APPENDIX C: COURSE DESCRIPTIONS

BMAC N400 - INTERMEDIATE FINANCIAL ACCOUNTING
This course examines important topics, such as the FASB’s Conceptual Framework, that serve as a foundation for a more detailed study of financial statements. The course provides an overview of the balance sheet, its financial disclosures and limitations. It also considers important issues in dealing with income statement content, presentation, disclosure and the timing of revenue recognition.
CREDITS: 4

BMAC N410 - MANAGEMENT ACCOUNTING ISSUES
This course is for graduates of the Accounting Higher Diploma program who have continued into the Bachelor of Applied Science. The course builds on the material covered in Management Accounting I and II. This is an advanced course, covering the nature of management control systems and its influence on human behavior.
CREDITS: 4

BMAC N450 - ADVANCED FINANCIAL ACCOUNTING
Most managerial decisions are based on financial information that accountants develop; thus, this course studies the accounting reports produced for financial decision making. It provides the students with the necessary knowledge to succeed in the modern world of accounting. The emphasis throughout is on financial accounting concepts and their application to problems arising in UAE and international business organizations.
CREDITS: 4

BMAC N460 - AUDIT
This course is designed to provide students with a basic understanding of the auditing aspects of accounting. These include the objectives of an audit, and the auditor’s duty. In addition, this course examines the role of auditing in the assessment of the reliability of financial information within the context of the UAE.
CREDITS: 4

BMAC N470 - GOVERNMENT ACCOUNTING
This course enables students to understand government fiscal activities that impact the economy; government financial reporting models; the government’s power, as the major purchaser of goods and services, to impose levies, taxes and investments. Government activities are examined closely through mechanisms, such as budgets and appropriations. The course covers the fundamentals of fund accounting as well as basic financial statements.
CREDITS: 4

BMAC N480 - BUSINESS TAXATION
This course emphasizes tax concepts and issues. The course explains the principles and the professional standards governing the tax systems. In addition, it provides an approach to the taxation of individuals and a more in-depth study of the taxation of different business entities. This course particularly focuses on technical details to provide a foundation for future practice in taxation and consulting.
CREDITS: 4

BMFS N400 - ADVANCED FINANCIAL ANALYSIS
This course has been designed to ensure that students develop the skills necessary to analyze and interpret the wide range of financial ratios that can be calculated from both the financial and management accounts, which are presented by large, medium and small sized corporations, to corporate bankers and other financial services institutions.
CREDITS: 4

BMFS N410 - INSURANCE
This course is designed to provide an overview of the global and local insurance industry. The various roles of the insurance industry in the development of the global and local economy are explored, at both a macro and micro level. Particular emphasis is placed on applying this knowledge to the challenges and opportunities facing the insurance industry as a result of globalisation and the changes this will bring to the local insurance market.
CREDITS: 4
BMFS N450 - INVESTMENT ANALYSIS
This course introduces students to the fundamentals of investment analysis. The course focuses on real world examples including the US, UK, European and UAE equity and debt markets, as well as other world equity and debt markets. The concept of logical portfolio building using a mixture of risk-free and risky assets will be explained. Students are encouraged to perform their own analysis on selected issues and to follow current investment articles in the financial press.
CREDITS: 4

BMFS N460 - LENDING AND SECURITIES
This course provides students with the skills necessary to make decisions about the provision of facilities and financial packages for corporate customers based on their financial statements and risk weighted valuations of the security offered in support of their requests. Students learn about both the direct security from the lender and the collateral security from corporate groups and director guarantors in support of the overall request for facilities and financial packages.
CREDITS: 4

BMFS N470 - ISLAMIC BANKING AND INSURANCE
This course is an introduction to the study of Islamic Banking and Insurance and students gain a basic knowledge of the conventional banking system. Basic micro and macro economics are prerequisite for this course. Students are introduced to the basic fundamentals of Islamic economics and shown how these have influenced the development of Islamic banking and insurance institutions and instruments.
CREDITS: 4

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This course has been designed to ensure that students develop the skills necessary to analyze and interpret the wide range of financial ratios that can be calculated from both the financial and management accounts, which are presented by large, medium and small sized corporations, to corporate bankers and other financial services institutions.
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CREDITS: 4

BMGN N340 - MANAGEMENT INFORMATION SYSTEMS
This course focuses on the role of computer-based information systems in business organizations from a management perspective. The strategic nature of an information system is emphasized in relation to other business systems. Students learn that managers must also understand the major parts of an information system, their general interrelationships and appropriate terminology in order to communicate business requirements successfully with IT professionals. Students also learn how managers analyze data using off-line and on-line software tools.
CREDITS: 4
BMFS N470 - Islamic Banking and Insurance
This course is an introduction to the study of Islamic Banking and Insurance and students gain a basic knowledge of the conventional banking system. Basic micro and macro economics are prerequisite for this course. Students are introduced to the basic fundamentals of Islamic economics and shown how these have influenced the development of Islamic banking and insurance institutions and instruments.
Credits: 4

BMGN N340 - Management Information Systems
This course focuses on the role of computer-based information systems in business organizations from a management perspective. The strategic nature of an information system is emphasized in relation to other business systems. Students learn that managers must also understand the major parts of an information system, their general interrelationships and appropriate terminology in order to communicate business requirements successfully with IT professionals. Students also learn how managers analyze data using off-line and on-line software tools.
Credits: 4

BMGN N400 - Total Quality Management
This course takes an integrated approach to total quality management (TQM). Students draw on what they have learned in courses such as marketing, economics, organizational behavior, and statistics. The class models best practice by focusing on internal and external customer requirements, continuous improvement, the use of teams, and data-based decision making.
Credits: 4

BMGN N450 - Management Strategy and Policy
This course, as a capstone to management courses, takes an integrated approach to the teaching of the subject and to assessing the students. It imparts understanding of the framework of the strategic management process; analyzes strategy formulation; analyzes strategy implementation in the context of designing organizational structures and control systems; examines social and ethical responsibilities of business strategy; and expects students to apply their knowledge analytically and creatively to the analysis of case studies.
Credits: 4

BMGN N460 - Operations Management
This course covers a range of principles and practices of organizing, manufacturing and service operations with a special focus on operations in the UAE. Students recognize common and unique aspects of the UAE operating environment; determine how the manufacture of goods and provision of services fits into an organization's overall strategy; and design manufacturing and service processes and plan their implementation. A management viewpoint with an emphasis on pattern recognition and problem solving is built throughout the course.
Credits: 4

BMGN N470 - Project Management
This course provides the necessary tools and information to manage and control projects and their resources. Project management is defined; project phases and goals are identified; and stakeholder impact is discussed. It covers a range of principles and practices in the initiation, planning, staffing, coordinating and completing of a project within the triple constraints of schedule, budget and performance.
Credits: 4

BMHR N400 - HR Planning & Recruitment
This course looks at human resource planning and recruitment as part of the organizational level strategic planning process. It covers the formulation of a strategic human resource plan that links the human resource function with the direction of business units and the organization as a whole. The course includes identifying key issues and developing, implementing and evaluating a strategic human resource plan.
Credits: 4

BMHR N410 - Career Planning and Development
This course helps students to understand how organisational performance is enhanced by managing the talent effectively. Learners in the course will review resources from a variety of theoretical and pragmatic perspectives, and able to answer why career management is vital to organisation’s success, how to identify and develop the management talent, what policies will help in the career progression of employees and finally how to develop a successful career plan for employees.
Credits: 4
BMHR N420 - Human Resource Systems
The course focuses on the application of computerized human resources information systems (HRIS) in the work of human resource professionals. An understanding of how an HRIS increases the effectiveness of the human resource function in an organization and enables HR to become a strategic partner in the company will be covered. The course provides a hands-on opportunity to use HRIS software.
Credits: 4

BMHR N430 - Performance Management
This course is designed to help students who want to make human resource management a career. The course examines the development of performance management systems, setting them in their historical context, and discussing the great importance attached to them today. It focuses on the application of performance management processes, methods to assess the organisation’s performance, reasons for under-performance and the role of compensation in team and individual performance.
Credits: 4

BMHR N450 - Organizational Development and Management
Organizational Management and Development involves the study and practical application of organizational science, management and behavior within modern business. Students will enhance their ability to develop organisational excellence and act as change agents by examining innovative models of leadership, organisation culture, globalization, workforce and team management and managing change. Students will have the opportunity to apply their educational experiences to real-life situations faced in the workplace.
Credits: 4

BMHR N470 - Industrial Relations
The study of industrial relations looks at how organizations manage people, and the wider social and economic context in which they operate. Students determine the role of the economic, social and political environments on the employment philosophy of the company. Students also learn the importance of collective bargaining, the changing nature of work and some ethical issues associated with industrial relations while discussing industrial relations and its impact on different organizational structures.
Credits: 4

BMKT N401 - Consumer Behavior
This course provides students with an in-depth understanding of the various processes and influences involved in the way consumers make purchasing decisions. From a sound theoretical basis, students undertake a consumer behaviour research project which may be related to their field of work. This course also provides an opportunity to investigate various cultural issues in purchasing behaviour in the UAE / Middle East context.
Credits: 4

BMKT N410 - Marketing Simulation and Application
This course comes after all basic marketing courses have been completed. Students use the ‘MARKSTRAT’ simulation to put into practice a wide range of marketing principles including segmentation, positioning, use of research, target marketing, product development, distribution and pricing strategies, promotional strategies, competitor analysis and market planning. Students develop strategic and planning skills which guide the many tactical decisions that need to be made. The simulation is designed to match live market conditions, and gives the student a real sense of what it is like to be a marketing manager.
Credits: 4

BMKT N420 - Retail and Distribution
In this course students gain an in-depth understanding of retail marketing strategy and distribution/supply chain strategy. In addition to case study and other classroom and online work, students gain a practical insight into retail marketing, as it relates to the UAE, through a major project of a local major retailer. Students also investigate the legal environment for developing distribution channels in the UAE, to help them in any entrepreneurial pursuits they may wish to undertake. They also analyse and evaluate aspects of on-line retail and distribution.
Credits: 4

BMKT N450 - International Marketing
This course builds on previous marketing courses by allowing students to apply their marketing knowledge to the more complex international environment, with its inherent unique challenges and pitfalls.
Credits: 4
BMKT N460 - INDUSTRIAL AND SERVICE SECTOR MARKETING
This course is a combined study of business to business marketing and services, marketing concepts and practices. In the first part of the course, students investigate organizational buying behavior, business market segmentation and business marketing strategies. In the second half of the course students gain an in-depth understanding of the unique challenges inherent to marketing quality services. Students undertake research on the changing nature of services marketing and the effect of information technology on the convergence of manufacturing and service industries.
CREDITS: 4

BMQM N410 - STATISTICAL METHODS IN QUALITY ANALYSIS
This course provides students with skills related to the advanced statistical techniques used for the description and analysis of business problems. The subject is essentially concerned by developing the skills of the students in statistical analysis and decision-making, testing of hypotheses, linear and non-linear, ANNOVA, statistical quality control, acceptance sampling, correlation and regression techniques.
CREDITS: 4

BMQM N420 - MEASURING CUSTOMER SATISFACTION
This course includes information on how to develop a system to monitor the voice of the customer on a continual basis, as well as how to use customer data to increase market share. Included in the course are various tools for gathering customer data such as focus groups, surveys and complaint tracking. Other topics include: handling customer complaints; responding to angry customers; measuring customer satisfaction by surveys; sampling techniques; survey design; effectiveness of the various survey techniques; analysis of the responses; interviewing techniques; customer satisfaction; and quality assurance.
CREDITS: 4

BMQM N430 - QUALITY PLANNING, IMPLEMENTATION AND AUDIT
The course includes an analysis of critical quality planning practices and how to implement evaluations and audits as part of a quality assurance program.
CREDITS: 4

BMQM N440 - LEAN PRODUCTION AND SIMILAR OPTIMIZATION TECHNIQUES
This course provides an overview of the issues facing production environments. It explores the key concepts of quality management, waste reduction and supply chain management.
CREDITS: 4

BMQM N450 - ISO STANDARDS FOR INDUSTRY AND SERVICES
This course provides basic knowledge of International Organization for Standardization’s (ISO) standards and other publications. It covers practical skills relating to the interpretation of requirements, planning, implementing, sustaining and the integration of management systems according to different models. Learners, as prospective executive representatives for management systems, learn the concept of the process and system approach, along with its impact on continuous improvement within an organization.
CREDITS: 4

BMQM N460 - INTERNATIONAL AND UAE QUALITY AWARD SYSTEMS
This course provides an opportunity for students to develop the frameworks of understanding in regards to quality award systems. Students discuss terminologies and the purpose of quality awards while studying selected methodologies of quality awards and how to prepare an organization for a selected quality award.
CREDITS: 4

BUS 1003 - MANAGEMENT AND LEADERSHIP
This course will give students an understanding of how the concept of leadership and management has been understood by practicing managers and behavioral scientists. Students will learn the basic functions of management, management levels and skills, model of communication, individual and group decision making, role of leaders in managing the change, leadership theory, concepts and practical issues related to both the UAE and the wider business environment.
CREDITS: 3

BUS 1103 - ECONOMICS FOR MANAGERS
This course introduces the basic concepts of Microeconomics and Macroeconomics and their impact(s) on businesses and business decisions.
CREDITS: 3
BUS 1203 - Software Applications for Business
This course introduces computer terminology, hardware, software, operating systems, and information systems relating to the business environment.
Credits: 3

BUS 1303 - Marketing
This course introduces the basic concepts of marketing.
Credits: 3

BUS 1403 - Business Ethics and Corporate Governance
This course provides an introduction to business ethics. Codes of conduct are studied and ethical dilemmas are explored.
Credits: 3

BUS 1503 - Accounting for Managers
This course is an introduction to accounting as the language of business.
Credits: 3

BUS 2003 - Business and Commercial Law
This course provides an insight into the fundamental principles of law including contract and tort and the foundations of UAE law including the Civil Code and the Judicial System. The course then focuses on the business aspects of law including an introduction to company formation; financial control and workplace issues. The course will develop an understanding of how law may control business operations and the procedures for resolving conflict and seeking appropriate redress.
Credits: 3

BUS 2103 - Operations Management
This course provides a detailed study of the management of an organization’s chain of value adding activities, from procurement of resources and transformation into manufactured goods and service outputs, through distribution to customers. The major areas include operations strategy, tools and techniques of operations management, quality, product and service design, process selection and layout, capacity, production scheduling, inventory, supply chain management, procurement, transportation, and other related issues and models.
Credits: 3

BUS 2203 - Business Statistics for Managers
This course is designed to develop students’ ability to assess and critically interpret statistics and business information and apply them in changing business environments. The subject places strong emphasis on developing a clear theoretical understanding of various analytical tools including descriptive statistics; probability; hypothesis testing and correlation and regression analysis; as well as an appreciation of the application of analytical tools to business decision contexts. These skills and competencies provide a foundation for professional practice and for further study in the many different majors of the degree.
Credits: 3

BUS 2303 - Financial Management
This course provides an overview of the financial management basics for financial decision making. The course will help students to develop the knowledge and skills for management of funds. Specific topics include long term sources of finance, concepts of leverage, time value of money, bond and stock valuation, financial planning and forecasting, working capital management and short term financing.
Credits: 3

BUS 2403 - Innovation and Entrepreneurship
This course develops the concepts and skills of how to start and run new ventures, and discusses the challenges entrepreneurs face in a rapidly changing economic environment. Informed by industry and local entrepreneurs the course discusses how to formulate a business plan and financial feasibility study, and synthesizes the knowledge students have obtained from their management, economics, marketing, accounting, finance, operations management, business law and ethics courses. This course is anchored on a capstone project that requires students to engage with industry and the business environment to analyze an existing innovative venture in their business neighborhood, and/or to create a comprehensive business proposal for a new idea.
Credits: 3

BUS 3003 - Managing People and Organisations
This course is designed to help students understand the linkage between organizations; human resource management (HRM) and business success.
Credits: 3
BUS 3103 - INTERNATIONAL BUSINESS AND GLOBALISATION
This course gives students an understanding of how the global context of the business environment impacts upon managerial processes.
CREDITS: 3

BUS 3203 - STRATEGIC MANAGEMENT & BUSINESS POLICY SIMULATIONS
This is a capstone course for the business administration discipline. Through case studies it analyses the nature of competitive advantage, and the various strategies available for firms to develop sustainable business growth in a global environment. The course contains a complex business management simulation through which the students are able to put theory into practice.
CREDITS: 3

BUS 3406 - WORK RELATED LEARNING
This course is designed as a framework within which a range of work related learning activities can be accommodated to meet defined learning outcomes.
CREDITS: 6

BUS 4113 - FINANCIAL ACCOUNTING 1
This course provides students with the knowledge of how to identify and apply the concepts and principles of accounting for merchandising business.
CREDITS: 3

BUS 4123 - AUDITING AND ACCOUNTING INFORMATION SYSTEMS
This course provides students with a basic understanding of the overall purpose and objectives of audit and to give an insight into the basic concept and function of Accounting Information System (AIS).
CREDITS: 3

BUS 4133 - MANAGERIAL ACCOUNTING 1
This course introduces a business-management approach to the development and use of accounting information for internal reporting and decision-making.
CREDITS: 3

BUS 4143 - GOVERNMENT ACCOUNTING AND IFRS
This course enables students to understand government fiscal activities that impact the economy, government financial reporting models; government’s power as the major purchaser of goods and services to impose levies, taxes and investments.
CREDITS: 3

BUS 4153 - FINANCIAL ACCOUNTING 2
This course examines important topics that serve as a foundation for a more detailed study of financial statements. It provides the students with the necessary knowledge to succeed in the modern world of accounting.
CREDITS: 3

BUS 4163 - TAXATION
This course emphasizes tax concepts and issues; it explains the principles and the professional standards governing the tax systems. In addition, it provides an approach to the taxation of individuals and a more in-depth study of the taxation of different business entities.
CREDITS: 3

BUS 4173 - MANAGERIAL ACCOUNTING 2
This course develops analytical skills useful for managerial decision making. The course introduces students to the evolving role managerial accounting is expected to play in servicing the informational needs of managers in planning, organizing and controlling functions.
CREDITS: 3

BUS 4183 - CORPORATE FINANCE
This course provides students with the necessary exposure to the various tools used in analyzing and evaluating the financial performance of business in terms of risk and return.
CREDITS: 3

BUS 4213 - FINANCIAL QUANTITATIVE METHODS
This course systematically builds upon students knowledge of excel and its application to financial concepts. It critically explores the time value of money; risk and return relationships and bond and stock valuations. Students will explore and apply the capital asset pricing model and develop and analyze diversified investment portfolios.
CREDITS: 3
BUS 4223 - Retail Finance and Marketing
This course analyses the dynamic, competitive and ever changing environment for retail banking and the regulatory framework within which the retail finance industry operates.
Credits: 3

BUS 4233 - Financial Assets and Markets
This course examines the operation of the financial market of a variety of asset classes including equities; derivatives; fixed income securities and alternative investments.
Credits: 3

BUS 4243 - International Trade and Finance
This course critically examines the economic, political and market analysis of Foreign Exchange (FOREX) risks, FOREX exposure management and buyer / country risks avoidance for customers using a variety of methods of payments in international trade.
Credits: 3

BUS 4253 - Law, Ethics & Professional Standards
This course builds upon a basic understanding of law and ethics and examines the legal framework within which financial institutions operate. Students critically examine conflicting legal and ethical interests, rights and obligations, international law and professional standards as applied to banking and financial services.
Credits: 3

BUS 4263 - Corporate Finance, Banking and Lending
This course evaluates issues that affect finance managers particularly the cost of capital, capital budgeting, financing decision, working capital and management of cash flow. It also critically analyses the various commercial and corporate banking products and issues specific to the banking industry such as risk management, capital adequacy, liquidity management and lending principles.
Credits: 3

BUS 4273 - Wealth and Risk Management
This course examines the economic; political; social and technological factors that impact investment returns. It then provides an exploration of the application of financial instruments and modern portfolio theory to equip students to provide financial solutions to meet the investment, retirement, protection, estate and tax planning needs of their clients and how these may help mitigate expected and emergent change.
Credits: 3

BUS 4283 - Islamic Finance
This course critically examines the principles of Islamic banking, finance and insurance (Takaful) comparing and contrasting it with conventional approaches.
Credits: 3

BUS 4313 - Employee Relations and UAE Labor Law
This course builds upon earlier study of the principles of law, in particular the legal relationship between employer and individual employee; and the common law aspects of that relationship, including contracts and tort.
Credits: 3

BUS 4323 - Career Development and Planning
This course helps students understand how organizational performance improves by managing the workforce efficiently and effectively.
Credits: 3

BUS 4333 - Recruitment and Selection
This course develops students’ knowledge and skills of the recruitment and selection process in human resource management and the importance of ensuring that the best people are selected to work in organizations.
Credits: 3

BUS 4343 - Training and Development
This course develops an understanding of the roles and benefits of training and development, and a working knowledge of the training cycle. Participants demonstrate the ability to design, develop, deliver and evaluate training.
Credits: 3
BUS 4353 - INTERNATIONAL HUMAN RESOURCE MANAGEMENT
This course examines the opportunities and challenges associated with managing employees in international and cross-cultural contexts, with specific emphasis on international recruitment, selection, preparation, placement, management development, performance management, reward and remuneration in the international, multi-national and trans-national corporation.
Credits: 3

BUS 4363 - MANAGING ORGANIZATIONAL CHANGE
This course provides students with an understanding of the nature of change, driving forces of change, theories and models of organization change and the process of organizational change within the theoretical frameworks of organization culture, power, politics, resistance to change and leadership. It examines both a theoretical and practical approach to the issues of change diagnosis and strategies to manage and implement the change.
Credits: 3

BUS 4373 - STRATEGIC HUMAN RESOURCE MANAGEMENT
This course critically analyzes business challenges including HRM long term planning to meet organizational objectives; managing workforce diversity; implementing downsizing strategies, creating outsourcing solutions and managing knowledge based economies.
Credits: 3

BUS 4383 - PERFORMANCE MANAGEMENT
This course examines Human Resource Management as a career. It critically examines the development of performance management systems, setting them in their historical context, comparing traditional and contemporary approaches.
Credits: 3

BUS 4413 - TOURISM AND EVENTS MANAGEMENT
This course provides an overview of the tourism field including the major components and functions along with the methods and techniques utilized in planning, organizing, promoting and delivering events; and the role of events in generating and sustaining a tourist market.
Credits: 3

BUS 4423: TOURISM AND EVENTS MARKETING
This course builds on existing knowledge and provides an applied approach to the strategic function of marketing in the context of national and international tourism and events.
Credits: 3

BUS 4433: MEETINGS, INCENTIVES, CONFERENCES & EXHIBITIONS (MICE)
This course examines the complex nature of the operational aspects of Meetings, Incentives, Conferences & Exhibitions (M.I.C.E).
Credits: 3

BUS 4443: SPECIAL INTEREST TOURISM (SIT)
This course investigates the unique and rapidly developing field of special interest tourism (SIT).
Credits: 3

BUS 4453: INTERNATIONAL EVENTS MANAGEMENT
This course explores the rapidly expanding field of international events management. It provides an understanding of the social and cultural impacts on stakeholders; integration of business disciplines and exploration of the dynamic and challenging management environments that the management of international events demands.
Credits: 3

BUS 4463: CULTURE AND HERITAGE TOURISM
This course explores the principles and concepts of cultural tourism using international and local examples. It is designed to critically examine the practices necessary for identifying, evaluating, developing and sustaining cultural and heritage tourist attractions.
Credits: 3

