Course Descriptions

Course Description of University Requirements/ Mandatory

GR100: Community Services:

تلتزم الجامعة العربية المفتوحة، بتقديم خدمات للمجتمع الفلسطيني في محافظات الوطن، من خلال مساق خدمة المجتمع التطوعي، والذي يهدف للاستجابة للحاجات التربوية والاجتماعية والثقافية والإنسانية. وذلك بالتعاون مع المؤسسات والجمعيات كافة في المجتمع الفلسطيني، والتي تُعنى بتقديم الخدمات والمساعدة لجمهور المنتفعين.

كما يرحِّب هذا المساق بأية مؤسسة، ترغب في الانضمام والتعاون، في مجال تنمية المجتمع وتطويره، بحيث يتم توفير المساحة اللازمة لطلبة الجامعة، وفرصة العمل الحقيقي البناء والقائم، على أساس الاحترام المتبادل والحقوق المتساوية.

GR101: Independent Study Skills:

In this course students are introduced to the concepts of Open Education and Distance Learning. They study about Self Learning and the skills required to be an independent learner. Students acquire basic communication and writing skills as well.

TU170: Computing Essentials:

This is an introductory course which introduces students to the essential concepts of related learning online and computing with confidence. This is a fundamental course for all students enrolled in AOU. Students study topics about the basics of computing, computer system, the Internet and the Web.

AR111: Arabic Communication Skills (I):

Arabic 111 is a three credit-hour university requirement, and is the first in a two-course series. The course aims to enable students acquire the language skills needed at the university level, with special emphasis on the following subject areas: Essentials of Arabic syntactic structures; Knowledge of grammatical inflectional markers and case endings in spoken and written Arabic; Ability to read Arabic texts in different disciplines with understanding, analytical skills, deduction, and evaluation; Looking up meanings of words in Arabic dictionaries; Adequate training and involvement in writing activities, with the proper use of punctuation marks and avoiding spelling mistakes.

AR112: Arabic Communication Skills (II):

Arabic 112 is a three credit-hour university requirement. It aims at developing students' skills in text analysis and literary appreciation. In this course students are introduced to the principles of accurate pronunciation and the sound reading of texts. In addition, students are introduced to and trained in the arts of Arabic rhetoric and its models, along

with the knowledge of some literary genres: their elements and analysis. Students will also be introduced to the basic steps and methods of writing research papers.

EL111: English Communication Skills (I):

As an integrated skills syllabus, EL111 continues to develop the communication skills – listening, speaking reading and writing- together with functions, vocabulary and grammar. However, special emphasis is placed on the two major skills of READING and WRITING through which structure, vocabulary, etc. can be integrated and developed. The course is learner-centered and seeks to introduce thematic topics which aim at developing critical thinking skills. It emphasizes the skill of reading through the application of learning strategies such as prior knowledge, scanning for specific information, skimming for main idea, and getting meaning from context. The course helps students to become more independent learners through extensive reading and writing practice.

EL112: English Communication Skills (II):

EL112 is an advanced integrated skills course which builds on experience gained from EL111. The course continues to develop the four communication skills of listening, speaking, reading and writing, while stressing aspects of vocabulary and grammatical structure through the two major skills of READING and WRITING. Special emphasis is placed on the skill of WRITING where students will be prepared to write longer essays and be introduced to research paper writing

Course Description of University Requirements/ Elective

GR111: Arab Islamic Civilization:

This course covers: Overall views in the history of Arabic-Islamic Civilization; Concepts and Social Issues; The effect of Islamic Civilization on the European Renaissance; Trends of Stagnation in the Islamic Civilization; Modern Arabic Renaissance; Islamic Arts and Architecture; Learning outcome: Acquaint students with the past influence and present importance of Arabic-Islamic civilization in world history.

