills development programs. It also aims to establish a baseline IT competency level for technical, administrative and academic positions

### **Unit Objectives**

The objectives of the Information Technology Unit are to:

- 1- Ensure IT literacy is embedded in graduates' attributes through the design and implementation of university required courses
- 2- Provide access to on-line teaching materials and IT training programs via the e-learning portal

## **English Language Unit**

The English Language Unit (ELU), is responsible for the Intensive English Program (IEP).

### **Unit Mission**

The English Language Unit aims to develop both communicative and academic competences in students in order to enable them to successfully pursue their studies in their majors through the medium of English.

### **Unit Goals**

The goals of the English Language Unit are to:

1. enhance and develop students' English proficiency to enable them to study courses through the medium of English
2. enhance students' academic skills to enable them to pursue their studies successfully
3. enable students to acquire the required TOEFL/IELTS score

### **Unit Objectives**

The objectives of the English Language Unit are to:

1. Improve and develop students' communicative competence in English to enable them to communicate fluently, appropriately and accurately in both spoken and written discourse
2. Enable students to achieve academic competence in reading a variety of texts, utilizing different writing techniques, and gaining listening and speaking skills which will enable them to perform effectively in the professional world
3. Enable students to become independent learners to ensure life-long education
4. Maximize exposure to the English language by modern technologies such as CALL, software, the Internet, etc. Students are expected to avail themselves of the facilities available in the university's English language laboratories as well as making use of home computers
5. Instruct students to become reflective learners by actively engaging in the learning process

# College of University Requirements and Academic Counseling

## Mission

The mission of the College of University Requirements and Academic Counseling is based on the strategic vision of AUST and its three-dimensional educational philosophy of "education, information and investment." The college aims to provide students with a variety of competencies associated with a range of university requirements, which are intended to lay a solid foundation for student development both academically and professionally.

## Objectives

1. University Requirements Program
2. Intensive English Program (IIP)
3. Probation Program (only for students not satisfying program admission requirements)

## Facilities

### 1. An Interactive and Collaborative E-Learning Environment Using Moodle.

AUST, in its educational dimension, recognizes the need to raise its students' educational qualifications through the use of information technology. In this regard the Open-Source Course Management System (CMS) Moodle has been selected. The College of University Requirement and Academic Counseling, through its Information Technology unit, has implemented this system to aid the design, delivery, monitoring and evaluation of the educational process. A categorization of tools provided by Moodle is given below:

#### a. Content development and distribution tools

- i. Course and lesson authoring tools
- ii. Blogging tools
- iii. RSS tools

#### b. Communication and Collaboration tools

- i. Meeting, conferencing, virtual classroom tools
- ii. Social networking tools
- iii. Collaboration tools
- iv. Discussion boards and forums
- v. Video tools
- vi. Email tools
- vii. Instant messaging, chat telephony tools
- viii. Online tutorials

## 2. Laboratories

### a. Computer Application Labs

The unit has two computerized laboratories equipped with up-to-date software packages in the standard operating environment and core university applications.

### b. Statistics Labs

The unit has two computerized laboratories equipped with scientific software packages to help students acquire and develop hands-on skills.

### c. English Unit Labs

The English Language Unit has two language laboratories, one in the female section and the other in the male. The main objectives of the English labs are to:

- reinforce existing knowledge and skills
- develop a positive attitude in students to enable them to become independent learners
- provide students with an anxiety-free learning environment
- enable students to make maximum use of a variety of learning resources, which include both traditional and modern technologies

## Learning Resources in the English Laboratories

The English labs are equipped with the following resources:

- computers
- Internet connection
- software
- audio and video materials
- films and documentaries
- hardware – supplementary and test materials
- books and reference materials
- magazines and newspapers

In addition to timetabled hours, students are encouraged to make additional use of the English labs (with permission from the instructor supervising the lab session). Each English lab has a supervisor who is on hand to offer students help and advice. When there is no lecturer present in the lab, permission should be sought from the supervisor, whose schedule is posted on the door of the lab.

Please note that attendance at scheduled English lab sessions is compulsory.





# College of University Requirements and Academic Counselling

## Admission

The College of University Requirements and Academic Counselling is a non-profit organization that provides information and guidance to students and parents regarding university admission requirements and academic counselling. The College is committed to providing a high quality of service to its members and to ensuring that all students have the opportunity to succeed in their university studies.

## Membership

The College of University Requirements and Academic Counselling is a non-profit organization that provides information and guidance to students and parents regarding university admission requirements and academic counselling. The College is committed to providing a high quality of service to its members and to ensuring that all students have the opportunity to succeed in their university studies.



## 1. Common Admission and Counselling

### **COLLEGE OF UNIVERSITY REQUIREMENTS & ACADEMIC COUNSELLING**

## 2. Admission

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## 3. Membership

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### **15.5 Tuition Fee Reduction**

#### **a. New students**

New students are entitled to a reduction of 20 percent of the tuition fee of the courses in which they register in the first semester of their study, after fulfillment of the English proficiency requirements if

I. The student obtains a minimum grade of 95 percent in secondary school final examinations (for College of Dentistry and College of Pharmacy and Health Science programs)

II. The student obtains a minimum of 90 percent in secondary school final examinations (for all other colleges)

#### **b. Continuing Students**

Continuing students are entitled to a reduction of 20 percent of the tuition fee of the courses in which they register in a regular semester if they obtained a GPA of 4.0 or higher, and registered for at least 15 credit hours, during the previous semester.

#### **c. Sibling Fee Reduction**

Any two brothers/sisters who enroll in the university during the same semester shall each be granted a five percent reduction in tuition fees. If a student meets conditions a or b above, he/she will not be entitled to benefit from two reductions at the same time. In this case, the student will be granted the greater fee reduction.

#### **d. Performance Fee Reduction**

Exemptions from tuition and laboratory fees shall be granted to academically distinguished students, except during the summer session, in accordance with the following regulations:

- The student holding first place at the college level: 100 percent fee exemption
- The student holding second place at the college level: 50 percent fee exemption
- The student holding third place at the college level: 40 percent fee exemption

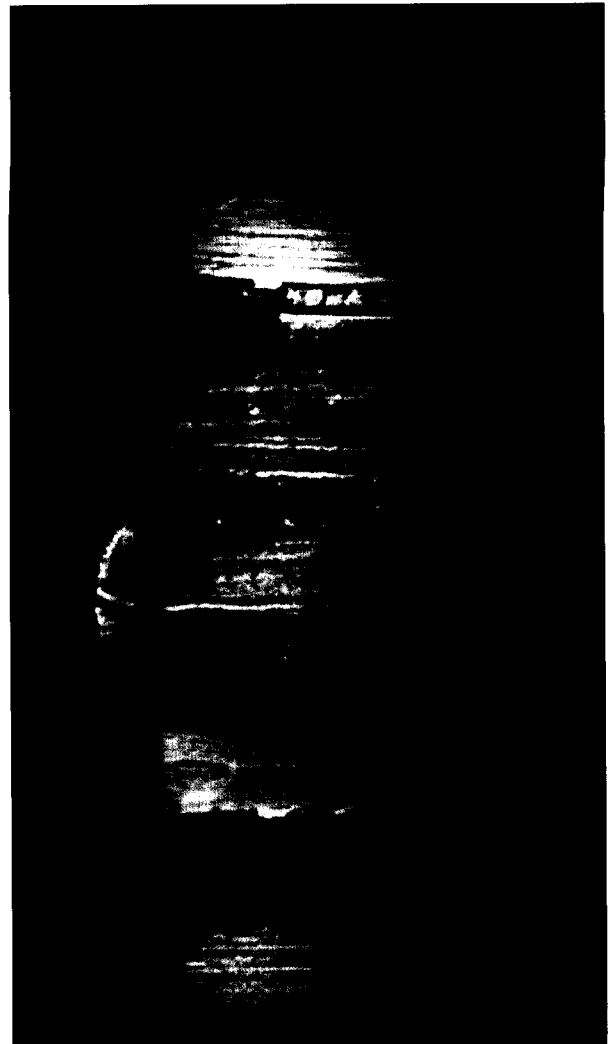
These exemptions shall be applied only to students who have demonstrated good conduct, who have completed at least 60 credit hours at AUST, and who have not breached the Student Behavior Code during their entire period of study.

### **15.6 Scholarships and Bursaries**

The University grants scholarships and bursaries. For more information, students may contact the scholarships committee.

### **15.7 Books**

The university will supply course textbooks to students at reasonable prices. It should be noted, however, that a student in receipt of a fee exemption as listed above will not be provided with textbooks without charge.



### **c. Tutorial Session Fees**

Students registered in Courses having tutorial sessions will be charged a fee of AED 350 per course.

### **d. Orientation Course Fee**

New students pay a fee of AED 700 for the Orientation Course which is taken during the first semester of enrolment.

## **15.3 Additional Fees**

- one-off fee for medical check-up upon enrolment: AED 150
- student service fee, per semester: AED 200
- application for an incomplete course: AED 50
- reference letter: AED 30
- extra copy of the academic record: AED 20
- grade complaint application: AED 30
- ID card, per semester: AED 10

The student should pay the tuition fees in full for all courses upon registration for them. A student shall not be allowed into the classroom until he/she has paid the fees in full. The university reserves the right to change any fee when deemed necessary.

## **15.4 Refund Policy**

### **a. Add/Drop Period**

The add/drop period is two weeks from the start of the course. During this time students may add or drop courses without incurring a charge. If a student adds one or more courses during the add/drop period, he/she must pay additional fees for the added course(s) at the time of submitting the application or the application will be rejected.

If a student withdraws from one or more courses during the add/drop period, the fees of the dropped course(s) will be refunded only after the end of the add/drop period. Alternatively the student may request that the money be credited to his/her balance for the following semester.

A student may withdraw from one or more course(s) after the end of the add/drop period, provided he/she remains registered in at least three course that semester. In this case the student does not have the right to claim any refund for the fees of the dropped courses.

If a student wishes to reclaim any money from a credit balance, he/she must fill in an Application for Refund Form and submit it to the Student Account Officer after the end of the add/drop period. If the student fails to do this the money will be credited to the student balance for the following semester.

### **b. Suspension of Registration**

During the add/drop period a student may submit an application for suspension of registration for one or a maximum of two consecutive semesters. The application should be submitted to the Admission and Registration Deanship. In this case the full amount of any fees paid shall be credited in full to the student's balance for the following semester, or refunded one week after the submission of the application for refund to the Student Account Officer.

If the student submits an application for suspension of registration for one or two semesters during the two weeks following the end of add/drop period, he/she shall be entitled to only 50 percent of the tuition fees paid in the semester in which he/she submits the application for suspension.

If the student submits an application for suspension of registration after the end of the two weeks following the add/drop period, he/she will not be entitled to claim any a refund of any part of the tuition fees paid during the semester in which he/she submits the application for suspension.

### **c. Withdrawal from the University**

During the add/drop period the student may submit an application for suspension of registration and withdrawal from the university. The application should be submitted to the Admission and Registration Deanship. In this case the student is entitled to a full refund of tuition fees paid for the semester in which he/she submits the application for withdrawal. The refund will be made one week after the submission of the application for refund has been made to the Student Accounts Office.