BUS 4473: SUSTAINABLE TOURISM
This course critically examines the principles of sustainable tourism with reference to environmental, economic, and socio-cultural aspects of tourism development and provides students with an understanding of how environmental resources constitute a key element in tourism development.
Credits: 3
BUS 4483: Global Tourism: Policy and Planning
This course critically evaluates the policy frameworks and planning strategies designed to encourage more sustainable forms of global tourism.
Credit: 3

BUS 4513 - Strategic Decisions with Management Science
This course discusses a wide range of quantitative tools and techniques that support problem solving, and improve decision making.
Credit: 3

BUS 4523 - Strategic Supply Chain Management
This course analyzes why designing and managing the supply chain is one of the key elements to success for public and private: production or service companies. It examines strategies for providing value for customers, and how pricing decisions can contribute to better organizational performance.
Credit: 3

BUS 4533 - Quality Management Systems, Models and Theories
This course systematically evaluates the major components of quality systems, as well as the underlying theoretical and philosophical concepts of different quality models recognized in the UAE, or in internationally.
Credit: 3

BUS 4543 - Quality Management Tools and Metrics
This course evaluates the efficiency of the most important qualitative and quantitative analytical tools used in Quality Management systems internationally, to support the strategic decision making process of the management of an organization.
Credit: 3

BUS 4563 - Strategic Marketing and Global Competitiveness
This course explores the concepts and theories of creating and implementing a marketing strategy and offers a focus on the strategic planning process and marketing’s cross/inter-functional relationships.
Credit: 3

BUS 4573 - Customer Relationship Management
This course evaluates customer identification and segmentation methods, as well as systems related to multiple and diverse customer relationship management.
Credit: 3

BUS 4583 - ISO Standards and Institutional Excellence Awards
This course provides an exploration of important and relevant ISO standards including ISO 9001 Quality Management; and ISO 14000 Environmental Management standards through the application of these standards to case studies; it also compares and contrasts various other quality award systems such as the Baldrige National Quality Award, and the Khalifa Quality Award.
Credit: 3

BUS 4623 - International Business Finance
This course provides a study of the theory and practice of corporate international financial management, including the study of foreign exchange markets, exchange rate determination, international parity conditions, managing foreign exchange risks and exposure, and optimal policy tools to manage international financial environment.
Credit: 3

BUS 4633 - Business Negotiations
This course introduces students to the art of negotiation in the business environment. It utilizes practical exercises, role plays and case studies to illustrate strategies and tactics employed in negotiations.
Credit: 3

BUS 4643 - Cross Cultural Management
This course adopts a multi-disciplinary approach to introduce students to important issues and challenges in managing cultural diversity in the workplace. Conceptual and theoretical frameworks are used to develop an understanding of the ways in which cultures differ and how such differences impact on organizations.
Credit: 3
BUS 4653 - International Marketing
Successful completion of the Year 1 ‘Marketing’ course is a pre-requisite for entry to this course which broadens student understanding of marketing related factors pertinent to developing competitive international marketing entry strategies.
CREDITS: 3

BUS 4663 - International Trade
This course is designed to help students gain an understanding of those international trade issues which have become increasingly important in recent years as a result of trends towards international economic interdependence and globalization.
CREDITS: 3

BUS 4673 - International Law
This course covers the legal regulation of the world of international business and provides an introduction to the basic tenets of the legal system in the world market.
CREDITS: 3

BUS 4683 - Middle East Economic Growth and Regional Development
This course provides students with insights to issues such as economic growth, governance and the distribution of wealth in Middle Eastern countries by equipping them with a set of analytical tools which allow them to identify factors which influence economic growth over time and distance; consider some of the effects and side effects of economic growth, and develop and evaluate polices that seek to promote regional trade and development.
CREDITS: 3

BUS 4713 - Real Estate Concepts
The course provides students with an understanding of the core concepts in real estate and their application in the UAE. It introduces fundamentals such as measurement of property and the professional regulations; standards and behaviors expected by clients.
CREDITS: 3

BUS 4723 - Property Valuation Methods 1
The course provides an exploration of the theory and practice of property valuation and an understanding of the concepts of value and worth. The course will develop a detailed understanding of the principal valuation methodologies and how and when they should be applied to appropriate property types and market contexts.
CREDITS: 3

BUS 4733 - Property Management
This course provides the required knowledge for both the effective strategic management and day to day maintenance of a property. The course will consider leasing and marketing activities and ways to coordinate and oversee the safe, secure, and environmentally-sound operations and maintenance of these assets in a cost effective manner.
CREDITS: 3

BUS 4743 - Project Management for Real Estate
This course provides the necessary tools and information to manage and control real estate projects and their resources. Project management is defined, project phases and goals are identified and stakeholder impact is discussed. It covers a range of principles and practices in the initiation, planning, staffing, coordinating and completing of a project within the triple constraints of schedule, budget and performance.
CREDITS: 3

BUS 4753 - Property, Construction and Environment Law
This course builds upon the students’ understanding of legal concepts and provides a clear understanding of the law related to the development, sales, leasing and management of property and an introduction to the associated Islamic and Western banking solutions for the financing of projects.
CREDITS: 3

BUS 4763 - Property Valuation Methods 2
This course extends the knowledge gained from the Property Valuation Methods 1 course and critically examines the application of methods to a range of asset types; market contexts and client contexts including valuations for lending purposes; investment and development.
CREDITS: 3
BUS 4773 - **Urban Planning**
This course provides students with a clear understanding of the fundamental concepts and theories of urban planning. Examining the evolving structure of cities; how they are designed and developed; and the impact this has upon maximizing the highest and best use from both a commercial and social perspective.
**Credits:** 3

BUS 4783 - **Sustainable Property Development**
This course introduces the core concepts of sustainable development and ways in which planners and developers must accommodate evolving policy; changing customer expectations and technical solutions. A key element of the course is the application of these concepts to real local projects which will explain the process of undertaking a highest & best use analysis of a development site to optimize the social, environmental and financial return from the site. This course will underpin the integrated project for this major.
**Credits:** 3

BUS 4813 - **Transportation Management**
This course provides an overview of the transportation sector and its stakeholders, including providers, users and government agencies. It examines contemporary public policy issues, such as deregulation, promotion of sustainable solutions and innovative transportation technologies. It also examines the principal managerial strategies for transportation.
**Credits:** 3

BUS 4823 - **Transportation Economics**
This course focuses on the micro and macroeconomic issues associated with international, national, and local transport, logistics, and other issues in the transportation industry.
**Credits:** 3

BUS 4833 - **Intermodal Transportation**
This course examines worldwide commercial freight transportation systems, with an emphasis on international intermodal surface transportation. Modal/intermodal economic and operating characteristics will be surveyed, along with cost, pricing, and regulation of transportation services.
**Credits:** 3

BUS 4843 - **Logistics Management**
This course studies the logistics functions of business involved in the movement and storage of supplies, work-in-progress, and finished goods.
**Credits:** 3

BUS 4853 - **Supply Chain Management**
This course is a study of supply chain management from the consumer back to raw materials. The entire process is studied from the standpoint of the leading theory and practice of cutting-edge organizations.
**Credits:** 3

BUS 4863 - **Project Management For Transportation**
This course provides the necessary tools and information to manage and control projects and their resources.
**Credits:** 3

BUS 4873 - **International Logistics Management**
This course addresses the design and operation of international logistics systems.
**Credits:** 3

BUS 4883 - **Advanced Business Logistics**
This course examines and applies management tools and principles to supply and distribution problems.
**Credits:** 3

BUS 4913 - **Integrative Industry Project (Accounting)**
This course is designed as a framework within which projects can be accommodated to meet defined learning outcomes. It is designed to collapse artificial boundaries between subjects and give opportunities for the application and critical review of theory and custom in a practical environment. Informed and supported where possible by industry it will provide high level authentic learning and develop consultancy and client management skills.
**Credits:** 3
BUS 4923 - **Integrative Industry Project (Finance and Banking)**

This course is designed as a framework within which projects can be accommodated to meet defined learning outcomes. It is designed to collapse artificial boundaries between subjects and give opportunities for the application and critical review of theory and custom in a practical environment.

**Credits:** 3

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BUS 4973 - **Integrative Industry Project (Property Development & Management)**

This course is designed as a framework within which projects can be accommodated to meet defined learning outcomes. It is designed to collapse artificial boundaries between subjects and give opportunities for the application and critical review of theory and custom in a practical environment.

**Credits:** 3

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BUS 4933 - **Integrative Industry Project (Human Resource Management)**

This course is designed as a framework within which projects can be accommodated to meet defined learning outcomes. It is designed to collapse artificial boundaries between subjects and give opportunities for the application and critical review of theory and custom in a practical environment.

**Credits:** 3

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BUS 4983 - **Integrative Industry Project (Transportation and Logistics)**

This course is designed as a framework within which projects can be accommodated to meet defined learning outcomes. It is designed to collapse artificial boundaries between subjects and give opportunities for the application and critical review of theory and custom in a practical environment.

**Credits:** 3

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BUS 4943 - **Integrative Industry Project (Tourism and Events Management)**

This course is designed as a framework within which projects can be accommodated to meet defined learning outcomes. It is designed to collapse artificial boundaries between subjects and give opportunities for the application and critical review of theory and custom in a practical environment.

**Credits:** 3

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CDA 3503 - **Storyboarding**

This course introduces students to the concepts and theories of applied storyboarding techniques to communicate the essential elements of shot, scene and storyline.

**Credits:** 3

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CDA 3513 - **Character Design**

This course provides the student’s with the skills to design a variety of characters that meets the requirements of the script, scene, genre and storyline.

**Credits:** 3

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CDA 3523 - **Principles of Animation II**

This course is designed to introduce students to the fundamental principles of animation that form the foundation of animation practice.

**Credits:** 3

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CDA 3603 - **3D Modeling**

In this course the students learn to model three-dimensional objects, and simple characters, using a variety of techniques in the Autodesk Maya environment.

**Credits:** 3
CDA 3613 - **Action Scripting for Flash**
This course introduces students to Action Script 3, as well as object-oriented concepts. It also covers data types, variables, constants, conditionals, and loops.
**Credits:** 3

CDA 4703 - **3D Animation**
This course covers the basic structure of the 3D animation production pipeline. The emphasis of the course is primarily on creation of the animation performance of simple objects and characters using applied animation principles in a 3D environment.
**Credits:** 3

CDA 4713 - **Film Analysis and Narrative Structure**
This course develops students' skills in storytelling (narrative structure) through the analysis of short animation and live action films, shots, and sequences.
**Credits:** 3

CDA 4723 - **Action Scripting in Maya**
The course begins by introducing students to the basic commands and scripts in MEL, and then continues to guide them through increasing levels of complexity to maximize their control of the commands, macros, scripts, and custom interface elements that can be created with MEL.
**Credits:** 3

CDA 4803 - **VFX, Audio, Editing, Compositing**
This course integrates key skills in visual effects, music and sound, rendering, and compositing to assemble all the assets of a short animation production into its final form.
**Credits:** 3

CDA 4816 - **Senior Animation Project**
The senior animation project creates a structure within which the students may demonstrate their area of specialty through a complete professional-level pre-production, production, and post-production pipeline.
**Credits:** 6

CDF 3503 - **Fashion Design and Textile**
This course leads students through the study and analysis of the relationship between textiles and fashion design. The objective is to improve students' knowledge about various fibers and fabrics (natural & man-made) and their application in fashion design.
**Credits:** 3

CDF 3513 - **Fashion Draping and Pattern Making**
This course introduces students to the fundamental techniques of draping and basic pattern making. Students master the vocabulary and practical skills of an industrial dress form.
**Credits:** 3

CDF 3523 - **Fashion Design and Technology I**
This course provides students a foundation in the concepts and theories of the process of fashion design from development to editing and balancing a collection.
**Credits:** 3

CDF 3603 - **Fashion Design and Trend Research**
The primary goal of this course is to develop in students, the skills and knowledge related to the basic connection between design and market; and the know how to apply, or even create, trends to produce and design various commercial fashion collections.
**Credits:** 3

CDF 3623 - **Fashion Design and Technology II**
This course covers the second part of the fashion design process. Students learn to apply more complex principles and theories of creation in the designing of fashions.
**Credits:** 3

CDF 4703 - **Fashion Design and Production**
In this course, students analyze the fashion production process and apply that knowledge to produce specific collections.
**Credits:** 3

CDF 4713 - **Fashion and CAD Design**
This course provides students with the skills and knowledge to develop fashion projects using various computer software programs - both for collection design
and pattern development in fashion. It also supports the student’s fashion collection presentation skills through the development of advanced computer skills.  

**Credits:** 3

**CDF 4723 - Fashion Marketing I**  
This course deals with the theoretical and practical understanding of fashion marketing decision making.  

**Credits:** 3

**CDF 4803 - Fashion Merchandising**  
This course provides students with a solid foundation for success in entry-level positions within the Fashion Merchandising field, by analyzing concepts related to the commercial and professional elements of fashion. Students analyze all aspects of merchandising, and marketing, within fashion and its related industries.  

**Credits:** 3

**CDF 4813 - Final Collection and Fashion Show**  
This course is the final stage of the students’ graduation projects. Students are required to develop and produce an original collection that demonstrates their mastery of technical and aesthetical skills.  

**Credits:** 3

**CDF 4823 - Fashion Marketing II**  
This course builds on the skills and knowledge students gained in Fashion Marketing I related to fashion marketing and the mix of management, retail, fashion/trend research, and planning.  

**Credits:** 3

**CDG 3503 - Typography I**  
This course introduces students to the basic aspects of typography such as letterforms and page structures, through a variety of application scenarios.  

**Credits:** 3

**CDG 3513 - Introduction to Design Illustration**  
This course introduces students to the professional field of illustration, with a strong emphasis on concept. While drawing skills and techniques are a large part of the class students also explore the importance of concepts and ideas in relaying visuals successfully.  

**Credits:** 3

**CDG 3503 - Typography II**  
Throughout this course, students expand and refine the skills acquired in Typography I. Using the foundation of typographic basics like letterforms and page structure, students primarily focus their efforts towards developing a greater understanding of typographic form through exercises based on the setting of words, phrases, sentences and short paragraphs.  

**Credits:** 3

**CDG 3613 - Studio I**  
This course approaches the project design situations faced by professional visual communication offices in an educational context. Problems that represent current visual communication issues are solved through extensive research and the application of learned concepts and skills.  

**Credits:** 3

**CDG 3623 - History of Graphic Design**  
Through a chronological survey, students study how, since 1450, graphic design has responded to (and affected) international, social, political, and technological developments. Emphasis will be on printed work from 1880 to 1970 and the relationship of that work to other visual arts and design disciplines.  

**Credits:** 3

**CDG 4703 - Studio II**  
This course continues the work done in Studio I by further extending the students’ knowledge and skills in the solution of project design situations faced by professional visual communication offices.  

**Credits:** 3

**CDG 4713 - Packaging Design**  
This course addresses the theory behind, and the studio investigation of, three-dimensional structures as they relate to the area of packaging, exhibition, advertising and environmental design.  

**Credits:** 3

**CDG 4723 - Sustainable/Social Design**  
This course addresses the designer’s role in shaping the public narrative on sustainable/social issues, causes and other needs-based topics. Students analyze contemporary environmental, cultural and societal issues around the world that have an impact on our daily lives.  

**Credits:** 3
CDG 4803 - Photography for Graphic Design
Using a digital camera, students extend their ability to 'see' things around them, both outside and inside the studio. Through shooting assignments, students apply photography as another means of image-making for designers.
CREDITS: 3

CDG 4813 - Capstone – Information Design
In this course the student presents a final project which addresses visual problem solving and which emphasizes methods of translating complex data into clear, visually dynamic solutions.
CREDITS: 3

CDG 4823 - Capstone – Major Exhibition
This course is a final project/exhibition using information in large-scale, three-dimensional formats. Students produce exhibition and environmental designs, including developing imagery and typography through research, analysis, conceptualization, and production as part of a design process to solve a social, environmental, or artistic problem or issue.
CREDITS: 3

CDI 3503 - Design Studio I
This course introduces students to the basic application of the design elements and principles of art and design, furniture and styles.
CREDITS: 3

CDI 3513 - Technical Drawing I
This course provides students with hands-on experience on graphical presentation through the study and practice of manual drafting techniques, terminology and symbology used on drawings.
CREDITS: 3

CDI 3603 - Design Studio II
This essential studio core course leads students through the development of designs for contemporary interiors - either within a business, commercial or a social environment.
CREDITS: 3

CDI 3613 - Technical Drawing II
This course provides students with the basic skills of computer-aided drafting (CAD) through a variety of exercises. It introduces the drawing software and its application in the design process through the creation and furnishing of spaces as 2D and 3D computer generated drawings.
CREDITS: 3

CDI 3623 - Commercial Design Studio I
This course introduces students to the sector of Commercial Interiors and outlines the major design areas. It provides a foundation on how human behavior, social and cultural changes affect the design outcome.
CREDITS: 3

CDI 4703 - Materials and Construction Details
This course examines materials and construction methods from various perspectives: history, raw and finished materials, applications to finishes and construction methods, new materials and technology, and codes of legislation. Students are introduced to growing issues of sustainability both globally and locally, new codes and sustainable building guidelines, as well as areas of developing technology.
CREDITS: 3

CDI 4713 - Commercial Design Studio II
This course offers practical applications of design. It emphasizes the design concept development, space planning, problem solving, and the selection of new materials and technologies.
CREDITS: 3

CDI 4723 - Project Design and Research I
This course is the first half of a year-long capstone project, in which students undertake research about a specific personal area in interior design and then analyze, evaluate, clarify and respond to the needs and requirements of the project. The students prepare a program and put their findings in a research form, including an initial design concept.
CREDITS: 3

CDI 4803 - Furniture and Fittings
This course introduces the soft furnishings used in the interior design industry, such as fabrics and textiles, window treatments, and upholstery. It also explores customized furniture designs and the issues related to
anthropometrics and ergonomics through the study of the human form through sketchbook studies.
CREDITS: 3

CDI 4806 - PROJECT DESIGN AND RESEARCH II
This course is the second half of a year-long project and it requires a capstone project to put into practice the various skills acquired in the program. The students continue to produce design work which form the main body of their personal portfolio.
CREDITS: 6

CHEM N405 - PROCESS AND EQUIPMENT DESIGN
This course provides a basic knowledge of chemical process and equipment design. The course covers the overall procedure of designing a chemical plant, as well as performing some typical design calculations on material and energy balances. It will introduce students to flow sheeting, and give the methods used in the prediction of fluids physical properties. A case study to apply the design calculations is used to integrate the concepts.
CREDITS: 4

CHEM N407 - OPTIMIZATION AND APPLICATION IN REFINERY & PETROCHEMICAL PLANNING
This course introduces optimization principles and linear programming techniques using graphical and simplex methods. It focuses on model development and applications to solve a wide range of process engineering problems using spread sheet software (Excel or Mathlab). The course also introduces the use of commercial software which is extensively used in the oil, gas and petrochemical industries. This course explains the optimization steps that can serve as a general guide for problem solving in design and operation analysis.
CREDITS: 4

CHEM N409 - INDEPENDENT WORK BASED-PROJECT
This course uses an independent work based project as a practical means of: researching industrial problems; identifying and detailing a specific industrial problem from local industries; plan the means of obtaining several solutions to the problem. Students will also learn nd by using optimization techniques or other means that aid in developing possible solutions, resolving implementation issues, and evaluating performance results.
CREDITS: 4

CHEM N415 - SEPARATION PROCESSES
This course is designed to cover the fundamentals of separation processes. The course includes mechanical separation processes used in chemical industries like filtration, evaporation, drying, liquid-liquid extraction and multi-component distillation. The aim of the course is to give a practical flavor and to ensure a good overall understanding of the chemical industrial processes. The course also covers basic design calculations of separation equipment.
CREDITS: 4

CHEM N420 - PROCESS DYNAMICS AND CONTROL
In this course the students learn the basic concepts of process control in chemical plants. Frequency response analysis is then covered to analyze the output sinusoidal changes with frequency of the input sinusoid. In this course, the dynamics characteristics of the response of closed loop systems are also examined and the closed loop transfer functions are developed. Before introducing the design of feedback control loop, a notion of stability is introduced. The students will perform basic process control design for typical industrial process systems.
CREDITS: 4

CHEM N425 - TRANSPORT PHENOMENA
This course is designed to cover the concept of compressible flow, steady and unsteady heat transfer and the unsteady and convective mass transfer. The unique features of boiling and condensation are presented. The course highlights the basic understanding of the transport analogy by exploring the similarities between mass, momentum, and heat fundamentals. Students will develop a detailed understanding of the fundamental principles of momentum, energy, and mass transport and formulate and solve mathematical models for transport processes.
CREDITS: 4

CHEM N431 - CHEMICAL PROCESS HAZOP AND RISK ANALYSIS
This course provides an introduction to the specific approaches and techniques which may be used to
analyze, assess, and manage hazards and risks in chemical process industries. Emphasis is placed on HAZOP and semi-quantitative studies for hazard identification and risk analysis. The basics of chemical process safety involving accident sequences, methods to eliminate sequence steps and use of statistics to characterize accidents are reinforced through case studies. Students work in groups to perform a HAZOP analysis and individually to perform a consequence analysis and event tree and LOPA analysis.

**Credits: 4**

**CHEM N433 - Petroleum Gas Processing**

This course is designed to cover the fundamentals of the gas process operations in the petroleum industry. Students will gain an understanding of hydrocarbon exploration methods and the conditions required for the formation and accumulation of hydrocarbon reserves. An overview of gas processing from exploration up to final production and transportation as well as gas properties calculations is also included. The course focuses on the principles of NGL extraction, LPG fractionation and LNG production plus some design aspects of the major unit process operations.

**Credits: 4**

**CIA 2503 - Web Applications Development**

This course teaches students how to use cascaded style sheets and JavaScript to enhance the appearance and functionality of web sites. The course teaches the methodologies in developing and maintaining site wide style sheets within multi-page web sites. Students will also learn how to use a standards-compliant web design framework to style websites.

**Credits: 3**

**CIA 3103 - Database Design and Administration**

This course focuses on database design concepts, tools, and processes for data modeling: functional dependencies, normalization, DB design methodologies, entity-relationship modeling. The course introduces Structured Query Language (SQL) to define, manipulate, and administer data and also covers the concept of database administration, defines duties and responsibilities of database administrators.

**Credits: 3**

**CIA 3303 - Principles of Mobile Applications**

This course teaches students to develop and deploy mobile applications using a current mobile development technology. Students will compare current mobile devices and their application development tools. They will learn how to develop a variety of standalone applications, using high level user interfaces and actions such as labels, numeric and text fields, buttons, commands, menus, lists, and images. These applications will then be deployed to the mobile devices. Students will learn how to store and read data on the mobile storage device.

**Credits: 4**

**CIA 4003 - Advanced Mobile Applications**

This course covers advanced mobile application concepts. The course teaches students how to create custom user interfaces and screens, manipulate and animate 2D graphics objects, and add multimedia content (audio and video) to mobile applications. The course covers file system access, SD card access, network data access, and how to use SQL for permanent data storage and retrieval. Furthermore the course covers location based services and Global Positioning System (GPS) applications.

**Credits: 3**

**CIA 4103 - Data Driven Web Technologies**

This course discusses the advantages of web services as reusable components and their use for interoperability between different platforms. With good understanding of the architecture and distributed nature of web services, students will learn how to develop web services and how to publish and register the functions or messages of a web application to the rest of the world using web service components (SOAP, UDDI, and WSDL).