GR112: Arab World Development Issues and Problems:

This course aims at Understanding developmental issues in the Arab World in their contexts, social, cultural, economic or political. It includes several topics like: Introduction to the study of development, meaning and content; The status of human development in the Arab world and its Social indicators; Status of the Arabic culture,

education, mass, media, human development, health, nutrition and environmental affairs, women in addition to natural resources in the Arab World.

دراسات فلسطينية (GR131):

يتناول المساق دراسة تاريخ فلسطين القديم، عبر العصور، موضحاً علاقة الإنسان بالأرض، والأقوام التي مرّت عليها. كما يوضح خلفيات بروز فلسطين كقضية سياسية، وكذلك مكانتها الإسلامية، ثم يُلقي الضوء على نشأة الحركة الصهيونية، فكراً وممارسة مشروعها بصدد إقامة وطن قومي لليهود في فلسطين. يتناول المساق أيضاً مقاومة الشعب الفلسطيني للمشروع الصهيوني، بعد الانتداب البريطاني، ويتعرض بالدراسة والتحليل لكل من النظام السياسي الصهيوني والفلسطيني. بعد ذلك يتطرق للجهد العربي في مقاومة المشروع، من خلال الحروب العربية الإسرائيلية. وبعد ذلك يتناول التسوية السياسية، منذ بدء القضية وحتى يومنا، في محاولة للتوصل لحلٍ سياسيّ للقضية الفلسطينية.

الأهداف العامة للمساق

- بيان وتوضيح الحقّ التاريخي في فلسطين، استناداً إلى الدراسات التاريخية والآثارية.
- توضيح تفاعل فلسطين مع الدول الإسلامية في مختلف المراحل.
- تفسير اهتمام الدول الاستعمارية، باحتلال فلسطين منذ فجر التاريخ.
- توضيح طبيعة الاحتلال الصهيوني لفلسطين، وعلاقته بالاستعمار الغربي وسياساته في المنطقة.
- تحديد أهم معالم النظام السياسي الإسرائيلي.
- تحديد أهم معالم النظام السياسي الفلسطيني، وتطوره عبر التاريخ.
- إبراز جهود المقاومة الفلسطينية، وتطورها في عهد الانتداب البريطاني والاحتلال الصهيوني.
- رصد جهود، ومشاريع التسوية السياسية للقضية الفلسطينية.

دراسات مقدسية (GR132):

يمكّن تاريخ القدس من بناء صورة واضحة ومتكاملة عن القدس، فالقدس هي ظاهرة حضارية وتاريخية؛ نظراً لأهمية المدينة المقدسة، عند أصحاب الديانات السماوية، منفردة بذلك عمّا سواها من المُدن الأخرى في العالم. إذ يتناول الموضوعات الرئيسة التالية: الجغرافيا التاريخية للقدس، القدس من الفتح الإسلامي حتى نهاية الدولة الأموية، أوضاع مدينة القدس منذ بداية الدولة العباسية، وحتى معركة حطين (750-1187م) ، القدس في العهدين الأيوبي والمملوكي، القدس في العهد العثماني، وأخيراً القدس من الاحتلال البريطاني حتى الآن.

الاهداف العامة للمساق

- التعرّف على جغرافية القدس والخصائص الجيولوجية الطبيعية، والديموغرافية للمدينة، بالإضافة إلى تاريخها القديم، من العصور القديمة المختلفة، وحتى عصور الفتح الإسلامي للمدينة.
- تقدّير مكانة القدس عند المسلمين، ووضع القدس في عهد الخلفاء الراشدين والعُهدة العمرية، بالإضافة إلى تاريخ القدس في عهد الدولة الأموية، واهتمامهم ببنائها وتنظيمها.