If the student makes an application for suspension of registration and withdrawal from the university within the two weeks following the end of the add/drop period, he/she is entitled to a refund of only 50 percent of the tuition fees paid in the semester in which he/she submits the application.

The student shall not be entitled to claim a refund of any part of the tuition fees paid if the application for suspension of registration and withdrawal from the university is made more than two weeks after the end of the add/drop period.

### **d. Disciplinary Dismissal**

A student who is dismissed from the university for disciplinary reasons is not entitled to any refund of tuition fees paid for the semester of dismissal.

cash in one installment upon registration, and do not form part of the tuition fees. Application and registration fees are non-refundable, except when the student's application is not accepted. A student who wishes to apply for transfer from another accredited institution will pay a non-refundable fee of AED 500. This fee shall be considered part of the application and registration fees.

### 15.2 Tuition Fees

#### a. Credit Hours

Tuition fees for the programs offered at the university are as follows:

College	Fee per one credit hour
College of Information, Mass Communication and Humanities	AED 750
College of Law	AED 750
College of Information Technology	AED 750
College of Engineering	AED 750
Biomedical Engineering	AED 750
Electronics Engineering	AED 750
Control & System Engineering	AED 800
Architectural Engineering	AED 800
Interior Design	AED 800
College of Dentistry	AED 1,100
College of Pharmacy and Health Sciences	AED 900
College of Education and Basic Sciences	AED 700
College of Business Administration.	AED 750

This fee does not include the lab fee of courses of the study plan offered by other colleges. The fees above are subjected to increase.

Students registered in a program other than Doctor in Dental Surgery, and Bachelor in Pharmacy will pay a lab fee of AED 500 for each registered course having lab sessions. Students registered in the programs of Architectural Engineering and Interior design will pay a studio fee of AED 1,000 per semester.

#### b. Laboratory, Clinic and Studio Fees

Students registered in the Programs offered by the College of Dentistry & College of Pharmacy & Health Science pay a flat semester fee for specialized laboratory sessions and clinics as shown in the table given below:

College	Dentistry	4 <sup>th</sup> & 5 <sup>th</sup> years		Pharmacy & Health Sciences
	1 <sup>st</sup> -3 <sup>rd</sup> year	Clinics	Productive Lab	
Fees	AED 1,500	AED 2,500	AED 1,500	AED 850

facilities, to sit university exams and to make use of computer facilities.

The loss of an ID card should be reported immediately to the Admission and Registration Deanship. Fraudulent use of an ID card shall result in disciplinary action.

## 12. Student Behavior Code

All members of AUST are expected to conduct themselves in accordance with the regulations of the university, and the laws of the UAE. In particular, AUST students are requested to play an exemplary and positive role in enhancing the reputation of the university by:

- demonstrating a clear commitment to their own learning
- conforming themselves to all specified time requirements for registration, class schedules, examinations and completion of assignments
- ensuring that work presented is their own personal work
- ensuring that all information presented to college members and administrative staff is accurate and true
- conducting themselves in a courteous and proper manner in their dealings with college members, employees or other students
- meeting their academic advisors regularly
- respecting the property of others and of the university
- reporting grievances to their academic advisor or the Dean of the College
- not engaging in cheating, plagiarism, disruptive behavior or improper conduct which could damage the reputation of the university
- not using AUST facilities for other than learning purposes without prior authorization
- not falsifying documents or using falsified documents for any purpose related to the university
- not distributing leaflets or collecting signatures on university premises or in hostels without prior authorization
- abiding by AUST rules and regulations, and the directives of the academic and administrative staff
- acting in a way that will not cause offence to the culture of the UAE

## 13. Disciplinary Policy

Any violation of university regulations or directives, or improper behavior (as set out in Section 12), is considered as misconduct and

will render the student liable to disciplinary action which may range from a verbal warning to dismissal from the university.

In addition, if a student violates any rule or instruction during an examination, or is caught cheating, he/she will be asked to leave the examination room. In this event, the campus examination committee will interview the student on the day following that in which the incident occurred and will as a result submit a detailed report to the President of the University, in which the level of punishment is recommended. The level of punishment may range from the giving of an "F" grade for the course concerned, or failure in all courses for which the student is registered that semester.

A copy of the decision of the President will be kept in the student's file, and the Admission and Registration Deanship will also inform the sponsor as appropriate.

## 14. Student Grievance Procedure

The purpose of the grievance procedure is to resolve grievances, other than grade complaints, that are raised by students. If a student has a complaint or grievance about any aspect of university life, he/she should raise the matter with the academic advisor or the dean of the college at the earliest opportunity. The academic advisor or dean will inform the appropriate parties so that the grievance may be resolved. If the student is not satisfied with the results obtained via normal administrative procedures, he/she can submit the grievance in writing within three weeks of the occurrence of the incident to the Dean of Students Affairs.

The Dean of Student Affairs will then forward the matter to the Chairman of the Grievance Committee who will arrange a meeting to hear both parties, and witnesses, as appropriate. The committee will then deliberate upon its findings and make a recommendation to the University President who will take the final decision, to be communicated to both parties.

## 15. Tuition Fees & Financial Regulations

### 15.1 Application and Registration Fees

Application and registration fees of up to AED 1,300 should be paid in

1. the student will be required to sit for a written exam to be evaluated by the supervisor out of 20 percent before the end of the semester
2. at the end of the semester the student will submit a written report to the supervisor detailing the work carried out. This report will be evaluated out of 50 percent
3. The student will defend his work in front of an internal examiner who will not be the supervisor. The oral presentation will be evaluated out of 30 percent

The student's final grade for the supervised study course will be determined by the student's supervisor and the internal examiner after evaluation of the student's work, written report, oral presentation and response to questions.

## 8. Attendance Policy

Attending classes is compulsory for all courses. A student will not be allowed to take the final examination if he/she has missed more than 25 percent of the classes during the semester. Absence warning policies are set out below:

- If a student is absent for 10 percent of theoretical and practical class hours, the lecturer will issue a 10 percent absence warning.
- If a student is absent for 20 percent of theoretical and practical class hours, the lecturer will issue a 20 percent absence warning.
- If a student is absent for 25 percent of theoretical and practical class hours, the lecturer will issue a 25 percent absence warning and the student will receive the grade of "F"

The Council of Academic and Scientific Affairs may consider a student's withdrawal from the course if sufficient and convincing reason for the absence is submitted to it by the Admission and Registration Deanship.

## 9. Academic Probation

If a student's CGPA is less than 2.0 in any regular semester, starting from his/her second semester at the university, he/she will receive an academic warning and be placed on probation. The Admission and Registration Deanship will notify the student and his/her guardian.

A student on probation must raise his/her CGPA to at least 2.0 within three semesters, not including the summer session, and he/she will not be allowed to register unless he/she signs the corresponding undertaking and produces the address of his/her guardian.

The study load of warned students will be reduced, as follows:

a. First warning: a maximum of 15 credit hours among which three or six credit hours are repeated depending on the CGPA and the

previous semester's GPA

b. Second warning: a maximum of 12 credit hours among which six or nine credit hours are repeated depending on the AGPA and the previous semester's GPA

c. Third warning: nine repeated credit hours

If a student having a third warning has failed to raise his/her CGPA to 2.0 or higher at the end of the semester, his/her case will be reviewed by the College Council. The council may take one of the following actions:

- a. transfer the student to another program providing that his/her CGPA for the courses to be transferred is 2.0 or higher
- b. suspend the student for a maximum of two consecutive semesters during which he/she repeats courses at another accredited institution. He/she may be re-admitted if the transfer of the courses will raise his/her CGPA to 2.0
- c. dismiss the student from the university

## 10. Graduation Requirements

A student will be awarded a degree subject to fulfilling the following requirements:

- a. Completion of all courses of the academic program
- b. Completion of practical training as specified in the study plan
- c. A CGPA of at least 2.0

The merit of the degree is determined according to the following scale:

### *Scaling system for graduation*

Cumulative GPA	Merit
From 4.0 to 4.5	Excellent with Honors
From 3.75 to less than 4.0	Excellent
From 2.75 to less than 3.75	Very Good
From 2.25 to less than 2.75	Good
From 2.0 to less than 2.25	Satisfactory

## 11. Student ID Card

Students will receive a university ID card containing their photograph, name, date of birth and AUST ID number. The ID card should be carried at all times. It provides access to certain academic buildings and hostels. In addition, the card is required for admission to sports

#### **6.4. Cumulative Grade Point Average**

The CGPA indicates the student's average performance over all semesters up to the final or current semester. It is calculated as follows: the total of the point grade of each course taken to date, multiplied by its credit hours, divided by the total number of credit hours taken.

If a student repeats a course in which he/she obtained an "F" grade, or does so in order to improve his/her CGPA, the last grade obtained will be considered in the calculation of the CGPA regardless of whether the last grade is higher than the original one or not. However, the original grade will continue to appear in the academic record without affecting the calculation of the CGPA.

The CGPA is also used for academic probation as follows: starting from the end of the second semester of study, if the student's CGPA is less than 2.0, he/she will be regarded as an "academically-warned" student and will be requested to improve his/her academic performance to raise the CGPA to 2.0 or higher. (See Section 9 for the policy regulating the study load of warned students).

A student will not be allowed to graduate unless his/her CGPA is at least 2.0, even if he/she has passed all required courses of the program of study. In this case, in consultation with the academic advisor, the student must repeat a number of courses of the study plan in order to raise his/her CGPA to at least 2.0.

#### **6.5. Incomplete Grade**

Attendance at final examinations is compulsory. Failure to attend means failure in the course. However, if a student does not attend the final examination for urgent reasons and he/she scored at least a total of 30 out of 50 in coursework (tests and midterm examination) the course may be considered as "incomplete." Acceptable evidence for failure to attend a final examination consists of the following:

1. illness certified in a medical report approved by the university doctor
2. death certificate of a first or second degree relative
3. arrest or summons before a court or other legal body

In these cases the student must complete and submit a request form within three days of the examination date. He/she also must present the relevant documents to the Admission and Registration Deanship. The application will be processed only if the student has no financial obligation to the university and has paid the fee for an "incomplete request." The application will not be accepted if the student has a 25 percent absence warning.

A student who has been deemed to be "incomplete" in a course must take the final examination before the end of the second week of the following semester in which he/she registers.

#### **6.6. Examination Re-sits**

If a student passes all courses required for graduation except one, which he/she failed in the last semester, he/she will be allowed to re-register for that course. In this case there is a charge of 50 percent of the course fees and the student must re-take the final examination before the beginning of the following semester.

#### **6.7. Complaints about Grades**

Complaints regarding final examination results must be lodged within a period of two weeks following the announcement of the examination results. The student should complete and submit a Complaint Form to the Admission and Registration Deanship. The form will be transferred to the college concerned where an appropriate decision will be made. The Admission and Registration Deanship notifies the student of this decision.

## **7. Supervised Credit-Earning**

Colleges may approve supervised credit-earning on selected courses designed for advanced undergraduates that have completed 50 percent of the required credits for graduation. The purpose of such courses is to make it possible to study all the units of a course under the supervision of a college member on a meeting session basis. The schedule of these meetings should not be less than 16 contact hours per semester.

The supervised work should cover all the content of the course and meet its objectives. The supervisor must ensure that the course is devoted to advancing student's knowledge and skills as required in the course outline.