**Credits: 3**

**CIA 4203 - Enterprise Database Applications**

This course focuses on various advanced topics pertinent to database management systems (DBMS) and study how they are being applied in a business environment. The course will examine the advanced concepts used to design, implement and administer database applications on client server configuration. Students will use different tools to develop forms and
reports, control objects and codes for mitigation of data entry errors, and implement security measures.

**CIA 4503 - ADVANCED OBJECT ORIENTED PROGRAMMING**
This course continues to enhance the student’s ability to apply object oriented concepts in providing solutions for problems faced by software developers. Students will demonstrate ability to appropriately apply the concepts of abstract classes, inheritance, polymorphism, interfaces, method overloading, aggregation, compositions, and associations in developing object oriented code. Students will develop also applications that include a database backend component.

**Credits: 3**

**CIB 2003 - TECHNOLOGY BASED MARKETING**
This course examines core strategies, principles and concepts relating to marketing applications in business organizations in general, IT related products and services in particular. It will also explore market processes, delivery channels, customer loyalty, pricing, communications, and capacity. Students will gain the knowledge, analytical and practical skills required to understand and diagnose the key aspects of developing and marketing IT products successfully. The course will also explore the elements of marketing the IT function in organizations.

**Credits: 3**

**CIB 3003 - HUMAN RESOURCE MANAGEMENT AND SYSTEMS**
This course creates an understanding of HRM concepts from theory and practice, examines processes and systems, tools and contemporary developments. The course is also aimed at providing human resource practitioners with knowledge and skills related to general human resource management concepts and the external environment in which UAE human resource practitioners operate as well as the knowledge underlying the provision of human resources in organizations.

**Credits: 3**

**CIB 3103 - OBJECT ORIENTED ANALYSIS & DESIGN**
This course presents one practical, complete, object-oriented analysis and design (OOAD) road map from requirements gathering to system design. It explains the concepts and techniques necessary to effectively use system requirements captured in use cases to drive the development of a robust design model.

**Credits: 3**

**CIB 3203 - ACCOUNTING FOR MANAGERS**
This course introduces students to accounting as a system of information gathering and reporting, and its role in business decision-making. It introduces the processing of financial transactions through the accounting information system in each accounting period. Students will learn to analyze and prepare a set of financial statements, and to use financial, non-financial and management accounting concepts and terminology in business decision-making.

**Credits: 3**

**CIB 3303 - E-BUSINESS PRINCIPLES**
This course explores e-business strategies, technologies and related legal issues. Students define e-business and explore its opportunities, limitations and impact on traditional businesses and institutions. They become familiar with current infrastructure requirements needed for e-business, e-business software, online security and online payment systems.

**Credits: 3**

**CIB 3403 - ADVANCED DATABASE TECHNOLOGIES**
This course discusses the internals and performance issues of a DBMS: storage mechanisms, indexing, query evaluation, transaction management, concurrency control, and query optimization. Course focuses on advanced database technologies: data warehousing, data mining, XML data and information retrieval, multimedia support for database systems.

**Credits: 3**

**CIB 4003 - E BUSINESS APPLICATIONS DEVELOPMENT**
This course develops students’ skills required for building e-commerce applications regardless of the technology used. Students will learn how to develop server side applications that generate content, maintain state, authenticate users, connect to databases, and provide security and confidentiality of transactions. At the end of the course students will be able to build a complete e-commerce web application that handles memberships, online catalogs, shopping cart module, and check out.

**Credits: 3**
CIB 4103 - Business Finance
This course provides students with financial and accounting concepts and the skills to integrate financial data with relevant information systems. It discusses financial and accounting concepts and issues that will contribute positively to the students’ ability to design integrated business solutions enabled by information technology. Examples and applications will focus on IT infrastructure, Business solutions, IS management and implementation projects, in the business environment.
CREDITS: 3

CIM 2003 - Graphic Design
This course is a basic introduction to design as it applies to visual elements, rhythm, proportion and composition. Students produce a series of exercises that explore and analyze the relationship and interaction between design principles and visual elements individually, and in varying combinations, using a variety of media.
CREDITS: 3

CIM 2103 - Principles of Animation
This course is designed to introduce students to the fundamental principles of digital animation that form the basis of animation practice. Through guided tutorials, lectures, practical assignments and projects, students learn how to create animations. The differences between 2D and 3D animations are also introduced in this course. Students are also introduced to issues in digital animation in the 21st century as well as the current critical and methodological debates within the field.
CREDITS: 3

CIM 3103 - Storyboarding and Animatics
This course develops a thorough understanding of traditional storyboarding practices, and demonstrates how a digital pipeline can speed up working processes and provide greater flexibility in possible outputs. Students will learn traditional and digital storyboarding skill, and a range of digital tools, to both facilitate the storyboarding process and to create basic animatics from their boards. All aspects of storyboard production will be covered including: drawing, artistic interpretation of scripts, software skills for the production of animatics, understanding camera angles, film direction and storytelling.
CREDITS: 3

CIM 3203 - Programming for Multimedia
The objective of this course is to introduce students to programming as a creative tool for digital image and audio processes, and to assist them in developing a basic understanding of object-based constructions and optimal multimedia delivery requirements.
CREDITS: 3

CIM 3303 - 2D 3D Animation
This course will introduce students to the basics of 2D graphics, 3D graphics, audio and video contents. Students will explore various stages involved in the design, development and delivery of interactive multimedia content using software packages in each of the following areas: 2D Graphics; 3D Graphics; Audio Editing; Video Editing; Web Authoring. In addition, the students will also evaluate interactive multimedia products in terms of their visual and functional design from the user’s perspective.
CREDITS: 3

CIM 4003 - Multimedia Scripting
This course will introduce students to scripting as a creative tool for digital image and audio processes. It will also assist the students in gaining a basic understanding of object-based constructions and optimal multimedia delivery requirements. Students will design, assemble and write multimedia applications using scripting languages.
CREDITS: 3

CIM 4103 - Web Authoring and Administration
This course is designed to equip students with specialist skills in the use and design of digital multimedia including graphics, sound and digital movies for web-based presentation on the Internet.
CREDITS: 3

CIM 4203 - Virtual Reality and Simulation
This course will examine the emerging electronic technology of virtual reality. It teaches the key concepts to understand and evaluate VR systems, applications and simulators, and their impact on future digital systems and user interfaces. The delivery of this course will include a lab component featuring virtual walkthroughs. This course will feature an emphasis on
Appendices

educational application of virtual reality. The course also covers the topic of simulation which includes sub-topics such as stochastic modeling, random number generators, discrete-event simulation approaches, simulated data analysis, and simulation variance reduction techniques.

CREDITS: 3

CIM 4303 - VFX, AUDIO, EDITING AND COMPOSITION
This course covers the techniques and technology used to create high quality digital visual effects, giving the students the skills required to work in post-production. The course gives an overview of the entire production process, before moving to key production and post-production skills such as digital film-making, compositing, editing, motion graphics, effects and computer graphics interface (CGI). The students will create a rich portfolio of work that will showcase their technical, artistic and team-working abilities.

CREDITS: 3

CIN 2003 - ENTERPRISE NETWORK SERVICES
This course covers the concepts and skills required for successful planning, installation, configuration and administration of an enterprise operating system such as Microsoft Windows Server 2008 or later. Students will build their skills starting from the administration of standalone Windows servers in a workgroup environment to the level required to administer domain based enterprise networks.

CREDITS: 3

CIN 2103 - NETWORKING FUNDAMENTALS
This course introduces the basic concepts of networking such as an introduction to layered models, physical and logical addressing, network devices, network types and routed protocols. A detailed study of the functions of key layers in the OSI/TCP/IP models and the devices and protocols used will also be covered. This course will cover the characteristics of Ethernet as a predominant LAN technology. This course will equip students with practical skills on how to setup a simple peer-to-peer network, and test & establish network connectivity.

CREDITS: 3

CIN 2203 - ROUTING PROTOCOLS
This course is designed to develop knowledge and skills required to implement both distance vector and link state routing protocols such as RIP, EIGRP and OSPF. The course presents a clear picture of how a router learns routes and selects the best path to remote networks. An in-depth study of classless interdomain routing and the implementation of variable length subnet masking are also included. This course not only covers the theoretical aspects but also includes practical labs where students are allowed to apply the concepts learnt.

CREDITS: 3

CIN 3003 - LAN SWITCHING
This course analyses the concepts and techniques of LAN switching in both wired and wireless networks. It discusses features of a layer 2 switch, and how a switch interconnects and communicates with other switches and routers in a small or medium sized network. Students will learn the details of the underlying switch processes of common layer 2 technologies. The course discusses theory and practical implementation of switching concepts and protocols: VLANs for segmentation of LANs; VTP for exchanging VLAN information; and STP for loop free redundancy. Practical labs are included for all concepts covered in this course.

CREDITS: 3

CIN 3103 - WIRELESS NETWORKS
This course introduces the fundamentals of wireless communication including the various wireless standards and the relevant organizations. Students will learn the terminologies and behavior associated with radio frequencies, as well as the components, basic measurements techniques & antenna concepts used in the planning and design of wireless networks. Students will apply their learning to the basic design, installation and configuration of wireless network. Finally, the course presents techniques for securing and troubleshooting wireless networks.

CREDITS: 3

CIN 3203 - WAN TECHNOLOGIES
This course focuses on the various WAN technologies used to connect small to medium sized networks, including PPP, Frame relay and DSL. WAN security is also discussed including methods for analyzing network vulnerabilities and mitigating common security threats. The course covers configuration and implementation of IP addressing in an Enterprise network including NAT, DHCP and IPV6. The principles of traffic control using access control lists (ACLs) are explained. Practical labs on NAT, DHCP, ACLs and WAN protocols are an integral part of this course.

CREDITS: 3
CIN 3303 - Network Security
This course provides a detailed investigation of the principles of network security. An in-depth exposure to the management of network security including threat identification, risk analysis, risk management and risk avoidance will be included. Students learn the concepts and techniques required to configure routers and switches to prevent network attacks. In particular, students will learn how to configure Access Control Lists (ACLs).
CREDITS: 3

CIN 4006 - Advanced Routing
This course teaches advanced skills for configuring and implementing enterprise wide converged networks. Using interior & exterior gateway protocols such as EIGRP, OSPF and eBGP, students learn how to determine network resources, and create implementation & verification plans for both interior and exterior gateway routing protocols. The course also includes extensive information on the configuration and implementation of IPv6, as well as the configuration of interoperation of IPv6 with IPv4. It also analyzes the concepts of layer 3 path control and discusses basic teleworker and branch service using technologies such as broadband and VPN.
CREDITS: 6

CIN 4106 - Advanced Switching
The course teaches advanced skills in networking required to configure and implement enterprise wide switched networks. The main focus of this course is to develop skills to design, build and secure switched networks. This course will also include design and implementation of campus network services such as IP telephony and integration of wireless LANs. The configuration and implementation of multilayer switching, VLANs and protocols such as VTP and advanced STP will also be covered in this course. Practical implementation of these concepts also forms an integral part of this course.
CREDITS: 6

CIS 1003 - Information Systems in Organizations and Society
This course introduces students to information systems and development concepts, including emerging technologies and the local and global impact of such technologies on individuals, organizations, and society.
CREDITS: 3

CIS 1103 - Hardware and Networking
This course introduces students to the essential components of a contemporary computer system, namely hardware, operating system and network.
CREDITS: 3

CIS 1203 - Web Technologies
This course introduces the basic concept of the World Wide Web and its underlying technologies.
CREDITS: 3

CIS 1303 - Data and Information Management
This course introduces relational database concepts and simple database application development. It focuses on core skills of identifying organizational requirements, database design & implementation, and business application development. Students will develop practical skills in building database systems using different types of queries to retrieve and/or manipulate data, through customized forms and reports.
CREDITS: 3

CIS 1503 - Introduction to Multimedia
This course introduces students to the creation and editing of various multimedia components such as 2D graphics, 3D graphics, audio and video.
CREDITS: 3

CIS 2003 - Statistics and Probability
This course offers an introduction to the major concepts and tools for collecting, analyzing, and drawing conclusions from data. The four broad themes include: explaining data (observing patterns and departures from patterns); planning a study (deciding what and how to measure); anticipating patterns producing models using probability and simulating; and statistical inference (guiding selection of appropriate models).
CREDITS: 3
CIS 2103 - Principles of Information Assurance, Security and Privacy
This course introduces key concepts related to security and assurance of information assets. The course focuses on information risks, security frameworks & controls, and relevant legal, ethical, and professional issues. It discusses security-related activities, such as inspection and protection of information assets, detection of and reaction to threats, and examines pre- and post-incident procedures. Students will design and implement an information assurance plan to protect an organization’s information.
Credits: 3

CIS 2303 - Systems Analysis and Design
This course introduces established and evolving methodologies for the analysis, design, and development of an information system. Emphasis is placed on system characteristics, the systems development life cycle phases, modeling tools and techniques, testing procedures and the need for systems evaluation. The course examines the role of information technology within the context of business organizations, systematic analysis of business opportunities and concepts of system design are introduced through case studies and business projects. The course focuses on structured analysis techniques and also introduces use case analysis methodology.
Credits: 3

CIS 2403 - Object Oriented Programming
This course introduces the object-oriented methodology for programming. Topics include: the object oriented programming paradigm; objects and classes; data abstraction and encapsulation; and exception handling. The course explores graphics, event handling, and graphical user interfaces. Students will learn to apply those concepts in analyzing and solving business case studies.
Credits: 3

CIS 3003 - Human Computer Interaction
This course introduces the concepts of human-computer interaction (HCI) through the use of multimedia tools. It provides students with the skills to design interactive layouts using a Graphical User Interface in a systematic manner. The course explores principles of good design through observation and analysis of existing technology solutions.
Credits: 3

CIS 3103 - Project Management
This course will explore a systematic methodology for initiating, planning, executing, controlling, and closing of projects. An industry standard methodology such as PMI will be adopted. This course will prepare students for the capstone project in their final year. The course will also cover the terminology of project management; skills that a project manager should have and the type of organizational structure he/she will work in.
Credits: 3

CIS 4103 - Emerging Technologies
This course provides students with an opportunity to investigate the most recent advances in Information Systems and Technology. In this research-based course, students will select an emerging technology, describe how it works, analyze its strengths and weaknesses, and determine what impact it is likely to have in their chosen major. At the time of writing, examples of emerging technologies include cloud computing, virtualization, green computing and massively distributed computing.
Credits: 3

CIS 4203 - Information Technology Strategy and Governance
This course provides an understanding of IS Strategy and Governance, decision rights, strategic frameworks and mechanisms, alignment of strategy, governance and performance with related change management issues and schemes. The course highlights the fact that IS strategy and governance refers to allocation of responsibilities for the control of IS that enable accountability, participation, predictability and transparency.
Credits: 3

CIS 4803 - Work Related Learning
This course is designed as a framework within which a range of work related learning activities can be accommodated to meet defined learning outcomes. It gives the flexibility, for example, for students to learn from work experience and to receive an understanding of business and technology and its real life operations (where possible in their chosen major topic) or to undertake an industry based project which meets the same outcomes.
Credits: 3
CIS 4906 - Capstone Project (Integrative & Consultancy Focused)
This capstone course will integrate knowledge and skills gained throughout the major and lead students, to analyze, design, and build a business information system component. Students will experience the ownership of an idea from concept to solution. They will act as consultants, to elicit and articulate business requirements, then work through the full development cycle.
**Credits:** 6

CIVL N401 - Prestressed Concrete Design
This course provides the student with the basic principles of pre-stressed concrete design and builds this to an ability to calculate, design and detail simple precast elements such as beams and slabs. The student will be able to complete both strength and serviceability checks and make appropriate allowances for fabrication and construction issues such as jacking techniques and joint details.
**Credits:** 4

CIVL N403 - Structural Timber Design
This course offers practical studies in the design of timber structural elements and systems to BS 5268 Part 2 based on permissible stress approach. It explains how timber is specified and stress graded for structural uses and covers basic design procedures for beams (sawn, glue-lam and plywood built-up sections), columns, connections, load bearing wall systems, decking, trench support and formwork for concrete construction. The design of fire safety for wood structures and protection against termite will also be covered.
**Credits:** 4

CIVL N407 - Traffic Engineering
The effective design of highway facilities requires careful consideration of the factors that affect traffic flow and safety. In this course students are introduced to the human and vehicle characteristics that impact upon highway design and the techniques used to conduct traffic: speed; volume; travel time; and delay studies in order to understand highway capacity and traffic flow characteristics. The course also examines techniques used for the control of intersections and traffic safety.
**Credits:** 4

CIVL N411 - Water Resources Modeling
This course makes use of numerical and physical modeling techniques and programs relevant to water resources and systems in the UAE. Water systems included will be surface water flows, groundwater systems and piped water networks, both in steady state and flood events. The student will be able to collect data, create and analyse an appropriate model, interpret and report the results and also establish a long monitoring regime of the subject resource.
**Credits:** 4

CIVL N412 - Transportation Planning
This course introduces the processes involved in facilitating the planning for future transportation facilities. Factors that should be considered in the justification of new transportation projects include improvements in traffic flow, safety, savings in energy consumption and travel time, accessibility, socio-economic and environmental impacts.
**Credits:** 4

CIVL N413 - Reinforced Concrete Design and Detailing II
This course is intended to give the student an understanding of typical design procedures, construction methods and detailing of reinforced concrete elements and structures as a whole. The course will cover basic design procedures and detailing of footings, pile foundations, walls, shear walls, columns, beams, and slabs for reinforced concrete buildings.
**Credits:** 4

CIVL N422 - Road Design and Construction
This course introduces pavement types and the factors that impact their design with emphasis on equipment, materials and practices associated with the construction of flexible and rigid pavements. Maintenance methods including the evaluation and rehabilitation of existing pavements are also covered. The construction of cut and fill earth structures are included with particular emphasis on the effects of compaction, the mass haul diagram, slope stability and the environmental impacts related to their design and construction.
**Credits:** 4
CIVL N426 - STRUCTURAL STEEL DESIGN & DETAILING II
This course covers topics such as moment connections, beam-column members and lateral frames. The course further incorporates basic steel design into the overall analysis and design of small industrial building. An introduction of the analysis and design of steel bridges will be presented.
CREDITS: 4

CIVL N427 - CONSTRUCTION CONTRACT MANAGEMENT
This course aims to give an overview of principles and procedures involved in effective administration and management of engineering contracts, from tender to final completion.
CREDITS: 4

CIVL N432 - CONSTRUCTION SURVEYING
This course provides the student with an understanding of the role of the construction setting out engineer, including techniques commonly used to communicate theoretical information found on construction drawings to personnel and operatives working on-site. A broad range of practical on-site surveying activities will be demonstrated, aligned to the office based determination and calculation of setting out data.
CREDITS: 4

CIVL N437 - ENGINEERING ECONOMICS
This course deals with the concept of cost control to ensure that scarce resources are used to the best advantage in the construction of projects. Clients in today's world of high material prices and finance costs are insisting on projects being designed and executed to give maximum value for money. The structure of the construction industry in the UAE is looked at as well as the make-up of the companies that operate within it.
CREDITS: 4

CIVL N443 - HYDROLOGY
This course examines in detail the components of the hydrologic cycle and their interactions. Emphasis on rainfall-runoff relationships as applied to civil engineering is also covered. Additionally, the topics of probability concepts, frequency analysis and hydrologic routing are addressed.
CREDITS: 4

CIVL N445 - WASTE MANAGEMENT
This course gives the opportunity for the student engineer to examine the different sources of solid waste production. The important aspects of waste control legislation, waste reduction programs and waste recycling are investigated and strategies developed to protect the local and global environment. Finally the handling and disposal of hazardous waste is introduced.
CREDITS: 4

CIVL N451 - COASTAL ENGINEERING
This course covers modern dredging technology, coastal climates, coastal tides, corrosion and material degradation, key-wall water front structures, breakwaters, pile foundations, sheet piles, wave force on offshore structures and resistance of footings to sliding. Environmental conditions and concerns are also addressed. Safety issues and computer modeling techniques will be introduced. Technical content will be supported by relevant site visits and practicals.
CREDITS: 4

CIVL N455 - ENVIRONMENTAL ENGINEERING
This course discusses fundamental chemical, physical and biological principles in environmental engineering as an interdisciplinary science. The course covers all the naturally occurring environmental phenomena, the industry and human induced compounds and microorganisms and the changes and imbalances that occur in the environment. The course qualifies, quantifies and provides measurement and monitoring techniques to enable engineering and design options and solutions in civil engineering practice. The course discusses waste disposal options and specific engineering disposal requirements.
CREDITS: 4

CMC 3503 - SOCIAL MEDIA
Social Media has played a critical role in changing the landscape of the corporate and media communication industries in the past few years. This course introduces the students to different issues arising in the online communication field focusing on opportunities and challenges available to organizations.
CREDITS: 3

CMC 3603 - MEDIA RELATIONS
This course introduces students to current issues, as well as on-going issues, in communication and media theory in relation to the local media environment. The intent is for students to consider the current situation, rather than the historical.
CREDITS: 3
CMC 3613 - Corporate Communication II in Arabic and English
In this course students discuss organizations, audience, the media and how to prepare public relations messages for print and electronic media.
Credits: 3

CMC 4703 - Public Relations
Students evaluate organizations, publics, and the media in order to prepare public relations messages for print and electronic media.
Credits: 3

CMC 4713 - Law and Ethics
This course introduces the study of law and the basic areas of law while developing a philosophical introduction to ethics. Students develop the ability to recognize competing and conflicting legal interests, rights, and obligations under the media and business sectors.
Credits: 3

CMC 4723 - Crisis Communication
In this course students evaluate the impact of crises on organizations by focusing on the difference strategic and effective communication can make during difficult times. The course differentiates between crisis management (dealing with the reality of the crisis) and crisis communication (dealing with the perception of the crisis).
Credits: 3

CMC 4733 - Writing for Corporate Communication
This course provides students with the knowledge and skills to produce the many forms of business communications in use today and how to effectively write for the ones most commonly used.
Credits: 3

CMC 4806 - Corporate Communication Project
Students take on the role of a corporate communication specialist, as part of a project to produce a media campaign based on an actual industry situation for a real client.
Credits: 6

CMM 3503 - Journalism and Society
This course focuses on the social, cultural and political contexts in which journalism operates today. The course, engaging with critical issues of contemporary media landscape, highlights the role of journalists in society bringing to the forefront issues of social change, women and media, environmental issues, reporting human rights and humanitarian issues, freedom of press, privacy, and ownership and news management.
Credits: 3

CMM 3513 - News and Feature Stories
This course introduces students to the basic news writing and reporting skills as practiced by global agencies (e.g. Reuters, AP etc.) including the fundamentals of journalism which are accuracy, newsworthiness, deadlines, objectivity, and fairness; and the basic news writing skills of spelling, grammar, attribution, the inverted pyramid structure, and news leads.
Credits: 3

CMM 3603 - Photojournalism
This course introduces students to the practice of photojournalism and focuses on developing skills and knowledge related to capturing and presenting visual images as a source of news and current affairs.
Credits: 3

CMM 3613 - Digital Broadcasting
This course provides students with the fundamentals of broadcast journalism in the digital age, including the use of words, images, and sounds to tell a newsworthy story. This course is taught using both English and Arabic to increase the students’ Arabic language skills.
Credits: 3

CMM 4703 - Designing and Developing Online News Packages
In this course students acquire the skills and knowledge to create engaging online news content. The course focuses on providing students with advanced skills for producing multimedia news packages for different online news platforms.
Credits: 3

CMM 4713 - Communication Theory
In this course students evaluate various communication theories and how they relate to society and culture. The emphasis is on the concepts, meanings, effects and
impacts of diverse forms of mass communication within contemporary societies.