- التطلع إلى أوضاع المدينة المقدسة خلال عهد دولة بني العباس وحتى سقوط المدينة في يدّ الصليبيين، عندما ضعفت الدولة العباسية. كما تتعرف إلى جهود الأيوبيين والمماليك، في التصدي للمحتلين حيث هزموهم في معركتي حطين وعين جالوت.
- التعرّف إلى القدس، في ظلّ الحكم العثماني، والتشكيل الإداري للمدينة والحياة الاقتصادية والاجتماعية، وكذلك النشاط العمراني؛ من سرايا وتحصينات دفاعية ومبانٍ سكنية، وغيرها من الآثار التاريخية الشاهدة على عظمة هذه المدينة المقدسة.
- إدراك دور الاحتلال البريطاني في مساعدة اليهود للإستيلاء على أغلب مناطق القدس وتسهيل إقامة دولة لليهود في فلسطين عام 1948م، واحتفاظ الأردن بالقسم الشرقي من المدينة المقدسة والوحدة بين الضفتين.
- مناقشة أوضاع القدس تحت الاحتلال الاسرائيلي، والإجراءات العنصرية والممارسات العدوانية واللاإنسانية، بحق السكّان الفلسطينيين من مسلمين ومسيحيين، وبحق مقدساتهم والعمل على تهويد المدينة المقدسة، وذلك بإحكام طوق استيطاني حول المدينة المقدسة.

EL118: Reading

Reading is a skill that engages students in recognizing the script of a language, identifying the meaning
of the words and understanding the meaning in different contexts. Reading is a complex skill that needs to be developed through developing its sub-skills. Simultaneously, this can be achieved by making use of clues, understanding key concepts and relevant details, distinguishing main points from secondary points, and identifying facts from opinions.
This is a short course which aims to:
1. Equip you with the necessary reading skills that you need to function appropriately in academic, professional and social settings
2. Enable you to make sense of the complex nature of academic word learning
3. Improve your understanding of written English by enriching your vocabulary knowledge
4. Explore your thoughts, opinions, and reflection on a given text.
5. Build your confidence to discuss and share your ideas based on what you have read in an interactive environment

CH101: Chinese for Beginners (I):

The course introduces the student to the basics of Chinese (Mandarin). These include the alphabet, common everyday expressions, simple sentences, short dialogues and small paragraphs. The four skills of reading, writing, listening and speaking will be equally emphasized. However, as we live in the age of the image, students will have ample exposure to a variety of audio-visual material which boost their command of the language at the beginner's level. The communicative approach is to be adopted in face-

to-face tutorials and the various methods of enabling students to learn on their own will be prioritized.

CH102: Chinese for Beginners (II):
The course builds on what the student has learnt in level (1). Toward this end, it introduces the student to more everyday expressions, more widely-used short sentences, some compound and complex sentences, medium-size dialogues, and short passages. While the skills of listening and speaking will be receiving adequate attention, more emphasis is to be placed on the skills of reading and writing. Face-to-face tutorials will be communicative and students will be empowered to learn on their own.

SP101: Spanish for Beginners (I):
The course introduces the student to the basics of Spanish. These include the alphabet, common everyday expressions, simple sentences, short dialogues and small paragraphs. The four skills of reading, writing, listening and speaking will be equally emphasized. However, as we live in the age of the image, students will have ample exposure to a variety of audio-visual material which boost their command of the language at the beginner's level. The communicative approach is to be adopted in face-to-face tutorials and the various methods of enabling students to learn on their own will be prioritized.

SP102: Spanish for Beginners (II):
The course builds on what the student has learnt in level (1). Toward this end, it introduces the student to more everyday expressions, more widely-used short sentences, some compound and complex sentences, medium-size dialogues, and short passages. While the skills of listening and speaking will be receiving adequate attention, more emphasis is to be placed on the skills of reading and writing. Face-to-face tutorials will be communicative and students will be empowered to learn on their own.

FR101: French for Beginners (I):
The course introduces the student to the basics of French. These include the alphabet, common everyday expressions, simple sentences, short dialogues and small paragraphs. The four skills of reading, writing, listening and speaking will be equally emphasized. However, as we live in the age of the image, students will have ample exposure to a variety of audio-visual material which boost their command of the language at the beginner's level. The communicative approach is to be adopted in face-to-face tutorials and the various methods of enabling students to learn on their own will be prioritized.