Reasons why a student may wish to take a supervised study course include:

1. To adjust his/her study plan by completing a specific course which is not offered in that semester
2. To complete a course which is not offered but it is required for graduation during the final semester
3. To gain additional knowledge and practical experience in designing, conducting, analyzing and documenting coursework

A maximum of nine credit-hours of supervised study can be taken during a student's undergraduate degree program. A student may not register for more than three credit hours of supervised study per semester.

The assessment of the course will be conducted as follows:

members in order to achieve the objectives of the educational process.

Academic advisors assist student in solving the problems that they face during their academic career. In addition, they follow the student's academic progress through their course of study and assist in the selection of appropriate courses prior to the start of each semester. Students are encouraged, and sometimes required, to meet their academic advisors regularly during each semester.

## 5. Change of Major

### 5.1 New Students

First-semester students may apply to transfer from one major to another within the university during the add/drop period. The application is processed through the Admission and Registration Deanship provided that:

1. The applicant meets the admission requirements of the degree program to which he/she is applying
2. There is availability of seats
3. Approval of the deans of both colleges concerned is obtained

### 5.2 Transfer between Programs

Students may transfer from one program to another within the university provided that they satisfy the following:

1. The preceding semester's Grade Point Average should be equivalent to the admission required score of the new program
2. The application for transfer should be submitted within the period specified in the academic calendar

A student is normally entitled to only one transfer throughout his/her course of study at the university.

## 6. Academic Evaluation and Assessment

### 6.1. Course Assessment

In each registered course, a student's performance is assessed according to a procedure established by the college concerned, and explained in the course plan. The overall score is normally distributed as follows:

- |                                  |            |
|----------------------------------|------------|
| 1. Semester tests and activities | 30 percent |
| 2. Mid-Semester examination      | 20 percent |
| 3. Final examination             | 50 percent |

The score for semester tests and activities includes marks for tests, quizzes, assignments, research and laboratory work. The pass mark in each course is sixty percent.

### 6.2. Grading System

The university adopts the following grading system:

Mark	Grade		Merit
	Letter	Point	
From 95 to 100	A+	4.5	Excellent with Honor
From 90 to 94	A	4.0	Excellent
From 85 to 89	B+	3.5	Very Good (High)
From 80 to 84	B	3.0	Very Good
From 75 to 79	C+	2.5	Good (High)
From 70 to 74	C	2.0	Good
From 65 to 69	D+	1.5	Pass (High)
From 60 to 64	D	1.0	Pass
Less than 60	F	0	Fail

### 6.3. Semester Grade Point Average

The semester GPA indicates student performance during the semester, and is calculated as follows: the total of the grade point of each course taken in the semester multiplied by its credit hours, divided by the total number of credit hours registered in the semester.

Subject	Credit Hours	Points	Product of Credit Hours by Point Grade
Mathematics I	3	3	9
Statistics	3	2	6
Physics I	3	3	9
Islamic Culture	3	4	12
Arabic Language	3	4	12
Psychology	3	2	6
Total	18		54 points

For example, if a student obtains the results as set out in the table above, his/her grade point average will be computed as follows:  
 $GPA = 54/18 = 3$

## 2.11 Adding and Dropping Courses

Students may add/drop courses only with the approval of their academic advisor. Students who add and drop courses during the approved period will not lose the fees paid for dropped courses. When adding/dropping courses students should bear in mind that the minimum number of credit hours for which they may register is nine.

The academic calendar also specifies the period allocated for dropping courses without affecting the student's academic record, but without refund of fees. The academic calendar also specifies the last date for withdrawal from a course with a "W" grade without refund of fees. In this case the course appears in the transcript with the letter "W" with no effect on the computation of the semester Grade Point Average or the CGPA.

## 2.12 Study Load

A student's "study load" is the number of credit hours for which he or she is registered during the semester. For the first and second semesters, the study load varies from 9 to 18 credit hours, where one credit hour refers to one lecture hour or two hours of practical study per week, lasting for sixteen weeks. For summer semesters, the study load varies from three to nine credit hours.

Students may increase their study load to up to twenty-one credit hours in the first and second semesters in the following cases:

- a. The student's CGPA was at least 3.5 in the preceding semester
- b. The student is expected to graduate at the end of the semester and his/her CGPA is at least 2.0

The study load of academically warned students is given in Section 9.

## 2.13 Time Allowed for Completion of a Degree Program

The maximum time allowed a student in which they may complete a degree program is a maximum of double the regular number of required semesters. In other words, a four-year bachelor degree must be completed in a maximum of 16 regular semesters of enrolment in the program. The minimum time allowed to complete a degree for non-transfer students is a minimum of six regular semesters for four-year programs and eight regular semesters for five-year programs.

The maximum and minimum number of semesters of enrollment for transfer students are determined after the deduction of the number of earned/transferred semesters (15 credits correspond to one semester) from the above limits.

## 2.14 Suspension of Registration

Suspension of study is allowed only if a student has completed his/her first semester. The total number of semesters that can be suspended is four. However, suspension for more than two consecutive semesters is not allowed. In all cases, the Deanship of Admission and Registration should be notified in writing.

## 2.15 Right to Withdraw Registration

The university reserves the right to withdraw an offer of admission if the applicant fails to satisfy all requirements, or it is found that admission was obtained through the use of incomplete, falsified, altered or embellished information. In the case of withdrawal of registration from a matriculated student, credit earned at AUST will be withheld and no transcript will be issued to the student.

# 3. Orientation Program for New Students

AUST gives special attention and assistance to new students to ease the transition between life at high-school and the university. For this purpose, a special program has been designed:

### *a. Orientation Session*

At the beginning of each semester, AUST organizes an orientation session for new students which enables them to meet the Vice-Presidents, Deans of the Colleges and the Deanships of Admission & Registration and Students Affairs. The orientation also provides them with essential information about course registration, academic advising, important deadlines and other related matters.

### *b. Orientation Course*

All new students must register in the orientation course during their first semester. It is a non-credit course which aims to provide them with information about AUST rules and regulations, services and essential skills such as time-management and exam preparation.

# 4. Academic Advising

AUST is committed to providing quality advising services. Each new student is assigned an academic advisor who is a member of the college in which the student is enrolled. Advising is a very important element of the credit hour system. Not only does the advising system help acquaint the student with the syllabus and its contents, but it also strengthens the relationship between the student and college



Newly-admitted students who have a TOEFL score of between 450 and 479, iBT 45 - 53, or an IELTS Band 4, will be allowed to register for up to six credit hours according to their study plan subject to concurrent registration in the Intermediate Level of the Intensive English Program (15 hours per week) which is offered by the College of University Requirements and Academic Counseling.

**Intensive English Program Requirements for New Students**  
**TOEFL or IELTS Scores**

TOEFL (Paper-Based)	TOEFL (iBT)	IELTS (Academic)	Number of IEP Hours Required	Number of University Credit Hours Permitted
500 or more	61	5	None	9-18
480-499	54-60	4.5	9	Not more than 9
450-479	45-53	4.0	15	Not more than 6
Below 450	Below 45	Below 4	15	0

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Once a student's selected courses have been approved by the academic advisor, and on payment of the tuition fees, the student will be given a timetable which states the name of the courses, the schedule of classes, the name of the lecturer and the number of the classroom or laboratory in which the course is held.

The offer of admission may be canceled if the student fails to finalize his/her registration during registration week.

**2.10 Course Registration for Continuing Students**

Colleges encourage non-warned students (see Section 9 for an explanation of the academic warning system) to use the early registration period to select courses in consultation with their academic advisor. The early registration period is specified in the academic calendar. Warned students and students who did not benefit from the early registration phase can register during the registration week. See the academic calendar. Registered AUST students may take some courses outside AUST provided that they obtain the prior approval of the dean of the college. Acceptance of the transfer of external courses is conducted according to the criteria outlined in Section 2.5.



Point Average (CGPA) is a least 2.0 on a scale of 4.0, or the equivalent, and they have not been the subject of disciplinary dismissal. However, those students who have not been in good academic standing (i.e. those having a CGPA of less than 2.0 on a scale of 4.0) will be allowed to transfer only to programs in a different field from the one in which they were enrolled at the institution they previously attended.

Any transferred student is required to meet the English Language Proficiency condition (see Section 2.2).

The transfer of credited courses is considered for students who are transferring to a similar program to one studied previously if:

- their cumulative grade point average was at least 2.0 on a scale of 4.0, or the equivalent
- the number of credit hours for the course is not less than that of the AUST equivalent course
- the grade obtained on the previous course must have been at least C (or the grade that corresponds to "Merit/Good" for institutions using a different grading scale)
- the course content at the institution previously attended should be similar to that of the corresponding course offered at AUST

If a student meets these transfer conditions but is unable to submit the course content that was covered previously, he/she may sit an examination set by the college (after payment of a fee). The examination result will be used to determine whether the credits of the course will be transferred or not.

Only grades obtained from courses taken at AUST will be taken into account in the calculation of a student's CGPA, i.e., grades obtained from transferred courses at the previous institution will not be taken into account in the computation of the CGPA.

It is important to note that AUST does not grant transfer students a degree unless they successfully complete at least 50 percent of the credit hours of the program, including the

- If available, a certificate of proficiency in English language, e.g. TOEFL with a minimum score of 500 score, or IELTS with a score of at least 5

Applications will be processed by the Admission and Registration Deanship only after the payment of application and registration fees of AED 1,300. Transfer students are also requested to pay AED 500 for the evaluation of the credits that will be transferred to them.

## 2.7 Certification of Documents

Newly-admitted students are requested to have their documents certified before the end of the first semester of study, otherwise their registration will be cancelled.

- High-school certificates obtained in the UAE must be certificated by the UAE Ministry of Education
- High-school certificates obtained abroad must be certificated by the Ministry of Education, and by either the Ministry of Foreign Affairs of the country of origin and the UAE embassy in that country, or by the embassy of the country which issued the certificate, and by the UAE Ministry of Foreign Affairs.

## 2.8 Admission Deposit

Students admitted to the Architectural Engineering, Interior Design, Pharmacy and Dentistry programs are required to pay a seat reservation deposit of AED 4,000. This deposit is non-refundable and non-transferable and must be paid before the deadline stated on the letter of admission. This deposit is deductible from the student's fee once the applicant joins Ajman University of Science and Technology. If the student asks to defer admission to the following semester and the request is approved, the deposit will be applied to the following semester.

## 2.9 Course Registration for New Students

Newly-admitted students who have a TOEFL score of at least 500, iBT 61, or IELTS Band 5, will be allowed to register for between nine and 18 credit hours according to their study plan.

Newly-admitted students who have a TOEFL score of between 480 and 499, iBT 54 - 60, or an IELTS Band 4.5, will be allowed to register up to nine credit hours according to their study plan, subject to concurrent registration in the Advanced Level of the Intensive English Program (nine hours per week), which is offered by the College of University Requirements and Academic Counseling.