**CMM 4723 - MOBILE COMMUNICATION**
Mobile devices have been transforming the profession of journalism. This course explores the impact of mobile devices on the news reporting industry. It introduces skills journalists can use to report news from their own smartphones using applications to create video, audio and text reports.

**Credits: 3**

**CMV 3606 - SHORT VIDEO**
This course has a team of students collaborate on all stages of a video production, from the concept to the finished project.

**Credits: 6**

**CMM 4733 - MEDIA PROJECT I**
This course provides students the opportunity to work on more complex pieces of journalism at a higher level of detail and in more depth than in earlier courses.

**Credits: 3**

**CMV 4709 - DOCUMENTARY VIDEO PRODUCTION**
Through a combination of lecture, film screenings and hands-on demonstrations, this course familiarize students with the basics of producing, shooting, lighting, sound gathering and editing for documentary production.

**Credits: 9**

**CMV 3613 - PRODUCTION SKILLS II**
During this course students review, and then extend, the video production skills learnt in the previous year. Students are introduced to more creative concepts used in professional video production.

**Credits: 3**

**CMM 4803 - MEDIA LAW AND ETHICS**
In this course students discuss media law and ethics, particularly as they apply to the UAE, and analyze specific past and developing cases relevant to an understanding of media law and ethics. Students learn the legal and ethical boundaries within which media professionals must operate.

**Credits: 3**

**CMV 4806 - CAPSTONE PROJECT**
This capstone course is the culminating educational experience for the student and links academic coursework and professional practice. Using a major production as the focus, students have the opportunity to use their knowledge, skills and experiential learning to demonstrate learning as well as behaviors typical of their chosen profession.

**Credits: 6**

**COM 1103 - INTRODUCTION TO MASS COMMUNICATION**
The course introduces students to the process of communication focusing on interpersonal, group, and mass communication.

**Credits: 3**

**CMM 4813 - MEDIA PROJECT II**
In this capstone media course, students have the opportunity to work on more complex pieces of journalism at a higher level of detail and in more depth than in earlier courses.

**Credits: 3**

**CMV 3513 - PRODUCTION SKILLS I**
In this course students learn the elements of professional video production requirements in relation to lighting and audio equipment and software.

**Credits: 3**

**COM 1113 - DRAWING I**
This course provides the initial introduction to the basic concepts and language of visual communication by introducing the basic drawing skills needed in Applied Communication professions.

**Credits: 3**

**CMV 3503 - EDITING**
In this course students go beyond the basics of editing and, while honing their knowledge of the digital editing software workflow, embark on in-depth study of the techniques of film and video post-production.

**Credits: 3**

**CMV 3506 - SHORT VIDEO**
This course has a team of students collaborate on all stages of a video production, from the concept to the finished project.

**Credits: 6**

**CMV 3513 - PRODUCTION SKILLS I**
In this course students learn the elements of professional video production requirements in relation to lighting and audio equipment and software.

**Credits: 3**

**CMV 4703 - DOCUMENTARY VIDEO PRODUCTION**
Through a combination of lecture, film screenings and hands-on demonstrations, this course familiarize students with the basics of producing, shooting, lighting, sound gathering and editing for documentary production.

**Credits: 9**

**CMV 4803 - ADVANCED EDIT AND EFFECTS**
In this course students work with advanced editing and embark on an advanced study of the techniques of film and video post-production.

**Credits: 3**

**CMV 4709 - DOCUMENTARY VIDEO PRODUCTION**
Through a combination of lecture, film screenings and hands-on demonstrations, this course familiarize students with the basics of producing, shooting, lighting, sound gathering and editing for documentary production.

**Credits: 9**

**CMV 4806 - CAPSTONE PROJECT**
This capstone course is the culminating educational experience for the student and links academic coursework and professional practice. Using a major production as the focus, students have the opportunity to use their knowledge, skills and experiential learning to demonstrate learning as well as behaviors typical of their chosen profession.

**Credits: 6**

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The course introduces students to the process of communication focusing on interpersonal, group, and mass communication.

**Credits: 3**

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**Credits: 3**

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**Credits: 6**

**COM 1103 - INTRODUCTION TO MASS COMMUNICATION**
The course introduces students to the process of communication focusing on interpersonal, group, and mass communication.

**Credits: 3**

**COM 1113 - DRAWING I**
This course provides the initial introduction to the basic concepts and language of visual communication by introducing the basic drawing skills needed in Applied Communication professions.

**Credits: 3**
COM 1123 - Introduction to Media Technology
This course introduces students to the underlying concepts and theories of digital production, as well as practical knowledge involved in creating digital works using industry standard programs and practices.
Credits: 3

COM 1203 - Photography
This course introduces students to the basic photographic technical and compositional skills, together with an understanding of the history and development of photography.
Credits: 3

COM 1213 - Arabic I
This course provides students with an intermediate level of Arabic language skills, including reading about the history of media and various media and design majors, writing and research techniques, speaking (including debating, group discussions and individual presentation skills), the fundamental principles of translation and starting the development of a glossary of media terminology in both Arabic and English.
Credits: 3

COM 1223 - History of Media and Design
This course introduces students to the historical developments in design, with a focus on the interface between media and design.
Credits: 3

COM 2303 - Communication Research and Writing in an English/Arabic Environment
This course introduces students to the basic concepts and skills of research methodology and information literacy.
Credits: 3

COM 2403 - Web Development
In this course, students learn the fundamentals of website creation and publishing.
Credits: 3

COM 2413 - Portfolio and Presentation Skills
This course introduces students to the concepts and theories of how to organize developed materials, in both hardcopy and digital portfolio formats, to demonstrate and display their skills to perspective employers and clients.
Credits: 3

COM 2423 - Industry Research Project
This course further develops the concepts and skills already acquired by the students by having them go out into the industry to research a potential business project in their major field of study. The students will be expected to identify a real company in the industry, an existing problem or opportunity, develop a potential solution and present that solution to their peers for feedback and critiquing.
Credits: 3

COM 3503 - Arabic II
This course provides students with an advanced level of Arabic language skills, including reading about the history of media and media and design majors, writing and researching techniques, speaking (including debating, group discussion and individual presentation skills), the fundamental principles of translation, and preparing a glossary of media terminology in both Arabic and English.
Credits: 3

COM 4806 - Work Placement OR Integrated Project (Work Related Learning)
This course is designed as a framework within which a range of work related learning activities can be accommodated to meet defined learning outcomes.
Credits: 6

COMA N402 - Communications Theory
This course introduces students to various communication theories and how they relate to society and culture. The emphasis is on concepts, meanings, effects and impacts of diverse forms of mass communication within contemporary societies.
Credits: 4
COMA N403 - Business Practice
This course focuses on the development of students’ business ideas and entrepreneurial skills. Students consolidate knowledge and research skills by developing a business plan and corporate identity for a business or project in their field of specialization such as a graphic design studio, independent video production, freelance writing business, or an integrated communications project.
Credits: 4

COMA N416 - Media Project I
In Media Project 1 students will choose a topic in their specialization and write four academic essays on the historical, social, technical aspects and practical application. Each student will design and complete an individual experiment and individually produce a short but achievable practical application of their topic.
Credits: 2

COMA N418 - Language Support I
The primary aim of this course is to ensure that students have adequate language support to meet the requirements of COMA N416 Media Project I and thereby submit work of a suitable standard at bachelor degree level.
Credits: 2

COMA N452 - International Studies
This course engages Applied Media students in the development of a knowledge and skill base related to historical and current issues associated with an international perspective. Students research, analyze, and interpret a range of topics in international politics, economics, globalization, culture, the environment, technology and private and public organisations.
Credits: 4

COMA N453 - Entrepreneurship
In this course students learn how to identify business opportunities and assess feasibility to start up and manage a small business. Students create a business plan suitable for presentation to a funding source.
Credits: 4

COMA N466 - Media Project II
Media Project 2 enables students to individually further develop their creative, technical and project management competencies to a professional industry standard. Students work in their area of specialization.
Credits: 14

COMA N468 - Language Support II
The primary aim of COMA 468 is to ensure that students have adequate language support to meet the requirements of COMA 466 Media Project II and thereby submit work of a suitable standard at Bachelor degree level.
Credits: 2

CSF 2103 - Intrusion Detection and Ethical Hacking
This course studies in-depth the methods used in computer and network hacking with the intention of learning how better to protect systems from such intrusions. Hacking techniques covered include reconnaissance techniques, system scanning, network & application-level access attacks, and denial-of-service attacks, as well as multiple technique attacks. Protection and response techniques include traffic analysis, traffic filtering and traffic monitoring, across various Internet-related protocols. The course uses case studies and hands-on labs to enable students to put their skills into practice, including use of hacking tools and bypassing network security.
Credits: 14

CSF 3003 - Cyber Law and Ethics
This course provides an insight into the laws and regulations of cyberspace, from a general understanding of the legal issues in e-commerce security and privacy, to the legal, managerial, and ethical issues affecting technology enabled organizations. The course touches on numerous topics, including intellectual property, on-line contracts, laws governing the use of computers and the Internet, security and computer crime, as well as the ethical issues relating to cyber law. Students will examine regulatory, compliance and liability issues in UAE cyber law, as well as the role of the respective government bodies.
Credits: 3

CSF 3103 - Incidence Response and Disaster Recovery
This course develops two threads: how to identify & respond to an attack, and how to recover the system from an attack or other disaster. Students will learn how to identify system vulnerabilities, take appropriate
countermeasures, and identify & apprehend attackers, with the end goal of minimizing downtime and the accompanying organizational loss. The course then focuses on procedures to develop, implement and manage an incidence response and disaster recovery plan. A procedure-centric approach is taken throughout the course, with case studies providing a real-world basis for the topics discussed.

**CSF 3303 - OPERATING SYSTEM ADMINISTRATION AND SECURITY**
This course introduces Open Source Software and the GNU/Linux operating system. Students will perform installation, and use command line & graphical user interfaces, as well as popular applications, all within a networked environment. The course covers standard workstation administration tasks: managing storage; managing files; administering users & groups; installing & configuring local services. It introduces standard network services such as FTP and Apache.

**Credits: 3**

**CSF 3403 - COMPUTER FORENSICS AND INVESTIGATION**
This course explores the methods of analysis of computer systems that have already been compromised. The course teaches students how to conduct a systematic investigation, recover critical data, and aid authorities in tracking those who caused the security breach. Students will use software and hardware tools to preserve digital evidence for presentation in a court of law. Forensic tools and techniques are used to reconstruct the events that led to the system corruption, specifically in exploring file structures, e-mail and networks.

**Credits: 3**

**CSF 3603 - CRYPTOGRAPHY AND NETWORK SECURITY**
This course introduces key concepts of encryption such as ciphers, symmetric encryption and asymmetric encryption. It discusses advanced techniques including public key infrastructure, digital signatures and hash functions, with applications to user authentication, e-mail, IP/web security, and wired/wireless networks. Standards for encryption include DES, 3-DES, AES, RSA, SHA, WPA & WPA2. The course also reviews concepts in systems security, attacks and countermeasures. The concepts discussed are reinforced through research assignments, hands-on projects and experiments.

**Credits: 3**

**CSF 4003 - SECURITY AND RISK MANAGEMENT**
This course provides a detailed study of information security from the management and administration perspective. The course specifically covers guidelines for access management, control and communication, and business continuity management. Students will learn methods for information security risk assessment, intellectual property protection, organizational structure assessment and modeling of critical infrastructure protection, and apply these methods to case studies from industry. The course also presents a set of analytical tools for quantifying risk and the costs & benefits of various mitigation methods.

**Credits: 3**

**CSF 4103 - WEB APPLICATION AND E-COMMERCE SECURITY**
The course provides a practical guide to discovering and exploiting security flaws in web applications. Students will learn different steps involved in detecting and exploiting each kind of security weakness found within a variety of applications such as online banking, e-commerce and other web applications. The course covers techniques such as bypassing login mechanisms, injecting code, exploiting logic flaws, compromising other users, defeating web authentication, SQL injections, cross-site scripting, cross-site request

**Credits: 3**

**CSF 4203 - TELECOMMUNICATIONS AND WAN SECURITY**
The course aims to provide knowledge in securing the critical infrastructure by creating a starting point in securing wide-area and telecommunication networks. It includes concepts, theories and practices to secure current and new generation telecommunications networks & WANs. Students will learn emerging threats and systems vulnerabilities, and defense mechanisms relevant to the field. Students will also gain a strong foundation in vulnerabilities, access and authentication methods in mobile telephony and how to mitigate those threats.

**Credits: 3**

**CTT 2003 - PRINCIPLES OF LEARNING FOR INSTRUCTIONAL TECHNOLOGY**
This course provides a revision of learning theories in relation to technology-supported learning. The course focuses on principle theories of learning with a foundation in instructional design, such as behavioral
learning, cognitive information processing theory, and constructivist learning as well as the factors affecting human learning. It introduces specific instructional strategies, techniques, and approaches that can be used to impact learning effectiveness, efficiency, and appeal using different technology platforms.

**Credits:** 3

### CTT 3103 - LEARNING ENVIRONMENT DESIGN, SUPPORT AND ADMINISTRATION

This course provides an overview of the management and utilization of technology-based training practices in corporate settings. The course focuses on the selection, planning, development, administration, organization and delivery of training to adult learners with the special attention to the role of instructional technologists. It defines the principles of the design of effective technology-driven learning environment and defines its functional components.

**Credits:** 3

### CTT 3303 - ASSISTIVE TECHNOLOGY

This course provides students with an understanding of the current philosophies, levels of support, structure, methodologies and assistive technologies required to educate students with special needs in different learning environments. It offers an overview of the learning needs of gifted learners and learners with hearing, visual, and language impairments, and intellectual and socio-emotional disabilities. A guided research and presentation project, focusing on one particular area of special needs provides in depth understanding of a topic.

**Credits:** 3

### CTT 3403 - INSTRUCTIONAL DESIGN FOR COMPUTER BASED TRAINING

This course focuses on the systematic design of instructional courseware, including analysis, media selection and evaluation. It includes instructional strategies, screen design, response analysis, feedback and interactivity. Students will use instructional design principles and models to develop interactive learning environments. Students learn current development tools to create effective, efficient, and appealing learning environments. Students will learn basic administration of current learning management systems.

**Credits:** 3

### CTT 4003 - DISTANCE AND ONLINE EDUCATION

This course discusses modern theoretical and practical aspects of distance and online education. Students evaluate the effectiveness of teaching and learning resources used in distance and online education practices using a range of available tools against specific educational and pedagogical criteria. This course explores the meaning of e-learning and its development and impact on education and training, and the changing roles of the teacher and student brought about by these technological developments.

**Credits:** 3

### CTT 4103 - CUSTOMER RELATIONSHIP MANAGEMENT

This course explores the use of Customer Relationship Management (CRM) to support business processes and development. It examines the information technology resources, strategies, software and processes needed to support an effective CRM strategy. It explores, in particular CRM techniques for enhancing customer service, sales force effectiveness and marketing strategy.

**Credits:** 3

### CTT 4203 - STAFF DEVELOPMENT AND CORPORATE TRAINING STRATEGIES

This course introduces a strategic training process which is considered as the preferred training methodology for the world’s major corporations to ensure training quality and compliance with corporate goals, and to provide cost effective benefits to employers and employees alike. This course focuses on concepts and models useful in the formulation, analysis, and implementation of training strategies. During the course, students will learn how to create the Strategic Training and Development Plan.

**Credits:** 3

### CTT 4303 - TECHNOLOGY BASED ASSESSMENT DESIGN AND ADMINISTRATION

This course will explore assessment writing principles and practices in relation to different Computer-based assessment (CBA) models. Course provides guidelines in designing computer-based assessments using different computer-based assessment tools. Course focuses on quality of Computer-based assessments, its administrations, and integrity of the testing environment.

**Credits:** 3
EAA 1403 - Electronic Fundamentals (Mod 4 B1)
This common course is delivered to all aviation students to furnish a familiarization with common semiconductor devices, printed circuit boards (PCB’s) and servomechanisms used in aircraft systems.
CREDITS: 3

EAA 1503 - Digital Techniques/Electronic Instrument Systems (Mod 5 B1)
This course provides the theoretical and practical knowledge of the fundamental concepts of digital electronics technology.
CREDITS: 3

EAA 1612 - Materials and Hardware (Mod 6 B1)
The purpose of this course is to provide the student with detailed knowledge of the theoretical and practical aspects of Advanced Aircraft Materials and Hardware and ability to apply that knowledge.
CREDITS: 12

EAM 1103 - Aviation Mathematics
Aviation technology is governed by the laws of physics. All aircraft systems must obey the laws of physics, and therefore must obey the laws of mathematics which relate to physics. In order to design and build aircraft and aircraft systems, as well as maintain those systems, engineers need to have a good foundation in mathematics. This course introduces and applies mathematical concepts that are essential for engineers in the field of aircraft maintenance, as required by EASA Part 66 Module 1. Topics covered include: arithmetic, algebra and geometry.
CREDITS: 3

EAM 1203 - Aviation Physics
This course is designed to develop fundamental principles of physics relevant to aviation technology, as required under EASA Part 66. Topics covered include: matter, statics, kinetics, dynamics, fluid dynamics, thermodynamics, optics, wave motion, and sound.
CREDITS: 3

EAM 1306 - Electrical Fundamentals
This common course is delivered to all aviation students to furnish the needed background. It provides knowledge of electrical fundamentals and characteristics and the production and utilization of electrical power. This course meets all the requirements of CAR 66 Module 3.
CREDITS: 6

EAV 1409 - Electronic Fundamentals (Mod 4 B2)
This course covers electronic components and circuits including diodes, transistors, integrated circuits, printed circuit boards & synchronous mechanisms. It meets the requirements of EASA Module 4B2.
CREDITS: 9

EAV 1509 - Digital Techniques/Electronic Instrument Systems (Mod 5 B2)
This course is designed for avionics students and meets the EASA Module 5 requirements.
CREDITS: 9

EBMG N405 - Technology and Management
This course enables learners to recognise the need for managers to be able to gather, analyse, record, store and distribute information as part of the management function. Learners examine the different types and sources of information and learn to use information as a decision making tool.
CREDITS: 4

EBMG N411 - Financial Awareness
This course is designed to introduce learners to the management of finance in organisations from a managerial perspective. Learners will have the opportunity to examine a variety of financial topics that directly impinge on the management of organisations, the maintenance of the financial resource, the effective acquisition of assets and the effective control of the deployment of financial resources.
CREDITS: 4

EBMG N412 - Managing Marketing
This course is designed to develop knowledge and understanding of managing marketing for operational purposes. Learners study principles related to the broad management of marketing at an operational level.
CREDITS: 4
EBMG N413 - LEADERSHIP OF ORGANIZATIONS
This course gives learners an insight into current thinking on leadership from the perspective of the organisation. In a rapidly changing working environment the emphasis is on the studies of the last ten years rather than traditional leadership models. Learners will consider the range of competences and styles of successful leaders, the importance of the context in which leadership exists and how organisations can plan to meet their current and future requirements for leadership. 
CREDITS: 4

EBMG N416 - MANAGING QUALITY
This course is designed to introduce learners to the concept of ‘total quality’ and its achievement through Total Quality Management (TQM). The origins of TQM are explored via the contributions of major theorists, its holistic nature is emphasised, as is the need to manage changes in both operational systems and organisational culture/s for its successful implementation.
CREDITS: 4

EBMG N420 - STRATEGIC MANAGEMENT
This course is designed to introduce learners to strategic management and to develop their knowledge and understanding of the nature, scope, principles and processes of strategy. The course covers the formulation, implementation and control of strategy as carried out by the senior management and functional management of an organisation, within its internal and external environments.
CREDITS: 4

EBMG N460 - MANAGING FINANCIAL PRINCIPLES AND TECHNIQUES
This course provides the learners with a foundation in financial principles and techniques relevant to the strategic management process. The focus of the unit is income and expenditure, budgets, investment criteria for decision making, and the use and analysis of financial statements. The main objectives are to give learners the confidence to construct, analyze and interpret financial information in order to enhance their decision-making skills in relation to their own organizations. Learners study the role of accounting information in the management process.
CREDITS: 4

EBMG N461 - FINAL RESEARCH PROJECT
This course provides learners with the opportunity to undertake a comprehensive piece of research developing critical thinking and integration. It represents and academic challenge to the learner.
CREDITS: 8

EBMG N463 - ETHICS IN THE GLOBAL COMMUNITY
The increase in information and communication technology, the consequent globalisation of markets and competition and the need to respect today’s more diverse society means that organisations have to ensure they are more aware of the wider environment.
CREDITS: 4

EBMG N464 - COMMUNICATION STRATEGY
Organisations today need to plan their communication systems to ensure up-to-date information, knowledge and awareness are always available to all who need them. This unit gives learners an opportunity to look to the design of a communication system within one organisation, such as their own workplace, one to which they are seconded or through a case study.
CREDITS: 4

EBMG N467 - SUPPLY CHAIN MANAGEMENT
The aim of this course is to provide an understanding of the strategies, systems, policies, procedures and techniques involved with managing the supply chain. The course will help learners to understand the evolution of supply chain management and the strategies that organisations develop to maintain effective supplier relationships.
CREDITS: 4

EBMG N476 - CULTURE, CLIMATE AND VALUES
This course focuses on the crucial importance of understanding culture and climate in a globalised, diverse and repeatedly restructured working environment. The course explores cultural issues at national and organisational levels and the differences between culture, climate and values.
CREDITS: 4
EBMG N477 - HR Planning and Development
This course will enable learners to focus on the knowledge, understanding and skills necessary for the planning and development of an organisation’s human resources (HR). Learners will research the role of the HR function, analyse HR planning and development methods and how they contribute to organisational objectives and requirements, and analyse performance enhancements.
CREDITS: 4

ECE 2003 - Teaching Mathematics in the Early Years: Skills and Concept Acquisition
This course charts the development of early mathematical skills and concepts collectively known as problem solving, reasoning and numeracy, subdivided into the areas of numbers as labels and for counting, calculating and shape, space and measures. It also explores contemporary thinking about pedagogy and current practice in mathematics teaching in early childhood settings with a particular emphasis on the provision of developmentally appropriate, play-based learning experiences.
CREDITS: 3

ECE 2203 - Learning through the Visual Arts
This course explores recent thinking about creativity, nurtures student teacher creativity including the acquisition of new technical skills, and provides a context for understanding the importance of the visual arts to enable children to express themselves through a variety of media using all the senses.
CREDITS: 3

ECE 2503 - Theories of Teaching and Learning that Impact the Preschool Curriculum
This course builds on previous learning with a key focus on how a range of approaches to teaching and learning in ECE settings are influenced by early childhood practitioners such as: Froebel, Montessori, Dewey and Steiner (Waldorf); current practice e.g. Reggio Emilia; general theories of child development; and more specifically the work of developmental psychologists such as Piaget, Bruner and Vygotsky.
CREDITS: 3

ECE 2603 - Learning through the Performing Arts
This course will explore the relative importance of the performing arts in a range of early childhood methodologies including the UK Early Years Foundation Stage (EYFS), the Montessori Method, the IB Primary Years Program (IB PYP), the High / Scope program and in the UAE preschool syllabus.
CREDITS: 3

ECE 3003 - Literacies in Early Childhood
This course explores a range of current approaches that facilitate the development of language and literacy skills. Included in the concept of literacy are ‘new literacies,’ ‘digital’ or ‘multiliteracies,’ integrating screen-based texts, images, text layout and hypertext within their scope of study.
CREDITS: 3