FR102: French for Beginners (II):
The course builds on what the student has learnt in level (1). Toward this end, it introduces the student to more everyday expressions, more widely-used short sentences,

some compound and complex sentences, medium-size dialogues, and short passages. While the skills of listening and speaking will be receiving adequate attention, more emphasis is to be placed on the skills of reading and writing. Face-to-face tutorials will be communicative and students will be empowered to learn on their own.

HL101:Hebrew for Beginners (I):

The course introduces the student to the basics of Hebrew. These include the alphabet, common everyday expressions, simple sentences, short dialogues and small paragraphs. The four skills of reading, writing, listening and speaking will be equally emphasized. However, as we live in the age of the image, students will have ample exposure to a variety of audio-visual material which boost their command of the language at the beginner's level. The communicative approach is to be adopted in face-to-face tutorials and the various methods of enabling students to learn on their own will be prioritized.

HL102: Hebrew for Beginners (II):

The course builds on what the student has learnt in level (1). Toward this end, it introduces the student to more everyday expressions, more widely-used short sentences, some compound and complex sentences, medium-size dialogues, and short passages. While the skills of listening and speaking will be receiving adequate attention, more emphasis is to be placed on the skills of reading and writing. Face-to-face tutorials will be communicative and students will be empowered to learn on their own.

Course Description of Faculty Requirements/ Mandatory

M132: Linear Algebra:

The course contains a range of ideas concerning matrices and its applications, including operations appropriate in specialized applications and some knowledge of relevant computing ideas that are widely used in data communication, digital signal processing and in scientific research. The course shows how to formulate algorithms to solve systems of linear equations. It also includes techniques of vector spaces for constructing important mathematical structures, illustrated by examples. It shows how to find a basis and dimension of a subspace of each vector space. Finally, it shows how to construct a linear transformation from a vector space to another vector space and check if it is one-to-one and onto.

G102: Introduction to ICT

Information and Communication Technologies (ICT) have become an integral part of both every day personal life as well as day to day business activities. This course will introduce students to ICTs for personal and enterprise level usage. Students will be introduced to both fixed as well as mobile ICTs in the course. They will study about

modern trends in ICTs, including computer networks, operating systems, mobile devices and technologies and social media trends.

G103: Principles of University Mathematics
The purpose of this course is to provide the foundation for mathematics course and to build the algebra skills needed to solve real-world and mathematical problems. Topics shall include: Real numbers and their properties, Linear equation and inequalities in one variable, Linear equations in two variables and their graph, Exponents and polynomials, Factoring, Rational Expressions, System of linear equations, Radicals and rational exponents, Quadratic equations and inequalities, Elementary functions and their graphs, Exponential and logarithmic functions, and Complex numbers.

G121: Fundamentals of Design
The course introduces the students to the translation of perception through delineation, drawing, and other descriptive media. Emphasis of the course is on the development of students' motor control by means of freehand and mechanical drawing and by development of analytical and objective observation from life and three-dimensional objects. Also, the course will help the student to learn the basic principles of design, composition, using Colors, Lines and shapes as mediums.

G212: Introduction to Computer Aided Design
The course will introduce to the students how to use a Computer Aided Design software. The students will be taught the basics of design using CAD, from initial simple model generation though to developing more complex three dimensional models using the computer as a tool for design.

Course Description of Faculty Requirements/ Electives

G101: History of Graphic Design
Graphic images have been used from prehistory to the computer age. A lecture-discussion format presents the historical context for the graphic arts of calligraphy, typography, book design, diagramming, and illustration. Emphasis on the relationship of these applied arts to the fine arts, technology, and social history, as well as the application of this visual language to contemporary design problems.

G111: Design Literacy
This course introduces students to the ubiquity and multiplicity of purpose of graphic design and the applied arts in general. Students discover the cultural dimensions of visual and verbal elements and learn to appreciate international issues related to the globalization and localization of design messages. Students carry out hands-on projects to explore aesthetic and communicational aspects of design.