## 2.6 Documents Required for Admission

- Application form, which may be obtained from the Admission and Registration Deanship, to be filled in by the applicant
- UAE Secondary School Certificate, or its equivalent, and grade transcript. Certified copies are acceptable
- Photocopy of valid passport
- Health certificate, issued by a university doctor
- Certificate of good conduct, issued by an official body
- Six passport-size photographs with the applicant's full name on the back of each
- A written commitment signed by the applicant that he/she will observe university rules and regulations

### ***c. Holders of British System Certificates (IGCSE, GCSE, GCE)***

A holder of a British system certificate is eligible for admission if:

- the applicant has passed seven subjects at the ordinary level of IGCSE or GCSE, with a minimum grade of C. If a subject is taken at the AS Level or A Level the required minimum score is reduced to D and E respectively
- the seven subjects must cover the following four areas: Mathematics, Science, Language, and Humanities or Arts
- the applicant must prove that he/she has completed at least 11 years of schooling by providing the grade transcript of Grade 11 and that of Grade 12, when available
- the applicant submits his/her school leaving certificate

## **2.2 English Language Proficiency**

Full admission to programs where the medium of instruction is English is given only to applicants with a score of at least 500 in the TOEFL examination (paper-based test), 61 in TOEFL (iBT), or Band 5 in IELTS (Academic).

Students who do not satisfy the above-mentioned minimum English proficiency requirement may begin their studies with conditional admission provided they have a TOEFL score of at least 450, iBT 45 or an IELTS Band 4. During their first semester they will be required to enroll in the Intensive English Program (IFP) offered by the College of Requirements and Academic Counseling, until they obtain at least 500 in the TOEFL, or its equivalent.

Admitted students with a score of below 450 (TOEFL) are required to enroll for an English preparation course (lower level) at the on-campus Continuing Education Centre. However, colleges will reserve a seat for them, for one semester only, if they obtain a score of at least 450 in TOEFL, iBT 45, or Band 4 in IELTS, at the end of the first semester of registration.

## **2.3 Admission on Probation**

Applicants holding a high-school score below the required minimum admission score of an academic program may be admitted on probation. They must sign an undertaking stating that they are aware that they will be dismissed from the university at the end of the probation period if they do not satisfy the following condition(s):

### ***a. Programs Taught in Arabic***

Admission on probation is granted for one academic semester only and is subject to the approval of the college which administers the

major and the Deanship of Admission & Registration. These students must register in four courses during the semester. They must obtain a GPA of 2.0 or more without failing a course, and satisfy any other condition(s) set by the Dean of the college. Students who do not fulfill the pre-defined conditions will be dismissed from the university.

### ***b. Programs Taught in English***

Admission on probation is granted for up to one academic year subject to the approval of the Deans of the College which administers the program and the Deanship of Admission and Registration.

Holders of a minimum TOEFL score of 500 must register in four courses during the semester. They must obtain a minimum GPA of 2.0 without failing a course, and must also satisfy any other condition(s) set by the Dean of the college. Students who do not fulfill the pre-defined conditions will be dismissed from the university.

Candidates who do not have a TOEFL score of 500 will register in the Intensive English Program during the first semester, at the end of which they are required to achieve the score of 500, otherwise they will be dismissed from all programs taught in English. If, however, they fulfill this condition, they will be allowed to register in four courses during the second semester. They must obtain a GPA of 2.0 or more without failing a course, and in addition satisfy any other condition(s) set by the Dean of the college. Students who do not fulfill the pre-defined conditions will be dismissed from the university.

## **2.4 Re-Admission of Former Students**

Students who have missed more than two consecutive semesters of enrollment (excluding the summer semester) at the university may apply for re-admission by completing the re-enrollment form which is available from the Deanship of Admission and Registration.

To be eligible for readmission, the applicant must meet the following conditions:

1. The applicant was not subject to academic or behavioral dismissal from AUST
2. The applicant must satisfy admission requirements in effect at the time of re-admission
3. If the applicant transferred from AUST to another accredited institution, he/she must apply as a transfer student.

No student will be re-admitted until all fees, charges and dues owed to the university have been paid.

## **2.5 Transfer Students from Accredited Institutions**

Students from accredited institutions of higher education may apply for admission in an AUST program in the same field of study if they have been in good academic standing, i.e., their Cumulative Grade

## b. Master's Programs

College	Degree	Total Credit Hours
Institute of Environment, Water and Energy	M. Sc. in Ground Water Engineering and Management	36
Business Administration	Master in Business Administration	36
Information Technology	M. Sc. in Information Systems	33

## 2. Admission and registration

Applications for admission should be submitted to the Admission and Registration Deanship prior to the beginning of each semester. To be eligible for admission, a student must have a secondary school certificate issued in the UAE, or its equivalent as approved by the UAE Ministry of Education.

The AUSI Council of Academic and Scientific Affairs determines the number of students to be admitted to each degree program each semester, according to the university's available resources.

### 2.1. General Admission Conditions

#### *a. Holders of UAE Secondary School Certificate:*

Holders of a Secondary School Certificate (SSC), Science Section, are eligible for admission in any college of the university if they satisfy the minimum score requirement for the degree program (see Table 1 ).

Holders of the Secondary School Certificate, Literary Section, with a minimum score of 60 percent, are eligible for admission to all degree programs in the following colleges:

- Business Administration.
- Foreign Languages and Translation.
- Information, Mass Communication and Humanities

They are also eligible for admission to the following programs offered by other colleges:

- Bachelor of Education/Teacher Training Program in Arabic and Islamic Studies
- Bachelor of Education in Teaching English as a Foreign Language
- Bachelor of Science in Information Systems
- Bachelor in Interior Design.
- Bachelor of Law

The decision to admit a student is made on a competitive basis taking

into account the number of available places as determined by the individual college and the applicant's final secondary school examination score.

Applications made by holders of foreign secondary school certificates will be considered according to Circular No. 200, 2004, and Circular No. 123, 2005, issued by His Excellency the Minister of Education, UAE, as listed below:

#### *b. Holders of Foreign Secondary School Certificates other than British System Certificates*

In general, holders of the national high-school certificate of a foreign country are eligible for admission if:

- The certificate is considered for admission in public universities of the country where it was obtained
- The certificate was awarded after at least 11 years of schooling
- The certificate includes at least six subjects covering the following four areas:
  - 1) Mathematics
  - 2) Sciences
  - 3) Languages
  - 4) Social Sciences/Humanities or Arts

Holders of high-school certificates from countries having two-level high-school certificates, must submit the certificate of the higher level.

Examples of Acceptable Foreign Certificates:

- Iranian: the Pre-University Certificate
- Indian Board(s): Senior Secondary School Certificate (Part II)
- Pakistani Board(s): Higher Secondary School Certificate (Part II)
- French Baccalaureate: completion of Part II
- Lebanese Baccalaureate: completion of Part II
- International Baccalaureate: completion of six subjects, with three at the higher level
- American High-school Diploma : High-school Diploma and completion of SAT

# 1. System of Education and Programs Offered

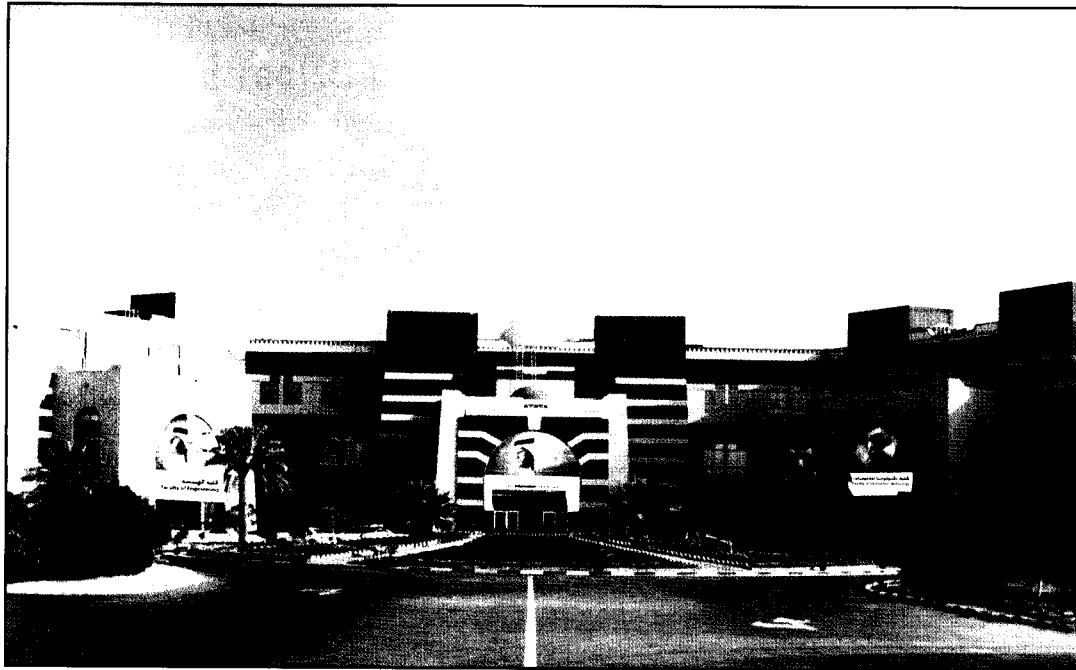
The university utilizes the credit hour system. This system requires that students earn a total number of credit hours, as determined by the university, to complete their program of study. The required number of credit hours is distributed over a certain number of semesters, depending on the program (see Table 1 for details).

Except for the College of Engineering, all AUST Colleges offer their programs at both the Ajman and Fujairah campuses. The College of Engineering offers only its BSc in Electrical Engineering at Fujairah campus.

**Table 1: Accredited degree programs offered**

## a. Undergraduate Programs

College	Degree	Number of Credit	Type of school Certificate & Minimum average score
Dentistry	Doctor in Dental Surgery	199	80% in Science.
	Diploma in Dental Hygiene	84	70% Science
Pharmacy and Health Sciences Engineering	Bachelor of Pharmacy	150	70% Science
	BSc in Nursing	132	70% Science
	BSc in Electrical Engineering/Electronics	142	70% Science
	BSc in Electrical Engineering/Communication	142	70% Science
	BSc in Electrical Engineering/Instrumentation & Control.	142	70% Science
	BSc in Biomedical Engineering	135	70% Science
	BSc in Architectural Engineering	169	70% Science
	Bachelor in Interior Design	133	70% Science, 65% Arts
	BSc in Computer Engineering	140	70% Science
	BSc in Computer Science	126	60% Science
Information Technology	BSc in Information Systems	126	60% Science/Arts
	BSc in Multimedia & Web Development	126	60% Science, 65%/Arts
	BSc in Management	126	60% Science/Arts
	BSc in Marketing	126	60% Science/Arts
Business Administration	BSc in Finance	126	60% Science/Arts
	BSc in Accounting	126	60% Science/Arts
	Bachelor of Education: "Teacher Training Program in Arabic Language & Islamic Studies"	132	60% Science/Arts
	Bachelor of Education: "Teacher Training Program in Mathematics & Science"	132	60% Science
Education & Basic Sciences	Bachelor of Education: "Teaching English as a Foreign Language"	126	60% Science/Arts
	Bachelor in Educational Technology	120	60% Science/Arts
	BA in Mass Communication & Public Relations	126	60% Science/Arts
	BA in English Language & Translation	126	
Information, Mass Communication & Humanities	BA in Communication & Translation	123	
	Bachelor of Law	132	60% Science/Arts



AUST Ajman Campus



AUST Fujairah Campus

ADMISSION AND REGISTRATION



- **Notification**

Library users are notified of the arrival of requested materials by mail, e mail or telephone as appropriate. Books must be picked up at the Circulation Desk.