ECE 3203 - Learning through Literature
This course focuses on how books, poems and a range of other texts including ‘media’ and ‘digital or web based’ texts can be used to develop learning across domains with a particular emphasis on early childhood literacy.
CREDITS: 3

ECE 3503 - Planning and Assessment in Early Childhood Education
In this course students review the factors, including developmental levels, individual learning needs and program aims that need to be considered in planning for learning across both domains (cognitive, physical, social and emotional) and curriculum areas.
CREDITS: 3

ECE 3703 - Building Learning Communities in Early Childhood Education
This course raises student awareness of the family as the child’s first teacher, foundation, and framework for the transmission of culture, language, attitudes, and values.
CREDITS: 3

ECH 1003 - General Chemistry
The course introduces the fundamental concepts of chemistry to chemical engineers.
CREDITS: 3
ECH 1103 - CHEMICAL ENGINEERING PRINCIPLES I
This course is the first of two courses that cover the essential issues of chemical engineering principles and their application in industry.
CREDITS: 3

ECH 2003 - PHYSICAL CHEMISTRY
In this course, the students will be introduced to collision theory and transition state theory. The course also focuses on the application of thermodynamics in the description of chemical reactions, free energy and substance activities, chemical equilibrium, properties of solutions, physical properties of solids surfaces-catalysis and absorption.
CREDITS: 3

ECH 2013 - CHEMICAL ENGINEERING PRINCIPLES II
This course is the second part of a two-part series covering essential chemical principles and applications. It covers the applications of material and energy balances for non-reactive and chemically reactive systems usually used in industrial processes.
CREDITS: 3

ECH 2033 - FLUID MECHANICS
This course covers fluid mechanics principles and fundamentals. It covers the basic concepts of energy balance, determination of flow regimes (laminar and turbulent flows), an introduction to compressible flow, sonic velocity calculations and the different mechanisms in flow measurement.
CREDITS: 3

ECH 2043 - ANALYTICAL CHEMISTRY
The main purpose of this course is to provide students with fundamentals and practical background of classical and instrumental analytical techniques as related to modern laboratory operation and applications to an industrial setting.
CREDITS: 3

ECH 2053 - ORGANIC CHEMISTRY
This course covers the basic and fundamental principles of organic chemistry, nomenclature, structure and properties of organic molecules, isomerism, reactions and mechanisms of: alkanes, cycloalkanes, alkenes, alkynes, aromatic compounds, alkyl halides, alcohols, phenols, thiols, ethers, epoxides, carbonyl compounds, carboxylic acid, and amines.
CREDITS: 3

ECH 2063 - THERMODYNAMICS
This course introduces students to thermodynamic properties of pure substances including the properties and the equations of state of ideal and real gases.
CREDITS: 3

ECON N400 - ECONOMICS OF THE UAE
This course builds on prior knowledge of basic micro and macro economic concepts, and students’ experience of working within the UAE economy to develop an analytical approach to current issues arising from the historical development of the oil-based UAE economy.
CREDITS: 4

ECON N450 - MONETARY THEORY
This course builds upon prior macro economic concepts to develop skills in understanding monetary theory.
CREDITS: 4

ECV 1003 - APPLIED DRAFTING AND CAD: CIVIL
This course develops skills to use CAD drafting as a means of communication in the civil and construction industry.
CREDITS: 3

ECV 1103 - CONSTRUCTION MATERIALS
This course introduces the student to many of the materials used in the construction industry. It covers materials used in the construction of buildings, pavements and infrastructure using international and local standards.
CREDITS: 3

ECV 2003 - SOIL MECHANICS
Soil mechanics is defined as the application of the laws and principles of mechanics and hydraulics to engineering problems dealing with soil as an engineering material.
CREDITS: 3
ECV 2013 - **Engineering Mechanics I**
The course covers basic principles of mechanics including the composition and resolution of forces; how they combine to keep a body in equilibrium, and their effect on the stability of the structures on which they act such as simply supported beams, cantilevers, trusses and cables.

**Credits:** 3

ECV 2023 - **Mechanics of Fluids & Hydraulics**
This course introduces students to the fundamental principles of fluid mechanics and hydraulics with applications to practically applied problems. Primary emphasis will be placed on basic topics including fluid properties, measurements of flow and pressure, hydrostatics, and hydrodynamics forces on submerged surfaces, floatation and buoyancy theory.

**Credits:** 3

ECV 2033 - **Strength of Materials**
This course introduces the concepts necessary for the design of structural elements including material selection and component design.

**Credits:** 3

ECV 2043 - **Foundation Engineering**
This course is intended to extend the core knowledge and understanding of Soil Mechanics that were developed in course ECV 2003.

**Credits:** 3

ECV 2053 - **Site Surveying**
This is a fundamental course that provides students with appropriate theoretical and practical surveying skills that can be utilized in civil engineering related work.

**Credits:** 3

ECV 3073 - **Civil Engineering Construction**
This course covers the basic works associated with earthmoving, compaction and excavation with emphasis on the current processes and techniques used in such operations.

**Credits:** 3

EDT 2003 - **Technologies for Learning I**
This course introduces students to current educational theory and practice about learning technologies, and how they can be used to enhance teaching and learning in schools, tertiary institutions and other learning environments such as the workplace.

**Credits:** 3

EDT 2203 - **Information, Communication and Media Studies**
Media literacy is an essential component of ‘global citizenship’ in today’s mediated world. Given the impact of the media on people’s lives, the media can also serve as a highly motivating resource for teaching.

**Credits:** 3

EDT 2503 - **Technologies for Learning II**
In this course students build on and extend their knowledge, skills and understanding of current educational theory and practice about computer-based learning technologies that were introduced and developed in Technologies for Learning I.

**Credits:** 3

EDT 2703 - **Distance and Online Education**
This course develops students’ understanding of current educational theory and practice about learning technologies in distance and online education.

**Credits:** 3

EDT 3003 - **Computer Platforms**
The course covers the basics of network operating systems, network operating system components, operating system installation, and device drivers and configuration.

**Credits:** 3

EDT 3203 - **Computer-Based Training**
This course introduces the students to the skills needed to develop computer and web-based training courseware. Students will be introduced to computer and web based instructional teaching and learning theories and strategies.

**Credits:** 3
EDT 3503 - WEB DESIGN FOR LEARNING
In this course students use a current/contemporary web development technology, with a focus on designing and building dynamic, database driven, web sites appropriate for use in educational settings. This course deals with the role of Internet technology in present day educational settings, with particular attention to the development of Inter/Intranet applications.
CREDITS: 3

EDT 3703 - MULTIMEDIA AUTHORING FOR LEARNING
In this course students learn, demonstrate and use the principles, best practices and techniques of creating successful multimedia applications.
CREDITS: 3

EDU 1003 - INTRODUCTION TO THEORIES OF LEARNING 1A
This course introduces students wishing to join the teaching profession to a broad base from which to understand the theories of child development and how they influence approaches to teaching and learning. It explores the development of children from birth to primary school age by investigating the domains of cognitive, linguistic, motor, social, artistic and emotional development.
CREDITS: 3

EDU 1203 - LEARNING TO TEACH IN THE CONTEMPORARY UAE 1A
In this course students will develop an initial understanding of the broad role of the teacher/educator, the student and the culture of the classroom/learning environment in an introductory and non-threatening manner. This will be achieved either by direct experience (observation) in relevant institutions or though viewing videos of best practice, and through input sessions at college during the semester. The themes of the course are closely related to educational studies and teaching practice courses for this semester. The course links theories of learning to classroom practice. Students explore a range of methodologies including Gardner’s theory of multiple intelligences, Bloom’s taxonomy and other contemporary theories of learning. The students critically reflect on their application to the classroom.
CREDITS: 3

EDU 1302 - LEARNING TECHNOLOGIES FOR THE CLASSROOM
This course is an introductory level course to introduce students to computer hardware, software, and web-based learning technologies that can be used in teaching and learning. This foundation course introduces the fundamental elements of ICT for learning environments and its underlying pedagogy, educational issues relating to the use of technology in the classroom, the significance of technologies, their impact on society, and how society has changed as a result of them.
CREDITS: 2

EDU 1503 - INTRODUCTION TO THEORIES OF LEARNING 1B
This course briefly revises theories of child development and how they influence approaches to teaching and learning that were introduced in semester one. Students explore the development of the older child by investigating the domains of cognitive, linguistic, motor, social, artistic and emotional development and their influence on motivation and learner behavior.
CREDITS: 3

EDU 1703 - LEARNING TO TEACH IN THE CONTEMPORARY UAE 1B
In this course students will continue to develop an understanding of the broad role of the teacher/educator, the student and the culture of the classroom/learning environment. This will be achieved either by direct experience (observation) in relevant institutions or though viewing videos of best practice, and through input sessions at college during the semester. The themes of the course are closely related to educational studies and teaching practice courses for this semester. The course links theories of learning to classroom practice. Students explore a range of methodologies including Gardner’s theory of multiple intelligences, Bloom’s taxonomy and other contemporary theories of learning. The students critically reflect on their application to the classroom.
CREDITS: 3

EDU 1802 - INTRODUCTION TO MATH AND SCIENCE IN THE CLASSROOM
In this course students define and identify naturalistic, informal and structured activities that support the development of a range of fundamental mathematical and scientific concepts and skills. Students present an aspect of mathematical or scientific enquiry which has both clear relevance and is of interest to K-12 learners, defining the concepts and principles according to international curricular standards and making suggestions for introducing them using developmentally appropriate practices. Links are made to key learning theorists including Piaget, Vygotsky, Bruner and Gardner.
CREDITS: 2
EDU 2302 - Language and Development: SLA Principles and Pedagogy
This course builds on the knowledge and awareness of both how language impacts learning and how young children acquire and learn in a second or additional language. Bilingualism and multilingualism and contrasting theories of first and second language acquisition including the nature of ‘interlanguage’ and ‘universal grammar’ are analyzed and evaluated.
CREDITS: 2

EDU 2802 - Teaching Learners with Special Needs
This course provides students with a basic understanding of the current philosophies, structure, levels of support, methodologies and assistive technologies required to educate students with special needs in different learning environments.
CREDITS: 3

EDU 4003 - Research Methods and Reflective Practice in Education
This subject introduces students to basic educational research issues, enabling them to apply this knowledge to the creation of an authentic preliminary investigation into a self-selected researchable issue that is implemented in the second semester (EDUY N450) to form a complete action research project.
CREDITS: 3

EDU 4103 - Managing Innovation and Change in Education
In this course students develop an awareness of the overall organizational and management structure of the UAE government education system as it impacts on the early childhood/school education sector, relating this to relevant theory.
CREDITS: 3

EDU 4203 - Curriculum Design
This course examines a variety of curricula and curriculum documents to develop an understanding of the various aspects and the dynamic nature of curriculum.
CREDITS: 3

EDU 4503 - Research Project
This capstone course offers learners the opportunity to implement the authentic action research proposal designed in EDUY N400 culminating in a complete action research project.
CREDITS: 3

EDU 4603 - Employment Preparation for New UAE Educators
There are different and varying field requirements that aspiring teachers are required to meet in order to be considered for employment, depending on the UAE education agency involved, (e.g. IELTS band, ICDL, Praxis exam, etc). This course assists students in addressing such requirements.
CREDITS: 3

EEC 1003 - Electric Circuits I
This course introduces students to DC linear circuit fundamentals which include appropriately scaled-units of basic quantities, Ohm’s law, power dissipation, Kirchhoff’s laws, linear circuit theorems, and network analyses of series, parallel, and series-parallel linear circuits.
CREDITS: 3

EEC 2003 - Electric Circuits II
This course introduces students to linear circuit fundamentals which include appropriate scaled - units of reactive quantities, the transient response of RL, RC, and RLC circuits, analysis of steady - state reactive circuits, application of circuit theorems to compute AC power at a load, determination of the load for maximum power transfer, and the effect of passive, first order filters on sinusoidal signals.
CREDITS: 3

EEC 2013 - Digital Electronics
This course introduces fundamental concepts of digital systems, which include numbering systems, digital codes, logic symbols, Boolean expressions, logic minimization techniques, analysis of combinational and sequential circuits, and classification of various integrated circuit (IC) families, including TTL, CMOS and programmable gate arrays.
CREDITS: 3

EEC 2033 - Microcontroller Systems
The course introduces the hardware and software architecture of a microcontroller system.
CREDITS: 3
**EEC 2053 - Analog Electronic Devices**
This course covers construction, operation, characteristics, and applications of common semiconductor devices including the rectifier diode, Zener diode, light emitting diode (LED), photo diode, laser diode, opto-isolator, bipolar junction transistor (BJT), junction field effect transistor (JFET), metal-oxide semiconductor field effect transistor (MOSFET), and insulated-gate bipolar transistor (IGBT). Applications of these devices are introduced, which include rectifiers, power supplies, small signal amplifiers, and switching circuits.

**Credits: 3**

**EEC 2073 - Electrical Engineering Fundamentals**
This covers the basic concepts and fundamental laws of electrical circuit theory; analysis and applications of series, parallel and series-parallel resistive circuits; mesh and nodal analysis; circuit analysis techniques and network theorems; analysis of resistive circuits; characteristics of inductors and capacitors; analysis of RL, RC, and RLC circuits with DC excitation; basic computer-aided circuit analysis and design.

**Credits: 3**

**EEL 2003 - Energy Production & Transmission**
This course introduces students to power generation and transmission. Students are introduced to the main components and characteristics of thermal power plants, including types of boilers, combustion, condenser cooling-water loop, and the impact on the environment.

**Credits: 3**

**EGN 1103 - Engineering Measurements & CAD Introduction**
This course gives the opportunity to learn basic hands-on skills, engineering measurements and introduction to CAD.

**Credits: 3**

**EEL 4413 - Power Systems Analysis**
This course aims to equip students with the ability to analyze and solve problems commonly encountered in electric power systems.

**Credits: 3**

**ELT 2003 - Language Arts A (Speaking, Listening and Vocabulary)**
This course focuses on the teaching of speaking, listening and vocabulary in the English Medium Primary School context. The course stresses the importance of evaluating and synthesizing different approaches and styles in facilitating EFL learning.

**Credits: 3**

**ELT 2203 - Language Arts B – Teaching Methods for the Primary School Teacher A**
This course explores appropriate methods and strategies for the effective, integrated delivery of Language Arts (Speaking, Listening, and Vocabulary) in an English medium primary classroom.

**Credits: 3**

**ELT 2503 - Language Arts C (Reading/Writing/Literature)**
This course has 3 main strands 1) the development and teaching of reading 2) the development and teaching of writing3) the role of texts in developing literacy in the English Medium Primary School.

**Credits: 3**

**ELT 2603 - Language Arts D – Teaching Methods for the Primary School Teacher**
This course explores appropriate methods and strategies for the effective, integrated delivery of Language Arts (Reading, Writing and Literature) in an English medium primary classroom.

**Credits: 3**

**ELT 3003 - Child and Adolescent Literature**
This course develops students' awareness of the value of children's literature as a tool for language teaching. Students explore, evaluate, and utilize a variety of children's literature.

**Credits: 3**

**ELT 3203 - Language Arts E – Teaching Methods for the Secondary School English**
This course explores appropriate methods and strategies for the effective, integrated delivery of
Language Arts (Speaking, Listening, and Vocabulary) in UAE secondary school settings.

**CREDITS: 3**

**ELT 3503 - LITERACY AND GRAMMAR IN THE SECOND LANGUAGE CURRICULUM**
In this course students build on their knowledge of literacy development, by examining the teaching and learning of writing and grammar, and considering how to plan for literacy and grammar in the second language curriculum.

**CREDITS: 3**

**ELT 3703 - LANGUAGE ARTS F – TEACHING METHODS FOR THE SECONDARY SCHOOL ENGLISH**
This course explores appropriate methods and strategies for the effective, integrated delivery of Language Arts (Speaking, Listening, and Vocabulary) in UAE secondary school settings.

**CREDITS: 3**

**EMC 2003 - COMPUTER AIDED DRAFTING**
Fundamentals of graphical communications, computer aided drafting, orthographic projections, drawing standards, drawing scales and tolerance, geometric modeling, descriptive geometry, problem visualization and solution in mechanical engineering applications.

**CREDITS: 3**

**EMC 2013 - MATERIALS SELECTION & TESTING**
This course covers the atomic structure, bonding material transport, mechanical properties of materials, solidification, phase diagrams, and solid state transformations.

**CREDITS: 3**

**EMC 2023 - STATICS AND DYNAMICS**
This course provides the fundamentals of statics, composition of forces, equilibrium of force systems, and analysis of forces acting on structures, machines and friction.

**CREDITS: 3**

**EMC 2033 - MANUFACTURING TECHNOLOGY**
This course is designed to give students a grounding in the processes and technologies relative to manufacturing technology.

**CREDITS: 3**

**EMC 2043 - MECHANICS OF MATERIALS**
This course introduces the fundamental concepts of stresses and strains, deformations and displacements, elasticity and in-elasticity, strain energy and load carrying capacity of structural members subjected to tension, compression, torsion and bending.

**CREDITS: 3**

**EMC 2053 - FLUID MECHANICS**
This course introduces students to fluid mechanics principles. Emphasis will be placed on basic topics including fluid properties, hydrostatics, and hydrodynamics (buoyancy, forces on submerged surfaces, pipe flow, open channel flow). The course practical work will reinforce the theory through experiments in the hydraulics laboratory.

**CREDITS: 3**

**EMC 2223 - FLUID POWER**
In this course the principles of fluid power and components will be studied together with circuit design.

**CREDITS: 3**

**EMGT N403 - INTERNATIONAL MARKETING & BUSINESS**
This course will examine the international business environment and how it relates to engineering companies wishing to compete within international markets. This course will investigate social, political and business cultures around the world and how these influence host country selection.

**CREDITS: 4**

**EMGT N416 - REFLECTIVE PRACTICE AND RESEARCH METHODS**
Not offered for the three credits course. Industry and business in general operate with limited resources. Obtaining relevant and valid information for use in decision-making is imperative in modern organizations and critical for success in competitive environments. This course introduces the concepts of research using qualitative and quantitative methods for decision-making.

**CREDITS: 4**

**EMGT N417 - BASIC FINANCE AND ACCOUNTING**
The course introduces concepts and skills for using basic financial and accounting information. There are three parts of the course. The first part deals with
financial accounting for engineering managers which examines the assumptions and decision usefulness of financial statements that are prepared for creditors and shareholders.

**Credits:** 4

**EMGT N421 - GENERAL MANAGEMENT DESIGN & SIMULATION**
The course will require the integration and application of management theory and work-related experience to a simulated business environment. Competing teams will analyze business environments, formulate and implement strategies, defend decisions, and assess business performance through presentations and reports.

**Credits:** 4

**EMGT N435 - TOTAL QUALITY MANAGEMENT**
This course provides a fundamental coverage of total quality management (TQM) and presents a useful set of tools and techniques to implement and manage quality programs in the workplace. Tools and techniques such as statistical process control (SPC), quality systems, quality function deployment (QFD) and the international standard organization (ISO) are covered.

**Credits:** 4

**EMGT N436 - TOTAL QUALITY MANAGEMENT**
This course provides a fundamental coverage of total quality management (TQM) and presents a useful set of tools and techniques to implement and manage quality programs in the workplace. Tools and techniques such as statistical process control (SPC), quality systems, quality function deployment (QFD) and the international standard organization (ISO) are covered.

**Credits:** 4

**ENGL N470 - PROFESSIONAL WRITING & COMMUNICATION**
The course provides support to the capstone project in that it will provide the students with the information required to produce a scientific paper. The students will be provided with chosen material to use in conjunction with the teaching material to enable them to produce a scientific paper. The course will enable students to present their scientific findings in the approved manner and to the highest possible standards.

**Credits:** 3

**EPC 1401 - PRACTICUM 1A**
The practicum component is central to the Bachelor of Applied Science - Education and allows students to observe, implement and reflect upon the theories, methodologies and approaches highlighted in the Education and methodology strands of the program.

**Credits:** 1

**EPC 1901 - PRACTICUM 1B**
The central component of the education program is the supervised teaching practicum carried out in a variety of educational settings. This course will allow student teachers to begin to teach an aspect of a class and as the placement progresses, under the close supervision of the class teacher, take on more responsibility in planning, preparing and implementing longer segments of the class.

**Credits:** 1

**EPC 2401 - PRACTICUM 2A**
Student teachers work with children aged between 3-5 years old in local early childhood settings for a total of 8-12 days.

**Credits:** 1

**EPC 2901 - PRACTICUM 2B**
Student teachers work with children aged between 3-5 years old for 10-12 days in a minimum of two private and/or local settings which employ a range of different methodologies. These may include Montessori, UK EyFS, UAE preschool curriculum, IB PYP, High/Scope or other locally developed curricula.

**Credits:** 1

**EPC 3403 - PRACTICUM 3A**
Student teachers work with children aged between 4-5 years old in local early childhood settings for a total of 15-20 days, typically over a 3-4 weeks period.

**Credits:** 3

**EPC 3903 - PRACTICUM 3B**
Student teachers work with children aged between 4-5 years old in local early childhood settings for a total of 15-20 days, typically over a 3-4 weeks period. They continue to implement a range of observational and teaching tasks aimed at improving their understanding of how teachers can facilitate development across domains with particular emphasis on planning -
differentiating learning to cater for a range of diverse learning needs and assessment. Students also explore issues concerning the inclusion of children with special needs.

**CREDITS: 3**

**EPC 4403 - Practicum 4A**

Student teachers work with children aged between 3-5 years old in local early childhood settings for 15-20 days, typically over a 3-4 week period. During this practicum student teachers explore ways in which to enhance children’s learning and plan and undertake family involvement initiatives, field trips and a class performance that support the curriculum. They also commence collecting data for their action research project.

**CREDITS: 3**

**EPC 4909 - Practicum 4B (Internship)**

Student teachers complete Internship of 35-40 days, typically over an 8-10 week period, ideally at the educational setting where they completed their Teaching Practice in Semester 7. Student teachers typically spend 4 days a week at their school and return to college one day per week.

**CREDITS: 9**

**EPR 2003 - Language Arts A (Speaking, Listening and Vocabulary)**

This course focuses on the teaching of speaking, listening and vocabulary in an English Medium Primary School context.

**CREDITS: 3**

**EPR 2203 - Language Arts B – Teaching Methods for the Primary School Teacher A**

This course explores appropriate methods and strategies for the effective, integrated delivery of Language Arts (Speaking, Listening, and Vocabulary) in an English medium primary classroom.

**CREDITS: 3**

**EPR 2503 - Language Arts C (Reading/Writing/Literature)**

This course has 3 main strands 1) the development and teaching of reading 2) the development and teaching of writing 3) the role of texts in developing literacy in the English Medium Primary School.

**CREDITS: 3**

**EPR 2603 - Language Arts D – Teaching Methods for the Primary School Teacher**

This course explores appropriate methods and strategies for the effective, integrated delivery of Language Arts (Reading, Writing and Literature) in an English medium primary classroom.

**CREDITS: 3**

**EPR 3003 - Mathematics for the Primary School Teacher**

This course explores basic mathematical principles, concepts and skills that the student teacher will require in order to attain an appropriate level of understanding and proficiency to effectively teach content in an English medium primary classroom.

**CREDITS: 3**

**EPR 3203 - Mathematics Teaching Methods for the Primary School Teacher**

This course explores appropriate methods and strategies for the effective, integrated delivery of mathematics in an English medium primary classroom.

**CREDITS: 3**

**EPR 3503 - Science for the Primary School Teacher**

This course explores basic scientific principles, concepts and skills that the student teacher will require in order to attain an appropriate level of understanding and proficiency to effectively teach content in an English medium primary classroom.

