Ahlia University - Courses

No.	Course Code	Course Title	Lec Cr.	Lab Cr.	Cr.	Prerequisite
	COLLEGE OF ARTS & SCIENCE					
1	ANTH 101	Introduction to Anthropology	3	0	3	
	This course consists of a history of thought of anthropology and accordingly delves into the theories, schools, concepts and contemporary trends in this field including an understanding of research methods. Special attention is focused on the ethnography of the Arabian Peninsula particularly and on the Arab World generally.					
2	ARAB 101	Composition for Native Speakers of Arabic I	3	0	3	
	A practical language course which aims at developing the writing skills of native speakers of Arabic. The course develops skills such as journalistic writing and letter writing and pays special attention to the development of personal style.					
3	ARAB 102	Composition for Native Speakers of Arabic II	3	0	3	ARAB 101
	A refinement of writing skills introduced in the previous course designed to acquaint the student with literary essay writing.					
4	ARAB 201	Introduction to Modern Arabic Literature	3	0	3	ARAB 101
	This course is intended to help the students appreciate literary texts and generally develop their reading skills. The course will also attempt to acquaint the students with relevant background information pertaining to such major literary epochs and trends through the study of texts from each of these schools such as the Renaissance, Romanticism, Realism and Modernism.					
5	CHIN 101	Introduction to Chinese I	3	0	3	
	A Chinese language primer, the first in a series of three elementary courses. A practical language course which aims at familiarizing students with the basic rules of pronunciation, reading, speaking, writing, and listening comprehension of Chinese language. The course material focuses on developing students' ability to understand and express Chinese in daily conversations.					
6	CULT 101	Introduction to Culture	3	0	3	
	This course is an introductory survey of the basic doctrines and concepts of Arabic and Islamic civilization. It covers reading materials from the Renaissance to modern times and focuses on the influence of Western civilization.					

7	CULT 102	Islamic Culture	3	0	3	
	This course aims to give students the opportunity to explore a variety of themes on the topic of Islamic Culture. Diverse issues discussed include: the definition of Islamic culture in terms of Qur'anic studies and Prophetic traditions; the contrasting views of classical and modern Islamic scholars; the impact of Islamic theology on cultural aspects in Islamic society; and the general principles of Islam in different areas of life.					
8	ENGL 050	Orientation English	6	0	0	
	A basic integrated English language course which aims to develop the students' basic language skills and focuses mainly on business communication.					
9	ENGL 052	Reading and Writing	3	0	0	
	The course offers extensive reading practice at beginners to pre-intermediate level and develops reading strategies required for university study. It also introduces different aspects of writing at the sentence as well as paragraph level.					
10	ENGL 055	Grammar and Vocabulary	3	0	0	
	The course offers a review of Basic English structures and provides students with extensive practice in order to achieve accuracy in using the language. It also aims to expand students' vocabulary related to both everyday life situations as well as academic study.					
11	ENGL 101	Academic English I	3	0	3	ENGL 052 AND ENGL 055 or passing placement test
	A course to develop the students' ability to use the language for academic study as well as everyday situations. It offers practice in reading comprehension, grammar, vocabulary-building and writing short texts.					
12	ENGL 102	Academic English II	3	0	3	ENGL 101
	This course is a continuation of ENGL 101. It further develops students' reading, writing, listening and speaking skills needed for academic study and everyday communication.					
13	ENGL 201	Academic English III	3	0	3	ENGL 102

	The third in the series of integrated language courses to develop the students' proficiency in using the language for academic study and everyday communication. Particular emphasis is placed on developing the students' ability to read longer texts, writing multi-paragraph texts as well as speaking skills.					
14	ENGL 202	Academic English IV	3	0	3	ENGL 201
	The fourth in the series of integrated language courses which continues to develop students' proficiency in using the language for academic study and everyday communication.					
15	ENGL 211	English for Health Sciences I	3	0	3	ENGL 102
	The first in the series of integrated language courses, which develops and improves students' reading skills in English, whilst increasing medical vocabulary through selected readings based on physiotherapy-related topics.					
16	ENGL 212	English for Health Sciences II	3	0	3	ENGL 211 AND Completion of at least 3 credits
	The second in the series of integrated language courses, which further develops and improves students' reading skills in English, whilst increasing medical vocabulary through extensive readings based on health- related topics.					
17	ENGL 215	Readings in English Literature	3	0	3	ENGL 201
	The course introduces students to English literature and focuses on readings and discussion of selected short stories. It aims at familiarizing students with the nature of literature through the study of character, plot, theme, point of view, style, and figurative language.					
18	ENGL 216	Readings Literature II	3	0	3	ENGL 215
	After being introduced to short fiction in ENGL 205, the students are required to do further readings not only in works of fiction but also in selected works of poetry and drama. The aim of the course is to develop extensive reading skills and encourage a better understanding and appreciation of literature through the study of character, plot, theme, setting, structure, style, and figurative language.					
19	ENGL 221	Introduction to Translation	3	0	3	ENGL 201
	The course introduces students to basic techniques of translation and develops their skill in translating a variety of short written texts from English to Arabic and vice versa. Materials include short descriptive passages, letters, announcements, advertisements, newspaper news items and readers' views. Typical problems involved in such translation are highlighted and discussed.					

20	ETHC 394	Ethics and Professional Practice in Interior Design	3	0	3	INTD 311 AND Completion of at least 66 credits
	The purpose of the course is to introduce ethical dimension of management to prospective professionals in the field of Interior Design & Architecture. Emphasis is on applying ethical standards to a range of business practices that the practitioner might likely encounter in the business of architecture and interior design. Ethical aspects of doing business impinge on a range of services provided by architectural and design professionals including but not limited to: business management, marketing, contracts, negotiations, design cost analysis/control and human resources. As part of the learning process students will be expected to participate in class discussion as well as to analyze cases designed to develop critical thinking skills in ethics.					
21	ETHC 397	Media Law and Ethics	3	0	3	MCPR 232
	The course aims to familiarize students with their legal and moral rights and duties and how to collect and disseminate information without violating legal and ethical rules. The course deals with the concept of morality and ethics, the principles of freedom of opinion and expression, the concept of professional ethics, the concept and principles of law, media law, legal and legislative frameworks regulating the media, journalism and media codes of ethics, and media practitioners rights and duties. The course also covers criminal liability and publication, rules and ethics of crime data dissemination, intellectual property rights, legal and ethical rules regulating copyright, ethics of professional practice in public relations, and legal and ethical controls for new media.					
22	FREN 101	French I	3	0	3	
	A French language primer, first in a series of two elementary courses, offering a familiarization with its components (pronunciation, reading and listening comprehension, writing and basic rules of grammar). Students develop competence in understanding and expression of basic everyday language by holding conversation in French with others.					
23	FREN 102	French II	3	0	3	FREN 101
	A French language primer, second in a series of two elementary courses, offering a detailed introduction to structure of French tenses paying particular attention to irregular verbs in everyday use. Students develop greater facility in reading, listening comprehension, writing and conversation.					
24	GERM 101	German Language & Culture I	3	0	3	

	The course introduces the German language to students and promotes a general understanding of cultures and traditions in the German speaking regions of Central Europe. It is designed to enable students to communicate meaningfully in German on basic topics dealing with everyday events and situations. Students develop skills in reading, listening, speaking, and writing, and attain mastery of the basic structures (grammar) of the German language.					
25	GERM 102	German Language & Culture II	3	0	3	GERM 101
	A continuation of GERM 101 that provides the students with the opportunity not only to develop an ability to communicate in German on a variety of subjects but also to gain awareness of contemporary German society and the cultural traditions which inform it.					
26	HIST 101	Modern History of the Middle East & North Africa	3	0	3	
	This course overviews the political and economic history of the Middle East and North Africa from the Nineteenth Century to the present with an emphasis on the historical origins of the contemporary problems confronting the region. After examining the political map of the Middle East and North Africa after the imposition of European colonialism, the post-colonial political challenges that these newly independent states faced are analyzed. The latter part of the course explores major contemporary issues such as: the rise of OPEC, the Arab-Israeli conflict; the Iran-Iraq war and the intervention of the United States in the region.					
27	HIST 121	Modern History of Bahrain	3	0	3	
	This course focuses on the importance of the strategic location of the Kingdom of Bahrain; Bahrain history since the early 1600; Al-Utoobs and the rise of Zubara; the beginning of Al-Khalifa era; Bahrain under the British protection & independence and the building of the modern state; modernization of the political administrative and legal systems; economic and social development in Bahrain.					
28	HUMR 101	Principles of Human Rights	2	0	2	
	The course covers the basic principles of human rights through the definition of human rights and their scope with a focus on International Conventions of Human Rights, which includes the following documents: United Nations Charter, Universal Declaration of Human Rights, International Convenient for Civil and Political Rights, International Convenient for Economic, Social and Cultural Rights and Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment. It also covers protection mechanism and institutional administration of rights and general freedoms in the Kingdom of Bahrain.					
29	IDRM 498	Research Methods in Interior Design	3	0	3	INTD 329
	This is a foundation course for INTD 499 Final Design Project. A thorough study of the actual site proposed should include the followings; the surrounding buildings and context, orientation and environment, and access and outlets. Students explore building regulations that have to be implemented in the project design. Students achieve an analytical research study about a diversity of similar case studies and their context. At the end of the semester, students should present their project to a jury of professional designers and academics.					

30	INTD 100	Engineering Drawing	1	4	3	
	This course is an introduction to manual architectural drawing. The objective of the course is to develop the necessary manual dexterity and knowledge of drafting fundamentals and to create orthographic and pictorial technical drawings freehand and using equipment. Topics covered include: drawing instruments, lettering techniques, line work, scale drawings, simple geometric constructions and dimensioning.					
31	INTD 102	Introduction to Design	1	4	3	
	This course introduces students to the field of design through an introduction to general ideas and concepts of design theories and basic design principles in several simple building projects.					
32	INTD 104	Interior Design Drawing	1	4	3	INTD 100
	This course aims to develop both two-dimensional (for the creation of simple architectural plans, elevations and sections) & three-dimensional communication (perspective) as a means of creating the illusion of 3-dimensional space on a 2-dimensional surface. Using both one (1) and two (2) point perspective and how effectively render the illusion of space using pencil techniques, ink and color rendering.					
33	INTD 105	Theory of Interior Design	3	0	3	INTD 102
	This course introduces the student to theories of visual perception and conceptualization. Through lectures, discussion and studio exploration students will discover the fundamentals of design, the design process, and creative thinking. Theories pertaining to human factors will be explored including proxemics, anthropometrics and ergonomics.					
34	INTD 205	Presentation & Rendering Techniques	0	6	3	INTD 104
	This course focuses on freehand rendering techniques for illustrative graphic presentation of interior design ideas. Students will employ a variety of mediums including graphite, ink, colored pencils, marker pens, pastels, watercolor, and collage. Other topics include reproduction, transfer, and mounting techniques. to create authentic versions of their designs. Emphasis is on rendering techniques that are used to accurately communicate the way objects and spaces are presented in three dimensional projections mimicking the built environment.					
35	INTD 207	Materials in Interior Design	3	0	3	INTD 105
	This course consists of a study of construction and finishing materials and their properties. Emphasis is on the appropriate selection, specification and employment of construction and finishing materials used in interior design.					

36	INTD 212	Elementary Residential Interior Design Studio	1	4	3	INTD 104
	In this course, students apply a range of elementary design skills for the development of residential interior designs that take into account conceptual elements (human scale, movement, circulation, space planning) revolving around desiderata of living spaces, user requirements and needs, life quality improvement, and health and safety considerations. Students engage in systematic research in and interior programming of interior residential design and hone skills in freehand drawing and manual drafting through the use of sketches, mechanical drawings, and perspectives towards the preparation of conceptual illustrations.					
37	INTD 213	Textiles for Interior Design	3	0	3	INTD 207
	This course aims to give students a broad understanding of technical and functional properties of interior textiles. The course content includes characteristics, use and production of textile materials used in interior design; the physical, mechanical and chemical properties of textile products; end use of the textiles considering their favorable properties; and ornament or embellishment techniques of textile surfaces.					
38	INTD 214	Software Technologies for Interior Design	1	4	3	INTD 104
	The course aims to provide students with the specialist knowledge to develop computer-aided drafting skills using, primarily, the latest release of CAD software to develop attractive interior drawings (plans, elevations, sections, etc.) in conjunction with Adobe Photoshop. In addition, students are introduced to 3D Max, Rhino and Form Z.					
39	INTD 215	Digital Visualization in Interior Design	1	4	3	INTD 214
	This course serves as a primer on computer aided visualization techniques enabling students to gain facility in creating layouts for digital and printed presentations. During the course, students integrate media and presentation techniques and students use software technologies to elaborate design concepts. Students gain exposure to the employment of digital models and data structures in the representation of the built environment.					
40	INTD 216	Elementary Commercial Interior Design Studio	1	4	3	INTD 212
	This course focusing on commercial interior environments, the problem solving discipline of the design process and its application to offices, restaurants, lobbies, and related interior spaces, it develops concepts to achieve design goals and apply theoretical knowledge and technical skills to design solutions. Topics covered include commercial client needs, branding, space planning, material and furniture selection, building code requirements, barrier-free access, sustainable design practice, and presentation techniques used in the design of commercial interior spaces.					
41	INTD 217	History of Interior Design	3	0	3	INTD 105

	The course puts into comparative perspective different architecture and design schools and styles from the Classical period to the 20th century that influenced and formed the modern interior design theory. A series of illustrated lectures and special presentations examines the historical sweep of interior design and architecture across Europe, the Americas, Asia, and Africa. Emphasis is placed on environmental, technological, economic and social factors contributing to the development of interior design and architecture over time.					
42	INTD 306	Building System & Interior Codes	3	0	3	INTD 207
	This course examines various interior assemblies on non-load-bearing and, load-bearing walls, floors, stairs, elevators, fireplaces, ceilings, doors, interior windows, frames, millwork, and fire-related construction. Emphasis is placed on building codes, construction materials, visual qualities, technical characteristics and applications of the common materials and finishes: floor coverings, wall coverings, textiles, ceiling, and sustainable materials. Related fire, health, and safety codes, as well as maintenance and life cycle costs, receive attention.					
43	INTD 309	Building Information Modeling (BIM) I	1	4	3	INTD 215
	The course objectives focus on fundamentals of Building Information Modeling (BIM) as a construction documentation system, introduces concepts and features of BIM. It includes software structure and features, modeling and editing techniques, and sheet creation and organization. It focuses on applying BIM software to develop a set of construction documents.					
44	INTD 311	Intermediate Retail Interior Design Studio	1	4	3	INTD 216
	This course focuses on retail spaces, the problem solving discipline of the interior design process and its application to department stores, shops, boutiques, and other retail and mercantile settings. Students apply a range of intermediate design skills involving both freehand techniques and CAD software in creating retail interior designs, through systematic research and interior design programming, that comport guidelines and regulations of building and safety codes.					
45	INTD 312	Human Factors in Design	3	0	3	INTD 105
	Building on precepts garnered on the elementary level in the Theory of Interior Design (INTD105), this course primarily explores in depth concepts of human factors, the anthropometric aspects of ergonomics, that applies in the utilitarian design of interior spaces involving diverse topical matter as efficient design of workspaces, optimal deployment of safety equipment and security features as well as a more general consideration of how differences in the characteristics, abilities, and physical limitations of human bodies impinge on interior design solutions.					
46	INTD 313	Design & Society	3	0	3	INTD 217

	This course confronts students with the key social issues facing contemporary society and the response of design and visual communication practices to them. Topical content includes design of interior environments in relation to cultural norms, gneder differences, design for the disabled the elderly and children, as well as the notion of universal design. The course is designed to enable students to think about design and visual culture in a critically engaged way through a case-study approach tailored to illumine cross-cultural differences as a driver of contemporary designed environments. In this course students are also be encouraged to approach their own design practices in a societally reflective manner.					
47	INTD 315	Garden & Landscape Design	1	4	3	INTD 212
	The course introduces students to principles of landscape design including culture, ecological, spatial, environmental aspects to be considered in planning and designing the landscape areas. This course also focus on design of attractive and functional gardens as a very important part in built environment. Students undertake a site survey and frame a conceptual design consonant with client needs, selecting appropriate hard and soft landscaping materials, with a view to modeling the created design of garden.					
48	INTD 316	Digital Presentation & Communication	1	4	3	INTD 215
	Students exhibit proficiency in application of advanced 3-dimensional modeling and digital rendering techniques through the use of current industry standard software. As part of a suite of project presentation materials, students acquire advanced skills in digital illustration using Photoshop to create photo-realistic images of interiors in a professional presentation of an interior design project.					
49	INTD 317	Furniture Design	2	2	3	INTD 213
	This course focuses on materials, construction technologies, furniture production and marketing involved in the design and fabrication of furniture. It explores the relationship between ergonomics, comfort and function in the design of furniture for both site-specific environments and mass produced applications, as well as to the development of detailed drawings and model of the designed furniture piece to better understand construction connections and detailing. The components of this course focus on application of design theories and principles in the creation of furniture as well as the specification of furniture in interior design projects.					
50	INTD 319	Lighting in Interior Environments	3	0	3	INTD 205
	This Course focuses on the fundamentals of light: its sources, variations, quality, design implications, product variations, technologies and cost/benefits. Students learn how to integrate appropriate lighting and color choices, from both technical and aesthetic perspectives, covering the four function of light: task, accent, decorative and ambient. Lighting for the specific sectors of built environments (residential, retail, corporate, etc.) is discussed and evaluated as an imperative creative design feature and form-maker.					
51	INTD 329	Building Information Modeling (BIM) II	1	4	3	INTD 309

	This course endows students with the knowledge and professional level skills for generating a Building Information Model (BIM) using industry –standard Revit software. Students obtain a comprehensive overview of and employ BIM concepts in building projects involving planning and design of residential and commercial facilities across a range of modeling building elements					
52	INTD 339	Historic Restoration	3	0	3	INTD 217
	This course is an examination of the contemporary theories, techniques and practices of the urban and architectural historic preservation and their applicability to regional and local preservation problems. The course also includes a discussion of historical, legal, political, financial and programmatic aspects.					
53	INTD 342	Islamic Art & Design	3	0	3	INTD 217
	This course is an analytical study of the history of Islamic art and architecture, particularly its evolution and development of graphic and architectural form under the influence of Islamic culture.					
54	INTD 403	Working Drawing & Documentation	1	4	3	INTD 306
	Introduces the production of a comprehensive set of construction documents and an architectural working drawings of interior constructions, such as floor plans, elevations, sections, finish schedules, reflected ceiling plans, interior partitions, stairs, fireplaces, doors, windows, and details. Emphasis is placed on the selection, specification and illustration of appropriate materials, assemblies and components. Students prepare a full suite of documentation (client's brief, conceptual design, work drawings, material planning) in support of a selected interior construction to professional standard.					
55	INTD 404	Advanced Educational Interior Design Studio	1	4	3	INTD 311
	Objective of the final and last design studio is a complex and large educational facility that provides students with a "virtual studio" environment where industry practices and design theories are integrated into simulated projects. Students are expected to utilize all theories and resources developed in preceding courses to produce an advanced space planning solution, and complete construction documentation for a major design problem. Demographic, economic, behavioral, conceptual and contextual consideration for a tiered educational facility is considered.Emphasis will be placed on collaborative skills, research, critical analysis and incorporation of sustainable practices. Students also get to use digital media for three-dimensional presentations of design projects are implemented such as AutoCAD 2D, Google Sketch up, Photoshop, 3D Max and Revit to support the Interior Design Advanced Studio Project.					
56	INTD 406	Environmental Control Systems	3	0	3	INTD 306