- **Loan Period and Renewal**

The loan period and renewal options are determined by the lending library. Photocopies of articles need not be returned. Users may request renewal of books by telephone, fax or in person. Renewal requests must be made three working days prior to the due date.

- **Returning Materials**

All materials must be returned to the Inter-library Loan Department or the Circulation Desk. Late return of materials may negatively affect the ability of the AUST Library to receive cooperation from other libraries.

- **Lost Book Fees**

Lost or damaged materials are the financial responsibility of the user. It is the responsibility of the user to return borrowed materials to the Inter-library Loan Department. Overdue notices and due dates are a courtesy only, and the failure to receive an overdue notice does not absolve users from their responsibility as borrowers. AUST student interlibrary loan service privileges will be revoked and/or blocked until all lost books are returned and/or the replacement fee is paid in full.

It is the responsibility of the user to inform the Interlibrary Loan Department when the overdue or lost book is returned and/or the lost book fee is fully paid. The Interlibrary Loan Department will then consider reinstatement of service.

- **Fine Waivers**

A fine may be waived for the following reasons:

1. Death in the immediate family
2. Illness (a medical statement must accompany the request)
3. Library error

If a user has a large fine and is unable to pay, then a payment plan may be devised discussed and implemented.

Books, periodicals and articles not held by the AUST library and which are required for academic purpose may be procured from other libraries. For this serviced, users are required to fill an Interlibrary Loan (ILL) form which can be obtained from the Circulation Desk.

## **Photocopying**

AUST libraries provide photocopying services for print materials to all library users. International image reproduction and copyright laws are strictly observed.

## **Library Catalogue**

The library's Online Public Access Catalog (OPAC) is a computerized catalog similar in some respects to a card catalogue but far more advanced in the search facility it offers library users. These include key word searches in title, subject and name files. The same bibliographic information is included. The OPAC comprises all library holdings. Periodicals are also recorded in a computer print-out catalogue. Any item in the library can be searched through the OPAC by author, title, subject and call number.

## **Security System**

An electronic security system is in the process of being implemented to prevent the loss of library materials. If an item is taken out of the library without being properly charged, the exit gate barrier will lock and an alarm triggered. In this even the individual should return to the circulation desk to check out the item properly.

# Services

Library staff are available to offer services and to assist library users in using the library and its resources effectively.

## Circulation Services

The circulation desk is responsible for all transactions related with borrowing and returning of books and periodicals, placing materials on reserve, recalling borrowed material, assessing fines etc. Borrowing stops 30 minutes before library closing time.

## Reference Services

Reference desk staff offer assistance and instruction in the use of library's resources. Readers with bibliographic inquiries are advised to consult reference desk staff who are available during library opening hours. Users can contact staff in person, by telephone or by e-mail.

## CD-ROM Searches

The library offers literature search facilities in certain disciplines via CD-ROM (compact disk read-only memory). Through this technology, the user obtains a list of citations on a particular topic. A number of databases are available on CD-ROM and are computerized versions of major indexing and abstracting publications. Most are available on the Internet at: <http://website.ajman.ac.ae/library>.

## Inter-library Loans

AUST Library is dedicated to resource-sharing with libraries both within and outside the region. As a promoter of resource sharing networks, AUST library is in the process of developing a feasible procedure to lend learning materials and provide copies of journal articles to other libraries. The library aims to meet information needs by supplementing its own collection with resources that are available from other libraries through dependable delivery services. It is hoped that a wide variety of learning and research materials will be obtained. Inter-library loans encompass the following

- **Eligibility and Registration**

Students, faculty and staff of the inter-library loan program shared by universities and colleges in the region will be requested to register at the Circulation Department to identify their institutional affiliation and borrowing status.

- **Materials Offered**

Books, theses, dissertations, musical scores and some materials reproduced in microform may be borrowed. Photocopies of non-circulating materials, primarily periodical articles, can be requested in accordance with copyright guidelines.

- **Materials not Offered**

The following materials are usually not loaned by or available from other libraries:

1. Course textbooks
2. Items available in the AUST library
3. Whole volumes or issues of journals, newspapers or manuscripts, except in microform
4. Materials defined by the lending libraries as being from archival, reserve or reference collections
5. Audiovisual materials
6. Electronically stored information if restricted by license agreements
7. Reference materials

- **Copyright Compliance**

Copyright law governs the making of photocopies or other reproductions of copyrighted materials. The law stipulates that a photocopy or a reproduction is not to be used for any purpose other than private study, scholarship or research. If a user makes a request for, or later uses, a photocopy or reproduction for purposes in excess of "fair use," that user may be liable for copyright infringement.

- **Fulfilling Requests**

At present materials which are not available in AUST libraries may be ordered by completing an inter-library loan form. However, an electronic system for ordering materials directly over the internet will be implemented in the near future.

- **Processing Time**

It is expected that most materials will usually take from two to eight days to obtain. Out-of-region bound requests may take two to three weeks. The time taken for materials to arrive depends upon how quickly participating libraries can fill the request.

# Libraries

The literature relating to library and information science states that the effectiveness of the organization and its various activities cannot be determined without a statement of goals and objectives because, by definition, effectiveness is the degree to which a library accomplishes its stated objectives. The Association of College and Research Libraries (ACRL) Standards, published in June 2004, anticipates that the mission, goals and objectives of a college library should support the mission of the parent institution and should be spelled out clearly so as to serve as a framework for its activities. Outcome assessment measures take into consideration the library's dependence on technology, its increasing use of online services, its provision of information literacy skills and the budgetary split between print and electronic resources. The ACRL Standards require goals to be compatible and consistent with those developed by the institution. Assessment of the quality and effectiveness of the library should be linked closely with the specific mission and goals of the institution. The Information Resources Center should be involved in the overall planning process. These planning methods require input from a broad spectrum of the institution's community. Strategic planning that includes evaluation, updating, and refinement, provides an overall direction that helps to guide day to day activities and decisions.

## Mission

The mission of AUST's library and Learning Resources Centers is to support the university mission in identifying, organizing, preserving and offering accessible resources which serve the needs of college members, students and the community at large. In addition the library seeks to locate, acquire, organize and select the most appropriate material and make it accessible to users. It is also the mission of the library to build a comprehensive, balanced library collection and provide a good environment for reading, learning and research.

The upgrading and preserving of the library's information technology infrastructure to ensure prompt access to information and information services is also among the AUST library mission priorities.

## Goals and Objectives

The goals and objectives of AUST's library and LRCs are to:

- Provide current library materials and databases that support the academic curriculum
- Provide access to information resources, regardless of location
- Collect library materials in all formats, broaden and update all collections to meet the needs of AUST's programs and support the various aspects of the institution: teaching, training, research and services
- Educate and assist college, students and staff in the identification and effective use of information resources
- Continue to strengthen and update all collections to meet the needs of AUST programs
- Preserve AUST's collections and materials, and maintain and upgrade physical and technological infrastructure to enhance the quality of services
- Recognize that a minimum expectable standard is one resource per topic per student
- Meet or exceed accreditation standards
- Provide access to library resources and servers via web pages and online resources
- Ensure that resources available are current appropriate and accessible 24/7
- Work closely with users; know their needs and interests
- Put into practice the motto that building library resources is a continuous process
- Enhance information literacy, especially in the student community, by developing effective plans aiming at improving student ability to:
  1. Access information effectively and efficiently
  2. Evaluate information and its sources critically
  3. Understand economic, legal and social issues when using information
  4. Access and use information critically and legally

# Training Center

## Mission

The Training Center seeks to support the strategic vision of the university by bridging the gap between the academic realm, the community and the employment market. It strives to achieve this aim through three strategies: student training, staff training and community training. In doing so the center applies scientific criteria in the selection of trainers, programs and performance assessment.

## Objectives

The Training Center's short-term objectives:

- Student Training: to seek suitable credited-hour training opportunities for students in various public and private organizations, as part of their study plan

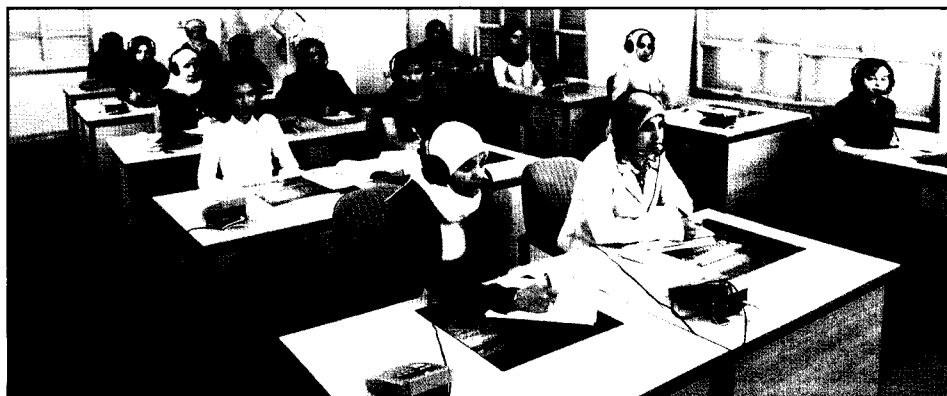
# Continuing Education Center

The Continuing Education Center (C.E.C.) was founded in response to the market's mounting need for excellence. We specialize in preparing both men and women for rewarding careers in various businesses and environments. We are well aware that students come to C.E.C. with a variety of academic experiences and backgrounds; hence, every effort is made by the administration and staff to integrate these experiences with the requirements of the work requisite. The long-term growth and success of our Center relies heavily on its aptitude to attract and retain qualified and keen staff and to maintain being a zenith in what it does best: continuing education.

C.E.C. also prepares students to work effectively by developing essential competencies in a reflective, learner centered teaching milieu. This method is implemented through an academic curriculum that incorporates field-based practice, reflection and application.

## Courses offered

Cisco Academy  
TOEFL Courses  
TOLIC Courses  
ICDL Courses  
CCNA Courses  
Business English Courses  
English Level I Courses  
English Level II Courses  
Management Courses  
IT Courses  
Web Designing Courses  
Clerical Courses  
Graphics Courses  
Soft Skills Courses (Customer Service, Leadership,  
Business Etiquette, Communication Skills, Sales)



# Career Counseling Center

## Mission

The Career Counseling Center endeavors to serve AUST students and alumni by educating them to successfully identify, plan and pursue their career goals. The center supports the mission of the university in its three dimensions - education, information and investment - by providing quality services which will enhance clients' employment potential, and by liaising with prospective employers. To achieve its mission, the center is assisted by the AUST Alumni Association, a non-profit organization which aims to enhance interaction between alumni, students, the university and the community.