**CREDITS: 3**

**EPR 3703 - Science Teaching Methods for the Primary School Teacher**

This course explores appropriate methods and strategies for the effective, integrated delivery of science in an English medium primary classroom.

**CREDITS: 3**

**ETEC N305 - Organizational Behaviour and Management**

This course provides an introduction to the nature of organisations in relation to management practices. The course examines the internal nature of organisations from both a theoretical and practical viewpoint. The
course is intended to develop an understanding of the behaviour of people within organisations and the significance of organisational design and characteristics. It also aims to provide the basis for, and to underpin further study in, specialist areas of business.

**ETEC N410 - INTERNATIONAL AND UAE ECONOMICS**
This course builds on prior knowledge of basic micro and macro economic concepts, and students' experience of working within the UAE economy to develop an analytical approach to current issues arising from the historical development of the oil-based UAE economy.

**Credits:** 4

**ETEC N435 - ETHICS AND PROFESSIONAL PRACTICE**
This course is a philosophical introduction to the area of applied ethics.

**Credits:** 4

**ETEC N450 - PROJECT MANAGEMENT FOR ENGINEERING**
This course provides the necessary tools and information to manage and control projects and their resources.

**Credits:** 4

**FND M010: FOUNDATION MATH 1**
This course is the first of two math courses in the New Foundations Studies Program. Foundations Math 1 (M010) focuses on basic numerical skills to provide a solid mathematical foundation for applications in subsequent courses.

**FND M020: FOUNDATION MATH 2**
This course is the second of two math courses in the New Foundations Studies Program. Foundation Math 2 (M020) focuses on the use of prior foundational knowledge to develop understanding and proficiency in the use and application of mathematical skills and concepts.

**FND R010: READING LEVEL 1**
This is the first of four reading courses at Foundations level, starting at CEFR A2 level and exiting around CEFR A2+.

**FND R020: READING LEVEL 2**
This is the second of four reading courses at Foundations level, starting at CEFR Level A2+ and ending around CEFR B1.

**FND R030: READING LEVEL 3**
This is the third of four reading courses, starting at CEFR level B1 and exiting around B1+.

**FND R040: READING LEVEL 4**
This is the last of four courses on reading at Foundations level.

**FND S010: SPOKEN COMMUNICATION LEVEL 1**
This is the first of four courses in understanding and using spoken English at Foundations level, starting at CEFR A2 level and exiting around A2+ level.

**FND S020: SPOKEN COMMUNICATION LEVEL 2**
This is the second of four courses in understanding and producing spoken English at Foundations level, starting at CEFR A2+ level and exiting around CEFR B1.

**FND S030: SPOKEN COMMUNICATION LEVEL 3**
This is the third of four Foundations level courses which cover both comprehension and production of spoken English, starting at CEFR B1 level and exiting around CEFR B1+.

**FND S040: SPOKEN COMMUNICATION LEVEL 4**
This is the last of four Foundations level courses which cover both comprehension and production of spoken English, starting at CEFR Level B1+ and exiting around CEFR Level B2.

**FND W010: WRITING LEVEL 1**
This is the first of four writing courses at Foundations level, starting at CEFR A2 level and exiting around CEFR A2+.
FND W020: Writing Level 2
This is the second of four writing courses at Foundations level, starting at CEFR A2+ level and exiting around CEFR B1.

FND W030: Writing Level 3
This is the third of four writing courses at Foundations level, starting at level CEFR B1 and exiting around CEFR B1+.

FND W040: Writing Level 4
This is the final of four writing courses at Foundations level.

HCL 1103 - Software Applications for Health
This is an introductory course on software applications. Correct keyboarding technique is emphasized (must achieve 20 wpm with 98% accuracy). Basic software applications are introduced including internet, email, MS Word, Excel, and basic desktop publishing. Selected applications in health care are discussed and demonstrated.
Credits: 3

HCL 1403 - Health Business Records Processing
This course provides the student with a working knowledge of business records processing involved in the management of health information in the health care industry. Students will understand the business and legal benefits of establishing a records retention program. Students will utilize basic accounting skills required to address business practices in private and public healthcare sectors.
Credits: 3

HCL 2703 - Overview of Health Challenges
This course provides a broad overview of common health care challenges experience by clients/patients in the health care system. Health promotion and prevention is covered in relation to health care outcomes. It is intended to provide health care administrators and leaders with a working knowledge of common health promotion and prevention issues and diseases in the UAE. Implications for the health care system, and quality management in relation to health care challenges are covered.
Credits: 3

HCL 3003 - Research Methods in Health Care
This course provides an introduction to research methods in health care with a focus on the health care leader/specialist. Quantitative, qualitative, and mixed methods are discussed with an emphasis on the research methods most commonly used by managers and leaders in health care.
Credits: 3

HCL 3103 - Biostatistics and Epidemiology
This course provides the working foundation for health care administrator and leaders to understand and utilize information provided by statistical and epidemiological reports. Application to health care research and policy development is emphasized.
Credits: 3

HCL 3203 - Health Care Policies
This course provides an overview to the development of health care policies at a legislative and institutional level. Assessment, planning, and structural development of policies are covered. Simulated experience in policy development is provided.
Credits: 3

HCL 3303 - Global Trends in Healthcare Systems and Issues
This course provides the opportunity to examine and analyze current health care system issues and trends. The course provides the foundation for a working knowledge to critical assess and appraise current health care systems and to proactively consider emerging health care system issues and their impact on health care system outcomes.
Credits: 3

HCL 9006 - Health Care Administration Preceptorship/Capstone Project
This course provides a consolidation experience with an opportunity to engage in professional practice with a preceptor in the professional field. Students are engaged in professional practice in addition to the development and implementation of an approved capstone project.
Credits: 6
HDH 1203 - Chemistry for Dental Hygiene
This course introduces general concepts of chemistry including basic knowledge on the analysis of subatomic and atomic properties based on the periodic table of elements; integration of concepts of higher order of organization of elements to molecules and polymers; molecular modeling; and practical aspects of chemical reactions and quantities. Chemical nomenclature and the analysis of molecules of organic origin is included.
Credits: 3

HDH 1303 - Organic & Bio Chemistry for Dental Hygienists
This course provides an introduction to the chemistry of organic compounds, and biochemistry as it applies to the organization, function, and regulation of living systems, especially in humans. Topics in this course include, chemical and molecular structure, functional group classification and their properties. The laboratory work covers basic organic and biochemistry laboratory techniques, including, organic modeling, functional group identification with special emphasis on differences. Safe practice within the chemistry laboratory is an important aspect of this course.
Credits: 3

HDH 2003 - Head and Neck Anatomy
Upon successful completion of this course, students will be able to recognize the basic concepts in the anatomy and physiology of the head and neck. Students will gain the foundation knowledge regarding the bones, muscles, glands, blood supply, lymphatic drainage, as well as the components of innervation to the head and neck.
Credits: 3

HDH 2203 - Dental Anatomy and Occlusion
Upon successful completion of this course students will be able to explain the major terminology used in dental anatomy, development and sequence of tooth eruption, temporomandibular joint, and inter- and intra-arch relationships. This course is a major foundational course in the education of dental hygiene students.
Credits: 3

HDH 2303 - General and Oral Pharmacology
Upon successful completion of this course the dental hygiene students will have a satisfactory knowledge of the principles of pharmacology and the application of these principles to the dental hygiene practice. They will be able to identify the major groups of drugs they will use throughout their career, as well as the systemic drugs that have an effect on the dental hygiene practice.
Credits: 3

HDH 2403 - General and Oral Pathology
Upon successful completion of this course students will have a satisfactory knowledge of the general concepts of pathology. Students will be able to relate these concepts to the specific health conditions that affect the oral cavity. Students will learn how to do an effective visual examination and how to recognize common oral diseases.
Credits: 3

HDH 3003 - Dental Radiology Theory and Practice
This course covers the characteristics, production, and control of dental radiographs. Upon successful completion of this course students will have the skills and the knowledge to interpret extra and intra-oral radiographs identifying and recognizing any significant and common discrepancies and technical errors.
Credits: 3

HDH 3103 - Community Dental Health I
This course is an introduction to the concepts and methods used in promoting dental health and preventing oral and dental diseases. Topics include major concepts of dental health education and methods of delivering oral health to the community.
Credits: 3

HDH 3203 - Dental Hygiene Theory I
This course introduces concepts related to periodontology. This includes the aetiology and pathophysiology of the periodontal diseases. An introduction to the principles and methods used in comprehensive periodontal assessment of the patients is discussed in detail.
Credits: 3

HDH 3503 - Applied Nutrition in Dental Practice
Provides a fundamental understanding of the effect of nutrition on general and oral health. Recognition
of nutritional deficiencies is covered in detail. A major aspect of the course includes the accurate and comprehensive conduction and evaluation of nutritional surveys for clients and patients in dental practice.

**Credits: 3**

**HDH 3603 - Law and Ethics for Dental Hygiene**

This course provides the knowledge of the concepts and principles of ethics and law in healthcare. Additionally, the course gives a background in the foundation of UAE laws that govern the practice of dentistry, medicine and allied health (Medical Responsibility Law and Medical Practice Law).

**Credits: 3**

**HDH 7503 - Dental Hygiene Practice I**

Clinical education practice-based course for the acquisition and application of knowledge and skills related to infection control and ergonomics in the dental clinic. Skill acquisition and knowledge application in relation to patient and client's medical, dental, and social history.

**Credits: 3**

**HDH 7515 - Dental Hygiene Practice II**

A clinical education course increasing the application of knowledge and skills in dental hygiene practice. Provides an opportunity under expert supervision to perform extra and intra oral examination, dental and periodontal charting. Real life acquisition of accurate assessment and development of dental hygiene diagnoses is provided.

**Credits: 5**

**HIM 1203 - Health Information Coding I (Introduction)**

Introduction to health information coding covers the basics in applying appropriate codes from the latest International Classification of Diseases (ICD) to classify events of morbidity, mortality, surgical procedures and other non-surgical interventions with an emphasis on accuracy, completeness, and sequencing. Covers all body systems. Maternity, oncology, and external causes of morbidity and mortality are covered. Factors influencing health status and contact with health services are included.

**Credits: 3**

**HIM 1703 - Medical Terminology for Allied Health Professions**

This course covers basic medical terminology beginning with prefixes, suffixes and word roots used in the medical and health care language. Students build on this knowledge by identifying, analyzing, defining, spelling and pronouncing terms and learning abbreviations related to each of the body systems as well as basic introductory principles of drug administration routes and drug classifications.

**Credits: 3**

**HIM 2003 - Health Information Coding II (Intermediate)**

Comprehensive approach to incorporate coding principles from theory to practice at an intermediate level as well as introducing the student to the science of pharmacology, focusing on the rational for appropriate code assignment. Students are required to apply their knowledge of pharmacology when coding case studies.

**Credits: 3**

**HIM 2203 - Health Information Management Studies**

Comprehensive health information management skills; categorization and processing of patient information into indexes, registers, registries, as well as the more common nomenclatures and classification systems including the activities and functions of a typical health information management department. Introduction of computerized record processing systems, using related patient data systems as examples whilst managing data quality and maintaining patient's confidentiality.

**Credits: 3**

**HIM 2303 - Health Information Coding III (Advanced)**

Apart from further developing knowledge on health information coding using the latest ICD version, abstracting and coding audits are covered in this unit to give the students a deeper understanding of the coding process, its intricacies and the wider implication of this into the provision of better health planning, financing and administration. The course will also introduce the link between case mix, diagnostic related groups and health funding models and how these tools contribute to the provision of better health outcomes.

**Credits: 3**
HIM 2403 - Introduction to Management in Healthcare
Healthcare management is a continually changing and evolving discipline. Basic understanding in organizational management, motivation, leadership and conflict management are covered in this course alongside the functions of management from the viewpoint of a manager who is responsible for creatively solving problems as well as facilitating creative problem solving efforts in others.
CREDITS: 3

HIM 3003 - Biostatistics
The course introduces statistical concepts applied in health information management. It emphasizes the basic concepts and processes that use data to enhance understanding of health information. Topics include measures of central tendency, distributions and hypothesis testing. Emphasis is on application of knowledge.
CREDITS: 3

HIM 3303 - Epidemiology
This course provides the basic understanding of core and central concepts in epidemiology. The course will include historical origins, purpose and uses of epidemiology. Emphasis is on measurement as well as data interpretation. Epidemiological study designs will be used to enhance understanding of investigation of disease outbreak.
CREDITS: 3

HIM 4203 - Research Methods in Healthcare
This course is designed to introduce different methods to provide health sciences students with the foundation to the process of scientific inquiry. Both quantitative and qualitative methods will be covered. Emphasis is on developing a critical scientific approach to evaluating scientific literature, developing a research proposal, and data collection tool. The course provides theoretical background to the implementation of research projects in program.
CREDITS: 3

HIM 8003 - Health Information Management Hospital Preceptorship
A clinical education and practice course providing opportunity for the application of knowledge and skills in an active health record department. Students acquire knowledge in, and experience with the structure and responsibilities of a health record department and interdepartmental relationships. Students gain procedural experience in assembly, analysis, filing, management of master patient index, management of incomplete record processing, record-tracking, and release of health information.
CREDITS: 3

HIM 8103 - Coding Practicum
A practicum course where students apply the coding theory to actual patient records in an acute care practice environment. The current version of the International Classification of Diseases,(ICD) in utilized in this practicum in alignment with best practice. During the practicum students are exposed to and code increasingly complex medical, surgical, obstetrical, and newborn records with an emphasis on coding speed, accuracy, completeness and sequencing. The practicum provides an opportunity to identify suggest improvements to coding practices which may not comply with best practice standards.
CREDITS: 3

HIMP N401 - Research Project I
This course is designed to introduce different research methods and to provide health sciences students with the foundation to the process of scientific inquiry. Both quantitative and qualitative methods will be covered. Emphasis is on developing a critical scientific approach to evaluating scientific literature, developing a research proposal, and outlining method including the data collection tool. The course provides theoretical background to the implementation of research in HIMP N402 - Research Project II.
CREDITS: 5

HIMP N402 - Research Project II
This course provides a supervised experience in planning and implementation of an empirical research study designed and developed in Research Project I. A range of statistical methods and techniques learned in Biostatistics will be utilized to analyze data. Students are expected to demonstrate professionalism and competence in data collection, data analysis, writing up and presentation of the research report.
CREDITS: 4
HIMP N425 - Advanced Health Informatics
This course builds on the knowledge acquired in HIMP 375. It introduces students to the concepts of telemedicine, telehealth and e-health including e-health records. This course also discusses the impact of information and communication technologies on health consumers, health economics, and health providers. This course also introduces students to the different evaluation and assessment techniques of e-health applications and communication technologies.
Credits: 5

HIMP N456 - Advanced Management in Healthcare
This course builds on the management skills learned in HIMP 326 Human Resource Management and HIMP 355 Quality Management in Healthcare and focuses on strategic management and its application in healthcare. Topics covered in this course are strategic planning and forecasting, marketing, standards for accreditation and licensure, preparing for accreditation surveys, compliance with governmental regulations in healthcare, organizational assessment and benchmarking.
Credits: 5

HIMP N460 - HI Systems Project Management
This course builds on student knowledge gained from HIMP 315 Information Systems in Healthcare, HIMP 375 Health Informatics, and HIMP 425 Advanced Health Informatics. The course introduces Health Information Management students to project management concepts and applications as they relate to the implementation of healthcare management information systems in hospitals and other healthcare settings.
Credits: 5

HIMP N471 - Advanced HI Coding and CaseMix
This course builds on the knowledge acquired in HIMP 250 Health Information Coding and HIMP 371 Intermediate Health Information Coding, and further develops the student knowledge of health information coding using ICD-10-CM. Writing abstracts and coding audits is covered in this unit to give the students a deeper understanding of the coding process, its intricacies and the wider implication of this into the provision of better health planning, financing and administration. The course will also introduce the link between case mix, diagnostic related groups and health funding models and how these tools contribute to the provision of better health outcomes.
Credits: 5

HIMP N510 - Professional Experience II
This is an applications course at selected healthcare facilities which is affiliated with management. In cooperation with the facility mentor and their teacher, students select, plan and present a major project. Students are guided through independent activities in which they use many of the skills they have developed throughout their entire curriculum. Special emphasis is placed on professionalism, leadership and creative problem solving in the health care setting. The course cumulates in a formal paper which is presented to invited community guests, college teachers and students.
Credits: 4

HIMP N516 - Health Funding and Reimbursement
This course introduces students to the basics of health economics. On completion of this course, students show an understanding and appreciation of economic analysis of the healthcare market, and can identify and assess factors that control the healthcare insurance industry.
Credits: 5

HIST N401 - Historical Perspectives of the Arab World
This seminar-type course presents a framework for understanding the peoples and cultures of the Arab world. It emphasizes the history of the Arab nation; analyzes the emergence of Islam; and explains the concept behind the sense of identity and the beginnings of modern Arab consciousness. It also examines the inner dynamics of Arab societies and the historical interaction with the West, the diversity of modern Arab societies and its implications on the economy and the future of Arab unity.
Credits: 4

HLTH N420 - Research I
This course is an introductory module for all students. It provides a broad overview of quantitative and qualitative research methodologies, research
philosophy and research ethics. Students also develop basic research skills such as using technology to locate relevant information, carrying out a literature review, using a research log, as well as analyzing and evaluating information.

**Credits: 5**

**HLTH N425 - RESEARCH II**

In this course students develop a deeper understanding of the research process through applying some of the general principles underpinning quantitative and qualitative research methodologies. Students learn how formulate research questions, gather data, interpret and analyze, set out their arguments within the context of their research findings and the research literature, and draw conclusions. Students also use software tools that are particularly relevant for research analysis and discussion purposes.

**Credits: 5**

**HMI 1103 - INTRODUCTION TO MEDICAL IMAGING**

Course covers introduction to the profession, core subjects and structure of the medical imaging program. The course examines the history of medical imaging, roles and responsibilities of medical imager, application of core diagnostic imaging modalities, fundamentals of radiation safety practices, clinical ethics and elementary aspects of patient care.

**Credits: 3**

**HMI 2001 - PATIENT CARE I**

This course focuses on developing understanding in the fundamentals of patient care in medical imaging environments. Specifically the course covers infection control, manual handling, patient communication and data confidentiality. Successful course completion indicates an understanding of patient care for mobile and restricted mobility patients and clients frequently encountered in non-critical medical imaging departments.

**Credits: 1**

**HMI 2002 - MEDICAL IMAGING TECHNOLOGY I**

This course introduces the basic x-ray machine and other medical imaging systems. Students learn to identify and explain the function of the various parts of an x-ray machine, how x-rays are produced, how they interact with matter and what factors affect the quality and quantity of the x-ray produced. Factors that affect image quality are explained so that students can produce diagnostic images at the lowest possible dose. Students also learn to describe medical images in precise terms such as spatial and contrast resolution.

**Credits: 2**

**HMI 2102 - MEDICAL IMAGING TECHNOLOGY II**

This course provides a comprehensive understanding of how digital images are produced, manipulated and transmitted using a variety of medical imaging modalities. Students develop a basic understanding of Patient Archive and Communication Systems (PACS), and Radiology Information Systems (RIS), that manage and distribute information and images produced in a modern medical imaging department. An understanding of the design and function of fluoroscopy and theatre and mobile equipment is also developed.

**Credits: 2**

**HMI 2303 - MEDICAL IMAGING POSITIONING AND PROCEDURES I**

This foundational course prepares students for medical imaging clinical education at the introductory level. Students who are successful in this course will have the knowledge, understanding and skills required for general medical imaging of the appendicular skeleton, spine and chest in a modern patient centric health care environment.

**Credits: 3**

**HMI 2403 - MEDICAL IMAGING ANATOMY AND PATHOLOGY I**

This foundational course equips students with fundamental image critique skills enabling them to recognize, identify and describe normal medical imaging anatomy and pathologies commonly encountered on diagnostic images of the upper and lower extremities, the spine, pelvis, hips, and chest. This course also promotes an understanding the nature of disease and the role of diagnostic imaging in patient care and clinical management.

**Credits: 3**

**HMI 2503 - MEDICAL IMAGING POSITIONING AND PROCEDURES II**

This course provides the knowledge, understanding and skills to undertake plain x-ray imaging of the abdomen and commonly encountered contrast studies.
including plain X-ray and fluoroscopy. This course is preparatory for medical imaging clinical education at the intermediate level. Also covered is general imaging positioning for the skull, maxillofacial structures and dentition. Students apply an understanding of medical imaging positioning terminology to describe imaging positioning technique and technically evaluate medical images. Finally, the course focuses on the special needs of mobile and theatre imaging and the role of the above modalities in patient care and clinical management.

CREDITS: 3

HMI 2603 - MEDICAL IMAGING ANATOMY AND PATHOLOGY II
This course equips students with image critique skills for the abdomen, skull, maxillary-facial structures and dentition enabling students to identify and describe normal anatomy and commonly encountered abnormal pathologies on plain X-ray, fluoroscopic and basic contrast study images. This course also focuses on developing an understanding of clinical pathology and patient management to interpret and justify commonly encountered contrast studies, fluoroscopic exams, mobile and theatre imaging procedures.

CREDITS: 3

HMI 3001 - PATIENT CARE II
This course provides students with an understanding of the fundamentals of patient care in ward, theatre and critical care medical imaging environments and for those undergoing contrast media examinations. In addition, it provides understanding of the safe administration and handling of radiological pharmaceuticals. Students at the successful conclusion of this course will be able to recognize and describe safe actions and precautionary measures for patients receiving interventional treatments and for patients who have suffered adverse reactions to radiological contrast media.

CREDITS: 1

HMI 3002 - MEDICAL IMAGING TECHNOLOGY III
This course provides the understanding and ability to discuss three different imaging modalities used in medical imaging. The modalities are fluoroscopy, mammography and nuclear medicine. This course provides the understanding in how imaging technology has been adapted to meet different diagnostic imaging challenges.

CREDITS: 2

HMI 3102 - MEDICAL IMAGING AND POSITIONING III
This course focuses on the practice and application of specialist medical imaging modalities to include paediatric imaging, mammography, diagnostic and interventional fluoroscopy, Nuclear Medicine and DEXA. On successful completion of this course students will have acquired knowledge and understanding of these specialist modalities such that they will be able to evaluate their best use and discuss their role in patient care and management.

CREDITS: 2

HMI 3202 - SPECIALIZED IMAGING I
This course is designed to ensure students develop their knowledge of specialized imaging modalities including an understanding of the scientific principles that form the basis of each imaging system. The student will study the design and function of specific equipment used in Computerized Tomography (CT), Medical Ultrasound (US), Magnetic Resonance Imaging (MRI) and acute trauma. Students will develop the skills to explain and evaluate the technical aspects of these advanced imaging systems and their clinical applications.

CREDITS: 2

HMI 3212 - RADIATION SAFETY AND BIOLOGY
The Radiation Safety and Biology course studies the effect of radiation on the human body and emphasizes the theory and practice of radiation protection for patients, members of the public and staff. Enabling medical imaging examinations to be carried out at the lowest dose and risk to the patient.

CREDITS: 2

HMI 3312 - CROSS SECTIONAL ANATOMY
This course enables the recognition, identification and description of the appearances of normal cross-sectional anatomy and commonly encountered pathologies as diagnosed by Computed Tomography (CT), Magnetic Resonance Imaging (MRI) and Ultrasound (US) cross sectional imaging modalities. This course complements the learning goals of specialized imaging courses and prepares for authentic viewing of cross sectional images in advanced clinical education courses.