	This course covers fundamental knowledge of building physics (heat, air and moisture, sound, light, sun and wind) and building services engineering (installation concepts and components) in building design issues. These areas are addressed in the context of sustainable and energy efficient building design with the final aim of achieving safe, healthy, comfortable and low-energy buildings. The integration of sustainable climate concepts in architectural design and urban planning plays central role.					
57	INTD 412	Design Psychology	3	0	3	INTD 313
	Drawing on environmental psychology relevant to spatial design, students, employing theoretical and analytical methods, gain insight into ways in which the individual and the built environment interact, influencing behavior and experience. In this course, students gain an appreciation of the complex interaction and impact of the built environment on human behavior examined through the prism of social, behavioral, cultural and environmental variables. Issues of social and cultural context, gender, health and well-being are examined through environmental factors and characteristics of the built environment.					
58	INTD 413	Sustainable Design	3	0	3	INTD 313
	This course is designed to provide students with the essential knowledge to understand the principles of "green" design. It covers an analysis of sustainable or "green" building through the practice of designing, constructing, operating, maintaining, and removing buildings in ways that conserve natural resources and reduce their impact on climate change.					
59	INTD 415	Acoustics	3	0	3	INTD 306
	This course addresses the use of basic sound in design and the principles of sound absorption and isolation within the context of interior design. It focuses on the design of internal spaces emphasizing acoustics in reference to Indoor Environment Quality (IEQ) and complex multifunction building types.					
60	INTD 417	Advanced Healthcare Interior Design Studio	1	4	3	INTD 403 AND INTD 404
	The course focuses on the interior design of healthcare spaces, the problem solving discipline of the interior design process and its application to hospitals, clinics, assisted living communities, and related healthcare facilities. The emphasis is placed on special needs populations including the cognitively/mentally impaired, geriatric populations, and children. In consultation with the instructor, the student design team selects a special population to research. At completion of research, the student team provides programming, pre-design documentation, tracking documentation and a final design presentation. Students develop facilities in the use of AutoCAD, Google Sketch up, Photoshop, 3D Max and Revit.					
61	INTD 427	Signage & Wayfinding Systems	2	2	3	INTD 313

	Wayfinding functions to inform people of the surroundings in unfamiliar built environments with a view to highlighting information at strategic points to guide people into the right directions to overcome the fact that complex structures in the built environment are interpreted and stored by the human memory vary such that distances, locations and time are remembered differently than as they appear to be in reality. Students gain insight into landmarks, orientation and navigation as key inputs in strategizing wayfinding designs. Students integrate signage systems in a design grid used to integrate information in the context of four sub-types of signage: Informational signs, directional signs, identification signs and warning signs.					
62	INTD 429	Kitchen & Bathroom Design	1	4	3	INTD 306
	This course covers specific technical, ergonomic and functional requirements in kitchen and bath design for both residential and public buildings. This course helps students to understand the kitchen and bathroom design process from conceptual drawings to schematic design, study the fundamentals of design and layout, including the functional use of space, review artificial and natural daylight and ventilation requirements, available fixtures, equipment specifications, and cabinetry design and function, and refine students' knowledge of choosing appropriate colors and in specifying materials for durability and easy maintenance.					
63	INTD 430	Traditional Interior Architecture	3	0	3	INTD 313
	The aim of this course is to introduce the students to the non-western traditional culture and architecture in different regions in terms of indoor environmental quality and formation of the plan layouts regarding both interior and exterior spaces. The course includes next to the Bahraini, also Indian, Egyptian, Iranian, Moroccan and Far-East traditional architecture and interiors. Main themes include: the characteristics of the non-western interior architecture; the climate & sustainability aspects such as heating, cooling, ventilation, lighting, energy and materials of these traditional buildings.					
64	INTD 435	Exhibit Design and Installation	2	2	3	INTD 313
	This course emphasizes the aesthetic and functional importance of form and space in exhibit design in commercial and non-commercial settings. Synthesizing multiple design disciplines that come together to communicate objects, information and themes across a range of three-dimensional environments, students, in exhibit design, communicate to target publics through environmental experiences that inform, entertain, and inspire. The discipline considers the exhibition from the perspectives of communication, design and fabrication that involve a mastery of spatial planning, image manipulation, narrative, color, lighting, and multimedia, and working knowledge of structures, typography, combined with an understanding of audience and human factors, to shape storytelling experiences across multiple exhibition venues. Students engage in planning of interior-design environments and scenography for trade exhibitions as well as as well as for a range of festivities, museums, cultural and theatrical events. Students will gain insight into the staging of representative and experiential spaces; for a variety of exhibitions and by means of case studies and attendance at exhibitions, where they will gain firsthand knowledge of the role of such factors as lighting, sound and multimedia effects in installation of exhibit designs.					
65	INTD 499	Project in Interior Design	0	6	3	IDRM 498 AND ETHC 394

	This course explores the concept of a space. Students investigate site and client analysis, and then formulate design proposals from sketch scheme to final solution. The project is chosen by the student and subject to approval by a senior project advisor and coordinator. Advanced study, research, and data collection leading to the development of the graphic and three dimensional materials are required to illustrate the design process and the project solution.					
66	INTR 470	BSID Internship	0	0	3	INTD 311 AND Completion of at least 90 credits And Minimum CGPA 2
	This course provides practical training experience, off-campus on a job site, for BSID students to facilitate transition from the classroom to a professional work environment facilitating their seamless integration into the work force upon graduation as interior designers. This course aims to provide students with first-hand experience of the day-to-day functions and duties of and operations undertaken by interior designers and to integrate knowledge and skills learned in the classroom with competencies required by the workplace.					
67	INTR 471	BSMCPR Internship	0	0	3	Completion of at least 90 credits And Minimum CGPA 2
	The field training course (Internship) provides students with an opportunity to integrate the academic skills acquired within the university with applied professional and personal skills, as well as developing student's skills so that they can acquire planned practical learning experiences to enable them to integrate their acquired knowledge through classroom learning with the practical competencies and skills available through practice in the real professional environment. The professional field training program requires that the student spend at least 240 hours of on-the-job training, during which the student will be assessed by professional and academic supervisors to evaluate his/her success in meeting the field training requirements.					
68	IREL 101	International Relations	3	0	3	
	This course examines the theory of the nature and uses of power through coverage of the development of the nation-state system focusing on specific problems in international relations in the world today. The course covers a wide variety of topics. Basically it tackles elements of national power, sources of international conflict, the nature of war and strategy in the twentieth century, measures to resolve conflicts, and prospects for the future. The course concludes with an analysis of foreign policies and the role of Middle Eastern states in world politics and problems of, and prospects for, the Middle East in the light of international political developments.					
69	LAW 101	Introduction to Legal Systems & Legal Reasoning	3	0	3	
	The first half of this course consists of an introduction to theories of the nature, functions and origins of law and legal systems including: sources of law, the nature of courts and selected other legal institutions, a comparison of legal systems, and the special nature and sources of international law. Students gain exposure to legal reasoning including both statutory interpretation and case-law reasoning in the second half of the course.					

70	MASC 309	Journalism Writing	2	2	3	MCPR 242
	This course includes the rules and skills of investigative reporting, press reports, press interviews, types and methods, interviewing skills, types of interviews, types of questions, methods of formulating and constructing them. The course also includes studying the rules and skills of writing articles of all kinds, writing reports, and expository as well as critical essays of works of art and literature. It also looks at the use of modern approaches to writing (narrative style, descriptive styles, personalization technique, and precision journalism). The course is based on practical field training on planning, implementation, and writing for the arts and forms journalism taught to the student.					
71	MASC 310	Digital Journalism	2	2	3	ITMS 205 AND MCPR 242
	The course deals with the concept of online journalism on the Internet, its types, its main features, interactivity in online journalism on the Internet levels of interactivity, the role of readers in contributing to the editing of online journalism and technical templates for editing online journalism. The course also is concerned with the design of online journalism, the future scenarios regarding the mutual influence between online and printed journalism, advertisements in online journalism as well as practical applications of editing and design of electronic journalism.					
72	MASC 322	Newspaper & Magazine Layout	2	2	3	MCPR 242 AND MCPR 206
	The course aims to provide the student with the skills of design and production of newspapers and magazines. The course deals with the concept of journalistic output and its functions, design concepts, basic theories and its components, and visual and aesthetic variables that govern it. The student also learns about the typographic and graphic elements and how to utilize them in press production, in addition to the methods and techniques of artistic production of newspapers, referring to the differences between the output of a newspaper and a magazine. The course also familiarizes the student with the methods and techniques of the front, back pages and inside pages, as well as tabloid newspapers and magazines. During the course, the student is trained in the journalistic production using the most popular software used in production.					
73	MASC 328	Script Writing	3	0	3	ARAB 201
	The course aims to train the student on practical ways of preparing and writing the script. The student will be introduced to the fundamentals of script writing, beginning with studying the theory of script and the methods of drama building, and the forms of the scenario (sequential, parallel and overlapping), followed by the components and characteristics of each form. The student is then introduced to the literary script writing stage, including its various aspects such as its philosophical nature, technical treatment, arrangement of scenes, leading up to up to the whole Scenario work, theme unit, division of information and events, artistic form, character, plot, conflict and development and ways of excitement and thrill. This is accompanied by analyzing, critiquing and deconstructing selected models from global scenarios, thus enhancing student writing skills. The course also includes writing exercises for many scenes to write a shooting script and how to prepare it. The student then presents a project for a short film scenario.					
74	MASC 340	Radio Production	2	2	3	MCPR 232

	This course deals with all stages of production for radio, where the student learns about the stages of preparation of programs. The course also deals with the techniques of writing radio scripts for drama programs. It also deals with the director's tools, radio production elements, and equipments used in radio production. Radio and audio directing and editing in the areas of advertising, news, programs and crafts required in the treatment of such programs.					
75	MASC 355	Digital Photography & Video Production	2	2	3	MCPR 101 AND MCPR 206
	In its theoretical part, this course explores the concepts and knowledge associated with digital video and the various stages of its production by presenting models of films and documentaries. The practical aspect, however; includes teaching students the artistic and technical skills of each phase of digital video production. Practical training includes the basics of using a video camera to carry out the production of video and television content. In this course, the student learns the concepts, principles and techniques and aesthetics associated with photojournalism. He/she learns about the basic uses of photography in the field of journalism, including the use of the camera to produce a press report in conformity with artistic and technical conditions and criteria (modulation, lighting, depth of the field of image, composition ...) The student is introduced to the use of software for editing, processing digital images, printing along with the use of images use in design and advertising, as well as in some other technical and educational. The main aim of the course is to teach the main photographic skills that enable the student to tell stories visually and in a manner that reflects a high sense of commitment to ethical standards.					
76	MASC 410	Media Translation	3	0	3	ENGL 202 AND MASC 309
	This course aims at providing the student with the professional skills needed to translate media content. During the course, the student, through practical practice, translates several texts published in newspapers, magazines, media sites and news agencies. The course helps the student to acquire a wide range of terminology, idiomatic expressions and abbreviations used in the media and to develop his skill in translating these expressions into Arabic, as well as the ability to edit translated texts to reflect sound media language that can render them publishable.					
77	MASC 419	Media Editing in English	2	2	3	ENGL 202 AND MASC 309
	This course aims at developing students' skills in writing and editing the various arts and forms of journalism and information in English such as news, reports, articles, etc. The course covers editorial rules of the media content in English and provides students with the opportunity to submit practical applications and media topics in various templates and forms in English.					
78	MASC 432	TV Production I	2	2	3	MASC 355

	The course deals with the basics of television production, starting with the development of student's capabilities in the field of television innovations and production tools, as well as providing the basics of video shooting including angles and movements. The student will also be able to develop the ground plans for directing solutions in locations by practicing his/her skills in a short group project, emphasizing technical and craft concepts such as the sizes, basic shots, derived clips, the relationship between the angle and the subject based on the angles of the base of the triangle, as well as camera movements and the procedures used in the art works. At the end of the course, the student will be able to lead a team to produce a joint project with a number of students, which will polish as student's personality and reveal leadership features in leading successful teamwork.					
79	MASC 438	Radio & TV Presenting	3	0	3	MASC 340
	On this course, the student learns the preparation and presentation of the radio texts of the various formats and as well as the responsibilities, tasks and skills of the announcer, including the art of dealing with the camera, the microphone and the various artistic production processes. The student also introduced to presenting news, talk shows and interviews. Special attention will be paid to voice, speech, pronunciation, discourse and some basic language skills for broadcasters. Training in this regard deals with pause marks and their purposes, methods of sentence stress, casting methods, types and factors of its success, in addition to specificities of both radio and television. The course will provide students with the terms, concepts and production skills required in accordance with professional standards for radio and television performance.					
80	MASC 455	TV Production II	2	2	3	MASC 432
	The course aims to provide the student with the technical and professional knowledge that enable the student to understand the production and technical processes in all stages and requirements according to the requirements of the photography sites. It also provides him/her with the skills of craftsmanship and technology through which he/she can find the solution and overcome the technical problems encountered in the photography and editing processes. In addition, the course enables the student to develop his/her creative abilities and artistic and personal visions that qualify him/her to deal with technicians and artists on various photography sites. The course includes practical applications within the training studio in the University according to the relative weight of the applied hours of the course.					
81	MASC 464	Documentary Films	2	2	3	MASC 328 AND MASC 355

	This course introduces a definition of the concept of the documentary film, its essence, the stages of its development, how to deal with the idea or subject in changeable reality, the treatment of factual material, determining the method of presenting the subject, building, organizing, selecting and arranging the required material, presenting the film-maker's vision of the content to the target audience, and preparing the cinematic treatment. Subcategories include: types of content, types of treatment, types of constructivism, poetic documentaries, determining the work plan, identification of the aesthetics of the experimental trends in the short film (model analysis of Robert Flaherty and Grierson), film format and visual expression strategies, expression strategies through commentary and dialogue, and expression strategies through symbolic montage. In this course, the student learns to produce television programs, starting with collecting news from the archives and the Internet, using it in as a unified constructional unit and linking it with premade footage to create its own context. The student also learns skills of changeable reality photography and receives training in the use of external (outside the studio) video cameras and microphones, in addition to the use of internal studio equipment. The student submits a project at the end of the course.					
82	MASC 468	Specialized Journalism	3	0	3	MASC 309
	This course focuses on the study of the methods, principles and language of specialized press writing and coverage, and examines the concepts and patterns of specialized newspapers and magazines. The student studies, in a practical way, the basics and skills of specialized journalistic writing and coverage in a variety of areas including: political, sports, economics, health, scientific, environmental, cultural, artistic, women and child journalism. The student submits press coverage and written assignments related to a selected number of these areas under the supervision of the course instructor. Further, the course introduces rules, skills and conditions for the preparation of press investigations, reports and interviews, their types and methods, techniques and skills of interviewing, types of interviews, types of questions and techniques of question formulation and building question traps. The course is based on practical training in planning, field implementation and writing for investigations, reports and other press texts.					
83	MASC 474	Social Media	2	2	3	MASC 310
	The course deals with the concept of social networks, their characteristics, the most prominent scientific models that explain new media phenomenon, social networking, the most prominent of these networks, the identification of their positive and negative impacts on individuals and communities, their use in media campaigns, the mechanisms in which they influence public opinion, the skills of building strategic plans in social networks and their uses in the field of public relations. The course offers practical training of these skills.					
84	MASC 499	Project in MASC	0	6	3	MPRM 498 AND ETHC 397
	The graduation project course in Mass Communication aims at providing the student with the opportunity to prepare and implement an integrated media project that reflects the various knowledge and skills acquired by during the study of the program, based mainly on independent self-learning. It provides an opportunity to obtain practical experience in his/her field of specialization as well demonstrate independence and originality, planning and implementation skills, leadership and organizational capabilities, time and resource management. The course also allows the student to develop his/her intellectual and practical capabilities in the service of the community through media and communication experiences The graduation project is conducted in through group or individual work and through direct guidance from the project supervisor.					

85	MASC 502	Basic Concepts in Mass Communication	3	0	3	
	The course deals with mass communication as a social and psychological phenomenon. It addresses topics such as the definition of the concept and the types and levels of communication and its effects, the development of communication through the successive periods of history, and characteristics of mass communication. It also introduces modern means and prototypes of communication.					
86	MASC 511	Contemporary Trends in Communication Theories	3	0	3	
	This course aims to acquaint students with contemporary theories of communication. In particular, it deals with recent trends in mass communication and its role in modern societies, the functions of communication, theories of information dissemination, the effects of mass communication and the study of mass communication in terms of social systems.					
87	MASC 512	News Writing in Arabic & English	3	0	3	
	This course is designed to enhance students' skills in writing news items both in Arabic and English. Students learn the differences between news writing and editing. The course also teaches students features, elements, concepts, types and sources of news items.					
88	MASC 512	News Writing in Arabic & English	3	0	3	
	This course is designed to enhance students' skills in writing news items both in Arabic and English. Students learn the differences between news writing and editing. The course also teaches students features, elements, concepts, types and sources of news items.					
89	MASC 513	Newspaper Editing & Layout	2	2	3	MASC 512
	The course explores the differences between writing news items and journalistic reports and introduces the students to the news writing styles (format, structure and techniques). It also deals with the concepts and principles of the artistic layout of newspapers and magazines, traditional publishing methods and the use of electronic publishing software such as "Adobe Photoshop", "Quark Express" and "Audi Streeter."					
90	MASC 515	Electronic Journalism	3	0	3	

	This course aims to introduce students to the types and advantages of electronic journalism. It highlights the use of computers and the internet in press production and editing and deals with the differences between news editing and writing in the printing press and electronic journalism.					
91	MASC 545	Political Communication	3	0	3	
	Concept, history and theories of political communication are presented and discussed. Political language, advertising and campaigns are analyzed. The relationship between media and governments in different political systems and its relationship with public opinion and democracy are explored in depth.					
92	MASC 561	Television & Radio Production	2	2	3	
	In this course, students obtain intensive exposure to television and radio production methods, studio production techniques, and technical equipment. Students conceive and design individual production projects that utilize studio, file and post techniques. This course covers the audio-visual production process from pre-recording or shooting conception to post-production.					
93	MASC 599	Dissertation in Mass Communications - Track 1	0	24	12	MCPR 565 AND Completion of at least 21 credits
	A research focused study in the field of mass communication which aims to draw on practical data to assess critically a specified area or topic.. The dissertation engages the student in a progressive course of intellectual discourse involving problem identification, methodology, research, evaluation and recommendation that culminates in the production of manuscripts subject to public defense.					
94	MATH 052	Mathematics	6	0	0	
	This course is designed as comprehensive program that builds on and strengthens basic mathematics. It provides the necessary tools for understanding and handling relevant mathematics for science, business, arts, social sciences, IT and physiotherapy students. The course covers basic topics in algebra equations, inequalities, functions and graphs, polynomials, Logarithms, and matrices.					
95	MATH 053	Basic Mathematics	3	0	0	
	is an introduction to numbers, equations, and functions. Students will learn how to manipulate with numbers, solve equations, and cope with mathematical functions. Students will also learn about exponential and logarithmic functions as well as matrices.					