G113: Statistics

This course provides an introduction to statistics for those with little or no prior exposure to basic probability and statistics. Its simulation/resampling approach (drawing numbers or data from a hat) demystifies the traditional formulas, demonstrating the fundamental basis for statistical inference. Topics covered include probability, the Normal distribution, hypothesis testing, independence, conditional probability, Bayes Rule, 2-way tables, random sampling, and confidence intervals. Once you have completed this course you will be able to apply statistically valid designs to basic studies, and test hypotheses regarding proportion: and means.

G123: Instructional Material's Design

In this course, students will produce learning experiences using simple media and technologies. The course introduces instructional design theories and frameworks while working to develop short e-content, webinars, or applets about engaging topics. This course is helpful for those professionals who work directly or indirectly to support and improve learning in their organizations, or those lifelong learners who want to better understand how to use technology to manage their own learning.

M131: Discrete Mathematics

This is an introductory level undergraduate course which introduces students to the basic principles of Discrete Mathematics. The course aims to: teach students notations used in Discrete Mathematics associated with computing- teach the rudiments of elementary mathematical reasoning - prepare students for the theoretical parts of further courses in computing - study logic from a mathematical perspective and relating it to computer applications - introduce basic set-theoretical notions: relations, functions, graphs, equivalence relations, partial orderings - introduce students to Graphs and Trees.

M133: Numerical Analysis

This course analyzed the basic techniques for the efficient numerical solution of problems in science and engineering. Topics spanned root finding, interpolation, approximation of functions, integration and direct and iterative methods in linear algebra. All the assignments involve practical work using the software package MATLAB.

T103: Computer Organization and Architecture

This course offers a clear and comprehensive survey about computer organization and architecture. It introduces the inner workings of a modern digital computer through an integrated presentation of fundamental concepts and principles. Aims of the module are as follows: To understand computer organization - To understand computer

architecture - To understand the different core concepts behind the hardware layer of a computer system.

Course Description of Specialization Requirements/Mandatory

M105: Introduction to Programming
This course provides an introduction to the basic knowledge required to understand, design and write computer programs and the basic principles underlying the process of Software Engineering. No previous programming experience is assumed and the course proceeds via a sequence of lectures supported by hands-on-training and simple exercises designed to give practical experience of the concepts introduced in the lectures.

G131: Digital Foundations
This course introduces students to fundamental principles and applications of design, emphasizing critical and cultural awareness of design issues and developing of technical skills. The notion of creative problem solving is particularly emphasized. Students develop expertise in major industry standard software packages. This course lays the foundation for further study of design.

G141: Elements and Compositions
This course will enable students to refine their drawing skills with visual elements and compositions, through using different specialized software tools. Additional challenges are added that partner original thought with learned practices.

G151: Introduction to Interactivity and Media Arts
This course is an introduction to the concepts of interactivity & the field of media art. It vitally concentrates on the act of perception of Arts & Design, following the history of multimedia & and digital tools as media for artistic exploration in relation to print, media art, & interactivity. The course includes discussion of the potential ideas related to interactivity, with focus on required skills for creating interactive work.

G161: Introduction to Media Production
Through this course the students will learn about various forms of media, how to make the best use of them, why one would choose one form of media over another, and finally, about all of the techniques used to create a media project. They will learn the basics of media production using the media tools of photography, film, video, audio, graphic production, and interactive media. Students apply these fundamentals by participating in hands-on group projects. Through the curriculum, individuals are given the

opportunity to develop hands-on production skills, achieve technical proficiency, and make sophisticated choices in the creation of media art. The course is ideal for participants seeking to build media production skills, which participants will showcase through a final capstone of their work completed in the course.