## Objectives

The Career Counseling Center aims to:

- Help new students to selecting courses appropriate to their career interests and aspirations
- help students and graduates in decision-making, goal setting and planning for their careers
- offer guidance to students and graduates regarding the skills necessary to meet evolving job requirements
- help students and graduates acquire effective job search skills
- signpost students and graduates to job search resources
- provide AUST with job market information to aid academic planning
- seek recruitment, internship and voluntary or part-time opportunities for students and graduates through liaison with businesses, governmental bodies and organizations
- establish a plan for assessing the performance of career services and activities
- Establish and foster lifelong professional and personal relationships between the university and its alumni
- promote communication between alumni, and between alumni and the university
- promote the Alumni Association within the university and engender goodwill, understanding and support for the university in the wider community
- offer alumni opportunity to contribute to and participate in the university's decision-making processes
- establish fundraising mechanisms for the Alumni Association

## Services

The work of the Career Counseling Center includes:

Organizing:

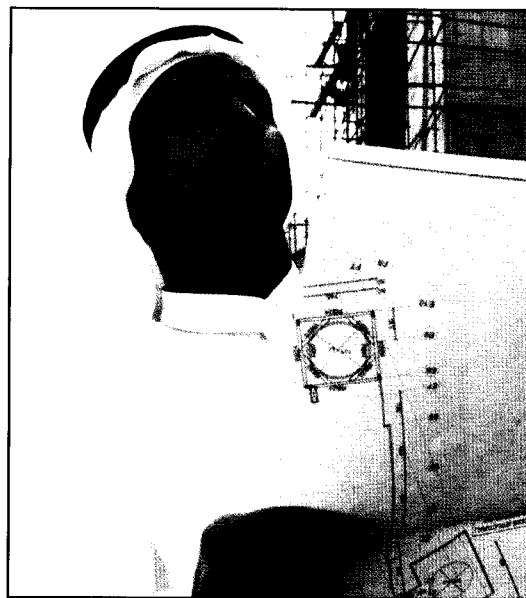
- Career days
- Social and cultural events
- Alumni clubs and forums

Providing services:

- Career guidance
- Group and individual counseling
- Employability skills development
- Psychometric tests
- "Innovation incubators"

Informing:

- Posting job advertisements electronically and on campus notice boards
- Employer portal
- Job seeker portal
- Classified jobs



The DSA's role in student transportation is to:

- coordinate the transportation of students to participate in various activities
- elicit student views concerning the transportation services offered
- solve student problems with the cooperation of advisors, who keep the DSA informed of recent developments
- improve the organizational performance in order to achieve high standards of services

### 3. Clinic

To ensure the health of its students, the AUST has established medical care units on all its campuses. These units are responsible for student healthcare and also provide emergency services and have four physicians, and 41 male and female nurses. The units also coordinate with the DSA to provide students with information about healthcare. These medical units perform the following tasks:

- Provide health instruction to new students
- Maintain student health records, keeping files which include personal information and healthcare history
- Check the authenticity of medical reports and approve them
- Coordinate with the DSA with regards to any health programs

The DSA encourages students to report regularly to the clinic and participate in health programs. It also facilitates health seminars, issues instructional bulletins and distributes questionnaires on student health, covering topics such as healthy eating, cleanliness, sleep, study skills, stamina, etc. In addition, a special health program is offered during Ramadan to explain the advantages of fasting.

### 4. SMART Superstore

Retail outlets on all campuses meet student needs for stationery, books in Arabic and other languages, software facilities, photocopying, printing and binding. Students may also purchase prescribed textbooks for all fields of specialization at low prices. The DSA monitors the services and coordinates with the supervisors of SMART Superstore to solve any problems that may arise. The Deanship makes every effort to ensure that books are delivered

promptly.

### 5. Other Services

The Deanship is responsible for examining the standard of other student services, for example restaurants, mosques, maintenance, cleanliness and security on campuses. With regards to restaurants, the DSA ensures that they are operating in accordance with required health standards. Mosques are kept clean and safe. The Deanship also checks the cleanliness and maintenance of lecture halls and deals with any problems that may arise. It also coordinates with the university's security staff to ensure appropriate handling of any problems. Finally, the Deanship designs questionnaires to assess the standard of services provided and recommends improvements.



#### 4. Athletic Society

This society seeks to improve students' athletic skills. It participates in organizing competitions, encourages students to take part in athletic activities and conducts training courses to improve stamina. The society also supports the DSA in athletic activities.

### STUDENT SERVICES

The DSA is responsible for monitoring the student services offered by AUST and service providers working within it – for example accommodation, transportation and health care services. It seeks feedback from students regarding the effectiveness of these services and uses it to inform decisions regarding the improvement of these services.

#### 1. Accommodation

In line with its vision, the AUST is eager to ensure the success of the education it provides. Student accommodation is therefore given high priority, as it plays a key role in student wellbeing and can have a positive impact on academic performance. For this reason an independent organization has been founded which is concerned with every aspect of life in the student accommodation, for example matters of comfort, the provision of three meals daily, the mini-market, health club, internet, etc. These services are offered at very low prices.

In addition, the organization offers additional free facilities, for example electricity and water, study rooms, libraries and newspapers. Various athletic facilities also provided and the university is currently working on building swimming pools at accommodation sites. Mosques are also available and contain religious books.

Student Residential Halls have the following facilities:

- Well designed rooms equipped with appropriate facilities such as furniture, refrigerators, AC, etc.
- Continuous supervision (day and night) by qualified supervisors (both male and female)
- Comfortable transportation between the accommodation and the university. Transportation is also provided for shopping trips

and visits

Student conduct in Residential Halls is subject to certain regulations:

- Security - all residential halls are protected by security staff patrols
- Curfew - staff monitor attendance records regularly for absences. Repeated violation of attendance regulations may result in dismissal from the residential hall for one or more semesters
- Smoking - male students are allowed to smoke out of doors and in their rooms. However, smoking in common areas is strictly prohibited
- Littering - all students are expected to maintain cleanliness inside the halls. Rooms are inspected periodically for cleanliness.
- Alcohol/Illegal Drugs - the use of alcohol or illegal drugs is strictly prohibited on campus. Students found in violation of this regulation will face severe disciplinary consequences
- Housekeeping - student rooms are cleaned at least once a week, and all common areas are cleaned daily
- Dorm Leave - all resident students are expected to sleep in their residential hall every night, except during official dorm closing periods or upon verification with residential hall staff by parents/guardians

To conclude, the DSA is eager to promote the quality of life in the residential halls. The Dean pays regular visits, meeting students and listening to their suggestions and complaints. The DSA also receives regular reports from advisors concerning conditions in the halls and takes action as necessary.

#### 2. Transportation

The transportation department is responsible for ferrying students between the residential halls and the university. The department has many buses which make more than fifty trips daily.

This department also provides students with transport to activities outside the university, for example visits to scientific and entertainment venues, lectures or conferences. Two buses are kept on standby round the clock to cover emergency requirements.

sporting facilities. These include playing fields for football, handball, basketball and volleyball. In addition, the gymnasium is equipped for a variety of sports and there are further facilities for chess, billiards, tennis, etc.

The division also organizes sporting events and participates in many indoor and outdoor athletic championships, such as:

- Inter-college teams
- forming university sport teams and regular training sessions
- participating with universities and colleges from across the UAE in championships and sporting competitions organized by the Higher Education Sports Federation
- promoting health and fitness through body-fitness programs and courses in track and field sports, games and swimming
- ensuring that the university sport facilities and equipment are updated
- ensuring that safety standards are upheld

The DSA provides other services, as outlined below:

## STUDENT COUNCIL

The Student Council is dedicated to the continuous development and welfare of the AUST community. The council is an executive authority consisting of 23 students chosen through campus-wide elections. The Student Council's mission is to represent students and give them the opportunity to communicate their views. It provides resources for various student organizations and clubs, offering guidance and support, as it seeks to build a generation that is established on the principles of teamwork, dedication and responsibility.

## STUDENT SOCIETIES

A student society is a body elected by AUST students; society activities are supported by the DSA. There are also academic societies in each college. The goals of these societies are to:

- encourage student participation in a variety of activities
- promote the spirit of cooperation among students, and encourage

them to take on responsibility

- provide support to new students by advising them and helping them in their new academic life
- obtain student input regarding needs and wishes, and pass the information obtained to the DSA
- act as a liaison between students and DSA supervisors
- meet with DSA members on a regular basis
- arrange for "acquaintance" meetings among students in order to break down the barrier between new students and the new academic society
- promote a study ethic among students and encourage them to abide by the rules and regulations of the university
- urge students to abide by the morals, principles and doctrines required by Islam

In line with the vision and philosophy of the AUST, the DSA arranges a series of developmental, educational and cultural courses for student leaders, with the aim of improving their performance and developing their leadership skills.

Student societies supported by the DSA:

### 1. Social Society

The Social Society is concerned with the social and human aspects of student life. It seeks to develop the relationship between students, the university and the community. The Social Society supports morality and promotes welfare work. The society also participates in social activities organized by the DSA.

### 2. Cultural Society

The Cultural Society is concerned with the intellectual, cultural, and literary life of students. It aims to promote students' talents through performances, exhibitions and participation in cultural activities, for example reading intellectual and literary publications and writing.

### 3. Artistic Society

This society seeks to develop the talents of students who are artistically inclined (e.g., in drawing, photography, art, etc.). It also arranges art exhibitions and conducts training courses in drawing and other forms of creative activity. Members of the society also participate in external exhibitions.



barriers between senior and new students and familiarizing them with the university atmosphere

- Listening to student complaints, working to find solutions, and informing parents about the academic status of their sons and daughters
- Promoting social awareness among students is done through a number of activities which include raising money for a variety of charitable causes and visiting institutions, for example orphanages
- Organizing activities during the holy month of Ramadan, which include Iftar, conferences, religious lectures, competitions, financial donations and other charitable deeds. Competitions in the recitation and memorization of the Holy Quran are also arranged
- Arranging social and educational activities, for example visits to cultural landmarks, scientific exhibitions and entertainment centers, and exchanging visits with scientific, teaching and social institutions
- Cooperating with UAE institutions and authorities in health awareness campaigns on subjects such as illegal drugs and smoking
- Organizing blood donation campaigns in cooperation with the Ministry of Health, and taking part in campaigns and celebrations organized by formal authorities, such as the Civil Defense and Traffic Week Festivals
- Running training courses, for example on first aid and personality development
- Supporting social activities that aim to develop students' personalities and consolidate their relationship with local values and morals

## 2. Cultural Activities

The DSA organizes a series of intellectual and cultural activities throughout the academic year. These activities aim at stimulating and enriching both intellectual and cultural aspects of students' personalities. They also contribute positively to building a solid intellectual and cultural background, and help students distinguish between constructive and destructive thinking in their campus life.

Cultural activities organized by this division include the following:

- organizing intellectual and cultural lectures and conferences

featuring experts from within and outside the university

- running cultural, intellectual, literary and scientific competitions, and awarding prizes and certificates for distinguished projects such as short stories, literary articles, scientific research and poetry competitions, with the aim of promoting student creativity
- organizing poetry readings, seminars, discussion forums and exhibitions of student work
- encouraging students to write articles for publication in the University Magazine
- forming student theatre groups and providing them with financial support
- participating in cultural, intellectual and scientific competitions organized by educational, literary and scientific institutions in the UAE

## 3. Art Activities

The DSA is keen to promote the aesthetic and artistic aspects of student life and seeks to further develop these. Throughout the year this division arranges participation in the following activities:

- Presentation of student work, such as drawings, sculpture, calligraphy, art, zincography and photography, in magazines. Exhibitions of student artwork, which provides excellent motivation for talented students
- Art competitions among talented students in a variety of fields
- Art competitions held in the UAE
- The design of wall magazines featuring students' written and artistic work, exhibited in university halls and corridors

## 4. Athletic Activities

Sport is a major feature of the function of the DSA, under the patronage of His Excellency Dr. Saeed Abdullah Salman, President of the AUST. Sport activities play an important role in promoting the physical and intellectual development of students.