96	MATH 055	Preparatory Mathematics	6	0	0	
	A comprehensive programme that builds on and strengthens basic mathematics. It provides the necessary tools for understanding and handling relevant mathematics for science, IT and pre-medical students. The course covers basic topics in algebra, trigonometry, complex numbers, functions and graphs and an introduction to sequences and series.					
97	MATH 101	Calculus I	3	0	3	MATH 053 or passing placement test
	is a university requirement for the BSc program in Engineering, IT, Multimedia, and Physiotherapy. This course covers limits and continuity, and differentiation of algebraic and transcendental functions with different rules, which involve multiplication, division, chain rules and implicit differentiation. Applications of differentiation such as extrema (maxima and minima), optimization, and mean value theorem are also covered in this course. Assignments of various problems are handed to the students to solve and get prepared for the exams.					
98	MATH 102	Calculus II	3	0	3	MATH 101
	is a university requirement for the BSc program in Engineering, IT, Multimedia, and Physiotherapy. This course is a continuation of Calculus I with emphasis on integration methods and techniques followed by further integration and applications. Taylor and McLaurin theorems, power series, infinite series and polar coordinates are all covered in this course. Assignments are also handed to the students to solve and get prepared for the exam.					
99	MATH 103	Mathematics I	3	0	3	MATH 053 or passing placement test
	is an introductory mathematical analysis for business, economics, life and social sciences as well as interior design and mass media. Students will learn how to write and solve systems of linear equations using Gauss elimination, quadric equations, and linear inequalities (analytically and graphically), absolute values, functions, composite functions, inverse functions and exponential and logarithmic functions. They will also learn how to determine compound interest, present and future value, and annuities. They will be able to develop a matrix, an inverse matrix and using operations with matrices to solve linear systems. The students are assigned assignments to solve to prepare them for the exams. Assignments and exams cover all material.					
100	MATH 104	Mathematics II	3	0	3	MATH 103
	is a calculus course designed for students studying business, economics, and other business-related programs. Besides business students, mass media and interior design students also take this course. This course involves limits, and differentiation and integration of variety of functions, such as simple algebraic functions, as well as exponential and logarithmic functions. It also includes the application of differentiation and integration for business related problems such as marginal costs and total costs, as well as price, marginal revenue and revenue.					

101	MATH 201	Discrete Mathematics	3	0	3	MATH 101
	is an introduction to mathematical ideas and concepts, which are more useful and relevant to the study of all aspects of computer science and engineering than traditional continuous mathematics. The course deals with such topics as logic, sets, mathematical proof, functions, algebraic structures and Boolean algebra.					
102	MATH 202	Calculus III	3	0	3	MATH 102
	is a university requirement for the BSc program in Engineering, IT, and Multimedia. This course will build on the previous two calculus courses, Calculus I and II. The course emphasis will be on topics such as vectors, partial derivatives, multiple integrations, ordinary differential and Laplace transforms.					
103	MATH 205	Differential Equations	3	0	3	MATH 102
	is an integrated course that permits the students to learn how to formulate and express engineering and technology problems in terms of differential equations. It covers classification, methods and techniques of solutions. Included are: exact and separable types, linear second- and higher-order equations with constant coefficients: non-homogeneous and homogeneous ones; use of power series and Laplace transform methods. Some applications of differential equations are also considered.					
104	MATH 221	Linear Algebra	3	0	3	MATH 101
	MATH 221 is an introduction to Linear Algebra. It covers linear systems, matrix algebra, vector spaces, linear transformations, eigenvalues and eigenvectors and norms and inner products.					
105	MATH 311	Complex Analysis	3	0	3	MATH 102
	MATH 311 is Introduction to Complex Analysis. This course covers complex number system, Cauchy-Riemann conditions, analytic functions and their properties, special analytic functions such as linear fractional transformations, roots, exponential, logarithmic, and trigonometric and hyperbolic functions of a complex variable. It also includes complex integration and line integrals, Cauchy representation, Taylor and Laurent Series expansions.					
106	MCPR 101	Introduction to Communication	3	0	3	

	This course provides students with the necessary basic knowledge in the field of mass communication and public relations. It includes a study of the elements of the communication process, the means and forms of communication as well as its different patterns. The course presents the concept of communication and its various influences, in addition to providing basic knowledge about the emergence and development of contemporary media, the factors influencing it and the identification of the functions performed by mass media in society. This course is considered to be an essential introduction to the study of media and public relations.					
107	MCPR 206	Media Graphics	2	2	3	ITCS 101 AND MCPR 101
	The course aims to identify the most important elements and principles in graphic design and the techniques of attracting the audience to graphic designs, in addition the foundations of graphic design used in the field of media, both theoretical and applied. The course aims to provide students with the skills of editing pictures, lines, colors, shapes, texts and drawings through training on the methods of dealing with graphic design programs such as Adobe Photoshop, Adobe InDesign and Adobe Premier and others to reach innovative artistic designs providing elements of good design by strengthening the student's ability to be creative and innovative. The course also encourages and promotes student's self-initiated creativity in expressing his/her ideas through the preparation of a variety of designs that are supposed to be dealt with creatively and solving design challenges with high efficiency by employing different tools in these programs.					
108	MCPR 232	Theories of Mass Communication	3	0	3	MCPR 101
	This course provides students with a scientific background of the scientific theories related to the mass communication phenomenon through the presentation and study of some theories of communication. It addresses the theories related to the impact of communication, the concept of the active audience, interaction with the media and the theories that explain the mechanism of traditional and modern media. The course also aims at enabling students to keep up with the latest communication innovations through learning about modern communication techniques, identifying & underlying scientific theories, and how to benefit from the application of theories of communication in media research and studies.					
109	MCPR 242	News Reporting & Writing	3	0	3	MCPR 101
	The course focuses on providing the students with the knowledge and practical skills required to cover and write the news for the various print, audio-visual and digital media. The course provides knowledge and practical skills related to the scientific concept of the news and methods of selection, collection and coverage of news, dealing with news sources, verification of information, methods of drafting news, news language, writing forms, rules for preparing and implementing news reports, and ethics of writing and publishing news. During the course, the student will cover and write news in different forms, formulas and media formats.					
110	MCPR 530	Public Opinion Formation & Measurement	3	0	3	
	This course explores the literature on public opinion. Perception of the social and political environment and of the climate of opinion, opinion distribution and expression, and conformity are investigated. Recent trends in public opinion research and measurement and its relationship to democracy are explored. Students poll public opinion on topics of contemporary relevance.					

111	MCPR 550	Research Methods & Modeling	2	2	3	Completion of at least 9 credits
	The main objective of this course is to enhance the student's capacity to understand as well as to conduct scientific research in mass communication & public relations. The course focuses on providing students with basic skills in scientific research, including identifying the problem, developing research proposals, employing appropriate research tools, formulating and testing hypotheses, collecting and analyzing data and, finally, writing a research report. The course also presents both quantitative and qualitative methods applied in mass communication & public relations research.					
112	MCPR 565	Seminar in Contemporary Communication Research	3	0	3	MCPR 550
	The course offers a survey of research in mass communication and public relations and discusses the various trends in the two fields. In particular, it focuses on the most recent developments in the field of communication research in order to help students to use the modern theories in the writing of research papers.					
113	MPRM 498	Research Methods in Mass Communication & Public Relations	3	0	3	STAT 101 AND MCPR 232 AND Completion of at least 90 credits
	The course aims to introduce students to scientific research and its importance in the field of media and public relations. It also provides students with the skills related to scientific research, such as the use of library and references, designing scientific tools for collecting data in media research, preparing a research plan and identifying the types of research and methods used in scientific research in the field of Media and public relations. It deals with the mechanism of formulating hypotheses and scientific questions, writing a scientific research report, and presentation skills to present the results of scientific research.					
114	PHYS 101	General Physics I	3	0	3	MATH 050 OR MATH 052 OR MATH 053 OR MATH 055
	is a university requirement for the BSc program in Engineering and Physiotherapy. This course covers units and measurements, vectors, motion in one and two dimensions, Newton's laws of motion, work and energy, impulse and momentum, rotational dynamics, equilibrium of a rigid body and periodic motion.					
115	PHYS 102	Physics II	2	2	3	PHYS 101
	This course introduces principles of electricity and magnetism and circuits. Topics include :electric charges and fields, Coulomb's and Gauss's laws, electric potential, capacitors, direct current circuits, Kirchhoff's rules, magnetic field and flux, ampere's law, induced emf, Lenz's law, mutual and self- inductance AC circuits, and RLC circuit. Students will apply these concepts in laboratory experiments.					

116	PHYS 111	General Physics	3	0	3	MATH 053 or passing placement test
	PHYS 111 is the general physics, which is a university requirement for the BSc program in IT, and Multimedia. This course employs vector analysis as well as calculus-based mathematics to introduce vectors in 1-D, 2-D, and 3-D, electrostatic forces and fields, Coulomb's and Gauss's laws, electric potential, capacitors, direct current circuits, Kirchhoff's rules, RC circuit, magnetostatic forces, magnetic fields and flux, Biot-Savart and Ampere's law, Faraday's and Lenz's laws, and driven AC current.					
117	PHYS 321	Electromagnetic Theory	3	0	3	MATH 205 AND MATH 311
	The course begins with a review of vector calculus and coordinate transformations. It covers fundamental concepts of electrostatics, magnetostatics, electromagnetic induction and electromagnetic waves. Students gain knowledge of Maxwell’s Equations and learn how to apply them to solving practical electromagnetic fields problems. Other concepts such as waveguides , resonant cavities , antennas and radiation pattern are also introduced in this course.					
118	PREL 121	Introduction to Public Relations & Advertising	3	0	3	
	The course presents the basic concepts related to the public relations discipline. It also focuses on the roles, responsibilities and functions of public relations in various institutions, both governmental and private. It also examines the importance of planning of public relations programs, conducting public surveys and identifying the difference between public relations and other marketing activities, such as advertising and promotion used by public relations, including brochures, flyers and other advertising materials, as well as the use of the Internet in the field of public relations and advertising for organizations. The course also emphasizes the importance of the ethical component of the practice of public relations.					
119	PREL 267	PR & Advertising Campaigns	3	0	3	PREL 121
	In this course, students will learn about the concept of public relations and advertising campaigns, and their importance and role in the performance of public relations functions in different institutions. This course also provides students with the opportunity to learn the concepts, theoretical foundations, scientific steps, and planning and analytical skills necessary to develop, plan public relations campaigns and successful advertising campaigns, all through successive steps of planning the campaign from the stage of developing the initial plan to the implementation and general evaluation of its results.					
120	PREL 340	Integrated Marketing Communication	3	0	3	PREL 267 AND MAKT 201

	On this course, students learn about the concept of integrated marketing communications, the principles of integrated marketing communication, the marketing communication process, levels of marketing communication, marketing mix elements, marketing communication strategy and planning. The course also deals with the elements to be analyzed in planning marketing communications, marketing communication budget planning, the factors influencing the selection of marketing communication mix, communication relevance to marketing mix elements, marketing communication campaign components, and the role of the Internet in marketing communications.					
121	PREL 422	Public Opinion & its Measurement	3	0	3	MCPR 232 AND STAT 101
	The course aims to study the phenomenon of public opinion as a social and communicative phenomenon and develop students' skills of in the field of measuring and surveying public opinion. The course presents the concepts of public opinion, its different types, its development in modern societies, the study of factors influencing its formation, and the role of traditional and modern media in forming public opinion. It also deals with the role played by public opinion in societies, as well as the scientific methods, procedures and steps to measure public opinion by following the various scientific and statistical techniques employed in this regard.					
122	PREL 439	Strategic Communication in Public Relations	3	0	3	PREL 267
	This course deals with the principles of strategic communication. It also tackles the emergence of this concept, methods of communicating with the public and activating its role in various forms such as advertising, public relations, direct marketing and e-marketing of goods and ideas. The course also deals with theories and models that practice strategic communication in public relations (including 'Broome and Dozier models, Grunig and Hunt models and other theories in public relations, as well as various schools of public relations). Students analyze the relationship between strategic communication in public relations and media, and draw strategies and tactics of communication, crisis response, and handling of media and international public relations.					
123	PREL 447	Media Production for PR	2	2	3	MCPR 206 AND PREL 485 AND MASC 355
	The course aims at preparing the student for the process of the financial, literary and artistic planning for media production in public relations according to the target audience with a focus on the methods, components and technical stages for the production of various print media and audio visual materials. This course also aims at providing the necessary skills in the field of public relations publications. The course deals with the technical and scientific bases for directing and producing publications, typographical producing images and titles, producing of the front page, inside pages and advertisements in public relations publications. The course aims to design and produce advanced printed forms Such as establishment newsletters and the magazines, the production of brochures and annual reports.					
124	PREL 464	Protocol & Event Management	2	2	3	MAGT 121 AND PREL 340
	The course aims at providing students with the knowledge and skills to prepare and plan effective communication for special events, develop communicative skills (audio and oral), learn the code of conduct during events and the protocol rules concerning VIPs, and learn protocol rules related to public relations activities that are followed in special occasions.					

125	PREL 475	Advertising Copy Writing & Design	2	2	3	PREL 340 AND MCPR 206
	The course aims to build, develop and refine the skills of editing, design and production of advertising. The student will study the basics, principles and skills of advertising innovation, aesthetic values and creativity in the advertising business, whether print, audio, visual or digital. The course also focuses on the skills of editing and design of brand and advertising logo, editing and writing of headlines, editing of the advertising message, print design, editing and design of radio and television ads, as well as design and production of Internet advertising.					
126	PREL 476	Public Relations Management	3	0	3	MAGT 121 AND PREL 340
	In this course, the student learns about the public relations strategy as an administrative activity, the organizational structures of the public relations department in the various institutions, the modern methods of managing them and its role in shaping the mental image of the institutions. The student also examines the concept of leadership, its objectives. the course focuses on the elements of the administrative process in the field of public relations. It deals with the planning process in this field, its importance and its various stages, and then tackles the aspect of the organization, its steps, its benefits and its elements, & public relations activities. It also sheds light on the principles and types of organization and the factors influencing the selection of the appropriate organizational structure, the stages of preparation and organization of the organizational structure and its models. The course finally highlights the control of public relations activities and decision-making in the field of public relations.					
127	PREL 484	Digital Public Relations	2	2	3	ITMS 205 AND PREL 267
	The purpose of the course is to use the Internet as a means of communication in the field of public relations and to know to what extent these sites benefit from the possibilities of the Internet to facilitate their communication with citizens & the media, and the mechanisms of adopting the model of electronic dialogue in communication with their target audiences and the use of technologies Interactive communication methods, communication strategies followed by public relations on the Internet, the quality of the tools used, the promotion methods followed, the features of the content provided, the communication techniques used, the most important elements of their design, the nature of the theoretical model & the communication practices used in these sites.					
128	PREL 485	Writing for PR	2	2	3	PREL 340 AND MCPR 242
	This course deals with the concept of writing styles for public relations, writing press and radio news releases, public service announcements, writing letters, memos and reports, writing speeches and writing for pamphlets and flyers, writing for interactive media and public relations announcement. The course also familiarizes the student with the patterns and forms of media messages used by public relations and the elements of successful public relations writing.					
129	PREL 499	Project in Public Relations	0	6	3	MPRM 498 AND ETHC 397

	The graduation project course in Public Relations aims at providing the student with the opportunity to prepare and implement an integrated media project that reflects the various knowledge and skills acquired by during the study of the program, based mainly on independent self-learning. It provides an opportunity to obtain practical experience in his/her field of specialization as well demonstrate independence and originality, planning and implementation skills, leadership and organizational capabilities, time and resource management. The course also allows the student to develop his/her intellectual and practical capabilities in the service of the community through media and communication experiences. The graduation project is conducted in through group or individual work and through direct guidance from the project supervisor.					
130	PREL 502	Basic Concepts in Public Relations	3	0	3	
	This course introduces a scientifically-based public relations concept and sheds light on its historical development. It deals with the definition of public relations, its origins and evolution through history and the relationship between the concept of public relations and other concepts. It also identifies the functions and objectives of public relations and the means of communication used to achieve their goals.					
131	PREL 511	Modern Theories in Public Relations	3	0	3	
	The course addresses the theoretical frameworks for public relations and models related to the exercise of public relations. It explores the cognitive and behavioral theories, with emphasis on how to apply these theories to the practice of public relations in different organizations, as well as the use of various means of communication in the field of public relations.					
132	PREL 512	The Art of Advertising	3	0	3	
	The course focuses on the definition and characteristics of advertising and its advantages and disadvantages. It also covers topics such as communication activities and its relationship to advertising, advertising media (printed, audio, visual) , advertising agencies, the modern techniques used in the design and production of advertising messages, the technical aspects of advertising design, and the use of design programs in advertising.					
133	PREL 515	Public Relations & Information Campaigns	3	0	3	
	This course provides a comprehensive overview of concepts, analytical techniques and methods to assess audiences, target markets and vital trends requisite to develop a public relations strategy in the context of a complex and rapidly changing world and media environment. The course explores contrasting public relations strategies in international strategies in international settings employed by multinational corporations, governments and interest groups. Students apply communication and public relations methodologies to plan public relations campaigns.					
134	PREL 516	Media Production for Public Relations	2	2	3	

	This course covers the basic media techniques in print and broadcast productions for public relations. It deals with production of documentaries, brochures, pamphlets and films and focuses on the use of web site and online media, such as electronic mail, to promote the organization's image and enhance its relations with the public.					
135	PREL 520	Public Relations Management	3	0	3	PREL 511
	This course develops and strengthens communication management skills through assimilating the public relations function with corporate goals and activities. In addition, students analyze how management of information shifts the way public relations professionals influence various publics consonant with corporate goals and activities. Students are expected to investigate the roles of various public relations practitioners in applying the techniques of public relations to support management strategies and corporate decision- making. At the end of the course, students create a 5-year corporate image campaign for a chosen company that positions the company in a favorable position from the vantage-point of its corporate stakeholders in accordance with corporate long-term strategy.					
136	PREL 599	Dissertation in Public Relations - Track 1	0	24	12	MCPR 565 AND Completion of at least 21 credits
	A research focused study in the field of public relations which aims to draw on practical data to assess critically a specified area or topic.. The dissertation engages the student in a progressive course of intellectual discourse involving problem identification, methodology, research, evaluation and recommendation that culminates in the production of manuscript subject to public defense.					
137	PSYC 101	Introduction to Psychology	3	0	3	
	After providing a brief history of milestones in the development of psychology, this course introduces Psychology as a scientific discipline and overviews research methods used by psychologists as a means to understand human development at each stage of life, the nature of personality and human behavior. Major psychological disorders are discussed and the rudiments of social psychology outlined.					
138	SOCI 101	Sociology	3	0	3	
	This course introduces students to the fundamental concepts and methods of sociology, the scientific study of group behavior in terms of social interactions and processes. Such aspects as social structure, class stratification, cultural aspects of social organization, gender issues, ethnicity, social norms and behavioral patterns are among the issues covered in this introduction.					
139	SOCI 102	Sociology II	3	0	3	