G171: Typography I

Students will explore creative, historical, theoretical, and applied principles of type. Through creative projects and exercises, students will explore the communicational impact of choosing typefaces, the expressive possibilities of type in static and kinetic media, as well as the foundations for hierarchy and composition for publication design. Students will also develop skills to enhance, clarify, and support meaning and the accessibility of typographic content. Creative studio practice combines with supporting readings, lectures, and software training.

G181: Digital Photography

This course introduces the student to the principles and practice of digital photography and photographic special effects, particularly photomontage. This theory is followed by practical workshops with an experienced professional photographer. Having learnt the basics the student will then produce a portfolio of digital photographs and a poster.

G191: Introduction to Advertising

Introduce students to the role of advertising in business. Students will learn basic concepts, regulations, ethics, and diversity associated with advertising as well as how advertising fits into the marketing structure of most industries.

G201: Digital Visualization Studio

This course explores the digital technology available to students of design for two dimensional (2D) representations. It starts with an exploration of the Design elements such as line, value, color, shape, form, texture and space. It demonstrates the 2D design types and it also discusses the language of visual design, digital photography, digital design processes. Moreover, it introduces Raster Image Manipulation, including principles of image representation, digital color representation. Vector Illustration in 2D is also discussed including basics of typography and vector illustration. Intermediate drawing techniques and creating and manipulating complex Vector shapes. In addition, this unit covers all concepts relating to 3D form as well as related special issues. The unit will introduce the key skills and professional knowledge needed to creatively develop the built environment and the elements within it. Students will learn how to design real as well as virtual Objects and Products. Model-making, both analogue and digital, is an important part of this unit. Students are encouraged to

experiment with materials and processes and to question the relationship between form and function. The course also examines ethical practice and the role of design in sustaining natural and social environments.

G202: Computer Graphics and Imaging

This course introduces image input and output devices such as cameras and displays, graphics hardware and software, input technologies and interactive techniques, typography and page layout, light and color representations, exposure and tone reproduction, image composition and imaging models, digital signal processing, sampling, aliasing and antialiasing, compression, two- and three-dimensional geometry and formations, modelling techniques including curves and surfaces, reflection models and illumination algorithms, and basic methods of animation.

G211: Visual Communication Design

Students will engage in hands-on design practices, develop creative thinking strategies, and devise solutions to visual communication design challenges. The course familiarizes students with visual principles, essential software, and techniques that serve the basic designer needs. Students will also develop fluency in the principles of visual language to form a basis of aesthetic judgment and develop methods of analysis and inquiry for creative thinking. Students' practice is combined with class critiques of work, software tutorials, and supporting lectures.

G221: Digital and Emerging Media Design I

Students will develop applied creative projects and acquire technical skills to become adept at essential software, design principles and practices for screen-based digital and emerging media. Students will also learn foundations of front-end web coding such as HTML and CSS, and develop technical problem solving and organizational skills. Course lectures address the cultural backdrop of the Internet as it applies to design.

G231: Illustration

Students explore illustration as a communicational concept delivery tool. From basic black-and-white techniques, including representational drawings and pictograms, to complex color, collage, and mixed media.

G241: Applied Media Aesthetics

This course offers students an introduction to the aesthetic concepts as applied directly to Image, video, and sound media. Using examples from these media, students will study, discuss, and analyze design and composition elements as they apply to the production process.

G301: Typography II

Students will create typographically focused design solutions to design challenges, and explore the relationship between type and image across print and digital media. The course emphasizes ideation of sophisticated design combining visual and verbal elements, as well as the development of advanced publication layout skills, grid-based typographic structures, and information design.

G311: 3D Modelling and Animation Techniques

This course will introduce principles and techniques used for creating three-dimensional content in virtual space. Students will learn principles of model creation, texture manipulation, scene rendering and animation to enable them to conceptualize and produce meaningful and artistic visualizations. The class will also explore the implications of the work produced as students engage in mutual critique.