Sport enables participants to build their physical wellbeing through exercise and is an important element in the development of personal and psychological balance. As an important part of the strategy and vision of AUST, the university has a wide range of

# Students Affairs

The Deanship of Students Affairs (DSA) was established in 1988 and is overseen by the Dean of Students Affairs. The DSA plays a vital role in governing, shaping and organizing activities that offer cultural activities and entertainment to the entire university community. It also provides various services to AUST students, contributes to the building of students' personalities and develops their talents.

The DSA comprises two divisions:

## Advising and Counseling Unit

All counseling sessions are confidential. Information that students share with counselors is not passed on to any third party, for example professors, parents, employees, etc.

For most AUST students, their academic life represents a significant period of transition. Although transitions can be exciting, they also require change and adjustment, which can sometimes be difficult. The university's Advising and Counseling Unit offers support services to assist students in their pursuit of academic and personal growth, helping them gain a better understanding and appreciation of themselves. It also supports students as they take important decisions in life.

The services provided help students overcome difficulties and learn the processes of problem solving, achieving their educational goals, enhancing their capacity for satisfying interpersonal relationships, defining their career goals and maximizing their ability for continued emotional growth beyond their educational experience. Members of this unit recognize and respect the diverse backgrounds, cultures, beliefs, experiences, values and capabilities of each student.

The services offered include both individual and group counseling sessions. The former is a one-on-one session where a student can meet with one of our professional student counselors to discuss matters such as physical complaints, anxiety, unhappiness, lack of interest in daily activities, personality changes that cannot be

explained (such as sudden shifts in behavior, etc). The latter comprises a group of students who, led by a counselor, discuss matters such as smoking, dating, procrastinating, making friends and succeeding.

Students can also visit the unit and read some of our self-help publications to educate themselves about their own issues and challenges.

To ensure that it meets its goals, the unit's functions include the following:

- distributes questionnaires to elicit feedback
- opens special files for students who are currently under counseling and advising
- conducts interviews with students to identify any urgent problems
- holds regular sessions to establish good relationships with students

## Student Activities Unit

Under the sponsorship of the DSA, this unit organizes many activities that span a wide range of interests, covering social issues, culture, art and sport. It also acts as the central support for the numerous student societies. This unit provides and organizes the following social, cultural, art and athletics activities:

### 1. Social Activities

These activities aim at widening and promoting the social aspects of the students' personality, thus activating and developing their role in building society and its social institutions. These activities also aim at training students in group and voluntary work. Moreover, there are several other social services and activities offered by the social division throughout the academic year such as:

- Receiving new students and their parents and finding solutions for the difficulties students may face at the beginning of their academic life
- Arranging and supervising meetings at which students are able to get to know each other, thus breaking down the psychological

# Health Clinics

## Mission

The University Health Clinics seek to complement the academic mission of AUSIN and are dedicated to providing educational, supportive, consultative healthcare services to students, staff, college and eligible dependants. In doing so the Health Clinics strive to make the campus a healthy and safe place to study, work and live.

## Objectives

The objectives of the University Health Clinics are to:

- provide primary healthcare to students, college, staff and eligible dependants
- provide emergency healthcare to Residential Hall and campus residents after working hours and at weekends and on holidays
- support the integration of university services and provide a healthy atmosphere to accomplish the university objective of a disease-free community
- provide high quality integrated health services in a timely manner, providing complete customer satisfaction

## Services

The Medical Services Administration provides the following primary healthcare, within available capabilities, through its clinics:

- Round the clock services for males and females
- General Clinics: primary healthcare, treatment, preventative medicine and health education on common diseases through the general practitioners to the university community
- Nursing: comprehensive nursing care and services, including routine and emergency cases, recording patient details and providing treatment
- Reception: receiving patients, preparing the patient files and records, recording personal data, preparing daily, monthly and annual statistics
- Medical Lab: carrying out medical tests and running tests referred from university physicians for nominal fees
- Referral System: referring urgent cases to hospital specialists
- Following up chronic cases and coordinating referrals to hospital specialists if necessary
- Carrying out medical checkups for new students



# Information Technology Department

## Mission

The mission of the Information Technology Department is to provide efficient and up to date services to all university IT users (college, students, and staff) to support their teaching, research and administrative activities.

## Objectives

The objectives of the IT Department are to:

- provide a robust IT physical and logical infrastructure, maintain WAN and LAN nodes and perform administrative operations to maintain constant IT service availability to users
- provide prompt and accurate technical assistance via knowledgeable staff, and to give due attention to users' requests and feedback
- develop database systems, maintain university wide database applications and give full support to application users
- create, maintain and enhance university and related websites, and to develop integrated applications to enhance user's web browsing experience
- perform RND to recommend new technology

## Services

- Help Desk
- User Accounts
- Video Conferencing
- Training
- Internet
- Wireless Networking
- Online Registration
- Maintenance and Replacement of Computing and Network Resources
- Systems and Network Security



# WHERE IS AUST ?

## THE UNITED ARAB EMIRATES

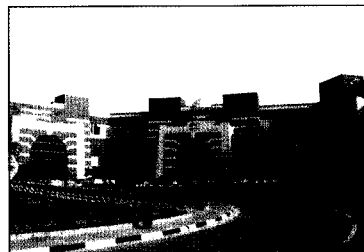
The United Arab Emirates is the federation of seven Arab Emirates: Abu Dhabi, Dubai, Sharjah, Ajman, Ras Al-Khaimah, Fujairah and Umm Al Quwain. The Federal State, which was formed in December 1971, is located on the eastern coast of the Arabian Peninsula. It covers an area of about 77,700 square kilometers situated between latitudes 22° and 26.5° North and longitudes 51° and 56.5° East. Some 86.6 percent of the land is accounted for by Abu Dhabi. The country is bordered by the Arabian Gulf to the North, Saudi Arabian and Qatar to the West, Saudi Arabia and Oman to the South East, and Oman and the Gulf of Oman to the East.

The terrain of the U.A.E. is characterized by sand desert, barren mountains, and salt flats. However, a number of green valleys and oases are scattered all over the country. Furthermore, an afforestation campaign and a land reclamation drive has turned hundreds of thousands of hectares of previously barren land into green areas.

The country's total population is approximately three million people including nationals, foreign Arabs, and other expatriate residents.

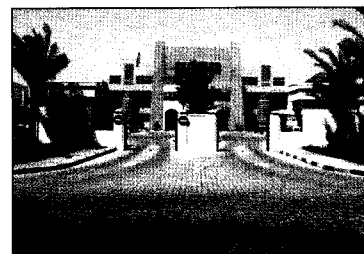
The weather can be extreme during the summer months, from May to October, with interior temperatures reaching 49°C and coastal temperatures slightly lower but combined with high humidity. Pleasant weather prevails during the rest of the year with temperatures between 20°C and 35°C.

The main natural resource is the oil with reserves up to almost one tenth of the world's total.



### Ajman:

The Emirate of Ajman is centrally located on the western coast of the U.A.E., a short distance from Sharjah, representing the northern flank of the (Dubai-Sharjah - Ajman) metropolitan area. Ajman was the birthplace of the University in 1988.



### Al-Fujairah:

The Emirate of Al-Fujairah is located at the eastern coast of the U.A.E., at about 120 km from Dubai. It overlooks both the Arabian Gulf and the Gulf of Oman. Ajman University's campus in Al Fujairah was opened in 1999.

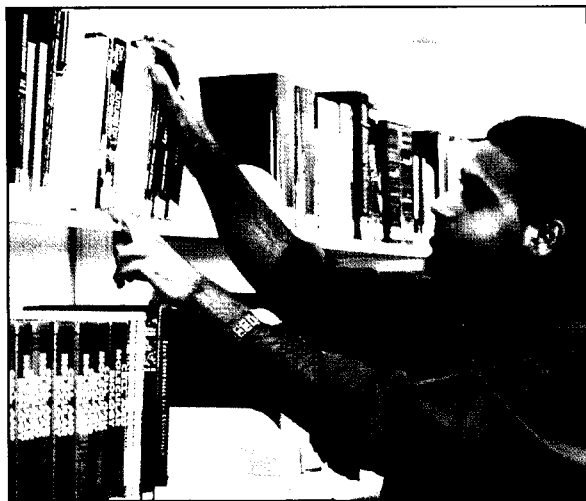


## SELECTION AND CUSTOMIZATION

An important aspect of AUSTIN philosophy is the necessity for the careful selection of the best methodologies, whether cultural, economical or political, and the adaptation of them to the local environment. The choice of educational systems and their customization for the environment in which the institution operates are good examples of this philosophy in practice – a philosophy which reconciles culture and tradition with modernity and technology, thereby contributing to progress and development.

## MODERNIZED-CONVENTIONAL" METHODS

AUSTI believes its main mission remains the instruction of tomorrow's intellectual elite. For this reason the vital process of imparting knowledge to students is continually reviewed and revised so as to ensure that the institution's programs meet their objectives. A variety of methods of delivery – harnessing the advantages offered by both "modernized conventional" techniques and multimedia based ones – are employed. "Modernized conventional" methods have the merit of establishing direct student/professor as well as student/student contact, and in addition encourage peer interaction. Furthermore, the more recently developed computer based teaching methodologies complement traditional pedagogical methods, allowing improvements in teaching processes and aiding the development of qualities such as self dependence in students.



# MISSION

Ajman University of Science and Technology aims to produce competent and skilled graduates who can be of immediate benefit to society, contributing to its development and well-being. In its educational dimension the university has adopted teaching and learning methodologies that are internationally recognized and of high-quality, customizing them to accord with the specific values, traditions and needs of the society in which the institution operates. AUSTN is committed to excellence, and to this end its educational programs are under continual review, ensuring that scientific and technological advances, as well as considerations regarding the needs of society, are fully integrated. High quality achievements, satisfying stringent International standards, have resulted from the judicious blending of education, information and investment - the three dimensions of AUSTN - and bear testimony to the vision of the founder, Dr Saeed Abdullah Salman.

# VISION

In today's world, the forces of globalization and new technology impose an increasingly uniform model of society – a model which in some respects threatens the cultural diversity and heritage of humanity. Therefore now, more than ever before, nations have need of universities which have a comprehensive vision – a vision which reflects national ambitions for progress and modernity yet at the same time preserves national culture, traditions and identity.

As an institution which promotes a new and active role for education in society, Ajman University of Science and Technology (AUST) seeks to adopt positive aspects of modernity. AUST believes that teaching, research and training practice need to constantly evolve, and that for this to happen an environment open to innovation is required – an environment which fosters creativity and favors the emergence of centers of excellence. Such an environment also requires an excellent infrastructure which actively promotes academic communication and interaction.