	This course introduces students to the analysis of the social basis of behavior as a key to understanding the social world. This course deals with topics spanning the gamut of: social interaction, social self, social cognition, social perception, social attitudes, social influence and persuasion, group processes and leadership.					
140	SPAN 101	Introduction to Spanish I	3	0	3	
	A practical language course which aims at familiarizing students with the basic rules of pronunciation, reading, speaking, writing, and listening comprehension. The course material focuses on developing students' ability to understand and express Spanish in daily conversations.					
141	SPAN 102	Introduction to Spanish II	3	0	3	
	A continuation of SPAN 101 which aims at further developing the students' skills in speaking, reading and writing.					
142	STAT 101	Introduction to Statistics	3	0	3	MATH 053 or passing placement test
	is an elementary course that begins by familiarizing the student with new concepts as applied to extraction of meaningful information from random sets of data. It covers descriptive statistics and leads on to frequency and its distribution, variance and standard deviation, probability, expected values, discrete and continuous probability distributions, correlation and regression.					
143	STAT 201	Medical Statistics	3	0	3	STAT 101 AND PHTH 325
	starts with an application of elementary statistics to basic principles and methods of epidemiology and then moves to more sophisticated analysis encompassed in medical statistics. The emphasis will be on the design and interpretation of epidemiological studies. Appropriate statistical methods will be integrated with the main epidemiological content, and practical sessions will make use of relevant computer software.					
144	STAT 202	Business Statistics	3	0	3	STAT 101
	imparts additional knowledge of statistical theory that is important for application in business and economics. Topics span correlation analysis, linear regression, chi square tests and analysis of variance. Special attention is placed on survey methodology. An introduction to non-parametric test is provided. The course uses statistical software, SPSS and Minitab, for presentation and analysis of data.					
145	STAT 302	Applied Probability	3	0	3	STAT 101 AND MATH 102

	introduces probability notions such as random variables and probability distributions, expectation, moment-generating function, functions of random variables and transformation. In addition, applications of probability to areas such as reliability theory including parallel and series connections and the basic single server queuing system M/M/1 are also discussed.					
	COLLEGE OF BUSINESS & FINANCE					
1	ACCT 101	Accounting I	3	0	3	
	A survey of the accounting cycle; recording changes in financial position; ledger; journal; trial balance; income measurement; adjusting and closing entries; accounting for merchandising operations; special journals and subsidiary ledgers; accounting for cash; receivables; inventories; plant and equipment.					
2	ACCT 201	Accounting II	3	0	3	ACCT 101
	Accounting for partnerships and corporations: capital stock; dividends and retained earnings; long term liabilities and investment; statement of changes in financial position; cash flows, analysis and interpretation of financial statements, manufacturing accounts.					
3	ACCT 301	Managerial Accounting	3	0	3	ACCT 201
	Introduction to cost behaviour and cost-volume-profit relationships; relevant information and decision making; the master budget; flexible budgets and variances; management control systems and responsibility accounting.					
4	ACCT 311	Intermediate Accounting I	3	0	3	ACCT 201
	An intensive study of financial accounting and reporting practices. Particular emphasis on the theoretical foundations, concepts and principles underlying financial statements with emphasis on assets and current liabilities and the process of preparing and presenting financial information about an entity for outside users. Topics vary but typically include: standard setting; the accounting cycle including data accumulation, adjustments and preparation of financial statements; and valuation with a focus on the recognition, measurement and disclosure of revenue, inventory and cost of sales, and plant assets.					
5	ACCT 312	Intermediate Accounting II	3	0	3	ACCT 311

	Continued study of concepts and principles underlying financial statements with emphasis on long-term liabilities and stockholders' equity. Particular emphasis is placed on the process of preparing and presenting financial information about an entity for outside users. Topics vary but typically include analysis of recognition, measurement and disclosure of: equity investments, financing activities (bonded debt, leases, pensions), income taxes, stockholders' equity, specialized reporting problems and cash flow.					
6	ACCT 320	Intermediate Cost Accounting	3	0	3	ACCT 301
	A primer on cost allocations, performance measurements, analysis of current cost accounting systems and accounting in an international environment.					
7	ACCT 321	Auditing	3	0	3	ACCT 201
	An overview of auditing; professional ethics; audit evidence and documentation; the study and evaluation of internal control; audit of cash; securities; receivables; inventories; fixed assets; current and long-term liabilities; proprietary accounts; income statements; the audit report.					
8	ACCT 341	Accounting Systems	3	0	3	ACCT 301 OR ACCT 312
	Introduction to technology/accounting information systems and their interface with processes and process re-engineering. Application of systems development life cycle to the engineering of accounting information systems. Emphasis on auditing system security and integrity. Coverage of project management and accounting systems development. Introduction to using a commercial accounting package.					
9	ACCT 402	Contemporary Issues in Accounting	3	0	3	ACCT 312
	A variable content course with topics that can change from semester to semester. Topics are identified by title in the schedule of classes. Examples are: inflation accounting, market-value-based measurement metrics, accounting for human resources.					
10	ACCT 403	Advanced Accounting	3	0	3	ACCT 312
	Topics include: income determination and equity accounting, and consolidated statements; statement of affairs; fiduciaries; actuarial science. Accounting for business combinations, preparation of consolidated financial statements, home office/branch relationships, and partnerships.					

11	ACCT 404	International Accounting	3	0	3	ACCT 312
	This course reviews major issues in international accounting, including historical, cultural, and environmental influences that impact various nationa accounting systems. Particular emphasis is placed on surveying accounting practices in different nations especially focusing on international accounting for multi-national corporate operations including taxation.					
12	ACCT 422	Advanced Audit and Assurance	3	0	3	ACCT 321
	This course is designed to provide an extension to auditing course (ACCT 321). This course includes principles and practices used by public accountants and internal auditors in examining financial statements and supporting data of public listed companies. Special emphasis is given Information System Audit. Also it emphasizes ethical and legal aspects and considerations given in International Standards of Auditing (ISA).					
13	ACCT 510	Financial Accounting	3	0	3	
	A general overview of the basic concepts and principles of financial accounting, and the procedures and processes of preparing financial statements for both service and merchandising concerns. And detailed view of the Generally Accepted Accounting Principles (GAAPs), Accounting for various elements of financial statements and disclosure requirements.					
14	ACCT 521	Financial Reporting & Control	3	0	3	
	In this two-part course, first financial reporting in theory is juxtaposed with the preparation of financial reports in accordance with chronological, book data, and predetermined data contained therein. Issues such as the accuracy and truthfulness of the data quoted in the financial reports are discussed. Second, internal auditing with respect to its concepts, fundamentals, components and development are put in the context of manual & electronic accountancy. Reports prepared by internal auditors and submitted to the board of directors & the management levels are studied.					
15	ACCT 522	Managerial Accounting	3	0	3	
	This course emphasizes the use of accounting data in the managerial decision process and in planning and controlling business enterprise. Topics include cost behaviors and cost-volume-profit analysis, cost management systems and activity based costing, budgeting and budget control, and responsibility accounting.					

16	BANK 221	Bank Management I	3	0	3	ECON 102
	Corporate finance and microeconomics are applied to matters of importance to commercial bankers. Among the subjects treated are bank-asset portfolio construction, lending policies, liabilities management, bank capital structure, short-run cash management, financial market rates and flows, and quantitative models for bank management. Commercial bank management is analyzed from an internal viewpoint in terms of what bank managers should look for in asset management and why; what market conditions they should be aware of; and what techniques they can use to meet changing economic and financial conditions.					
17	BANK 302	Money & Banking	3	0	3	ECON 102
	The subjects of the course are Money, banking, financial institutions, monetary policy including the goals of monetary policy, the choice of policy instruments, the rule- versus- discretion debate, central bank credibility, arguments for and against central bank independence, and the interplay between the central bank and the financial markets. The course looks specifically into the monetary policy process and the operation of Central Banking, the regulation and supervision of the financial system, and the internationalization of financial markets.					
18	BANK 311	Bank Management II	3	0	3	BANK 221
	An application of financial management concepts to the liquidity management, investment portfolio analysis, capital budgeting, and capital structure decision-making process required by a commercial bank to perform effectively its financial intermediation role within the financial system's institutional, regulatory, and competitive environment.					
19	BANK 321	International Banking	3	0	3	BANK 221
	The course aims to cover the main principles and problems of international banking. The course is intended to cover both theoretical issues as well as the institutional background to international banking. Theoretical issues include: the theory of the banking firm, the creation of credit and credit rationing, internationalization of banking, and the risks and benefits from financial innovation. Practicalities of central banking, bank regulation, deposit protection, capital adequacy and free banking in addition to selective institutional aspects of international banking also receive attention.					
20	BANK 330	Essentials of Islamic Banking	3	0	3	BANK 221
	The course aims to introduce students to the main principles of Islamic banking and finance and to analyses of the relationship between Islamic banks and conventional banks and Islamic banks and non-financial corporations in the Islamic World and the Middle East in particular. One objective is to understand the principles and practice of modes of Islamic finance for industry and commerce and explore their implications on investment and funding corporations and projects to support development in Muslim societies. Students learn how various Islamic financial instruments are practiced to facilitate business, trade, finance and investment and evaluate current practices of Islamic banks, their merits and limitations.					

21	BANK 331	Islamic Commercial Law	3	0	3	
	The course aims to introduce students to the main principles of Islamic commercial jurisprudence (law) and how this is applied in developing the products of Islamic banking and finance. The course offers the students to understand the source of Islamic law, the main nominate contracts and their hybrid contracts. In particular, the students need to be familiar with the issues of Shariah compliance, different schools of Islamic jurisprudence, ijtihad (the role of Muslim scholars in the interpretation of law) and their impacts on the products and services of Islamic banking and finance.					
22	BANK 401	Corporate Banking Law & Practice	3	0	3	ECON 301 OR BANK 311
	This course provides in-depth coverage of the legal relationships, obligations and requirements in the arena of corporate banking and examines complex elements of law relevant to individuals working within the corporate banking sector from advanced rules of contract to abstruse issues concerning syndicated loans. Students obtain practice in drafting loan agreements and facility letters.					
23	BANK 410	Credit Analysis and Lending	2	2	3	FINC 322
	The course imparts a fundamental understanding of credit risk analysis process and then proceeds to cover financial statement analysis, including ratio and cash flow analysis, to facilitate better credit related decision. Various non-financial factors- the business plan, industry/ sector performance and senior management issues- that often affect creditworthiness receive ancillary attention.					
24	BANK 541	Islamic Banking	3	0	3	
	This course examines some of the fundamental concepts and instruments of Islamic banking and finance. Islamic banking in recent years has generated considerable interest in the subject by becoming attractive to students of economics, finance, and business in both Muslim and non-Muslim countries. The topics covered include broad theoretical and religious principles drawn on Islamic Shari'ah and conventional economics. Among the subjects taught are riba, mutharabah, musharakah, murabahah, baitul mal, gharar, takaful, qard and istisna. The course also attempts to shed some light on the future prospects of Islamic finance in the wake of rapid financial globalization.					
25	BFRM 498	Research Methods in Business & Finance	3	0	3	STAT 202 AND Completion of at least 90 credits
	The main objective of this course in to enhance the student's ability to understand as well as to conduct scientific research and to formulate and propose systematic solutions to business problems. Students acquire skills needed to undertake complex research projects by focusing on research projects germane to various fields of business.					

26	DMBA 599	MBA Dissertation	0	24	12	MAGT 558 AND Completion of at least 21 credits
	A structured supervised in-depth study on a pre-approved topic in the field of Accounting, Finance, Management, Marketing and Economics can entail one of three methodologies: (1) a literature-focused study which aims to critically discuss the literature within a specified topic area; (2) a research focused study which aims to draw on practical data to assess critically a specified area or topic; or (3) a practical development study which aims to explore an area or ideas, or demonstrate a concept through appropriate practical development testing and critical analysis. The dissertation engages the student in a progressive course of intellectual discourse involving problem identification, methodology, research, evaluation and recommendation that culminates in the production of manuscript subject to public defense.					
27	ECON 101	Principles of Microeconomics	3	0	3	
	The course introduces microeconomic concepts and analysis: the study of supply and demand and its applications; theory of business firms; and pricing policies of firms under different market structures such as perfect competition, monopoly, monopolistic competition, and oligopoly.					
28	ECON 102	Principles of Macroeconomics	3	0	3	
	The study of the determinants of aggregate economic activity, the effects of monetary and fiscal policy on national income, output, and employment. Includes topics of inflation, unemployment, money and banking, trade and finance, economic development.					
29	ECON 201	Intermediate Microeconomic Theory	3	0	3	ECON 101
	Determination of prices and quantities in markets for goods and services. Theories of consumer behaviour, cost structures, factor payments. Firm behaviour in the contest of alternative market structures: perfect competition, monopoly, oligopoly and monopsony.					
30	ECON 202	Intermediate Macroeconomics Theory	3	0	3	ECON 102
	Roles of goods and markets and financial markets in the determination of national income and inflation; economic growth and business cycles; fiscal and monetary policy. Alternate theories of income, output and price determination. Domestic and international constraints on macroeconomic policy.					
31	ECON 301	Business Law	3	0	3	LAW 101 OR Completion of at least 66 credits

	A general overview of the law of contracts and sales transactions is provided in the first half of this course. The second half of the course then considers such diverse topical content as: consumer protection law, business torts, intellectual property rights, criminal law as applied to business, corporate liability especially product liability based on theories of negligence and strict liability, and finally property law, both real and chattel.					
32	ECON 303	International Economics	3	0	3	ECON 202
	Survey of causes and composition of trade between nations with further consideration of: balance of payments, foreign exchange markets; and international monetary markets and policies. Theory of causes and composition of trade. Topics include: comparative advantage; tariff and non-tariff barriers to trade; economic integration and commercial policy. Financial instruments facilitating international trade.					
33	ECON 310	Islamic Economics	3	0	3	ECON 101 OR ECON 102 OR CULT 102
	This course introduces students to fundamental issues encountered in modern Islamic economics in both theory and practice. The teachings of the Shariah in both microeconomics and macroeconomics are explored in depth permitting students to comprehend the multifarious nature of Islamic teaching across a wide spectrum of economic matters.					
34	ECON 321	Econometrics	3	0	3	STAT 202 AND ECON 202
	Hypothesis testing and prediction with ordinary least squares (OLS) regression. Estimation with violations of classical assumptions. Multicollinearity, heteroscedasticity and serial correlation problems, dummy variables and model specification.					
35	ECON 322	Labor Economics	3	0	3	ECON 201
	An analysis of labor force participation, employment, wage determination, economic stability, and investment in human capital.					
36	ECON 324	Economic Development and Growth	3	0	3	ECON 202
	Recent advances in theory and empirical analysis of economic development and growth. Explores empirical findings on economic development, theoretical development models, problems of efficient resource allocation in a growing economy, balanced ? and unbalanced ? growth in closed and open economic systems, the role of capital accumulation, and innovation in economic growth. Application of theories and quantitative methods to economic analysis with a view to policy formulation.					

37	ECON 410	Industrial Organization	3	0	3	ECON 201
	Economics of alternative market structures focusing particularly on the impact of concentration, economies of scale, advertising and conglomerates on business and society.					
38	ECON 420	Public Finance	3	0	3	ECON 102 AND Completion of at least 90 credits
	This course provides a fundamental understanding of the financial management of governmental organizational units and enterprises through an analysis of revenues and expenditures at all levels of government. Special emphasis is placed on the effects of public finance on business finance and personal finance.					
39	ECON 421	Monetary and Financial Systems	3	0	3	BANK 302
	Monetary policy choices can strongly affect the development of the economic system and the efficiency of financial intermediaries. The course discusses the fundamentals of monetary policy in the macroeconomic framework characterizing transition economies shedding light on domestic and international aspects of policy actions, evaluation of policies to influence activity and growth, and business cycle analysis.					
40	ECON 424	Engineering Economics	3	0	3	Completion of at least 90 credits
	This course aims at providing the student with advanced concepts of engineering economic analysis and its role in engineering decision making. It is designed to offer the students the tools needed for rigorous presentation of the effect of the time value of money on engineering problem solving and the capacity to act with ethical and efficient professionalism. The tools introduced include present worth analysis, annual cash flow, rate of return, incremental analysis, future worth analysis, and payback period. Additionally, the course also covers topics such as depreciation, after tax analysis, replacement analysis, uncertainty, inflation, deflation, and estimation of future events. The course adds a compulsory knowledge for any project management professional in engineering fields.					
41	ECON 520	Managerial Economics	3	0	3	
	This course is designed to provide participants with a basic understanding of microeconomic theory that can be used to understand behavior (in markets and organizations) to make effective managerial decisions. Application of key economic concepts such as market demand, market supply, market equilibrium, managerial analysis, production, costs, revenue, profit, and market structure constitute the core material of the course. The course seeks to integrate various principles and concepts from different fields of economics with typical problems of managerial decision –making and policy formulation in business organizations whether in a local or global context. Quantitative techniques and managerial economic analysis tools will be integrated within the course for the purpose of providing students the ability to solve real world situation and as a problem- solving tool in their organization.					

42	ECON 537	International Business & Multinational Corporations	3	0	3	
	Advanced treatment of the environment of international business and of the operation of multinational firms. Major topics include: the economic theory of world trade and investment, application of economic theory to international business operations, the political economy of international business, evaluation and valuation of international projects, strategies and tactics for dealing with special problems and challenges arising in the global market.					
43	EMSE 001	The Management of Technical Organizations	6	0	3	
	The practice of the management as applied within technical organizations. Includes history of the tradition and current effective practices, research and finding and case studies, with objective of enhanced understanding of external and internal factors influencing organizational performance and leadership requirements.					
44	EMSE 005	Organizational Behavior for the Engineering Manager	6	0	3	
	The behavior of individuals and groups in the context of technical organizations, focusing on relationships and interactions within the organizations operating activities. Individual and group development and motivation. Organizational structures and cultures.					
45	EMSE 020	Decision Making with Uncertainty	6	0	3	
	Problem formulation. Concepts and techniques used in analyzing complex decision problems. Modeling decision problems. Modeling decision problems using decision trees, probability models, multi objective models and utility theory.					
46	EMSE 026	Technical Enterprises	6	0	3	
	Essential features of technology based companies from the entrepreneur’s point of view. Team preparation of a simulated business plan of a technology based company. Designed for those working in technical firms and for government personnel who depend on technical firms such as suppliers.					
47	EMSE 035	Marketing of Technology	6	0	3	
	Analysis of industrial marketing process and functions, providing concepts and tools for engineering managers to market high technology products and services.					

48	EMSE 197	Special Topics: Quantitative Methods in Engineering Management	6	0	3	
	Provides mathematical foundation for analysis of problems in engineering management and systems engineering, including optimization and other analytical tools.					
49	EMSE 410	Survey of Finance and Engineering Economics	6	0	3	
	Survey of material relevant to financial decision making of engineering activity. Includes traditional engineering economy topics; fundamental of accounting; and financial planning, budgeting and estimating applicable to the management of technical organizations.					
50	EMSE 505	Knowledge Management I	6	0	3	
	The foundations of knowledge management, including cultural issues, technology applications, organizational concepts and processes, managemen aspects, and decision support systems. Case studies.					
51	EMSE 770	Techniques of Risk Analysis and Management	6	0	3	
	Topics and models in current risk analysis; modern applications of risk-based planning and risk management; use of quantitative methods in risk analysis.					
52	EMSE 790	Logistics Planning	6	0	3	
	Quantitative methods in model building for logistics systems, including organization, procurement, transportation, inventory, maintenance and their interrelationships. Stresses applications.					
53	EMSE 801	Systems Engineering I	6	0	3	
	System approach to the architecting and engineering of large-scale systems; elements of systems engineering; methods and standards; computer tools that support systems and software engineering; trends and directions; the integrative natural of systems engineering.					
54	EMSE 820	Program and Project Management	6	0	3	

	Problems in managing projects; project management as planning, organizing, directing and monitoring; project and corporate organizations: Duties and responsibilities; the project plan: schedule, cost, earned – value and situation analysis; leadership: team building, conflict management, meetings, presentations and proposals.					
55	EMSE 850	Quantitative Models in Systems Engineering	6	0	3	
	Quantitative modeling techniques and their application to decision making in systems engineering. Linear, integer, and nonlinear optimization models. Stochastic models: inventory control, queuing systems, and regression analysis. Elements of Monte Carlo and discrete event system simulation.					
56	EMSE 992	Special Topics: Research Methods for the EM	6	0	3	
	Discussion of research methods for the Engineering Manager.					
57	EMSE 995	Research	0	12	6	EMSE 992
	The student conducts a study on a topic in the field of management under the supervision of a faculty member. The final written manuscript which includes problem identification, methodology, research evaluation and discussion of the findings is subject to a panel evaluation.					
58	ETHC 391	Ethics and Professional Practice in Business	3	0	3	Completion of at least 66 credits
	This course provides students with a theoretical foundation of what Business Ethics is all about, enabling them to identify and analyze current ethical issues and dilemmas facing business practitioners in real world contexts involving multiple stakeholders. In addition, through ample case studies, the course attempts to inculcate into students key ethical principles, standards and ways in which business practitioners address moral problems that commonly arise in the business world. The course provides ample opportunity for students to hone skills in critical thinking and ethical reasoning as essential components of a manager's decision-making process. The course also highlights the cost to business of unethical behavior and provides a comprehensive overview of corporate social responsibility.					
59	FINC 211	Financial Management I	3	0	3	ACCT 101
	This course imparts a fundamental understanding of the functions of finance in the context of: the legal and tax environment and the roles of financial markets. A vigorous introduction to compound interest, future and present value, and theories of financial evaluation and financial analysis and planning is provided.					