G321: Digital and Emerging Media Design II

Through this course, students will prepare themselves for the world of professional web design. Through creative hands-on projects, exercises, and lectures students learn to conceptualize, design, and deploy successful web sites for clients. Course topics address intermediate web design concepts such as interface design, usability principles, web typography, information architecture, compliant front-end HTML, CSS, and JavaScript code.

G331: Visual Effects and Compositing

Visual Effects and Compositing is a very practical course where the student develops short video clips integrating live video footage, 3D animations and special effects. Each workshop session includes hands-on training in visual effects and compositing software. This module provides an introduction to the principles of visual communication. Examples of traditional and modern artefacts will be explored and discussed with regards to formal analysis and critical interpretation. Visual Effects and Compositing is a course aimed at those who want to learn about the visual effects process from green screen compositing and digital matte paining to title effects and 3D effects. This course aims to give students insight into the various techniques used in the industry as well as the necessary skills to perform compositing tasks. Using reasonable software tools, students will perform their own tests, experiments, and finished effects shots.

G341: Sound Production for Mixed Media

This course will help the students to acquire the technical knowledge and set procedures required of professional sound recordists and mixers in a wide range of field productions. The course covers all of the necessary equipment, set procedures and techniques for recording and mixing sound in the field. There are lectures, demonstrations and hands-on field exercises. Students develop their own sound aesthetic and learn how to work with various microphones, digital recorders, booms and support equipment to create a 'sound environment' for a variety of film and video productions.

G351: Packaging Design

Development of three-dimensional design solutions related to the presentation of objects and products. Students explore structural, production, and communicational aspects of packaging.

G371: Graduation Project

The final year project module, which is a substantial piece of work, is based on the students own personal interests. This may be building an interactive Web application, Game Development, 3D animation, authoring a CD-ROM or creating a DVD, on a theme usually associated with an industrial collaborator. Alternatively, you may wish to work on a project associated with the research of a member of the academic staff.

Course Description of Specialization Requirement f Electives

M180: Data Structures and Algorithms

This course aims to study the design, implementation, and application of data structures as a means for algorithmic problem solving. Each problem exhibits specific characteristics with respect to resource requirements, data representation, and software architecture. The study of data structures is primarily concerned with the following questions: How can a given problem be effectively expressed? What are suitable data representations for specifying computational processes? What is the impact of data and its representation with respect to time and space consumption? What are the reoccurring structural artefacts in software and how can we identify them in order to facilitate problem solving?

GE101: Storyboarding

This course will offer to the students a practice-based introduction to basic storyboarding and story presentation skills. This course aims to develop the student's formal pictorial skills in relation to a visual narrative and to develop student's awareness of narrative formalities. This course will introduce to the student the skills needed to sketch out the narrative and formal flow of an animation using a storyboard. They will

be shown how to 'present local issues such as framing, camera movement, character movement and key visual essentials within the larger structure of the entire narrative. This course will also introduce the storyboard as a thinking toot, through which creative ideas are developed and given detail. The role of the storyboard within the animation pipeline and its relevance to such things as concept development, script development, animatics and production will be covered.

GE201: Design Practice

In this course, student will learn how to put into practice all that he has learned during the programme courses. Students will create various artworks in the different graphic design products that they have covered and successfully combine these skills in a final project.

GE202: Introduction to Relational Databases

Relational Databases are the most common way of storing data about entities such as people, products, organizations and the transactions that occur between these entities. The most common problem with relational databases is a poor database schema which limits the storage, maintenance, retrieval and performance of the database. This unit focuses on appropriate database design techniques using Entity Relationship Diagrams and Normalization techniques. Students design and build complex databases, then store, maintain and retrieve data using commercial relational database management tools. These skills are required by any persons who will interact with an existing database or will be involved in the design of new data storage and retrieval systems. Students who complete this unit of study should be ab e to: 1. Demonstrate key principles in database design. 2. Explain the fundamentals of the relational data model. 3. Use conceptual data analysis methods to produce and document a logical data model. 4. Design and generate and populate a simple database system using a commercial relational database management system tools.