# OBJECTIVES

1. Offer degree programs relevant to the professional world
2. Enable graduates to achieve high professional objectives and assume leadership roles by providing them with up-to-date knowledge and advanced skills
3. Direct students' efforts towards the adaptation and application of their knowledge and skills to real and practical needs
4. Enable students to develop critical thinking skills, and impart to them the values of lifelong learning
5. Support the learning process and stimulate the teaching experience by providing an environment where teaching, research, training, expertise and practice complement and benefit each other
6. Establish a comprehensive framework for quality assurance involving both internal and external assessment
7. Guarantee the pertinence and quality of educational programs through the constant assessment of learning outcomes
8. Promote important aspects of professional life, such as ethical behavior, responsibility, standards and ideals

## THE UNIVERSITY'S OPEN SYSTEM

In a fiercely competitive world, innovation is essential for survival. To address the challenge, AUST seeks to bridge the divide between academia and the wider world, reaching out to the economic and business spheres in particular to enable them to benefit from developments forged in the academic environment. As the university evaluates its activities - from teaching and training to research projects and conferences – in terms of the practical needs of society, the institution's interaction with the community becomes mutually beneficial. The community provides the university with the practical input and experience necessary for ensuring a high quality of education, while at the same time enabling the university to correlate its programs with real needs. Many initiatives have been established facilitating collaboration between the university and the community, one example among many being the organization of "approach seminars," at which a variety of topics come under debate. As participants from government and private sectors attend, these events establish positive two way interaction and provide valuable feedback which impacts the planning of academic programs and their contents



# AUST's HISTORY

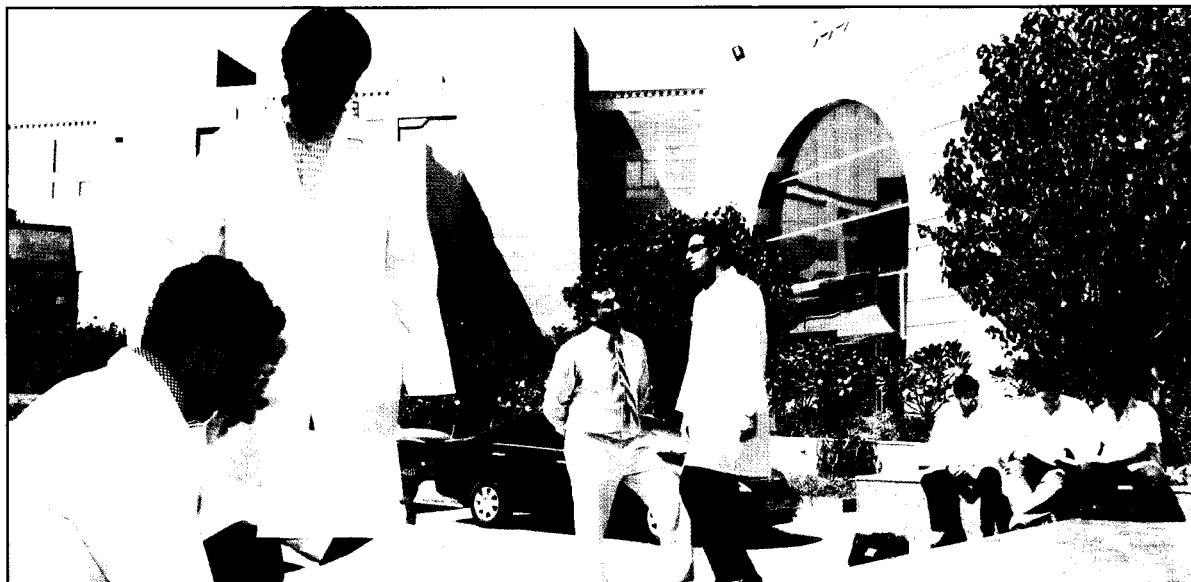
The establishment of Ajman University College of Science and Technology (AUCST) originated with the importance that His Highness Sheikh Zayed Bin Sultan Al-Nahayan, the President of the United Arab Emirates, attaches to higher education, and in particular to science and technology. The institution's genesis can be regarded as an embodiment of the directives of His Highness regarding the expansion of this type of education, with the aim of producing graduates capable of executing the nation's ambitious development plans.

In accordance with this policy, and to assist national development, His Highness Sheikh Humaid Bin Rashid Al-Nuaimi, Member of the Supreme Council and Ruler of Ajman, issued the Emiri Decree establishing AUCST on the 3rd of Dhil Al Qi'dah 1408 AH (corresponding to June 17, 1988). His Highness became the patron of the University College, which received its first intake of students on June 15, 1988.

AUCST was licensed by the UAE Ministry of Higher Education and Scientific Research on May 3, 1994 and, in accordance with the decree of the ministry No. (54) of 1994, and the decree No. (54) of 1997, became Ajman University of Science and Technology (AUST). AUST now enjoys the legal status of a Limited Liability Company, shared by Dr. Saeed Salman and H H Sheikh Humaid Al-Nuaimi, Ruler of Ajman and Member of the Supreme Council, and is managed by a 16-member Board of Trustees, of which His Highness is Chair and Dr. Saeed Salman is Vice Chair.

AUST is a founding member of the Association of Arab Private Institutions for Higher Education and the Euro-Arab Research. On April 13, 1999, AUST was accepted as an active member of the Association of Arab Universities.

In December 1st, 2007, AUST was re-licensed by the Ministry of Higher Education and Scientific Research. All academic programs are accredited and re-evaluated periodically by the Commission for Academic Accreditation.



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# Message From The President

*In the name of Allah the Most Compassionate the Most Merciful*

Ajman University of Science and Technology (AUST) Network was founded in 1988 as a private institution of higher education. Today it is a cutting-edge university – one which employs state-of-the-art technology while at the same time remaining grounded in Arab culture and the traditions of the Middle East.

Last June we celebrated the 20th anniversary of AUST Network, and two decades of teaching, training, research, expertise and practice. These have been years of education, information and investment, not only in the UAE but across the Arab region and also in the wider world. Thanks to the adoption of its comprehensive three-dimensional vision, the AUST Network has advanced in progress and prosperity. Today, as a result of this vision, the network is firmly established as an institution of expertise, providing the local community and the region with distinguished and high-quality experts in a variety of fields. AUST Network's Ajman and Fujairah campuses also provide open and innovative environments in which the latest educational methods and communication tools – CCTV, e-learning, videoconferencing, smart boards and multimedia labs – are used to further interactivity.

During the last two decades, AUST Network community members have spared no effort in communicating with both the business and civic communities via a variety of channels which include the organization of workshops, seminars, approach conferences and colloquia. Through such efforts, modest as they are, we aim to share the benefits of our endeavors with the wider community. At the regional level, the AUST Network has both launched and contributed to more than 700 projects and initiatives, such as the Association of Arab Private Institutions for Higher education and the Euro-Arab Research Network.

To conclude, we believe that the achievements of AUST Network are due to our comprehensive vision – a vision which has been implemented through continuous revision and development, through the selection of the best models from among a variety of educational systems, and through the embracing of technological advancement.

*Assalamu Alaikum,*

**Dr. Saeed Abdullah Salman**

President, Ajman University of Science and Technology Network  
President, Association of Arab Private Institutions for Higher Education  
President, Euro Arab Research Network



# BOARD OF TRUSTEES

**H.H. Sheikh Humaid Bin Rashid Al Nuaimi,**  
Member of the Supreme Council, Ruler of Ajman  
Chairman

**H.E. Dr. Saeed Abdullah Salman,**  
President of Ajman University of Science and Technology,  
Vice-Chairman

**H.H. Sheikh Rashid Bin Humaid Al Nuaimi,**  
President of Ajman Municipality and Planning Department,  
Member

**H.E. Prof. Abdussalam Al Majali,**  
ex Prime Minister of Jordan,  
Member

**H.E. Saeed Al Raqabani,**  
Advisor to H.H. the Ruler of Fujairah, CEO of Fujairah Welfare  
Association, ex Minister of Agriculture and Fisheries in the UAE,  
Member

**H.E. Abdallah Bin Humaid Al Mazroui,**  
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**H.E. Abdallah Bin Humaid Al Mazroui,**  
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**Dr. Muhammad Haitham Al Khayyat,**  
Senior Policy Advisor for the Regional Director in the Regional Office  
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Chairman of Scientific Miraculousness in the Holy Quran and the  
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Vice President for Follow up and Development,  
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**Dr. Zein Al Abidin Rizk,**  
Dean of the Institute of Environment, Water and Energy,  
Ajman University of Science and Technology,  
Member



**His Highness Sheikh Humaid Bin Rashid Al Nuaimi**

Member of the Supreme Council

Ruler of Ajman

Chairman of the Board of Trustees of Ajman University  
of Science and Technology



**His Highness Sheikh Khalifa Bin Zayed Al Nahayan**

President of the United Arab Emirates

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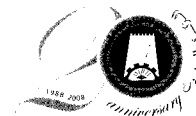
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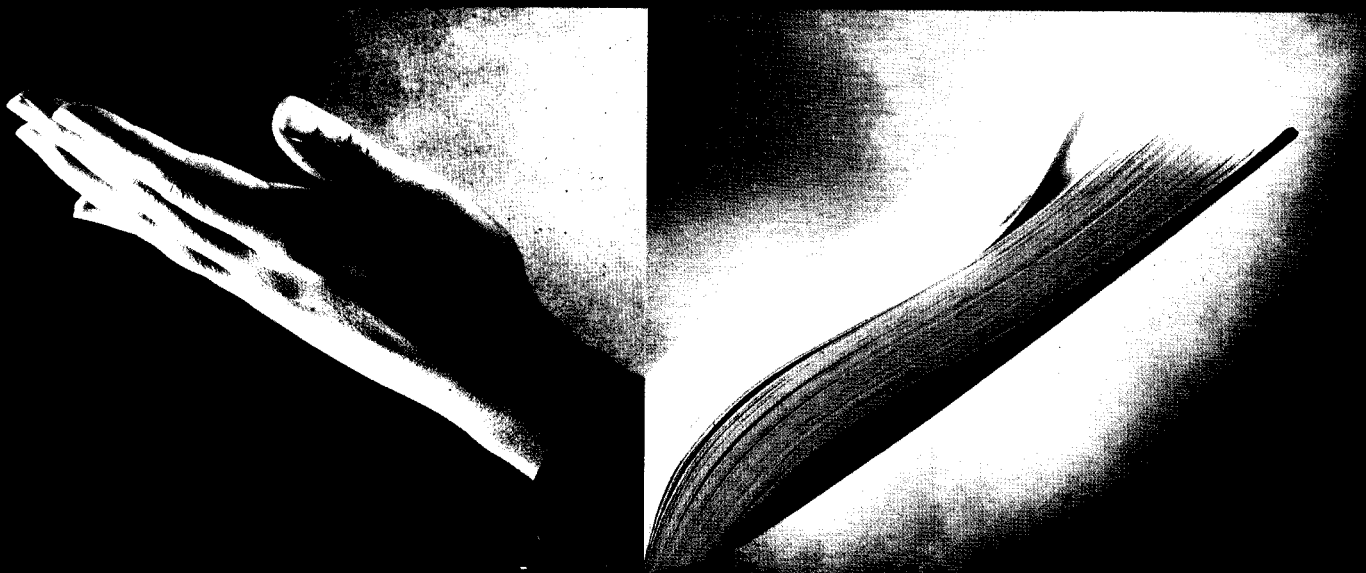
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