60	FINC 312	Financial Management II	3	0	3	FINC 211
	This course explores in depth the concept of cost of capital: how it is used in financial decision-making and how costs of individual components of the capital structure are brought together to form a weighted average cost of capital. Choice of capital structure and working capital policy are a primary focus of this course. Students examine how to manage current (short term) assets and current (short term) liabilities and obtain exposure to additional issues including: cash flow estimation, incorporating risk into the capital budgeting decision and international capital budgeting decision-making methods. Students gain perspective on how financial managers can help maximize their firm's values.					
61	FINC 322	International Finance	3	0	3	FINC 312
	International money and capital markets. Currency options, futures and swaps as means for currency risk management. Valuation and portfolio analysis of international stocks and bonds. Foreign direct investment and political risk management. Project finance and raising of international capital. Financing and investment decisions of multinational corporations.					
62	FINC 323	Insurance & Reinsurance	3	0	3	FINC 312
	This course introduces the student to the principles and applications of insurance and reinsurance. After finishing this course the student should demonstrate a strong basic understanding of property, liability, automobile insurance, introduction to reinsurance, methods and types of reinsurance, and functions of reinsurance. Students should grasp the main types of reinsurance and their contribution to and importance in maintaining a stable insurance industry.					
63	FINC 327	Personal Finance	3	0	3	FINC 211
	This course is designed to introduce the student to the concepts, tools, and applications of personal finance and investments. A variety of methods will be used to enhance the learning experience, including, among other things, web resources and interactive financial planning software. A focus will be put on retirement plans, personal budget, and auto and housing decisions, in addition to, health, life and property insurance.					
64	FINC 328	Real Estate Finance	3	0	3	FINC 211
	This course explores in depth real estate institutions and markets, real estate mathematics, mortgage instruments, investments in real estate, and underwriting and valuation of real estate. Special consideration is given to trends in real estate finance in GCC countries.					
65	FINC 421	Investment	2	2	3	FINC 312

	A primer on how to manage money, this course provides students with a survey of securities markets and modern investment instruments available in financial markets including stocks, bonds, convertibles, warrants, futures and option . The course also introduces students to techniques of asset valuation and market efficiency hypotheses. Students gain insight concerning how to evaluate current investments and future opportunities and acquire the skill and know-how necessary to be intelligent investors.					
66	FINC 427	Derivative Securities	2	2	3	FINC 312
	An advanced primer on future contracts and options exploring a wide variety of complex derivatives such as straddles and options of stock index futures.					
67	FINC 428	Financial Forecasting	2	2	3	STAT 202
	This course aims to introduce the statistical forecasting methods used in the field of banking and finance. Standard forecasting models will be covered in this course such as smoothing, fixed trend and seasonality, stationary ARMA, regression on time series data, and GARCH for volatility. Therefore, students need not invent a new model every time s/he forecast. Instead, her/his task is to identify an appropriate forecasting model from the collection.					
68	FINC 430	Risk Management	2	2	3	BANK 410
	The course offers an introduction into the evolving and expanding practice of financial risk management. Risk management is a complex process of identifying, measuring, and controlling risk exposure. The course addresses how to control for market and credit risks. Liquidity and operational risks are discussed. Topics include value at risk, Monte Carlo simulation, scenario analysis, stress testing, credit value at risk, and credit derivatives.					
69	FINC 431	Portfolio Management	3	0	3	FINC 421
	This course explores the theory and practice of portfolio management and valuation. The roles of computer technology and electronic trading are also investigated.					
70	FINC 432	Islamic Capital Market & Instruments	3	0	3	BANK 330
	The course aims to introduce students to the main principles of Islamic capital markets and instruments and to analyses of the relationship between Islamic capital markets and instruments and conventional Islamic capital markets and instruments in the Islamic World and the Middle East in particular. The course offers the students to understand the theories and practice of Islamic capital markets and explore their implications on investment and funding corporations and projects to support development in Muslim societies. In particular, the students need to be familiar with the essential requirements of different Islamic modes of business, thus enabling them to appreciate the distinctive characteristics of a capital market environment that adhered to Shariah principles.					

71	FINC 501	Financial Management	3	0	3	
	This course combines principles of management of the firm, operations of money and capital markets, discounted cash flows, risk and asset valuation with modern capital structure theories, leasing, working capital policies and mergers and acquisitions.					
72	FINC 506	International Finance	3	0	3	
	This course is concerned primarily with a revision of the international monetary environment and financial planning for corporations with overseas operations. It focuses on analysis of the effects of international financial planning on such factors as exchange rate fluctuations, currency restrictions and tax regulations. It gives an examination of financial aspects of multinational business, including foreign investments, trade and transfer of funds. Currency options, futures and swaps as means for currency risk management are also given details.					
73	FINC 510	Managerial Finance	3	0	3	
	This course explores basic concepts of finance and provides students perspective on how fin values. Students are introduced to core concepts in finance such as the time value of money and cost of capital.					
74	INTR 465	BSAF Internship	0	0	3	Completion of at least 90 credits And Minimum CGPA 2
	This course is taken as a substitute to one course (3 credits hours) from the program core elective courses. Students follow a training program in an organization related to their specializations in accounting or finance. The program aims to provide students with first-hand experience of the day to-day functions, duties, and operations and to integrate what they have learnt in the classroom with the competencies required in the workplace.					
75	INTR 466	BSEF Internship	0	0	3	Completion of at least 90 credits And Minimum CGPA 2
	This course is taken as a substitute to one course (3 credit hours) from the program core elective courses. Students follow a training program in an organization related to their specializations of economics or finance. The program aims to provide students with first-hand experience of the day-to-day functions, duties, and operations and to integrate what they have learnt in the classroom with the competencies required in the workplace.					

76	INTR 467	BSBF Internship	0	0	3	Completion of at least 90 credits And Minimum CGPA 2
	Students follow a training program in an organization related to their specializations. The program aims to provide students with first-hand experience of the day-to-day functions, duties, and operations and to integrate what they have learnt in the classroom with the competencies required in the workplace.					
77	INTR 468	BSMIS Internship	0	0	3	Completion of at least 90 credits And Minimum CGPA 2
	In this course, student follow a training program in an organization related to their specialization. The program aims to provide students with first-hand experience of the day-to-day functions, duties, and operations and to integrate what they have learnt in the classroom with the competencies required in the workplace. In today's turbulent economic environment, a country workforce is increasingly pivotal to business success. Stemmed from the desire and sense of responsibility that Ahlia University has against the society and their own students, and as part of their vision, of being leaders in the market of higher education, they do understand the need to invest in their capital made of partially their students in order to equip the market with talented workforce. Based on this INTR 424 course was introduced representing a structured opportunity to incorporate academic, professional and personal skill development which enables the student to gain a planned and directed learning experience. It enables the student to integrate knowledge gained through their classroom learning with the competencies made available through actual experience in a professional setting. The internship programme requires a minimum of 240 hours of work at the internship worksite. Students will receive academic credit after a successful completion of the programme. The numbers of credits that are earned by the student as a result of successful completion of the internship programme are 6 credits.					
78	INTR 469	BSMM Internship	0	0	3	Completion of at least 90 credits And Minimum CGPA 2
	This course focuses on business internships that add a significant real-world component to students' employability. It provides the opportunity for students to earn academic credit while gaining valuable work experience under the mentorship of a business professional in different industry sectors, i.e. services and manufacturing. An individualised assignment arranged with students and different business organisations to practically provide guided experience in their field. Students' internship experiences are assessed via written internship reports that will be evaluated by the students' organisation supervisor and an assigned academic supervisor.					
79	ITMA 201	Management Information Systems	3	0	3	MAGT 121

	Understanding the decision-making process and how information is used for decision support in organizations. Elements of decision theory and information theory. Essential practices for providing viable information to the organization. Information system planning and strategies. Human-computer interaction. Societal and ethical issues related to information systems use.					
80	ITMA 321	E-System Technologies	3	0	3	ITCS 214
	This course explores some of the technologies and infrastructures required to support e-systems. A secondary thrust of the course explores how these technologies impact consumer-business, business-business and intra-organizational e-business.					
81	ITMA 323	Management Information Systems II	3	0	3	ITMA 201
	This course develops a technology management perspective about information technology, asking and answering the question: how do we make the best technology decisions in the context of a dynamic business environment? The course is about technology values and risks, and the strategic importance of effective enterprise decision making about information and information technology infrastructure. Of particular focus is the business aspect of technology decision-making, using case studies and in-class presentations from industry executives and entrepreneurs. Included is technology project analysis, technology leadership considerations, infrastructure management and architectures, electronic commerce issues, the design and implementation of computer-based information systems with emphasis on database and transaction aspects, the basics of database management, architecture of relevant database management systems, design and implementation strategies.					
82	ITMA 330	Knowledge Management	3	0	3	ITMA 201
	Knowledge management spans the gamut of knowledge sharing, codification, transfer and generation. Using a socio-technical approach, this course covers the principal processes in knowledge management and underscores the role of IT systems that support the creation, capture, storage and dissemination of expertise and knowledge. Additionally, students explore the nature of technological change, innovation and intellectual capital.					
83	ITMA 401	E-Commerce	3	0	3	ITCS 101

	The course presents a survey of consumer and business-to-business electronic commerce models, systems, and technical solutions in the national and global contexts connecting individuals, businesses, governments, and other organizations to each other. It provides an introduction to e-business strategy and the development and architecture of e-business solutions and their technical components that focuses on the linkage between organizational strategy and networked information techniques. The course will cover how businesses and consumers use the Internet to exchange information and initiate transactions. Students gain extensive hands-on experience tackling e-commerce problem- sets in a series of labs in which in-depth exploration of the seven design elements of the customer interface feature prominently.					
84	ITMA 411	System Analysis & Design	3	0	3	
	This course introduces students to the concepts and principles of systems analysis and design. It covers all aspects of the systems development life cycle from project identification through project planning and management, requirements identification and specification, process and data modeling, system architecture and security, interface design, and implementation and change management. Object-oriented analysis techniques ar introduced. Students will learn to use an upper level CASE (computer-aided software engineering) tool, which will be employed in completing a real-world systems analysis and design project.					
85	ITMA 411	System Analysis & Design	3	0	3	ITCS 323
	This course introduces students to the concepts and principles of systems analysis and design. It covers all aspects of the systems development life cycle from project identification through project planning and management, requirements identification and specification, process and data modeling, system architecture and security, interface design, and implementation and change management. Object-oriented analysis techniques ar introduced. Students will learn to use an upper level CASE (computer-aided software engineering) tool, which will be employed in completing a real-world systems analysis and design project.					
86	ITMA 412	Managing Enterprise Systems	3	0	3	ITCS 323
	Companies have been replacing their legacy systems with enterprise systems designed to connect the entire organization, including suppliers and customers, in a web-enabled computing environment that provides information to all participants as needed. This course explores the managerial and technical challenges in implementing enterprise systems and managing an organization with such an interdependent, connected system. From a technological view, students evaluate enterprise system to assess their functional capabilities and limitations. From a managerial view, students employ business cases to develop an understanding of the process of implementing and using enterprise systems effectively in organizations.					
87	ITMA 499	Project in ITMA	0	6	3	BFRM 498 AND ETHC 391
	A structured, pre-approved project in ITMA ordinarily involving (1) research on a particular topic in ITMA or (2) reporting on field-work in an IT organization. Projects in ITMA ordinarily encompass MIS, data-base management and e-technologies/e-commerce.					

88	ITMA 570	Management Information Systems	3	0	3	
	This course promotes an integrated approach to identifying, capturing, retrieving, sharing and evaluating an enterprise's information and knowledge assets. These information and knowledge assets encompass databases, documents, policies and procedures as well as the un-captured, tacit expertise and experience resident in individual workers. This course endows students with real world principles, tactics and strategies for managing information technology in organizational settings.					
89	MAGT 121	Fundamentals of Management	3	0	3	
	An overview of management theory and practice. Introducing students to the study of managerial skills, organization structure, management functions, process, and system within an action frame of reference. Managerial concepts and terms related to leadership, employees' motivation, decision making models and strategic management.					
90	MAGT 310	Quantitative Analysis for Business	3	0	3	STAT 202
	Introduction to managerial decision analysis using quantitative tools and spreadsheet modeling. Topics include a general framework for decision analysis, decision tables and trees, linear programming, sensitivity analysis, classical optimization and statistical techniques. Extensive use of applicable decision support software and EXCEL Solver to solve mathematical and business decision models. Emphasis is on applications of quantitative analysis and tools rather than on mathematical theory. Applications are taken from finance, marketing, economics, logistics, and operations management.					
91	MAGT 322	Production & Operations Management	3	0	3	ITCS 101 AND STAT 101
	The course includes the strategic, tactical, and operational issues that arise in the management of production and service operations; product and process design, facilities planning, quality management, materials management, operations planning and scheduling, and emerging technologies in production and service management.					
92	MAGT 323	Human Resource Management	3	0	3	MAGT 121
	Overview of human resource management theory. The course focuses on the HRM practices and their importance to business organizations. In specific, it discusses the conceptual definitions and their application to business settings. Issues of job analysis, forecasting employee needs, recruitment and selection, training and development, performance management and appraisal, compensations, ethics and labor relations management are key topics for HRM learners to understand.					
93	MAGT 324	Organizational Behavior & Leadership Development	3	0	3	MAGT 323

	This course is an introduction to the principles of Organization Behavior (OB) and Leadership Development. Focus is made on understanding and analyzing individual and group behavior in organizations and how leaders implement strategy to impact people. Students learn to integrate theory and concepts with current business practices and management issues. Included are such topics as: personality dynamics, attitudes and emotions, motivation, perception, communication, leadership, teamwork and interpersonal skills.					
94	MAGT 331	Business Simulation	3	0	3	STAT 202
	This course develops business simulation models using the EXCEL environment and a business simulation program as aids to corporate decision-making. Decisions span marketing, finance, operations and management. Students participate in a computerized business simulation program.					
95	MAGT 412	International Business	3	0	3	ECON 102 AND Completion of at least 90 credits
	This course provides a comprehensive overview of the environment of international business and to the operation of international firms especially in the context of emerging markets. Major topics include basic concepts of world trade and investment problems, the nature of international business, economic theory and international business operations as well as strategies and tactics for dealing with special problems and challenges arising in the global market.					
96	MAGT 414	Quality Management	3	0	3	STAT 202
	This course will provide an oversight on the Management of Quality Operations within an organization; it will address quality tools, concepts and theories to enable the student to apply quality evaluations and measures. As part of this course, management and leadership characteristics required to derive quality management systems will be provided. Once students successfully complete this course, they must be able to critically evaluate their quality management systems and analyze their status, and provide recommendations for decision making to improve their quality management system.					
97	MAGT 416	Project Management	3	0	3	MAGT 322
	The organization, planning and controlling of projects and provides practical knowledge on managing project scope, schedule and resources. Topics include: project life cycle, work breakdown structure and Gantt charts, network diagrams, scheduling techniques and resource allocation decisions. Concepts are applied through projects and tutorials using project management software.					
98	MAGT 423	Strategic Management	3	0	3	MAGT 121 AND Completion of at least 90 credits

	The course provides an introduction to strategic planning covering key concepts and techniques, organizational mission, goals, objectives and scope of operations. Topics such as: environmental scanning, strategy formulation and implementation with special reference to functional application in marketing, personnel, finance, and other areas are covered.					
99	MAGT 424	Entrepreneurship & Innovation	3	0	3	MAGT 324 AND Completion of at least 90 credits
	The course provides an overall view about major schools of entrepreneurship thought and the process approaches to the study of entrepreneurship It also covers issues related to individuals and corporate entrepreneurial mint-set beside the concept of ethics and social responsibility. Further to that, the course will expose the students to the processes of creativity and innovation, major types of innovation, method to initiate new ventures, development of new ventures business plan and strategic planning for entrepreneurial initiatives.					
100	MAGT 430	Supply Chain Management	3	0	3	MAGT 322
	Analysis of the entire flow of information, material, and services from suppliers through factories and warehouses to the end customer including logistics, supplier selection and inventory management by case studies, optimization and simulation.					
101	MAGT 431	Advanced Spreadsheet Modeling For Managers	3	0	3	MAGT 310 AND MAGT 331
	Spreadsheets have become a popular model-building environment for managers. Add-ins and enhancements to EXCEL have made powerful decision-making tools available to the manager. This course covers how to use the spreadsheet to develop and utilize some of these decision-making aids. Visual Basic for EXCEL allows the nonprogrammer to create modules for functions, subroutines and procedures. Topics include: forecasting (both regression and time series), decision-making under uncertainty and decision trees, using SOLVER for optimization and probabilistic simulation using @RISK.					
102	MAGT 499	Project in Management	0	6	3	ETHC 391 AND BFRM 498
	A structured pre-approved project in management or marketing ordinarily involving (1) research on a particular topic in management or (2) reporting on field-work in a managerial organization.					
103	MAGT 551	Operations & Quality Management	3	0	3	
	Quality in both operations and production are keys to achieving competitiveness in the global marketplace. An examination of those issues forms the heart of this course, where you will learn the principles of Total Quality Management and how it is implemented at all levels of an organization. Other important topics addressed by this course include forecasting, technology management, and capacity planning and materials management.					