GE212: Programming for Digital Media

This course is concerned with developing skills in object oriented modelling and user interface design. Practical skills needed to design and develop Java programs for networked environments are developed. There is extensive practical work. Topics include: object oriented design, software engineering with Java and applet design.

GE203: Critical Thinking and Creativity

This course leads its participants through the engaging experience of taping into their creativity; developing emerging ideas; evaluating the viability of these ideas through a process of critical thinking; linking in the synergistic potential of working with others and channeling the resulting strategies into reality. The course incorporates

the profiling of personal thinking styles and comparisons with the styles and impact of colleagues and the drivers of thinking preferences. Participants will experience the power of positive thinking and communication approaches.

GE221: Comics

In this course, students will explore the comic book superhero as a literary genre and we will trace the history of its development, focusing on emerging social trends that have shaped the powerful creative industry it has become today. We will read comics, read about comics, write about comics, and talk about comics. After studying several literary heroes and comic book superheroes, each student will select a favorite comic book superhero and compile a profile from the comic book literature and commentary, in which they will explore the hero's origins, powers, vulnerabilities, exploits, and involvement with social issues, as well as such themes as secret identities and romantic involvements. At the conclusion of the course, students will answer the question: What is a hero? And reflect upon development of their own heroic traits.

GE302: Web Application Development - Server Side

The course aims to provide students with the knowledge and skills necessary to develop dynamic web applications using open source software tools such as PHP and MySQL on an Apache server. Specifically, students will learn to write server-side scripts in PHP language, process user data submitted from web forms, design and create databases for various kinds of web applications and design and implement 3-tier web apps using PHP and MySQL.

GE301: Interactive Media Design for Mobile Devices

This course introduces students to design elements and techniques for mobile applications. Through hands-on projects, exercises, and supporting lectures students learn how to conceptualize, design, prototype, and execute interactive experiences for portable digital devices. The creative projects place emphasis on developing the ability to clearly articulate complex information architecture while producing compelling and vibrant user interfaces.

GE312: Image Processing

This course introduces the basic theories and methodologies of digital image processing. Topics include intensity transformations for image enhancement, two-dimensional discrete Fourier transform, spatial and frequency domain linear image filtering, nonlinear image filtering, binary image processing, edge detection, image segmentation, and digital video processing basics. This course makes extensive use of software tools for analysis, design, and visualization tool.

GE311: Graphic Identity and Branding

The course is organized to introduce students to contemporary design practice, and the relative and contextual histories of the discipline so they can contemplate their place within it. Films, lectures/presentations, readings and studio work will help foreground how students develop their own creative practice(s) during their time ii the course. All this is to avail to students how design can be an inspiring and productive force in the world they inhabit. Students will approach design as both problem-seeking and problem-solving activities, with particular emphasis on complex usage as well as constraints. Students will be introduced to different approaches and methodologies for designing visual identity systems, and how to apply these systems across a range of user needs from analog and digital to 2-0 and 3-D applications. All of this will culminate in a visual identity standards manual designed to guide the application, integrity and maintenance of a visual identity system.

GE303: e-Commerce

This course introduces the concepts, vocabulary, and procedures associated with E-Commerce and the Internet. The student gains an overview of all aspects of E-Commerce. Topics include development of the Internet and E-Commerce, options available for doing business on the Internet, features of Web sites and the tools used to build an E-Commerce web site, marketing issues, payment options, security issues, and customer service.

GE321: Design Management

This course will enable you to encounter creative projects within a business context, nurture creativity and innovation, and develop key skills to build a dynamic culture, which produces effective creative solutions. The course promotes understanding, awareness and knowledge of the industry whilst encouraging creativity, innovation and ambition.

GE331: Artistic Direction

This course will enable students to learn the principles and techniques of art direction. Student will be able to work on briefs, and deliver creative concepts and ideas. His creative skills will be improved, powers of lateral thinking and general work performance.