CREDITS: 2
HMI 4002 - Specialized Imag. II
This course provides the opportunities to develop understanding of the theory, practice and clinical application of specific cross sectional imaging modalities to include CT, MRI, US and advanced trauma imaging. This course prepares students for advanced clinical education in specialized elective imaging courses. Specifically this course covers patient preparation care during and after cross sectional imaging and addresses relevant common clinical pathologies.
Credits: 2

HMI 4003 - Quality Management in Medical Imaging
This course provides the skills to explain and evaluate international quality management systems that are used to maintain and improve performance in healthcare organizations and justify their application to medical imaging. Students learn to apply basic quality measurement tools and critically appraise the results they provide. Students analyze how quality management tools are used by health care organizations to deliver quality improvement that is timely, effective and patient centered. The course focuses on how quality tools can maintain and improve the major components of medical imaging services as an integral part of a total quality management program.
Credits: 3

HMI 4102 - Specialized Imaging Elective
This course provides opportunities for students to extend knowledge and understanding of specific elected specialist imaging modalities to include CT, MRI, US, or advanced trauma. The specialist selection will be based on clinical availability, since this course links with clinical placement courses to simultaneously develop advanced clinical skills. This cohesive approach to education enables students to develop a deeper understanding of the overall design and sub-systems to provide a coherent understanding of the technical and clinical application of the elected modality.
Credits: 2

HMI 4103 - Research Project I
This course provides the opportunity to demonstrate an understanding of scientific research process by applying fundamental general principles underpinning scientific research methodologies to the construct of a research proposal. Students learn how to formulate research questions, identify a suitable method of inquiry, plan a primary research project and contemplate ethical considerations surrounding research efforts. On successful conclusion of this course, students have the necessary applied understanding and experience to competently construct a research proposal at a novice level.
Credits: 3

HMI 4203 - Professional Practice
This course will enable the knowledge and understanding in two main areas of study. Students evaluate emerging medical imaging technologies and their ability to impact health care management. This will include the cost and management of the technology related to the benefits to patient diagnosis and treatment. The other area studied is client communication. This allows students to critically evaluate the problems of communicating complex medical information to patients and also how best to communicate “best practice” in medical imaging to clinical colleagues.
Credits: 3

HMI 4303 - Research Project II
This course builds on knowledge; understanding and skills developed in course HMI 4103 by allowing students to apply fundamental research skills in the form of a specific intended small scale research study. Students will also demonstrate competence in analyzing collected data by means of appropriate software and in reporting the outcomes of their completed study. On successful completion of this course, students will have the necessary understanding and experience to successfully complete all elements involved in the execution of a small scale scientific research study.
Credits: 3

HMI 8214 - Clinical Preceptorship I
Clinical preceptorship provides the opportunities to put previously taught medical imaging positioning and procedures theory into actual clinical practice. Clinical preceptorship learning takes place within safe, supervised authentic clinical environments provided by local hospitals and clinics. At the conclusion of this course students will have demonstrated that they developed specific clinical skills in X-ray imaging of the upper and lower extremities, spine and chest, the theory of which has been taught prior to clinical practice.
Credits: 4

HMI 8222 - Clinical Preceptorship II
Clinical preceptorship provides opportunities to put previously taught medical imaging positioning
Clinical preceptorship learning takes place within safe, supervised authentic clinical environments as provided by local hospitals and clinics. At the conclusion of this course students will have demonstrated that they developed specific clinical skills in X-ray imaging of the abdomen, skull, maxillofacial structures, orthodontic imaging, theatre and mobile imaging, the theory of which has been taught prior to clinical practice.

**Credits:** 2

**HMI 8314 - Clinical Preceptorship III**
Clinical preceptorship provides opportunities to put previously taught medical imaging positioning and procedures theory into actual clinical practice. Clinical preceptorship learning takes place within safe, supervised authentic clinical environments as provided by local hospitals and clinics. At the conclusion of this course students will have demonstrated that they developed specific clinical skills general X-ray, theatre and mobile imaging, mammography, nuclear medicine and fluoroscopy, the theory of which has been taught prior to clinical practice.

**Credits:** 4

**HMI 8324 - Clinical Preceptorship IV**
Clinical preceptorship provides the opportunities to put previously taught medical imaging positioning and procedures theory into actual clinical practice. Clinical preceptorship learning takes place within safe, supervised authentic clinical environments as provided by local hospitals and clinics. Students interact with other healthcare workers to develop skills in professional communication, technical imaging skills, diagnostic image critique, best radiation safety practices and quality patient care.

**Credits:** 4

**HMI 8332 - Clinical Preceptorship V**
Clinical preceptorship provides opportunities to put previously taught medical imaging positioning and procedures theory into actual clinical practice. Clinical preceptorship learning takes place within safe, supervised authentic clinical environments as provided by local hospitals and clinics. Students interact with other healthcare workers to develop skills in professional communication, technical imaging skills, diagnostic image critique, best radiation safety practices and quality patient care.

**Credits:** 2

**HMI 8414 - Clinical Preceptorship VI**
Clinical preceptorship provides opportunities to put previously taught medical imaging positioning and procedures theory into actual clinical practice. Clinical preceptorship learning takes place within safe, supervised authentic clinical environments as provided by local hospitals and clinics. Students interact with other healthcare workers to develop skills in professional communication, technical imaging skills, diagnostic image critique, best radiation safety practices and quality patient care.

**Credits:** 4

**HMI 8426 - Clinical Preceptorship VII**
Clinical preceptorship provides opportunities to put previously taught medical imaging positioning and procedures theory into actual clinical practice. Clinical preceptorship learning takes place within safe, supervised authentic clinical environments as provided by local hospitals and clinics. Students will interact with other healthcare workers to develop skills in professional communication, technical imaging skills, diagnostic image critique, best radiation safety practices and quality patient care.

**Credits:** 6

**HMI 8439 - Clinical Preceptorship VIII**
This clinical preceptorship provides students with an elective choice to develop further clinical skills in either advanced trauma, CT, MRI and ultrasound. Clinical preceptorship learning takes place within safe, supervised authentic clinical environments as provided by local hospitals and clinics. Students will interact with other healthcare workers to develop skills in professional communication, technical imaging skills, diagnostic image critique, best radiation safety practices and quality patient care.

**Credits:** 9

**HMID N402 - Legal, Bio-ethical, & Socio-cultural Issues for Midwifery**
This course examines the theory of and the application of laws and legislation related to midwifery practice inclusive of scope and standards of practice, and Codes of Ethics. In addition, there is a focus on the socio-cultural aspects of health and health services in the U.A.E, trends and issues in maternal - child care, and models of midwifery practice. Understanding the cultural and social perspectives of the UAE culture is discussed as a critical framework to the development of best practices in midwifery care in the UAE.

**Credits:** 2
HMID N405 - Midwifery Therapeutics I
This course focuses on the requisite theory and competencies for midwives in managing the childbearing process for the low risk pregnancy from preconception to post partum. Woman and family centered care are emphasized as a framework for evidence informed midwifery practice.
CREDITS: 2

HMID N406 - Midwifery Therapeutics II
This course focuses on the requisite theory and competencies for midwives in recognizing and managing the women experiencing health challenges during pregnancy, at any point from pre-conception to post partum. Early detection and risk assessment are covered as well as collaborative inter-disciplinary practice. Woman and family centered care are emphasized as a framework for evidence informed midwifery practice.
CREDITS: 2

HMID N407 - Midwifery Therapeutics III
This course focuses on the requisite advanced theory and competencies for midwives in recognizing and working with the childbearing woman and family with complex health challenges from preconception, conception, through pregnancy, birth and post partum. Specialized competencies related to both non invasive and invasive monitoring and interventional therapies are covered. Emergency and critical care health challenges are covered in detail in relation to the midwifery role.
CREDITS: 2

HMID N420 - Practicum I
This course provides the student with the opportunity to apply theoretical knowledge and skills to plan, implement, and evaluate midwifery care for the low risk childbearing woman and family. The practicum occurs in a clinical placement providing clinical education with a focus on the low risk childbearing family.
CREDITS: 7

HMID N421 - Practicum II
This course builds on the experience gained in working with low risk childbearing families, to provide the student with the opportunity to apply theoretical knowledge and skills to plan, implement, and evaluate midwifery care for the medium risk childbearing woman and family. The practicum occurs in a clinical placement providing clinical education with a focus on caring for both the low and medium risk childbearing family in all phases of the childbearing experience.
CREDITS: 8

HMID N422 - Practicum III
This course builds on the experience gained in working with low and medium risk childbearing families, to provide the student with the opportunity to advance their application of theoretical knowledge and skills to plan, implement, and evaluate midwifery care for more complex groupings of childbearing women and families in all phases of the childbearing experience. Students in advancing their practice utilize previously acquired midwifery practice skills to initiate and propose recommend plan of care in an increasinly independant manner.
CREDITS: 8

HMID N423 - Practicum IV
This course builds on the three previous practicums to provide students with the opportunity to advance and consolidate their theoretical knowledge and skills to assess, plan, implement, and evaluate midwifery care an increasingly complex in all phases of the childbearing experience. Students demonstrate increasingly independant performance (within scope of practice) as they move towards program exit competencies.
CREDITS: 8

HMID N451 - Midwifery Transition to Practice
This course covers the transition to professional midwifery pratice. This course covers preparation to undertake criterion and competency based licensing exam, developing and maintaining currency in evidence informed practice, and exploring current legislation and trends in midwifery care in the UAE and globally.
CREDITS: 2

HMID N455 - Introduction to Management for Health Professionals
This course is an introduction to management for health professionals. Students will learn the primary functions and processes as applied to organizations and to individuals in organizations.
CREDITS: 2
HMID N477 - Midwifery Community Health & Health Education
In this course, students explore theoretical frameworks and health care policies underpinning community health and relate them to parenting and family demographics. Primary health care is the focus. Students will apply a community orientated, evidenced based approach to primary health care and education for maternal – infant and family care. Students will have the opportunity to prepare health education and health promotion materials with an emphasis on the postpartum period.
**Credits:** 2

HML 1003 - Hematology I
This course provides an introduction to the work carried out in a haematology laboratory and emphasizes the importance of correct and complete sample collection on the quality of results. Students learn about normal haemopoietic cell production, the use of blood cell counters and data interpretation. Students will recognize normal and abnormal red cells and describe the causes and effects of various types of anaemia.
**Credits:** 3

HML 1103 - Microbiology I
This course introduces theoretical concepts and practical techniques used in the classification, isolation and identification of microorganisms. The course comprises study of the concepts of infection, transmission of disease, pathogenicity, body defence mechanisms, prevention and control of infections. Students learn techniques used in the diagnosis of bacterial infections. Instruction in safe working practices and the concept of and the need for quality control are an integral part of the course.
**Credits:** 3

HML 1203 - Clinical Chemistry I
This course covers the theory and practical aspects of clinical chemistry. Laboratory safety, mathematics, quality assurance, and analytical principles of basic clinical chemistry procedures are covered. At a novice level an introduction to normal physiology and common pathologies are discussed in relation to analysis. Theoretical learning is applied through manual techniques during laboratory exercises applying principles to the analysis of the chemical constituents of blood and other body fluids.
**Credits:** 3

HML 1302 - Basic Laboratory Skills
This course is designed to provide an overview of theory, application, and hands-on experience in a medical laboratory. It is also intended to develop the psychomotor skills needed to work safely and efficiently in the laboratory setting. Procedure recording, calculations, data acquisition, and analysis of laboratory activities are covered. Experimental techniques, including reagent preparation, filtration, centrifugation, spectroscopy, and microscopy is examined in detail appropriate to a novice laboratory scientist.
**Credits:** 2

HNR 1002 - Concepts and Processes of Professional Nursing
Focus is on the overview of nursing practice, including historical and contemporary nursing practice and nursing theory and conceptual frameworks. Nursing as part of the collaborative health care system is examined, along with legal and ethical aspects of nursing care. The fundamentals of nursing practice and process are introduced.
**Credits:** 2

HNR 1101 - Introduction to Nursing Health Care Terminology
An introductory course covering the basics of health care terminology to baccalaureate nursing students. Utilizes a system of recognizing word components advancing to identification, analysis, spelling, and pronunciation of terms. Covers all body systems and specific components of selected health challenges.
**Credits:** 1

HNR 1201 - Health Promotion Skills Across the Lifespan I
An introductory course providing an overview of theory and skills related to professional nursing practice in relation to health promotion and prevention.
**Credits:** 1

HNR 1602 - Introduction to Pharmacology
This course introduces pharmacology and describes the differences between pharmacology, clinical pharmacology, and therapeutics. Topics covered include the basic principles of pharmacokinetics and pharmacodynamics, characteristics of an ideal drug.
drug administration routes, relevant international and regional legislation, drug development, and classification. Also discussed are adverse drug reactions, drug-drug and drug food interactions, and the drug responses for select groups of patients/clients.

Credits: 2

HNR 7015 - INTRODUCTION TO CLINICAL PRAXIS, CONCEPTS, AND PROCESS
This course provides an introduction to the theory and practice of nursing. Professional values, nursing skills, and best practice are covered in theory, lab, and clinical practicums. Students demonstrate beginner professional practice in the lab and practicum setting, deliver consistently safe and competent care, and start to develop clinical decision making skills.

Credits: 5

HPH 1204 - FOUNDATION CHEMISTRY FOR PHARMACY
This course covers the subatomic/atomic and periodical properties; chemical bonding, molecular properties and interactions; chemical equilibrium of acid/base, complexation, precipitation and oxidation/reduction reactions; chemical nomenclature; concepts of chemical reactions and quantities. Course provides theory and problem solving laboratory practical session.

Credits: 4

HPH 1504 - INTRODUCTION TO PHARMACY
Course covers the history and evolution of pharmacy practice; drug sources and development; drug nomenclature and legislation, dosage forms and routes of drug administration, prescriptions and dispensing.

Credits: 4

HPH 2002 - PHARMACEUTICAL MICROBIOLOGY
On successful completion of this course students will be able to apply basic principles of pharmaceutical microbiology comprised of the control of microbial contamination; preservation of pharmaceuticals; use of selected sterilization techniques in interdisciplinary laboratory areas; aseptic processing of pharmaceuticals and the requirements for the correct operation of clean rooms. Students also receive hands on laboratory learning experiences in microbiological culturing, staining and identification and perform antibiotic susceptibility testing on bacterial cultures to evaluate the proper selection and use of antibiotics.

Credits: 2

HPH 2004 - BIOLOGICAL ORGANIC CHEMISTRY
Upon successful completion of this course student will be able to (1) relate between bonding, structural features, physical-chemical properties and reactivity of organic molecules, which include alkanes, alkenes, alkynes, cyclo and aromatic hydrocarbons, alcohols, phenols, thiols, ethers, aldehydes, carboxylic acids, esters, amines and amides; (2) interpret molecular properties, reactivity and biological roles of carbohydrates, amino acids-proteins-enzymes; nucleic acids, lipids; (3) assess the effects of molecular properties on the transformation of matter and energy production (metabolism) in biological systems.

Credits: 4

HPH 2103 - IMMUNOLOGY
Course covers innate and acquired immunity, humoral and cellular immune responses, hypersensitivity, breakdown of self-tolerance, graft versus host reactions and passive and active immunization.

Credits: 3

HPH 2405 - PHARMACOLOGY
On successful completion of this course, students will understand and comprehend the basic principles of pharmacokinetics (the route and time course of drugs in the body) and pharmacodynamics (mechanism of actions, biochemical & physiological effects of drugs). They will be able to apply these concepts to drug therapies in normal and health risk groups including pediatrics, geriatrics and pregnant and lactating women. They will also be able to relate neurotransmission, chemical mediators and drug targets through the pharmacology of the autonomic nervous system.

Credits: 5

HPH 3023 - MEDICINAL CHEMISTRY II
Syllabus - Phases, technologies & methods of discovery, design & development of drugs, Natural products, Molecular factors affecting the modes of formulation, delivery & interactions with biochemical systems, transporters, receptors & metabolism, Drug stability and kinetic behavior.

Credits: 3
HSC 1003 - Introduction to Health Care Systems
The course explores global systems of health care delivery and the development of UAE health care from the 1972 joining of the World Health Organisation (WHO) until the present. An introduction to the concept of public health and the provision of health care delivery nationally: as opposed to individually is examined, while considering the economic and social factors impacting the provision of public health care. Health care policy and strategies for provision of primary health care are investigated, focusing on current and future challenges for the UAE in the 21st century.
Credits: 3

HSC 1603 - Medical Terminology for Health Sciences Professions
This course introduces health care and medical terminology beginning with prefixes, suffixes and general abbreviations. Students learn root words, related terms, specific abbreviations according to body systems and identify medical specialists. Students will apply their knowledge of medical terminology in sentence and simplified case study contexts.
Credits: 3

HSC 1702 - Microbiology for Nursing
This course will provide students with theoretical and practical techniques in the classification, isolation and identification of microorganisms. The course comprises study of the concepts of infection, transmission of disease, pathogenicity, body defense mechanisms, prevention and control of infections. Students acquire an understanding of the purposes of various microbes and the underlying pathophysiology pertaining to select microbial diseases. Instruction in safe work practices and the concept of the need for quality control are integrated parts of the course.
Credits: 2

HSC 2503 - Microbiology
This course will provide students with a basic understanding of concepts pertaining to microbiology with reference to the care of individuals experiencing bacterial and/or viral health challenges and the protection and prevention of infectious diseases. Students will acquire an understanding of the purposes of various microbial agents and the underlying pathophysiology pertaining to select microbial diseases.
Credits: 3

HSC 1603 - Medical Terminology for Health Sciences Professions
This course introduces health care and medical terminology beginning with prefixes, suffixes and general abbreviations. Students learn root words, related terms, specific abbreviations according to body systems and identify medical specialists. Students will apply their knowledge of medical terminology in sentence and simplified case study contexts.
Credits: 3

HSW 1003 - Introduction to Social Work
In this course students are introduced to the history, philosophy, present status and future possibilities of social work as a profession and an occupational activity. Students develop an understanding of the concept of ‘social needs” and the many influences on it. Students will study concepts and activities related to the promotion of social care and appropriate response to social needs.
Credits: 3

HSW 1013 - Human Development in the Life Span
This course examines human growth and development as a dynamic process throughout the span of life. Major theories of development, physical, social, cognitive and emotional development are discussed, with particular attention to their relevance in the social work context. The influence and significance of the family, gender, ethnicity and culture throughout the life span are closely inter-related within the course.
Credits: 3

HSW 1103 - Introduction to Interpersonal Communication
The aim of this course is to enable students to become effective communicators as social work professionals. This is achieved in a blended online learning environment, covering the following communication topics: models of communication, effective listening skills, questioning skills, interviewing skills, leadership styles, assertive behaviour and conflict resolution. On successful completion of this course, students will be able to analyze communication events that they observe or are involved in and implement appropriate behaviors for interacting and responding.
Credits: 3
HCT Catalogue 2011/2012

HSW 1203 - Social Work in the UAE
This course provides students with the opportunity to examine the roles and responsibilities of social workers in the UAE. Students will develop an understanding of the complexity of ‘social needs” and will examine the dynamics of family, marriage and divorce alongside the social relationships of gender as found in UAE.
Credits: 3

HSW 1303 - Basic Counselling Skills in Social Work
This course is geared towards those interested in counselling others. Students are introduced to the foundational skills required for effective counselling and interviewing. Topics include counselling as a developmental process; the importance of self awareness; the role of the counselling relationship in effecting change; facilitation of client self exploration; the importance of counsellor empathy; appreciation of ethics, diversity and personal and professional development. An important focus of this course is to provide participants with experiential learning regarding the client-counsellor relationship.
Credits: 3

HSW 2103 - Personal Counselling Skills
This course provides students with an understanding of more advanced counseling skills. Students will develop strong counseling skills and learn to working with a contemporary framework of therapeutic practice. Students will learn the stages and tasks of Gerard Egan’s helping model and apply this in counseling with clients.
Credits: 3

HSW 2203 - Psychosocial Issues in the UAE
The course provides an introductory exploration of psychosocial theory. It aims initially to describe the foundations of both psychology (with a focus on personality theories, with development theories and learning theories covered in detail in other courses) and sociology, and then to show how an understanding of both disciplines can be combined to give a better appreciation of how individuals interact with their social environment.
Credits: 3

HSW 2213 - Ethical and Legal Issues in Social Work
The appreciation and understanding of values and ethics in the role of the social worker is increased. Students will develop skills, recognize ethical issues and apply these to legal and ethical decision-making frameworks and protocols using enhanced critical thinking skills related to practice dilemmas.
Credits: 3

HSW 2313 - The Legal Environment in the UAE
This course assists the development of an in-depth knowledge of the application of social work theories and policies and their interaction with the law. Comprehension of social welfare policies, services and laws at local, national, regional and international levels, and the roles of social work in social change processes are discussed. An understanding of the advocacy role with disadvantaged or marginalized individuals and engagement of individuals in these groups is discussed.
Credits: 3

HSW 3103 - Applied Personal Counselling
This course provides students with counselling skills, processes and strategies to apply to Cognitive Behaviour Therapy and Solution Focussed Therapy with clients with different presenting issues. Students will learn the strategies of each intervention with grief, loss and mental illness. These skills and strategies will be applied in a amidst Gerard Egan’s framework of Counseling in order to build upon Personal Counseling skills.
Credits: 3

IMAG N410 - Quality Management in Medical Imaging
This course will help students examine what constitutes “best practice” care, gain an understanding of the measures for determining quality in medical imaging, and the management of quality care. It will further provide students with the necessary basic tools and processes used by health care organizations for quality improvement measures that are timely, effective and patient-centered. Also it will focus on the three major components of image quality as an integral part of the general total quality management program.
Credits: 5
IMAG N440 - Research Project I
In this course student/s will conduct research and write up the research study in a publishable form for a recognized medical imaging journal. This will be accomplished in an individual guided study format intended to examine and analyze a current affair or issue of concern in field of medical imaging in general or for a particular imaging modality.
CREDITS: 10

IMAG N455 - Emerging Technologies in Medical Imaging
This course will allow students to gain knowledge and understanding of the emerging, imaging technologies and to assess their ability to impact health care provision in the region.
CREDITS: 5

IMAG N465 - Client Education in Medical Imaging
This course has two main topics. The first topic allows the student to investigate, develop and explain the information that patients and other health care staff need to be given so that they can understand fully any given medical imaging examination. Students will also evaluate the methods available for conveying the required information to patients and ensuring that full information is provided by referring clinicians on request forms.
CREDITS: 6

IMAG N490 - Research Project II
This course is a concurrent course, in partnership with Research Project I (IMAG N440). This course gives students the skills to present their publishable research project, developed in Research Project I. Students develop the overall research and presentation skills to present scholarly work to a group of peers, colleagues, and professionals. Students also develop the appropriate concurrent research materials to provide the breadth and depth aspect of the research topic, by exploration of technical and health related material.
CREDITS: 13

ITEC N410 - Current Technologies
This course provides students with the skills required to develop dynamic web applications. Students are introduced to modern web development technologies as well as the mechanisms to create diverse web applications, including E-business systems. Students also apply analytical techniques and models to understand the web development cycle and the behavior of E-business systems.
CREDITS: 4

ITEC N411 - Management of Information Systems
This course focuses on a broad view of the role of computer-based information (IT) systems in organizations from a management perspective. The strategic nature of an information system is emphasized in relation to other organizational systems.
CREDITS: 4