104	MAGT 552	Decision Analysis & Business Forecasting	3	0	3	
	Topic may include: decision-making under uncertainty, decision trees, multi-criteria decision-making, data envelopment analysis (DEA), analytical hierarchy process (AHP), principles and methods of forecasting including an evaluation of: the reliability of existing forecasting techniques, national and international trends and the role of business forecasting in managerial planning. The use of time series methods including exponential smoothing and Box-Jenkins (ARIMA) techniques for business and economics forecasting are introduced.					
105	MAGT 558	Research Methodology	2	2	3	Completion of at least 9 credits
	A Primer on designing and executing a research project using analytic techniques, this course presents both useful quantitative models, drawn from management science, and qualitative methods relevant to research in both business and information technology.					
106	MAGT 560	Human Resource Management	3	0	3	
	The course emphasizes the role of Human resources as the most important asset in the organization. It explains the importance of proactive human resources management for organizational performance and highlights the alternative views of human resources management. It also explains the concept of strategic human resources management and the importance of fitting human resources practices to business strategy. Topics draw from different disciplines to explain the principles of human resources planning, recruitment and selection, training and development, career development, job analysis and job design, performance management and performance appraisal. The course also covers areas related to employees' compensation, protection, incentive plans and reward system as well as the management of International human resources.					
107	MAGT 561	Strategic Management	3	0	3	
	The course covers the strategic management process and corporate strategy: the concept of strategy and its relationship to performance, competitive advantage, and profitability; and the main components of the strategic management process including analysis of both external and internal environments. Students gain an appreciation of how organizations can build competitive advantage using different levels of strategy in different contexts spanning the global environment. Concepts such as integration, diversification, acquisitions and business ethics are evaluated through the lens of corporate strategy.					
108	MAGT 564	Leadership in Organizations	3	0	3	

	An introduction leadership. Its practices associated theory and current research. Presenting modern thought and practices related to leadership and core competencies of successful leaders, this course introduces the leadership challenge in organizations and focuses on how to improve leadership effectiveness. Major theories and research on leadership and its relationship to management are inculcated and then students have the opportunity to address and debate controversies and different views about leadership effectiveness and essential characters of effective leaders. Students examine effective and ineffective behaviors through the lens of various models of leadership including transformational leadership. Experiential exercise, case studies and role playing techniques are employed to demonstrate leadership skills in leading teams and leading change.					
109	MAKT 201	Principles of Marketing	3	0	3	MAGT 121
	This course serves as an introduction to marketing in general, and the marketing process in particular. Students will develop a thorough understanding of the marketing concept/process, the marketplace and the differences between consumer and business markets. They will also learn how to design a customer-driven marketing strategy which employs the marketing mix, whilst keeping pace with digital age developments linked to marketing activities.					
110	MAKT 310	Consumer Behaviour	3	0	3	MAKT 201
	This course covers a comprehensive study of behavior models and concepts to help understand, evaluate, and predict consumer behavior in terms of marketing implications. Determinants of consumer behavior are explored to gain understanding of the complex forces as they affect the market place. The course's emphasis is on the understanding of the processes that influence the acquisition, consumption, and disposition of consumer goods and services.					
111	MAKT 320	Marketing of Financial Services	3	0	3	MAKT 201
	A comprehensive study of key issues that surround the marketing of financial services focusing on how banks and other financial institutions employ marketing practices to ensure sustained and profitable growth utilizing such techniques such as: product positioning, segmentation, and relationship management and retention. The course also provides insight into launch of innovative financial products and delves into legal and ethical framework in which financial service marketing is conducted.					
112	MAKT 321	Marketing Research	3	0	3	STAT 202
	This course is an introductory analysis of the fundamental of the marketing research focusing on different types of marketing research (qualitative and quantitative) as well as on complex issues at each stage of the research process. This course covers research used in marketing decision making with primary emphasis on methods and techniques used in collecting, processing and utilization of information. Topics include research design, sources of information, questionnaire design, sampling, data collection and analysis.					
113	MAKT 322	Sales Management	3	0	3	MAKT 201

	A comprehensive study of selling and the field of sales management that help to understand comprehensively the selling process, strategic field sales management, the sales organizations' structure, profiling and recruiting, selecting and hiring sales people. The course is intended also to provide through understanding of the process of developing and reinforcing sales force training programs including motivation and compensation o sales force. In addition the course should provide the student with the capability to understand and implement the strategic positioning process, leadership styles, Forecasting and budgeting, and evaluation of sales force performance.					
114	MAKT 331	Industrial Marketing	3	0	3	MAKT 201
	Focusing on methods of marketing decision-making in industrial, government and high-tech markets, planning and implementing business-to-business marketing strategies with an emphasis on segmenting markets, managing channel relationships, and creating customer value through continuous improvement and re-engineering receives center stage. This course emphasizes the unique nature of marketing high technology in its application of the basic elements of marketing strategy – market segmentation and targeting, marketing mix elements – to the context of high technology goods and services. Students develop effective strategic, marketing plans for high technology products.					
115	MAKT 332	Advertising & Promotions Management	3	0	3	MAKT 201
	This course is a comprehensive survey of basic principles of advertising and promotion. The course will include the study of promotion practices and theories and the effects of advertising and promotion in the firm, the economy and society. The course covers advertising history, the impact of advertising on society, and ethical and regulatory issues. The process of creating and placing advertising is explored including advertising objectives, budgeting, media planning and mix, creative objectives and strategy, copy execution and production, and copy testing.					
116	MAKT 412	International Marketing	3	0	3	MAKT 201 AND Completion of at least 90 credits
	This course examines the impact of economic, cultural, political, legal and other environmental influences on international marketing. Within this context, how to identify and analyze worldwide marketing opportunities, and examine product, pricing, distribution and promotion strategies will be discussed. Students are expected to read current periodicals and journals to keep abreast of current international developments. Problems of distribution and marketing in foreign countries are covered including foreign markets surveys, promotion by government and private agencies, structural organization, marketing channels, foreign operations, foreign licensing, selection of marketing policies, techniques and financial instruments of foreign trade.					
117	MAKT 416	Service Marketing	3	0	3	MAKT 310

	Service organizations require a distinctive approach to marketing strategy- both in its development and execution. Focusing on non-financial service marketing of such commercially diverse enterprises as transportation companies, hospitals, consultancies, and educational institutions, this course identifies best practices in the area of marketing management and service quality through a case-study approach. Focusing on the process of planning, organizing, and implementing the marketing effort in service organizations, the course explores the distinctive aspects of service marketing. Special attention is paid to service positioning in the marketplace and determining the optimal marketing mix in a service organization.					
118	MAKT 421	Marketing Strategy	3	0	3	MAKT 201 AND Completion of at least 90 credits
	This course offers a fundamental understanding of the marketing strategy planning process within firms, marketing management problems encountered by senior marketing managers, marketing opportunity assessment, segmentation, competitive positioning and integration of product /service, price, promotion, and distribution.					
119	MAKT 424	New Product Development	3	0	3	MAKT 201 AND Completion of at least 90 credits
	The development of new products and services is arguably the most significant activity within a firm – as well as one of the most risky. This course examines the strategies, processes and methods used by companies to introduce new products as well as the cutting edge tools and techniques used to develop new products. The first part of the course focuses on new product development strategies at different stages of product's cycle. The second part examines techniques for managing different stages of a product's development from generation to market launch.					
120	MAKT 431	Customer Relationship Management	3	0	3	MAGT 310 AND MAGT 331
	This course examines customer relationship management (CRM) as key strategic process for organizations. Composed of people, technology, and processes, CRM ideally optimizes the selection of identification, acquisition growth and retention of desired customers to maximize profit. CRM discussions and projects will address both organizational customers and consumers/households. Often organizations that invest heavily in CRM experience a high failure rate owing to the flaws in CRM strategy implementation. The pitfalls as well as the completion of a CRM strategic plan will be addressed in depth through the course, culminating in the completion of a CRM strategic plan. In addition to the CRM strategic planning, student expert presentations and some hand-on analysis will be used to accomplish the course objectives.					
121	MAKT 499	Project In Marketing	0	6	3	ETHC 391 AND BFRM 498
	A structured pre-approved project in marketing ordinarily involving (1) research on a particular topic in marketing or (2) reporting on field-work in a marketing organization.					

122	MAKT 519	Marketing Management	3	0	3	
	The course explores a wide variety of topics in marketing and analysis of marketing opportunities through the case method: building customer satisfaction, value and retention; winning markets through market-oriented strategic planning, gathering information and measuring market demand, analyzing consumer markets and buyer behavior, competitor analysis, identifying market segments and selecting target markets, positioning and differentiating the market offering through product life-cycle and developing new market offerings. Special emphasis is placed on analytical methods in solving marketing problems.					
123	STAT 510	Business Statistics	3	0	3	
	This course introduces applied statistics for business and management with topics in descriptive statics, estimation, hypothesis testing, analysis of variance, simple regression and correlation, and time series forecasting. The various tools learned will be applied through the use of worksheet computer applications and realistic interpretation of output. The course is designed to acquaint the student with issues in methods of data analysis in the real world. Examples arise from finance, marketing and other functional areas of business research.					
	COLLEGE OF ENGINEERING					
1	ECCE 201	Electric Circuits	2	2	3	PHYS 102 AND MATH 102
	This course provides electrical circuit analyses. It includes the following topics: electrical circuits' overview, basic laws: Ohm's, KVL, KCL, and Power calculations, Resistive circuits: voltage and current divider rules. Dependent sources. Circuit analysis techniques: Nodal and Mesh analysis. Network theorems: Thevenin's Norton's, Source transformation, Superposition, Maximum power transfer. Transient analysis of RC, RL and RLC circuits, Sinusoids & phasors, impedance & admittance, AC mesh & nodal analysis, AC power analysis.					
2	ECCE 203	Digital Logic	2	2	3	ITCS 101
	This course introduces concepts and ideas of Digital Logic Design. It covers: numbering systems, Boolean algebra, Logic Gates and combinational logic circuits analysis, combinational network design). MSI Integrated circuits in combinational networks design, and sequential circuits analysis and design. Introduction to basic PLDs, CPLDs, and FPGAs. Introduction to State machines and System design with State machines using VHDL.					
3	ECCE 221	Electronic Circuits	2	2	3	ECCE 201

	This course introduces Analog electronics devices and some relevant concepts of digital Electronics. It includes topics such as: diodes (diode concepts, rectifier and wave shaping circuits), Bipolar Junction Transistors (BJT's) , Field Effect Transistors (JFET, MOSFET) , DC biasing VI characteristics. Operational Amplifiers and active filters. TTL and CMOS Logic Digital-to-Analog and Analog-to-Digital converters.					
4	ECCE 303	Computer Architecture and Organization	2	2	3	ECCE 203
	This course introduces the organization and architecture of computer systems hardware; It includes : instruction set principles and examples ; Complex and Reduced Instruction sets computers (CISC and RISC) ; addressing modes; register transfer notation; performance evaluation and processor design ; Control Unit, Pipelining , Microprogramming, Memory Hierarchy, Cache and Virtual Memories, Fixed point and floating point arithmetic.					
5	ECCE 323	Microprocessors	2	2	3	ECCE 303
	This is an introductory course to Microprocessors architecture and programming that builds up on the knowledge gained from the Computer architecture and Organization course (ECCE 303). Topics include Assembly language programming, Microprocessor architecture, Instruction type and Addressing modes, Memory Interfacing and synchronization, I/O mapping. Input /Output data transfer (Handshaking, Interrupts, DMA), Programmable Interface devices and Application Examples.					
6	ECCE 324	Principles of Control Systems	2	2	3	ECTE 224 AND MATH 205
	The course introduces the theory of LTI control Systems. Topics include: Review of Laplace Transforms. Mathematical modeling of physical control systems. Transfer functions, Signal flow graphs. State space analysis. Transient response of first and second order systems. Stability of control systems: Routh criterion, Root locus, Frequency response methods, Nyquist stability criterion. Compensation techniques. Z transform and Introduction to digital control. Control systems applications with MATLAB are included to illustrate the concepts.					
7	ECCE 326	Digital Logic Design	2	2	3	ECCE 203
	This course provides a modern introduction to logic design and the basic building blocks used in digital systems. Topics include modular design of combinational and sequential circuits, finite state machine design, control and datapath design, modern digital design techniques using hardware description languages and programmable logic devices (FPGA, CPLD), introduction to VHDL design styles (data flow, behavioral, structural), simulation and synthesis of digital systems with VHDL. Students also learn to use industrial EDA tools such as XILINIX and ModelSim for VHDL synthesis and simulation.					

8	ECCE 403	Embedded Systems	2	2	3	ECCE 323
	This course builds on the knowledge gained form the Microprocessor courses (ECCE 323). It focuses on embedded microprocessor-based systems. It covers Microcontroller hardware architecture. High level programming and real time operating systems for embedded systems. Software and hardware tradeoffs. Memory interfacing. I/O interfacing techniques for devices such as input/output peripherals, sensor/actuator devices, UARTS, digital and analog I/O, timers and interruptors.					
9	ECCE 451	Machine Learning	2	2	3	STAT 302 AND MATH 205
	This course provides a broad introduction to machine learning. It mainly covers supervised learning such as neural networks and support vector machines and unsupervised leaning such as clustering and kernel methods The course also introduces students to Fuzzy Logic, Fundamentals of Genetic Algorithms, and Machine Learning Approach to Knowledge Acquisition.The course concludes with a discussion of some recent applications of machine learning, such as pattern recognition, robotic control, autonomous navigation, bioinformatics, and speech recognition.					
10	ECCE 452	Computer Vision	2	2	3	ITCS 224
	This course aims to provide students with the fundamentals of Computer Vision including Image Processing and classification. Topics include: Digital Images and their Properties, Image Formation, Image Acquisition, Image Segmentation and Boundary Extraction, Feature Detection and Matching, Image Classification, Scene Matching and Detection, Object Recognition, Motion Estimation, Tracking, and Classification, Computer vision applications.					
11	ECCE 499	Major Project	0	6	3	IERM 498 AND ETHC 392
	Each student is required to select a theoretical and/or a practical problem related to his major area, and works under the supervision of a faculty member. All stages of project development should be emphasized including problem identification, library search, planning, design and/or construction of equipment upon completion of the project, the student must submit a final written report outlining the various phases of the project and make an oral presentation.					
12	ECCE 501	Introduction to Information Security	3	0	3	
	This course is an introduction to security concepts and security techniques and their applications. It covers the following topics: Security Attacks, Services, and Mechanisms; Symmetric-Key and Asymmetric-Key Encipherment; Hash Function and Digital Signature.					

13	ECCE 507	Modeling & Simulation	3	0	3	
	This course introduces fundamental principles and concepts in the general area of modelling and simulation. It covers model construction and simulation applied to problems taken from IT and from Computer and Communication Engineering fields. The course also focuses on the use of simulation packages to model, simulate and analyse such systems. Topics to be covered in this course include basics of discrete-event system simulation, mathematical and statistical models, queuing models, simulation design, and modelling of simulation data.					
14	ECTE 201	Data Networks	2	2	3	ITCS 101
	This course introduces data communication networking. It includes: foundational principles of computer networks, architecture of data communication systems, OSI model, protocols and mechanisms used in the TCP/IP protocol suite, including the operation of both wide-area and local-area networks.					
15	ECTE 224	Signals & Systems	2	2	3	MATH 205
	This course gives an overview of continuous-time signals and systems. It covers: Basic characteristics of signals, Fourier analysis of continuous - time signals, properties of Linear Time-Invariant (LTI) systems, The Convolution integral, Impulse and step responses of LTI systems, concept of Transfer Function including basic properties of Laplace, and applications of signals and systems concepts in control and signal processing.					
16	ECTE 314	Communication Systems I	2	2	3	ECTE 224 AND ECCE 221
	This course introduces and emphasizes essential analytical tools and theories of communication systems. It covers mainly analog communication: analog modulation (AM, FM, PM); frequency division multiplexing and filtering; A/D and D/A conversions (sampling theory, PAM, Quantization, PCM, and Delta modulation).					
17	ECTE 324	Communication Systems II	2	2	3	ECTE 314
	This course builds on the knowledge gained from the previous communication course (ECTE 314). It focuses on digital communication: digital modulation (ASK, FSK, PSK, QAM); transmission of digital data over baseband channel (line coding, block coding, scrambling); error detection and correction (hamming distance, linear block codes, cyclic codes, checksum, forward error correction)					

18	ECTE 328	Mobile Application Development	2	2	3	ITCS 221 AND ECTE 329
	The Course introduces an in-depth review of concepts, design strategies, tools and Application Programme Interfaces (APIs) needed to create, test and deploy advanced applications for mobile phones and occasionally connected mobile devices. Topics include: design of mobile user interfaces, Activities, handling notifications, user interface design, user interface building, inter-process communication, data processing, content providers, background services, geo-location and mapping, networking and web services, telephony, messaging, peer-to-peer communication. The target computing environment changes overtime; currently the course explores the Android Operating System and its supporting SDK.					
19	ECTE 329	Computer Networks	2	2	3	ITCS 214 OR ECCE 203
	This course focuses on the underlying concepts and technologies of computer networking. Topics covered include standards; transmission basics and media; TCP/IP protocol; network topologies; network hardware, switching, routing, and virtual networks; and network applications such as e-mail and the Web, peer-to-peer file sharing.					
20	ECTE 349	Network Routing & Switching	2	2	3	ECTE 329
	Network Routing & Switching course will enable the learners with advanced skills, knowledge and understanding to install, operate, configure, and verify IPv4 and IPv6 Small to Medium Enterprise networks, including configuring a LAN switch, configuring an IP router, identifying basic security threats, understanding redundant topologies, troubleshooting common network issues, connecting to a wide-area network (WAN), configuring EIGRP and OSPF, understanding WAN technologies.					
21	ECTE 405	Multimedia Communications	3	0	3	ECTE 450
	This Course will consider each part of a multimedia application, i.e. voice, video and data individually. Covering different issues related to: general behaviors, format, representation, encoding-decoding techniques and telecommunication media requirements.					
22	ECTE 421	Network Design & Security	2	2	3	ECTE 349
	This course provides an overall scheme for designing secure multimedia networks. It covers the following concepts: application requirements analysis, switching technology, traffic modeling, QoS, network security.					

23	ECTE 424	Wireless Communications	2	2	3	ECTE 324 AND PHYS 321
	This course introduces Modern wireless communication principles and techniques. It focuses on Cellular communication fundamentals (design, interference and capacity, trunking and traffic models, air interface, propagation models and mechanisms, large/small scale fading, diversity techniques); spread spectrum coding; current and future wireless systems and standards; an introduction to optical communication.					
24	ECTE 450	Digital Signal Processing	2	2	3	ECTE 224
	This course presents the theory and practice of digital signal processing. It includes: Z-transform applications to signal processing; discrete Fourier transform: properties, applications and computation methods with emphasis on fast Fourier transform; frequency analysis of discrete-time signals and systems; design of analog and digital filters; sampling and reconstruction of signals; Introduction to Wavelet transform; Wavelet decomposition and reconstruction of signals, and DSP applications. Introduction to 2-D signal (image) processing.					
25	ECTE 472	Software-Defined Radio	2	2	3	ECTE 324
	This course covers all aspects of SDR technology. Specifically it includes an overview of modern wireless systems, transceiver architectures, baseband signal processing algorithms, analog-to-digital converters, radio front-end components, digital hardware architectures, software architectures, software architectures, middleware and the Software Communications Architecture (SCA), cognitive devices and networks, standardization bodies, software-defined radio products and services.					
26	ECTE 474	Optical Communications	2	2	3	ECTE 324
	The course provides an overview of optical communication system (from source to destination) with a particular focus on physical and protocol parts of optical systems. Topics include Optics and wave propagation for fiber optics, light emitting diodes and diode lasers, optical fiber, optical amplifiers, dispersion, wavelength multiplexing, detectors and noise, system architecture for optical communication. Students will then learn and understand the point-to-point optical communication principles and will be introduced to the WDM concept. Finally, GMPLS protocol will be briefly discussed.					
27	ECTE 499	Major Project	0	6	3	IERM 498 AND ETHC 392
	Each student is required to select a theoretical and/or a practical problem related to his major area, and works under the supervision of a faculty member. All stages of project development should be emphasized including problem identification, library search, planning, designing and/or building of equipment. Upon completion of the project, the student must submit a final written report outlining the various phases of the project and give an oral presentation.					

28	ECTE 531	Advanced Networking	3	0	3	
	This course gives an overview of networking in general and concentrates on the purposes and protocols involved in the upper IP reference model layers. It covers in detail the following layers: Network, Transport and Application.					
29	ECTE 535	Broadband & Wireless Networks	3	0	3	
	This course first discusses various concepts involved in broadband networks including multimedia components coding and compression, switching techniques, queuing and delay analysis, quality of service and resource allocation. The second part of the course gives an overview of multimedia networks including: Telephony Networks, Optical Networks, VoIP and Enterprise Networks, and Mobile ad-hoc networks.					
30	ECTE 537	Network Security	3	0	3	
	This course covers advanced topics in IT security spanning Network security including: Security at the Application Layer, Security at the Transport Layer, Security at the Network Layer, and general aspects in Mobile ad-hoc networks security.					
31	IERM 498	Research Methods in Information Technology & Engineering	3	0	3	Completion of at least 90 credits
	The course introduces the essential aspects of designing, supporting, and conducting a research project. It enables students to develop capacity to conduct small, simple research projects while at the university. The course spans multiple elements including time management, writing and presentation skills, literature search and general considerations for experiment design and planning.					
32	INTR 461	BSCCE Internship	0	0	3	Completion of at least 90 credits And Minimum CGPA 2
	The main objective of the internship is to integrate the concepts that students learn in the computer and communication engineering programme with practical experience by providing a training that supplements and complements classroom work.					
33	INTR 462	BSMNE Internship	0	0	3	Completion of at least 90 credits And Minimum CGPA 2

	The main objective of the Internship is to integrate the concepts that students learn in the Mobile and Network Engineering programme with practical experience by providing a training program that supplements and complements classroom work.					
	COLLEGE OF INFORMATION TECHNOLOGY					
1	ETHC 392	Ethics and Professional Practice in IT and Engineering	3	0	3	Completion of at least 66 credits
	The course explores and discusses key ethical, legal and professional issues and responsibilities in computing and other related fields. It examines emergent technologies within frameworks that highlight their ethical, legal and social implications. Topics include privacy, confidentiality, security, intellectual property, software piracy, cybercrime, digital identity, software reliability, risk and safety and professional standards of conduct and codes of ethics. The students critically examine current and relevant research and particular case studies to enhance their understanding of the subject. The students learn that careers in IT and Computer Engineering are not purely technical professions but ones with moral, legal and social implications that impact the everyday lives of professionals.					
2	INTR 463	BSIT Internship	0	0	3	Completion of at least 90 credits And Minimum CGPA 2
	In today's turbulent economic environment, a country workforce is increasingly pivotal to business success. Stemmed from the desire and sense of responsibility that Ahlia University has against the society and their own students, and as part of their vision, of being leaders in the market of higher education, they do understand the need to invest in their capital made of partially their students in order to equip the market with talented workforce. Based on this INTR 463 course was introduced, representing a structured opportunity to incorporate academic, professional and personal skills development which enables the student to gain a planned and directed learning experience. It enables the student to integrate knowledge gained through their classroom learning with the competencies made available through actual experience in a professional setting. The internship programme requires a minimum of 240 hours of work at the internship worksite. Students will receive academic credit after a successful completion of the programme. The numbers of credits that are earned by the student as a result of successful completion of the internship programme are 3 credits.					
3	INTR 464	BSMS Internship	0	0	3	Completion of at least 90 credits And Minimum CGPA 2

	In Today's turbulent economic environment, a country workforce is increasingly pivotal to business success. Stemmed from the desire and sense of responsibility that Ahlia University has against the society and their own students, and as part of their vision, of being leaders in the market oh higher education, they do understand the need to invest in their capital made of partially their students in order to equip the market with talented workforce. Based on INTR 464 course was introduced, representing a structured opportunity to incorporate academic, professional and personal skills development which enables the student to gain a planned and directed learning experience. It enables the student to integrate knowledge gained through their classroom learning with the competencies made available through actual experience in a professional setting. The internship programme requires a minimum of 240 hours of work at the internship worksite. Students will receive academic credit after a successful completion of the programme. The numbers of credits that are earned by the student as a result of successful completion of the internship programme are 3 credits.					
4	ITCS 101	Introduction to Computers & IT	2	2	3	
	This course is an introduction to computers and information technology. The aim of the course is to introduce computers (their uses, development components, hardware and software) to the students and to teach them how to use MS Office.					
5	ITCS 121	Computer Programming	2	2	3	ITCS 101
	This is an introductory course in programming using Visual Basic. Topics include elementary data types and structures, arithmetic and logical operators, declarations and input/output and control structures. Emphasis is placed on the development of problem-solving skills.					
6	ITCS 122	Introduction to Programming Techniques	2	2	3	ITCS 101
	This course introduces the fundamental concepts of programming. The covered topics are primitive data types and operators, input/output, control statements, methods and functions, arrays and strings, classes and objects, and an introduction to Java applications and object-oriented design techniques. Emphasis is placed on the development of problem-solving skills.					
7	ITCS 201	Object-Oriented Programming I	2	2	3	ITCS 122
	This course emphasizes on object-oriented programming techniques using Java. It covers the implementation of object oriented concepts, such as: classes, objects, inheritance and polymorphism.					
8	ITCS 209	Discrete Structures	3	0	3	MATH 102

	The course covers the fundamental concepts of discrete mathematics that are widely used in information technology and engineering. The covered topics are logic and mathematical reasoning, sets, functions, counting and combinatorial techniques, graphs and trees.					
9	ITCS 214	Computer Systems	3	0	3	ITCS 101
	This course is an introduction to the fundamental concepts of computer systems and their performance analysis. It explores how computers execute programs and manipulate data. Topics covered include: data representation of primitive data types, machine-level programming, digital logic, memory organization and management, I/O devices and storage devices. In addition, it covers the techniques used to improve computer performance and to solve its problems.					
10	ITCS 221	Object-Oriented Programming II	2	2	3	ITCS 201
	This course is built on the information gained from the previous Java programming courses. It concentrates on modelling the GUI and advanced software programming issues such as: Java Applets, Multimedia (applets and applications) and Multithreading.					
11	ITCS 222	Visual Programming	2	2	3	ITCS 122
	This course introduces Windows programming environment. Students learn how to write and develop programs with a polished graphical user interface (GUI) using event-driven programming language, which is Visual Basic. Topics include data types and structures, arithmetic and logical operators, declarations and input/output, control structures, and functions. Emphasis is placed on the development of problem-solving skills.					
12	ITCS 224	Data Structures	2	2	3	ITCS 201
	This course introduces different data structures such as: arrays, linked list, stacks, queues, hash tables, and graphs. It covers the design and analysis of different algorithms to manipulate these data structures, such as: create, traverse, delete data, and insert data. The students will implement the data structure algorithms and apply them using a programming language.					
13	ITCS 303	Design and Analysis of Algorithms	2	2	3	ITCS 224 AND ITCS 209
	The course covers classical techniques and paradigms used in the design and analysis of algorithms. Some of the covered techniques are induction and recursion, divide and conquer, dynamic programming, and greedy approach. Techniques like backtracking and randomization are also introduced to deal with NP-Complete problems. Students will be able to practice their skills on many well-known algorithms and data structures designed to solve practical problems.					

14	ITCS 305	Internet Services & Securities	3	0	3	ITMS 205
	The course focuses on the key aspects of Internet security. It imparts knowledge of internet services, vulnerabilities of computer networks and techniques for protecting data and networks, symmetric and asymmetric cryptography, authentication, malicious software, and issues in privacy.					
15	ITCS 313	Software Engineering I	2	2	3	ITCS 201
	This course is to give a clear understanding of the concepts of software engineering. It imparts knowledge of developing a software system from scratch, different software process models, software requirement engineering, and software design with object oriented technology using UML.					
16	ITCS 323	Database Systems: Design and Application	2	2	3	ITCS 222
	This course provides a comprehensive knowledge of database (DB) development and management by using database management systems (DBMS). It details the concepts necessary for designing, implementing and using database systems. Topics include database and file system, database design, relational data model, normalization of relations and data modeling using entity-relationship diagrams.					
17	ITCS 327	Software Engineering II	3	0	3	ITCS 313
	The aim of this course is to hone skills in developing and testing of code, executing a program, and improving software's performance or locating certain types of faults. Students actively participate in the main software development activities that straddle the production of an initial implementation and the delivery of the complete system. The following topics are covered: software implementation, software testing in the broader context of software engineering, Software Quality that testing aims to achieve, Control flow testing, and Data flow testing.					
18	ITCS 333	Introduction to SQL (ODBA - 1)	2	2	3	ITCS 323
	This course provides students with extensive knowledge and key skills needed to understand, manage, maintain and query Oracle database. This covers working with different data types, different functions, different queries and linking the DB to an interface designed using a programming language.					
19	ITCS 334	Introduction to PL/SQL (ODBA - 2)	2	2	3	ITCS 333

	This course provides students with critical knowledge and advanced training on PL/SQL that represents programming extensions to SQL. Students learn about PL/SQL syntax, blocks and programming constructs as well as the advantages of integrating SQL with those constructs. In addition, students learn how to design reusable programs units such as procedures and functions. Moreover, it helps student in learning how to use iSQL* Plus as a development environment; for writing PL/SQL programs units and execute them efficiently.					
20	ITCS 335	IT Infrastructure	2	2	3	ITCS 214
	This Course provides the fundamental networking skills required to deploy and support Network Operating System (NOS)in most organizations. It covers IP fundamentals, remote access technologies, and more advanced content including Software Defined Networking. This course is intended for existing IT professionals who have some networking knowledge and experience and are looking for a single course that provides insight into core and advanced networking technologies in NOS.					
21	ITCS 341	System Administration I	2	2	3	ITCS 214
	This course provides broad knowledge and experience for IT professional. Student will have the knowledge required to assemble components based on customer requirements, install, configure PCs and software for end users, and understand the basics of networking, properly and safely.					
22	ITCS 401	Software Project Management	2	2	3	ITCS 327
	The course focuses on the key aspects of software project management. It develops the ability of managing software projects, including organizing the software development team; selecting the best approach and tailoring the process model; estimating software cost and schedule; planning and documenting the plan; risk management and resource allocation.					
23	ITCS 404	Information Security Engineering	2	2	3	ITCS 327
	This course is to cover technical and administrative aspects of Information Security and Assurance. Topics covered: Information Security Concepts, The Need for Security, Security Services and Mechanisms, Security System Development, and Security Mechanisms, such as: Cryptographic systems, Information Hiding, Entity Authentication, and Digital Signature.					
24	ITCS 409	Operating Systems	3	0	3	ITCS 214 OR ECCE 303
	This course is to cover the concepts, structure, and functions of operating system (OS). Students will learn how an operating system provides an environment in which users can execute programs in a convenient and efficient manner. Topics covered include computer system and OS structure; process management: process, threads, CPU scheduling, process synchronization, deadlocks; memory management; mass storage management, and file systems.					

25	ITCS 413	Intelligent Systems	2	2	3	ITCS 303
	This course is to cover the specialist theory, concepts, and methods of intelligent systems. It enables students to solve complex problems using various Artificial Intelligence (AI) techniques, and to develop effective intelligent systems using range of AI tools. It covers the concepts of Intelligent agent and problem formulation; search-based problem solving techniques, such as A*; knowledge-based problem solving techniques: knowledge representation, knowledge reasoning, and expert systems.					
26	ITCS 422	Distributed Systems	2	2	3	ITCS 409
	The course focuses on the key aspects of distributed systems. It imparts knowledge of distributed systems principles, design, and implementation. It covers transparency in a distributed system, architectures, processes, virtualization, RPC, message passing, communication, quality of service, and naming.					
27	ITCS 425	Web Engineering	2	2	3	ITMS 205 AND ITCS 327
	Modern web applications are complex systems; therefore, a systematic approach is required for developing web-based information systems. This course is to study the concepts, methods, and techniques needed for developing web-based applications. Topics covered: concepts and architecture of web-based information systems, web system development phases, web technologies and the desired quality characteristics of web applications.					
28	ITCS 427	Mobile Computing	2	2	3	ECTE 329 AND ITCS 221
	This course is to cover the concepts and technologies of mobile computing such as 2G/3G/4G networks, and mobile applications development. It imparts knowledge of mobile communication architectures and related communication protocols in addition to location management and messaging. The course also covers the mobile applications development tools and techniques needed to create efficient and effective mobile applications.					
29	ITCS 433	Database Administration I (ODBA - 3)	2	2	3	ITCS 334
	This course gives students critical knowledge and expertise on administrating the industry's most advanced database management system (Oracle). This includes: installing Oracle Database 11g, controlling the databases, backup and recovery and administrating users' security.					
30	ITCS 434	Database Administration II (ODBA - 4)	2	2	3	ITCS 433

	The ODBA-4 course provides critical information on Diagnostic Resources, Globalization Support, Managing Resources, Flashback Databases, and Recovering from user Errors. It also provides details on monitoring and Management of Memory as well as Automating Tasks with the Scheduler.					
31	ITCS 441	System Administration II	2	2	3	ITCS 341
	This course provides critical knowledge and experience for IT professionals. Student will have the knowledge required to assemble components based on customer requirements, install, configure and maintain devices, PCs and software for end users, understand the basics of networking and security/forensics, properly and safely diagnose, resolve and document common hardware and software issues while applying troubleshooting skills. Student will also provide appropriate customer support; understand the basics of virtualization, desktop imaging, and deployment.					
32	ITCS 442	Virtualization	2	2	3	ITCS 335
	This course is designed primarily for IT professionals who have some experience with NOS. It is designed for professionals who will be responsible for managing storage servers and computing elements by using NOS, and who need to understand the scenarios, requirements, and storage and compute options that are available and applicable to NOS.					
33	ITCS 443	Security Services	2	2	3	ITCS 404
	Instructor-led course teaches IT professionals how to deploy and configure Active Directory Domain Services (AD DS) in a distributed environment, how to implement Group policy, how to perform backup and restore, and how to monitor and troubleshoot Active Directory-related issues with NOS. Additionally, this course teaches students how to deploy other Active Directory server roles, such as Active Directory Federation Services (AD FS) and Active Directory Certificate Services (AD CS). This course is primarily intended for existing IT professionals who have some AD DS knowledge and experience and who aim to develope knowledge about identity and access technologies in NOS.					
34	ITCS 444	Cloud Services Implementation	2	2	3	ITCS 442
	This course teaches IT professionals how to provide and manage services in cloud services. Students will learn how to implement infrastructure components, such as virtual networks, virtual machines, containers, web and mobile apps, and storage in the cloud. Students also will learn how to plan for and manage cloud identity, and configure cloud identity integration with on-premises Active Directory domains.					
35	ITCS 499	Major Project	0	6	3	IERM 498 AND ETHC 392

	Each student is required to select a theoretical and/or a practical problem related to his major area, and works under the supervision of a faculty member. All stages of project development should be emphasized including problem identification, library search, planning, design and/or construction of equipment upon completion of the project, the student must submit a final written report outlining the various phases of the project and make an oral presentation.					
36	ITCS 509	Artificial Intelligence	3	0	3	
	This course focuses on solving real world problems using techniques and methods of Artificial Intelligence (AI) from a computer science perspective and familiarizes students with the present and future of AI. This course is to cover two types of problem solving approaches: search-based and knowledge-based. The course is also to explore advanced AI techniques, such as ANN, EC, and fuzzy logic.					
37	ITCS 511	Advanced Database Systems	3	0	3	
	This course explores databases as the underlying framework of information system which store, manipulate and retrieve data with particulars emphasis on the relational model and relational systems. Students are expected to design and implement a relational database within the concept of an information system using appropriate analysis and modeling techniques and a modern Database Management System as well as to understand RDBMS, advantages and disadvantages of different query languages and concurrency control and basic query processing.					
38	ITCS 514	Object Oriented Software Engineering	3	0	3	
	This course focuses on object-oriented approach necessary to solve advanced and complex real-world problems. It is to understand a range of specialized theories, principles and concepts of object-orientation; object oriented software development process; the use of object-oriented design tools such as UML for modeling problem solutions. Topics include: Problem analysis and specification of software requirements; object-oriented design; reusability and design patterns; unit testing; advanced software development methodology such as Adaptive Object-Oriented Software Development.					
39	ITCS 515	Business Intelligence	3	0	3	
	Business intelligence (BI) refers to the science of using advanced analysis and reporting tools to discover the necessary information used by an organization to make sound decisions. In this course, students will learn how to maximize business advantage by locating, extracting and dispersing information. Moreover, students will be introduced to some BI software and tools such as Microsoft BI. The covered topics include business intelligence framework, infrastructure, and current techniques used to extract, transform, and analyze business data, and to discover knowledge to support business decision-making.					

40	ITCS 516	Object-Oriented Programming	3	0	3	
	An intensive course on object-oriented programming (OOP) paradigm and advanced techniques of the Java language. Topics include: Java Object Model, Classes and Objects, Constructors and Destructors, Inheritance, Virtual Functions and Polymorphism, Operator Overloading, Exceptions, Generic Programming and Standard Template Library.					
41	ITCS 517	Data Structures & Algorithms	3	0	3	
	This course emphasizes data structures and the development and analysis of their associated algorithms. Data structures and algorithms form a major component of any software system. Students learn to make intelligent decisions about alternative techniques, choosing from existing data structures and algorithms or designing his/her own when necessary. Topics span: asymptotic analysis of algorithms, methods for proving correctness, implementation of algorithms.					
42	ITCS 518	Mobile Application Development	3	0	3	
	The course discusses the principles of design and development for mobile device applications. Students will learn how to develop, simulate, and test Android applications. The topics covered include Android platform; mobile hardware; cell networks; mobile architectures, operating systems, languages, development environments and simulators, and user interfaces; location-based services; data storage and retrieval.					
43	ITCS 520	Big Data Analytics	3	0	3	ITCS 511
	This course covers foundational techniques and tools required for data science and big data analytics. The course focuses on concepts, principles, and techniques applicable to any technology environment and industry with emphasis on systems and algorithms for large-scale advanced data analysis. Topics covered include concepts and algorithms for building big data systems, data analytics lifecycle, basic and advanced analytics methods, and emerging big data technology and tools					
44	ITCS 526	Cloud Computing	3	0	3	
	This course provides an overview of cloud computing that uses Internet as the platform. It discusses cloud concepts and capabilities across the various available service models including: Infrastructure-as-a-Service (IaaS), Platform-as-a-Service (PaaS), and Software-as-a-Service (SaaS). In addition; it covers accessing cloud system, cloud computing security and performance.					

45	ITCS 530	Bioinformatics Computing	3	0	3	
	Bioinformatics is the study of the structure and function of genes and proteins through the use of computational analysis, statistics, and pattern recognition and the use of databases, search and web-based interfaces to store, annotate and retrieve gene, protein and other information. This course focuses on the computing aspects of Bioinformatics. It introduces the broad frontiers of bioinformatics topics from fundamental algorithms to practical tools. Course topics include an overview of some bioinformatics resources, pattern matching, sequence alignment, gene prediction, fragment assembly, multiple alignment, phylogeny, statistical and machine learning approaches.					
46	ITCS 550	Research Methods & Modeling	3	0	3	Completion of at least 9 credits
	The course provides knowledge and skills in useful qualitative and quantitative research methods with the aim of enabling Master students to carry out their independent research and to execute and plan their research projects in IT and Computer Science. Particular focus of the course is to enable students to independently do literature review, to formulate their research problem, to conceptualize their research design and to write their final report. It also familiarizes students with Ahlia University guidelines for Master dissertation.					
47	ITCS 599	Dissertation in Information Technology & Computer Science	0	24	12	ITCS 550 AND Completion of at least 21 credits
	A structured supervised in-depth study on a pre-approved topic in the field of information technology can entail one of three methodologies: (1) a literature-focused study which aims to critically discuss the literature within a specified topic area; (2) a research focused study which aims to draw on practical data to assess critically a specified area or topic; or (3) a practical software development study which aims to explore an area or ideas, or demonstrate a concept through appropriate software development testing and critical analysis. The dissertation engages the student in a progressive course of intellectual discourse involving problem identification, methodology, research, evaluation and recommendation that culminates in the production of manuscript subject to public defense.					
48	ITMS 205	Internet Applications and Services	2	2	3	ITCS 101
	This course focuses on designing and implementing websites using HTML5 and CSS3. Students get hands-on practice working with fundamentals through superior techniques to get the most out of their experience by teaching them the basics coding for web design, HTML5 and CSS3. In addition, students learn the new features of HTML5 and CSS3 styles.					
49	ITMS 302	Human Computer Interaction	2	2	3	ITCS 222

	The course is intended to introduce the concepts of human-computer interaction (HCI), a discipline concerned with the design, evaluation, and implementation of interactive computing systems for human use and with the study of major phenomena surrounding them. It will cover theories of human psychology, human information processing, user interface design principles, information presentation, and issues involved in using technologies for different purposes.					
50	ITMS 307	Multimedia Softwares I	2	2	3	ITMS 205
	This course is to cover the concepts and technologies as two dimensional: one dimension introduces the students to the essential practical packages such as the world of digital video, video-capture card, a quick tour of Premiere, Premiere editing video and transitions, a quick tour of Photoshop, adjusting color in images, automatically fixing colors, working with text. The other dimension illustrates the multimedia project management process theoretically.					
51	ITMS 325	Web Applications Design	2	2	3	ITMS 205
	This course introduces students to the basic concepts and terminology of dynamic web sites. Students will have a better understanding of the different disciplines that collectively make up dynamic web sites: client side scripting (JavaScript) and server side scripting (PHP).					
52	ITMS 327	Multimedia Softwares II	2	2	3	ITMS 307
	This course builds on the knowledge gained from a previous course (ITMS 307). The students will practice mainly two dimension graphs and animation professional software's. The course will cover vector graphics and sound processing, how it works and how to create them using the appropriate software					
53	ITMS 335	Web Programming I	2	2	3	ITCS 221
	This course provides students with the knowledge and skills needed to understand, Core Programming, Object-Oriented Programming, General Software Development, Web Applications, Desktop Applications, Databases, Build the User Interface by Using HTML5, and Format the User Interface by Using CSS, Code by Using JavaScript.					
54	ITMS 336	Web Programming II	2	2	3	ITMS 335
	This course provides an introduction to HTML5, CSS3, and JavaScript. This course helps students gain basic HTML5/CSS3/JavaScript programming skills. This course is an entry point into both the Web application and Windows Store apps training paths. The course focuses on using HTML5/CSS3/JavaScript to implement programming logic, define and use variables, perform looping and branching, develop user interfaces, capture and validate user input, store data, and create well-structured application.					