ITEC N412 - Web-based Design and Development
Students gain an understanding of and are able to compare the different architectures of web-based solutions. The course helps the students in developing the required skill sets to design and build web-based solutions using the latest state of the art client-side and server-side technologies. The students are able to demonstrate the acquired knowledge and skills from this course in a fully functional dynamic web-based application using best practices in software project management.
CREDITS: 4

ITEC N415 - Applied Research Skills
This course provides an overview of information sources, and the research process. Students gain practical and generic information retrieval skills and conduct secondary research. The results are applied to produce written report(s) as part of a business case.
CREDITS: 4

ITEC N454 - Internet Multimedia and Interactivity
This course covers the concept of multimedia and how to develop multimedia components using different multimedia elements such as text, audio, video and animation. The course also teaches the student how to customize the multimedia elements for an effective way of communicating the information through the web. Students develop a multimedia enhanced application as a part of the course.
CREDITS: 4
ITEC N457 - ADVANCED DATABASE ARCHITECTURE
This course provides an overview of advanced topics related to relational databases architecture and administration. In addition to providing information on data processing, database advantages and features, review of the relational database model, referential integrity and constraints, database design, creation, tuning, and administration this course also utilizes Oracle Database Administration as a practical application.
CREDITS: 4

ITEC N459 - PROJECT MANAGEMENT
This course covers the major issues of Project Management as applied to projects in general including Information Technology Projects. Students apply various techniques of Project Management through case studies. Real-time work and time management are encouraged by the course. Simulated scenarios are provided by the course for students to experiment with alternative and corrective measures. The students are exposed to software tools for project management.
CREDITS: 4

ITEC N462 - MARKETING AND INFORMATION MANAGEMENT
This course introduces basic marketing concepts and functions, as well as the importance of marketing. The course focuses on defining the role of marketing, market opportunities, function of marketing research, examining product/service strategies, understanding the elements of the marketing mix, examining the role of the Internet in marketing and factors to consider when creating a marketing plan.
CREDITS: 4

ITEC N463 - APPLICATIONS DEVELOPMENT
This module addresses the processes and tools used in the development of software applications with an emphasis on database-oriented applications. Students learn structured design methodologies. Topics include relational database design and management as well as application development using application, user interface and report generators.
CREDITS: 4

ITEC N466 - INFORMATION MANAGEMENT PROJECT
This course provides students with the opportunity to apply the knowledge, and practise the skills, acquired in the prerequisite courses within the context of a substantial information systems development project.
CREDITS: 4

ITEC N490 - ADVANCED ROUTING
This unit outlines the principles and theory of advanced routing in local and wide area networks. It covers advanced theory of routing, detailed study and implementation of both interior and exterior gateway routing protocols, route optimization techniques, IP Multicasting and IPv6 to support enterprise-class IP routing networks.
CREDITS: 12

ITEC N492 - ADVANCED SWITCHING
In this course students learn principles, theory and application of advanced switching. Students are taught how to build campus networks using multi-layer switching technologies over Ethernet. Design and implementation of VLANs, Spanning Tree Protocol and Inter VLAN routing is also explained. In addition Implementing Secure switched networks with High availability, that support Voice and Wireless LANs is also covered.
CREDITS: 8

LSC 1103 - ACADEMIC READING AND WRITING 1
This course is recommended for BAS students in their first semester and focuses on developing the skills needed for understanding academic texts and for writing academic English, to approximately CEFR mid-B2 level.
CREDITS: 3

LSC 1203 - CREATIVE WRITING
This course encourages students to respond creatively in writing to a range of stimuli, whether visual, musical, dramatic or textual. In the early sessions of the course, the instructor will guide students through a series of activities designed to give them the confidence and resources to produce a written response in whatever form they choose.
CREDITS: 3

LSC 1303 - INTRODUCTION TO LITERATURE
This course familiarizes students with basic genres of literary writing in English, such as poetry, drama
and fiction. Students will be introduced to terms for discussing these genres and how stylistic effects are achieved in them.

**Credits:** 3

**LSC 1503 - ACADEMIC SPOKEN COMMUNICATION**

This course is for BAS students in their second semester and focuses on the use of spoken English in academic and professional contexts to a minimum of (end of) CEFR Level B2.

**Credits:** 3

**LSC 2103 - ACADEMIC READING AND WRITING 2**

This course is recommended for BAS students in their fourth semester and focuses on refining the skills needed for understanding longer academic texts and developing competency in writing academic English on a researched topic, to a professional standard, following APA guidelines.

**Credits:** 3

**LSC 2113 - ENGLISH FOR CLASSROOM MANAGEMENT**

This course is for BAS students in their third semester and focuses on the English needed by classroom teachers as they manage the learning process.

**Credits:** 3

**LSC 2123 - ENGLISH FOR ENGINEERING TECHNOLOGY**

This course is for BAS students in their third semester and focuses on the use of English in technology and engineering contexts.

**Credits:** 3

**LSC 2133 - ENGLISH FOR HEALTH SCIENCES**

This course is for BAS students in their third semester and focuses on the use of English in health care contexts.

**Credits:** 3

**LSC 2143 - ENGLISH FOR COMPUTER USERS**

This course is for BAS IT students in their third semester and focuses on the use of English for computer use.

**Credits:** 3

**LSC 2153 - ENGLISH FOR THE MEDIA**

This course is for BAS students in their third semester and focuses on the use of English in the media.

**Credits:** 3

**LSC 2163 - ENGLISH FOR BUSINESS STUDIES**

This course is for BAS business students in their third semester and focuses on the use of English for Business Studies.

**Credits:** 3

**LSC 3013 - PROFESSIONAL COMMUNICATIONS**

This course helps students with career preparation through development of students’ critical writing, speaking and listening skills, presentation and negotiation strategies, and cross-cultural communication.

**Credits:** 3

**LSC 3013 - PROFESSIONAL COMMUNICATIONS**

This course helps students with career preparation through development of students’ critical writing, speaking and listening skills, presentation and negotiation strategies, and cross-cultural communication.

**Credits:** 3

**LSF 2083 - INTRODUCTION TO JOURNALISM**

This course introduces students to the practice of journalism and helps them to understand the role journalists play in reporting, processing and production of news.

**Credits:** 3

**LSF 2203 - ART APPRECIATION**

This course is designed to enable the student to understand and employ a basic vocabulary of art appreciation and criticism.

**Credits:** 3

**LSF 2543 - HISTORY & PRACTICE OF PHOTOGRAPHY**

In this course students will learn not only about the history of photography and about various photographic techniques, but also develop technical and compositional skills how to take photographs.

**Credits:** 3
LSG 2013 - Globalization, Mass Media, and Society
In their varied forms, mass media have come to play a prominent role in both individual and societal life in the UAE, shaping the way we think about ourselves as well as the world around us. This course will equip students with the necessary resources to critically engage the media in order to better use it to become responsible Emirati and global citizens.
CREDITS: 3

LSG 2023 - Globalization and the Arab Gulf
This course will endeavor to first grasp the cultural, economic, political dimensions of globalization, after which it will then move to explore its varied impact on the Arab Gulf.
CREDITS: 3

LSG 2453 - Global Media Trends
In this course students explore the position of the Emirati and Arab media within its global and regional context.
CREDITS: 3

LSH 2103 - Foundations for Reasoning
This course examines the foundations of critical thinking where a student will be able to discuss various types of arguments and evaluate the degree to which they are made responsibly or irresponsibly.
CREDITS: 3

LSH 2113 - Foundations of Leadership
This course provides students with an understanding of the principles of leadership as well as how they might be applied in real world situations.
CREDITS: 3

LSH 2203 - Critical Thinking
This course covers the basic principles of critical thinking and reasoning and their application. Students are introduced to a number of cognitive and affective strategies characteristic of the critical thinker, as well as a range of barriers that impede critical thinking, and are encouraged to examine their own habits of mind in the light of these.
CREDITS: 3

LSH 2343 - Ethical Issues
This course is an introduction to various forms of moral reasoning, ethical principles and ethical theories.
CREDITS: 3

LSH 2803 - Historical Perspectives of the Arab World
This seminar-type course presents a framework for understanding the peoples and cultures of the Arab world.
CREDITS: 3

LSH 2813 - Modern History of the Gulf
This course examines the key political, economic, and social issues of the region in the modern period (19th century to present) in order to develop an understanding of the origins and development of the Arab Gulf states.
CREDITS: 3

LSH 2823 - Modern History of the Middle East
This course surveys the major political, socio-economic, and cultural changes in the Middle East in the modern period through the investigation of the demise of the Ottoman and Qajar dynasties, the rise of new nations and nationalist identities, and the development of modern states and societies.
CREDITS: 3

LSH 2903 - Community Service Learning
Students explore theories and concepts relating to human rights and civic responsibility, identify a community need and engage in service in partnership with an existing organization.
CREDITS: 3

LSH 2913 - Drama Appreciation
This course is designed to provide students with theoretical and experiential opportunities to gain a fundamental insight into drama history and practice, and also to enhance their communication skills across a range of contexts.
CREDITS: 3

LSM 1003 - Applied Mathematics
This course provides the basis for using mathematics to carry out basic mathematical calculations.
CREDITS: 3
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Description</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>LSM 1053</td>
<td><strong>College Algebra</strong></td>
<td>This course extends the concepts developed in Mathematics Foundation 1 and 2 and is designed for those students requiring a higher level of mathematics for entry to Bachelor programs.</td>
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</tr>
<tr>
<td>LSM 1103</td>
<td><strong>Technical Mathematics</strong></td>
<td>This course in pre-calculus mathematics develops mathematical concepts and techniques in solving a variety of typical scientific and technical problems.</td>
<td>3</td>
</tr>
<tr>
<td>LSM 1113</td>
<td><strong>Statistical Mathematics</strong></td>
<td>This is an introductory course in statistics with applications in a variety of areas.</td>
<td>3</td>
</tr>
<tr>
<td>LSM 1123</td>
<td><strong>Quantitative Reasoning</strong></td>
<td>The course introduces students to the concepts designed to foster an appreciation of mathematics as a language of communication. The course includes topics on reasoning techniques, numeration systems, and geometry with an emphasis how these areas of mathematics are applicable to media, music, design, photography and the arts.</td>
<td>3</td>
</tr>
<tr>
<td>LSN 1003</td>
<td><strong>Human Sciences I</strong></td>
<td>This course introduces the basic concepts of Human Anatomy and Physiology, together with the associated terminology. This course includes, basic chemistry, cell and tissue studies, with an overview of the body systems. This course offers students an understanding of how the various parts of the human body function. Three systems - blood, cardiovascular (heart), respiratory (lungs) are highlighted in this course. This course provides a foundation for further studies in non-clinical health majors and those with an interest in understanding the human body.</td>
<td>3</td>
</tr>
<tr>
<td>LSN 1023</td>
<td><strong>Human Biology</strong></td>
<td>This course will provide students with an understanding of human anatomy and physiology as well as cellular biology.</td>
<td>3</td>
</tr>
<tr>
<td>LSN 1103</td>
<td><strong>Anatomy &amp; Physiology I</strong></td>
<td>This provides an introduction to basic anatomy and physiological principles from cellular level to the whole organism.</td>
<td>3</td>
</tr>
<tr>
<td>LSN 1203</td>
<td><strong>Anatomy &amp; Physiology II</strong></td>
<td>The second course in a two-semester sequence designed to build upon certain concepts covered in the Anatomy and Physiology I course. The aim is to extend the students’ understanding of the workings of the body systems and the communication processes required to coordinate their activities.</td>
<td>3</td>
</tr>
<tr>
<td>LSN 1213</td>
<td><strong>Personal Health &amp; Physical Education</strong></td>
<td>This course aims to increase students’ understanding of current health and physical education issues.</td>
<td>3</td>
</tr>
<tr>
<td>LSN 1223</td>
<td><strong>Chemistry</strong></td>
<td>This course provides an introduction to general concepts of chemistry.</td>
<td>3</td>
</tr>
<tr>
<td>LSN 1263</td>
<td><strong>Physics</strong></td>
<td>This course is an introductory level physics that is essential for all engineering programs.</td>
<td>3</td>
</tr>
<tr>
<td>LSN 1303</td>
<td><strong>Health and Wellness</strong></td>
<td>In this course students will gain an awareness of what constitutes health and wellbeing in their various aspects (including the physical, psychological, mental and social) and learn about skills and techniques for their maintenance and development. They will come to understand the basics of human anatomy and physiology, and learn about fitness, nutrition, and varying physical requirements at different life stages.</td>
<td>3</td>
</tr>
</tbody>
</table>
LSN 2313 - Scientific Principles
This is a survey course intended for students without a significant science background who intend to enroll in Science based programs, or wish to extend their scientific knowledge.
CREDITS: 3

LSN 2433 - Ecology
Students on satisfactory completion of this course will be able to understand and discuss basic ecological concepts including the concepts of species, communities and ecosystems.
CREDITS: 3

LSN 2503 - Introduction to Nutrition
Nutrition is the study of the food substances necessary for health, and how the body uses these substances for cell growth and maintenance.
CREDITS: 3

LSS 1233 - Human Growth & Development
This course examines human growth and development across the life span.
CREDITS: 3

LSS 2003 - Creating Your Future
This course equips students with advanced workplace transferrable skills to prepare them for the competitive labor market. It is cross disciplinary and applicable to all students.
CREDITS: 3

LSS 2053 - Cultural Diversity
This course is designed to provide students with a positive perception of cultural diversity.
CREDITS: 3

LSS 2063 - Culture, Climate, and Values
This course focuses on the crucial importance of understanding culture and climate in a globalised, diverse and repeatedly restructured working environment.
CREDITS: 3

LSS 2103 - Personal Finance
This course provides students with basic skills to understand their income and spending as an individual and as member of a family. They will learn to efficiently manage income, plan to spend sensibly, evaluate alternatives when purchasing, saving efficiently and proper planning techniques for retirement. As financially aware and educated citizens they would be able to contribute to their community and society and to the overall economy of the UAE.
CREDITS: 3

LSN 2013 - Economics
This course presents essential microeconomic concepts in lay English and is intended for students who have never taken a course in economics before.
CREDITS: 3

LSS 2323 - Economics of the UAE
This course builds on prior knowledge of basic micro and macroeconomic concepts, and students’ experience of working within the UAE economy to develop an analytical approach to current issues arising from the historical development of the oil-based UAE economy.
CREDITS: 3

LSS 2333 - Sociology
The course is designed to provide an overview of the study of human society, groups, social processes, and sociological thinking.
CREDITS: 3

LSS 2533 - Research Methods
This course is designed to introduce learners to the techniques and methods of research.
CREDITS: 3

LSS 3003 - Sports, Leisure, and Society
This course provides students with an understanding that sport and leisure is a socially driven phenomenon.
CREDITS: 3

MATH N416 - Analytical Geometry and Advanced Calculus
This course continues from Higher Diploma Calculus
to cover topics in plane and solid analytic geometry, differential and integral calculus which includes partial differentiation of various functions of x and multiple integrals to solve problems in engineering. The course also covers infinite series, differential equations, Fourier series and partial differential equations in addition to numerical techniques. These topics have been selected to fulfill the needs of the first year of engineering students in the BAS program.

**Credits: 4**

**MECH N420 - Vibrations in Mechanical Systems**
This course is to provide students with a thorough introduction to mechanical vibrations of single, two and multiple degree-of-freedom systems, including design analysis experience and development of writing skills. The main objective is to equip students with the concepts of intermediate structural dynamics and leads them to apply this knowledge in the solution of problems related to the vibrations of engineering structures. It also provides the knowledge of vibration measurement systems and their characteristics.

**Credits: 4**

**MECH N425 - Applied Thermodynamics**
This course covers in-depth the fundamentals of thermodynamics principles. The application of thermodynamic through the First and Second Laws of Thermodynamics, enthalpy, entropy, and reversible and irreversible processes, and to solve a wide range of mechanical engineering problems. The learning outcomes of this course are to present comprehensive treatment of classical thermodynamics within the framework of an engineering technology curriculum. Essential thermodynamics components of refrigeration, IC engines, and power cycles are explained.

**Credits: 4**

**MECH N430 - Health, Safety & Environment**
This course includes the most important and comprehensive information and practices for health, safety and environment.

**Credits: 4**

**MECH N435 - Heat Transfer**
Discussion of the basic physical laws of heat transfer including steady-state and transient heat flow, one-dimensional heat conduction in solids, free or forced convection in fluids, radiation, and phase change and analysis of heat exchangers. The overall goal is to teach the students to recognize appropriate modes of heat transfer and apply these engineering principles to physical phenomena in the design of components, and integrate these concepts into a valid engineering design.

**Credits: 4**

**MECH N440 - Refrigeration and Air Conditioning Systems**
This course covers the classification of refrigeration and air-conditioning systems and their applications, psychrometrics to determine moist air properties and to analyze air conditioning processes. It introduces cooling loads calculations using ASHRAE standards, air distribution systems and duct design. Vapor compression refrigeration cycles and components, vapor compression system analysis and energy estimation methods are also covered. It includes lab experiments and demonstrations.

**Credits: 4**

**MECH N445 - Power and Desalination**
This course forms part of the general optional stream available within the Mechanical Engineering Bachelor of Applied Science program. It serves to cover power and desalination principles and technology.

**Credits: 5**

**MECH N449 - Independent Work-based Project**
Independent work-based projects are advanced, student-driven learning experiences involving substantial student independence in project design and project execution. The core of the course is the application of technologies within the learning process. Students will be engaged in researching, synthesizing, investigating, problem solving, or other activities the project called for.

**Credits: 4**

**MECH N450 - Mechanical Engineering Design**
This course builds on students’ knowledge gained from various engineering topics, to develop professional design skills through systematic design methodology. Emphasis will be on achieving design solutions through logical and efficient design process in order to achieve the most successful outcome. The main objective is to
assist students to develop ability to work in teams, address open-ended mechanical engineering design problems along with written communication through reporting and presentation of the results.

**Credits:** 4

**MECH N460 - PIPING, PIPELINES AND WELDING**
Topics including design conditions, pipe sizing, pressure design, flexibility analysis, material, fabrication, examination, testing, and mechanical integrity for existing piping systems, are covered in this course. In this course the students will be familiarized with the related standards for inspection and repair of piping systems that have been in service, as provided by the American Welding Society (AWS) and American Society of Mechanical Engineers (ASME).

**Credits:** 4

**MECH N465 - INDUSTRIAL EQUIPMENT AND MACHINERY**
This course forms part of a group of optional courses available within the Mechanical Engineering Technology Bachelor of Applied Science program. Optional courses will be offered according to demand. Details of course content can be obtained from colleges offering the program.

**Credits:** 4

**MLAB N410 - APPLIED STATISTICS AND RESEARCH METHODOLOGIES**
This course introduces students to data management, study design, and statistical analysis in the medical laboratory environment. Students learn how to use statistical methods to plan, analyze, and present research projects for research committee approval.

**Credits:** 2

**MLAB N420 - BIOLOGY DISEASE**
This course introduces students to the biological principles of human disease and the transition from health to disease. The course will synthesize the biological (physiological and biochemical) process underlying the clinical manifestations of disease and thereby bring together material from a variety of sources. The clinical relevance, and the laboratory investigation thereof, is stressed by the inclusion of relevant case studies, particularly those prevalent within the region.

**Credits:** 4

**MLAB N430 - LABORATORY METHODOLOGIES**
This course introduces the students to the principles and applications of contemporary methodologies used in the analysis of biological materials. The course builds on previous knowledge and experience of routine laboratory methods. Laboratory exercises emphasize instrumentation as aids in diagnosis. Students will apply knowledge of instrumentation through performance of practical demonstrations and routine maintenance including near patient testing.

**Credits:** 8

**MLAB N440 - HISTOLOGY**
This course is a theoretical and practical course and principle-based course in which students are taught the basic tissues of the body and how they are put together and interact. The emphasis remains on human tissue with animal tissue being used only where suitably fixed specimens of normal tissue are not available.

**Credits:** 3

**MLAB N450 - INTRODUCTION TO CELLULAR PATHOLOGY**
This course will introduce the role of cellular pathology in the investigation of disease and the process of diseases. It will provide the student with theoretical knowledge and practical skills to work safely and ethically in a cellular pathology laboratory.

**Credits:** 5

**MLAB N460 - LABORATORY MANAGEMENT**
This course will introduce students to the concepts of management in the hospital laboratory. The course will develop skills essential to quality management: individual performance; collective performance within unit of responsibility; and external stakeholders. The course will enable the student to recognize the requirements for good management, organizational excellence and monitoring to benchmark standards. The course will depend on students participating in group work (management teams) and will involve problem-solving and role-playing.

**Credits:** 5

**MLAB N480 - CAPSTONE RESEARCH PROJECT**
This capstone project is an applied experience that integrates the principles, theories, and concepts of the student’s career concentration with problems or issues
existing in the health field. Emphasis is on practical application of the student’s career concentration area. After completing the course the students will be able to work effectively in a project environment, including identification of facilitative and disruptive factors to project progress. Students will be able to use biomedical methods and equipment, including handling technical problems and assess the quality of technical work performed by self and others.

**Credits:** 4

**MLAB N490 - Medical Laboratory Technology Practicum**

This course involves the student in practical work in a hospital cellular pathology laboratory. Students will assist in the routine work of the laboratory and assist in the more complex tasks and analysis of results. All procedures will be under supervision from working technologists. The student will be expected to reach the level of competence as stated in the practice log books. Time will be allocated equally between histopathology and cytopathology. This outline should be used in conjunction with the issued student’s log book.

**Credits:** 4

**MTH 1103 - Pre Calculus**

This course is a first year mathematics course for students in Engineering Technology programs. It provides the student with background mathematical skills essential for progression to the study of calculus and further engineering mathematics. Topics include polynomials, linear algebra, vectors, complex numbers, exponential and logarithmic functions, variation and inequalities. Software applications such as MATLAB are used as tools to solve problems.

**Credits:** 3

**MTH 1203 - Calculus I**

In this course, students are introduced to calculus mathematics and associated applications. The course includes limits and continuity, differentiation of algebraic functions, trigonometric functions, logarithmic, exponential functions, applications of the derivative, optimization and Newton’s Method.

**Credits:** 3

**MTRX N405 - Advanced Control Systems**

The objective of this course is to provide a more advanced knowledge of modern control theory and its application in the engineering context. Control systems modeling, analysis and evaluation are a key component of this course. Different control system design techniques are investigated and applied. The ability to design control systems to meet given requirements will be developed systematically with a final design exercise involving all the components of the course. Digital control is introduced with emphasis on industrial applications.

**Credits:** 4

**MTRX N410 - Embedded Microcontrol and Microprocessor**

This course will furnish a mechatronics engineer with the fundamental and basic design methods of digital circuits including TTL and CMOS, and the capability to assess their application in the field of mechatronics engineering. The course covers features of microcontroller (microprocessor) architecture, interfacing peripheral components and programming capability. Assembly language and debugging testing tools will be introduced to allow the setup of a mechatronics user system.

**Credits:** 4

**MTRX N415 - Interfacing**

This course covers the main aspects required for a mechatronics engineer to interface transducers / sensors to a computer or a Microcontroller, in order to measure, monitor or control mechanical variables. It covers different signal types and devices required for interfacing to common control systems. Available data acquisition and control software are evaluated and used for interfacing.

**Credits:** 4

**MTRX N417 - Robotics and Automation**

The objective of this course is to provide a comprehensive view of automation and robotics with a focus on the components of automation and applications of computers in robotics and the automation of processes. Process automation requires both input and output devices to be interfaced to a PLC, microprocessor or intelligent-memory device. These components and interfacing devices are investigated in detail. A final design project will involve a case study where a process is automated with robotic involvement.

**Credits:** 4