55	ITMS 347	Video Post Production	2	2	3	ITMS 327
	This course introduces students to the basic concepts and terminology of video post-production as it is used in film and games. Students will have a better understanding of how stories are constructed in the editing room using various editing styles. Through demonstrations and hands-on experience, students will learn advanced editing techniques. To further enhance projects, students will create animated motion graphics using After Effects. Strong emphasis is placed on post-production techniques that improve the sound and image quality of the videos.					
56	ITMS 350	Desktop Publishing	2	2	3	ITMS 327
	This course introduces students to the basic concepts and terminology of desktop publishing. Students will have a better understanding of desktop publishing design and production techniques. Through demonstrations and hands-on experience, students will learn how to design and create attractive publications					
57	ITMS 351	Graphics and Multimedia	2	2	3	ITMS 205
	This course is to cover the concepts and technologies as two dimensional: one dimension introduces the students to the essential practical packages such as the world of digital video, video-capture card, a quick tour of Premiere, Premiere editing video and transitions. The other dimension deals with vector graphics					
58	ITMS 426	3D Graphics Softwares	2	2	3	ITMS 327
	This course introduces students to the basic concepts and terminology of 3D computer graphics as it is used in film, visual effects, games, and animation. Students will have a better understanding of the different disciplines that collectively make up 3D computer graphics production. It will also give students a foundation for 3D Animation and 3D Game Development					
59	ITMS 435	Web Programming III	2	2	3	ITMS 336
	This course introduces students to develop advanced ASP.NET MVC applications using .NET Framework 4.5 tools and technologies. The focus will be on coding activities that enhance the performance and scalability of the Web site application. ASP.NET MVC will be introduced and compared with Web Forms so that students know when each should/could be used.					
60	ITMS 436	Multimedia Applications	2	2	3	ITMS 426

	This course introduces the principles and essential concepts of Multimedia Applications. Through this course the student will be guided to implement (theoretically and practically) the gained tools and techniques from previous courses in designing and producing a multimedia application					
61	ITMS 437	Cloud Services Development	2	2	3	ITMS 435
	This course introduces students to learn how to design and develop services that access local and remote data from various data sources. Students will also learn how to develop and deploy services to hybrid environments, including on-premises servers and Windows Azure.					
62	ITMS 445	Modelling and Animating characters in 3D	2	2	3	ITMS 426
	This course introduces students to the basic concepts and terminology of 3D characters modeling and animating as it is used in film, and games. Students will have a better understanding of the different disciplines that collectively make up 3D characters. It will also give students a foundation for 3D characters modeling and animating					
63	ITMS 499	Major Project	0	6	3	IERM 498 AND ETHC 392
	Each associate diploma student is required to select a theoretical and/or a practical problem related to his major area, and works under the supervision of a faculty member. All stages of project development should be emphasized including problem identification, library search, planning, design and/or construction of equipment upon completion of the project, the student must submit a final written report outlining the various phases of the project and make an oral presentation.					
64	ITMS 523	Multimedia Information Systems	3	0	3	
	This course constitutes an approach to multimedia information systems that are concerned with the capture, storage and presentation of information in a variety of forms, including text, image, video and audio. It presents a general overview of electronic multimedia documents, a deep coverage of XML and XML Databases with particular focus on: (1) developing skills in the design and management of multimedia information systems projects; (2) employing evaluation techniques for multimedia authoring systems and multimedia user interfaces; and (3) developing an understanding of the current state of multimedia applications and their impact on organizations.					
	COLLEGE OF MEDICAL & HEALTH SCIENCES					
1	PHRM 498	Research Methods in Physiotherapy	3	0	3	PHTH 325 AND Completion of at least 90 credits
	This is an introductory course on research methodology which is delivered through a combination of workshops, lectures, IT labs and seminars. The main topics covered are: basic research methods in the health sciences, utilizing library resources, literature searching and appraisal, report writing, presentation skills and professional ethics.					

2	PHTH 121	General Anatomy	2	2	3	
	Basic anatomy and structure of the human body oriented in system basis. The course integrates concepts of anatomical terms and references of motion, gross anatomy of human body cells, tissues, organs, basic function, vascular, nervous, musculo-skeletal, hearing, vision and other human body structures and systems.					
3	PHTH 211	General Physiology	2	2	3	PHTH 121
	The normal function of body structures are taught on system basis. The course includes the function of different human cells, tissues, organ and systems. This includes abnormal functions, immune system and defense mechanisms, blood circulation, exercise physiology, musculo-skeletal mechanism, neurophysiology. The course includes description of normal biochemical references and values.					
4	PHTH 212	Musculoskeletal Anatomy & Physiology	5	2	6	PHTH 121
	This course introduce students to anatomy, physiology, biomechanics and patho-mechanics including structure and function of joints, ligaments, capsules, articular cartilages, nerves, muscles and tendons. This will include overview of general tissue structure followed by specific body region of functional anatomy with clinical correlation in physical diagnosis and medical and surgical conditions with the use of actual clinical cases pertinent to all aspects of the organ systems.					
5	PHTH 213	Introduction to Exercise Physiology	3	0	3	PHTH 121
	This course describes the series of physiological functions, reactions and biochemical principles involved in creation, maintenance and malfunction of human movements. The course includes neurophysiological transmission, neural control, neuromuscular reaction, muscle fiber type and functions, intra-muscular enzymatic process, the mechanism of muscle fatigue and recovery, muscular response to stress factors, muscular adaptation to force and endurance training and other related topics in muscular physiology and function.					
6	PHTH 214	Introduction to Biochemistry	3	0	3	PHTH 121
	Survey of basic principles of biochemistry and molecular biology, emphasizing broad understanding of chemical events in living systems in terms of metabolism and structure-function relationships of biologically important molecules.					

7	PHTH 221	Biomechanics	3	0	3	PHTH 212
	Introduction to the application of laws of physics on human body movements. The course includes description of static and dynamic laws on human motion, levers and types of forces acting on human transfer and function, types of human joints, mechanics of therapeutic exercises, abnormal force application and injury mechanism, diagrammatic representation and measurement of forces, momentums, action-reaction theories, friction definition and measurement, and biomechanical terms and values.					
8	PHTH 222	Neuroanatomy & Physiology	2	2	3	PHTH 211 AND PHTH 212
	This course orients the student on the neuro-physiological and neuro-anatomical basis of human body movement, function and motor control of the musculo-skeletal system. This include topics in neuro-physiology, neuro-transmission, mechanism, cerebral functions and control, pyramidal and extra-pyramidal function, peripheral nerve functions and neuro-muscular transmission, common patho-neuro-physiological conditions, skull and maxillo-facial anatomy and other related topics.					
9	PHTH 223	Introduction to Radiology & Pathology	2	2	3	PHTH 212
	The course introduces students to the principles of reading, interpretation and clinical utilization of radiological and laboratory results. The topics include principles of radiological imaging, musculo- skeletal radiology, common orthopedic conditions, radiology, neurological imaging, MRI imaging techniques, CT imaging, biochemical lab investigations, hematological tests and values, histopathology investigations, microbiology techniques, and other topics in radiology and pathology.					
10	PHTH 224	Principles of Electrotherapy	2	2	3	PHYS 101
	The principles of electrotherapy modalities are discussed in this course including definition and contents of electrical power, flow, measurement, electron theory and principle, energy generation, emission, transmission and radiation. Building on these concepts, the course teaches the physiological effects and interaction of the electrical and non-electrical sources of energy pertaining to different human body tissue. The means to deliver different electrotherapy modalities are included with their indication, effects and contra-indications.					
11	PHTH 225	Psychological Aspects of Disability	3	0	3	PHTH 212
	This course aims to prepare participant with the social and psychological aspects of disease and disability. The course includes topics of personality types, personality changes and adaptation to disease, disability and motivation of rehabilitation, denial and acceptance phases of disability, micro-and macro-economics of diseases and disability, and other related topics.					

12	PHTH 226	Basic Clinical Practice	0	12	6	PHTH 211 AND PHTH 212
	This fully practical clinical course aims to introduce the students with clinical settings and environments. The course starts with training in patient handling and assistance, physiotherapy equipments and machinery operation and maintenance, the therapist-patient relationship, patient assessment principles, electrotherapy applications, individual and group gymnastics and therapeutic training, hydrotherapy, clinical reporting and documentation, reading and filing of attached medical documents, safety issues in physiotherapy, patient motivation and follow-up and other related clinical physiotherapy principles.					
13	PHTH 312	Orthopedic, Sports & Rheumatology Physiotherapy	2	2	3	PHTH 221 AND PHTH 223 AND PHTH 226
	The principles of physiotherapy for musculo-skeletal, sports and rheumatological diseases and injuries are taught. Joints and bone diseases are presented in systematic approach followed by physiotherapy assessment, indications and contra-indications of physiotherapy treatment. Pre and post-operative physiotherapy procedures are discussed for orthopedic surgical cases. Practical training in assessment techniques, gait training, muscle testing and lower extremities orthotics is included.					
14	PHTH 313	Manipulative Procedure	2	2	3	PHTH 221 AND PHTH 223 AND PHTH 226
	This course includes the anatomical, biomechanical and physiological basis of orthopedic manipulative procedures. This includes indications, contra-indications, physiological and therapeutic effects of the common manipulative procedures in a systematic approach. The course will also include introduction in mobilization theory, upper extremities techniques, lower extremities, cervical spine, thoracic spine techniques, lumbar and sacro-iliac mobilization and orientation in common schools of thought in this field. Practical training modules are included to give the students experience in handling such manoeuvres.					
15	PHTH 314	Principles of Therapeutic Exercise	2	2	3	PHTH 213 AND PHTH 221 AND PHTH 226
	This course is designed to teach the students on the basic principles of therapeutic exercise. Emphasis is given on assessment and treatment protocols in the different fields of therapeutic exercise particularly range of motion, progressive resistive, stretching, peripheral joint mobilization exercise, McKenzie techniques, nags and snags, The course also focus on the principles of soft tissue healing and the protocols that are necessary for proper therapeutic exercises. The course is reinforcing with practical components.					
16	PHTH 315	Clinical: Orthopedic Medicine & Surgery	2	2	3	PHTH 223 AND PHTH 226

	Common orthopedic and rheumatological diseases and injuries are included in this course. The main topics are fracture types and complications, fractures closed and open reduction techniques, joint arthritis classification and diagnosis, systemic inflammatory diseases, auto-immune disorders affecting bones and joints, peripheral nerve injury types and management, total joint replacement, congenital musculo-skeletal diseases, soft tissue and sports injuries and other related topics. The course is reinforced with clinical rounds with the orthopedic consultants and senior physiotherapist.					
17	PHTH 316	Clinical: Orthopedic, Sports & Rheumatology Physiotherapy	0	8	4	PHTH 223 AND PHTH 226
	This fully clinical course introduces the students with clinical skills in assessment and physiotherapy management of patients with musculo-skeletal, sports and rheumatological diseases and injuries including surgeries. This course focuses on therapist-patient relationship, patient assessment principles, manipulations applications, individual and group gymnastics and therapeutic training, mobilization techniques, post-operative orthopedic rehab and other topics in fields of musculo-skeletal, sports and rheumatological physiotherapy techniques.					
18	PHTH 321	Theories of Cardiopulmonary Physiotherapy	2	2	3	PHTH 226
	The principles of physiotherapy for cardio-pulmonary diseases are taught. Respiratory and heart diseases are presented in systematic approach followed by assessment, indications and contraindications of physiotherapy treatment. Pre and post-operative physiotherapy procedures are discussed for cardio-pulmonary surgical cases. Practical training in assessment techniques, postural drainage, Intensive Care Unit, COPD rehabilitation and post-operative heart rehab are included.					
19	PHTH 322	Medical Physiotherapy	3	0	3	PHTH 226
	This course is designed to teach the knowledge of the different medical conditions seen in the practice of physiotherapy. It focuses on the etiology, pathophysiology, epidemiology, symptomatology of conditions such as burns, amputation, cancers, AIDS, immobilization syndrome, spinal cord injuries and geriatric conditions. Medical and physiotherapy management will be emphasized during discussion of each condition.					
20	PHTH 323	Clinical: Cardiopulmonary Medicine & Surgery	2	2	3	PHTH 226
	This course orients the student on common cardiac and pulmonary diseases with the focus on assessment, diagnostic procedures, pathology and treatment. The main topics in the course include principles of cardio-pulmonary and circulatory physiology and anatomy, pulmonary gases exchanges, ischemic heart diseases, chronic obstructive pulmonary disorders (COPD), allergic pulmonary diseases, cardio-pulmonary treatment in intensive care units, common pulmonary surgical procedures, principles of heart surgeries, and other related topics. The course is reinforced with clinical rounds with the cardiologist/pulmonologist consultants and senior physiotherapist.					

21	PHTH 324	Clinical: Cardiopulmonary & Medical Physiotherapy	0	8	4	PHTH 226
	This course includes practical application of cardiopulmonary and medical physiotherapy principles in a supervised clinical setting. The purpose of the course is that the student masters such techniques and be competent in cardio-pulmonary rehabilitation. Topics of the course includes post-operative cardio-pulmonary rehabilitation, ischemic heart disease physiotherapy, postural drainage techniques, COPD rehabilitation, ICU patient management, respiratory exercise techniques and applications and related topics in cardio-pulmonary rehabilitation.					
22	PHTH 325	Organization & Ethics in Physiotherapy	3	0	3	PHTH 226
	This basic course aims on orientation of the student in topics related to health care planning, delivery system and ethical issues in the field of physiotherapy. The main topics in the course are a historical prospective of health care delivery, administration of acute and rehabilitation settings, health care delivery in non-clinical settings, health care delivery in rural regions, economics of the health care system, health insurance economics, private funding, delivery of health care, patient rights, medicolegal aspects of health care, malpractice issues, organization of physiotherapy profession in the community and other related topics.					
23	PHTH 412	Theories of Neurological Physiotherapy	2	2	3	PHTH 222 AND PHTH 226
	The course includes principles of physiotherapy for neurological diseases and injuries. Central and peripheral nervous system diseases are presented in systematic approach followed by assessment, indications and contra-indications of physiotherapy treatment. Pre and post-operative physiotherapy procedures are discussed for neurosurgical cases. Practical training in assessment techniques, neurophysiological testing, Bobath and PNF techniques are included.					
24	PHTH 413	Clinical: Neurological Medicine & Surgery	2	2	3	PHTH 222 AND PHTH 226
	This course includes topics in diagnosis, assessment, clinical presentations of common neurological diseases and surgery. This includes a review of neuro-pathology, intra-cranial diseases, central nerve system diseases, peripheral nerve system diseases, spinal cord diseases and injuries, traumatic head injury, common neurosurgical procedures. The course is reinforced with clinical rounds with the neurologist consultants and senior physiotherapist.					
25	PHTH 414	Clinical: Neurological Physiotherapy	0	8	4	PHTH 222 AND PHTH 226
	This is a clinical module that includes training of the students on neurological physiotherapy techniques in clinical settings. The course includes training in cases of hemiplegias, paraplegias, spinal cord injuries, Parkinson's disease, progressive neurological diseases, post-operative neurological conditions and other related topics. By the end of the course the student must be able to independently apply physiotherapy techniques on neurological conditions.					

26	PHTH 415	Introduction to Pharmacology	3	0	3	PHTH 214
	This basic course in pharmacology aims to introduce students to pharmaceutical agents used in common diseases. The course includes an introduction to digestive system physiology and mechanisms, major drug groups, actions and precautions of NSAID, central muscle relaxants, beta-blocker indications, analgesics and their pharmacological effects, pharma-economics and other related topics.					
27	PHTH 421	Clinical: Pediatric Physiotherapy	0	8	4	PHTH 222 AND PHTH 226
	This is a fully practical course in a clinical settings aims to train students in pediatric physiotherapy skills. The training includes providing physiotherapy techniques for patient with cerebral palsy, neuro-developmental abnormalities, congenital anomalies, Erb's palsy and other pediatric conditions.					
28	PHTH 422	Theories of Pediatric Physiotherapy	2	2	3	PHTH 222 AND PHTH 226
	The course includes principles of physiotherapy for pediatric diseases and injuries. Pediatric and juvenile diseases, congenital and acquired malformations are presented in systematic approach followed by assessment, indications and contra-indications of physiotherapy treatment. Pre and post-operative physiotherapy procedures are discussed for pediatric surgical cases. Practical training in assessment techniques, cerebral palsy testing, Bobath and PNF techniques are included.					
29	PHTH 423	Clinical: Pediatric Medicine & Surgery	2	2	3	PHTH 222 AND PHTH 226
	The course covers diagnosis, clinical presentation and treatment of common pediatric cases. The main topics in the course are introduction to genetics, embryology, intra-uterine malfunctions, neonatology, cerebral palsy types and diagnosis, Erb's palsy and other peripheral neonatal injuries, orthopedic pediatric developmental disorders, normal physiological developments and common pediatric surgical conditions. The course is reinforced with clinical rounds with the pediatric consultants and senior physiotherapist.					
30	PHTH 424	Clinical: Community Physiotherapy	0	6	3	PHTH 315 AND PHTH 323
	This is a fully practical course in a community based clinical settings that address physiotherapy service delivery in various community-based settings such as domiciliary and fixed location private practice, schools and community centres. The course will cover the process of developing professional physiotherapy service, health promotion and how to adapt physiotherapy services in the community according to cultural and socio-economic needs.					

31	PHTH 425	Occupational Health & Ergonomics in Physiotherapy	2	2	3	PHTH 325
	This course trains student on common role of the physiotherapist in communities other than conventional hospitals. This include the function of the physiotherapist in prevention of injuries, workplace design and analysis, mechanism of repeated minor trauma, overuse and stress related injuries, muscle and other soft tissue failure and injury, the concept of good posture, principles of patients and non-patients health education and motivation and other related topics.					
32	PHTH 499	Major Project	0	6	3	STAT 201 AND PHRM 498 AND Completion of at least 90 credits
	Each student will be required to select and complete a research project in the field of physiotherapy, under the supervision of a Faculty member. Assessment will take the form of a written report and an oral presentation.					