AIN SHAMS UNIVERSITY – FACULTY OF ENGINEERING (ASU – FoE)

IN COLLABORATION WITH

SCHOOL OF ARCHITECTURE, COMPUTING AND ENGINEERING

BSc (Hons) in Environmental Architecture & Urbanism

Programme Handbook

Academic Year 2018-2019

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1 WELCOME AND INTRODUCTION

Ain Shams University – Faculty of Engineering is aiming to be one of the best colleges known for their leadership regionally and internationally in engineering education and scientific research through interdisciplinary and unique academic programmes that meet the needs of the community and contribute to sustainable development. It aims for preparation of distinguished graduates capable of keeping pace with global technological in various disciplines that meet the needs of local and regional markets, and can conduct scientific research. This is applied through the creation of appropriate conditions for faculty members and their assistants and students, and through providing educational programmes in advanced undergraduate studies, as well as establishing advisory centres and research labs which include sophisticated contribute to community service and to meet its needs.

Credit Hours Engineering Programmes at the Faculty of Engineering - Ain Shams University (ASU-CHEP) is one of the outstanding models for engineering education in Arab Republic of Egypt, as it seeks to provide high-quality of engineering education based on interdisciplinary programmes and the application of international standards of credit hours systems followed in the most prestigious universities in the world. Learning environment at ASU-CHEP focused on the graduation engineers equipped with skills, knowledge, and the ability to life-long learning. ASU-CHEP began at the Faculty of Engineering - Ain Shams University in 2006 with two programmes namely Building Engineering and Materials Engineering with a number of students that does not exceed 60 students.

Lately there were eight programmes (Building Engineering, Communication Systems Engineering, Materials Engineering, Manufacturing Engineering, Energy and Renewable Energy Engineering, Computer Engineering and Software Systems, Landscape Architecture, Mechatronics Engineering and Automation), and finally two more programmes were added, Energy & Renewable Energy Engineering Programme, and Environmental Architecture & Urbanism Programme. Thus, currently the total number of students in ASU-CHEP exceeds 2500 students that work side by side with mainstream programmes. ASU-CHEP is characterised by adopting new models in learning, which are different from the traditional system in Egyptian Engineering colleges. Moreover, the curriculum adopted in ASU-CHEP are inspired by the vision of experts and specialists in these fields. The programmes in ASU-CHEP follow mainly the National Authority for Quality Assurance and Accreditation of Education.

The Environmental Architecture and Urbanism Programme was launched in 2016, and was aiming to shift the focus towards sustainability in education and increase participate in qualifying graduates for the challenges of global warming and scarcity of resources.

2 INTRODUCTION TO THE PROGRAMME

2.1 Programme duration and modes of study

The **Environmental Architecture & Urbanism** programme is a 4-year full-time degree programme which includes a foundation year and three (3) years for the specialised courses.

In their senior year, students choose between two tracks of specialisation, either **Environmental Architecture** pathway or **Environmental Urbanism** pathway. They study the specific specialisation courses corresponding to the chosen pathway, and there are offered wide range of technical electives that students can chose from according to their field of interest, and their ambition in their future career. The programme awards a Bachelor Degree in the field of study.

The minimum allowed study duration is four years. The maximum allowed study duration is five (5) years, which does not include frozen semesters for reasons acceptable by the faculty, after which the student is expelled from the programmes.

2.2 Programme aims and objectives

The main goal of the programme is to prepare architects and urban planners specialised in environmental design. Graduates are capable of understanding the relationship between humans and buildings and between buildings and their environment. They are capable of integrating all the aspects dealing with the built environment and how it is planned, designed, used, furnished, landscaped, managed, and valued by the society in their creative thinking while dealing with complex architectural and urban environment problems. The programme introduces students to building science and enables them to conceive the basic concepts of sustainable architecture and urbanism. They are trained to balance functional and ecological demands when developing policies or designs for new construction. Graduate will be able to deal with modern techniques and tools for learning and linking theory and practice.

2.3 Programme Intended learning outcomes (ILO's)

The graduates of the Environmental Architecture & Urbanism Programme should be able to demonstrate:

Knowledge

- Knowledge and understanding of essential facts, concepts, principles and theories relating to Architectural Design Technology.
- The role of and contribution made by different stakeholders within the construction industry.
  The linkages and interdisciplinary relationships between professionals working and operating in the built and natural environments.
- The ability to apply such knowledge and understanding to the solution of qualitative and quantitative problems of a familiar and unfamiliar nature.
- The knowledge and ability to recognise and implement good practice.
- Describe the key concepts, theories and principles used in construction industry.
- These will include measurement; physical and financial appraisal of buildings; legal

principles; applied economics; design factors affecting construction and buildability; the performance of buildings; resource management; document and data handling, and the application of business management theories.

Thinking skills

- Skills in the analysis, synthesis and evaluation of technological information and data, and the ability to develop and design creative and innovative solutions.
- The ability to make informed judgements based on evidence, and being able to question current theories and practice.
- The ability to recognise and analyse problems and plan novel strategies for their solution.
- Evaluate and plan construction activities and undertake the process used to manage and control them.
- Appreciate professional ethics, their impact on the operation of the professions and their influence on the society; conflict avoidance/dispute resolution; communities and the stakeholders with whom they have contact.

Subject-Based Practical skills

- The ability to use information technology (IT) independently to support previously identified cognitive abilities and skills.
- The skills in presenting architectural technology information and arguments clearly and correctly, in writing, drawing, and verbally, to a range of audiences.
- The ability to produce quality architectural presentations through various media, including paper/computer aided design drawings and sketches, schedules, calculations, photography, electronic visualisations, and models.
- Demonstrate the ability to work effectively with others within the context of a multidisciplinary team; respecting inputs from fellow professionals, client(s), and other stakeholders and reflecting on one's own performance and role within the team.

Skills for life and work (general skills)

- Develop a strategy for using the relevant key skill over an extended period of time, and plan how this will be achieved.
- Monitor progress, critically reflect on their performance in using the relevant skill, and adapt their strategy, as necessary, to achieve the quality of outcomes required.
- Evaluate their overall strategy and present the outcomes from their work, including ways of further improving their skills.
- Locate, extract and analyse data from multiple sources, including drawn information.
- Present quantitative and qualitative information, together with analysis, argument and commentary, in a form appropriate to the intended audience, including appropriate acknowledgement and referencing of sources.
  Produce professional reports in accordance with published conventions and/or client expectations, including executive summaries.
- Demonstrate wider research skills to aid in the development of a cumulative element of original work.

2.4 Professional body accreditation

The National Academic Reference Standards (NARS) for Engineering set out generic statements which represent general expectations about standards for the Bachelor of Science (B.Sc.) degree in Engineering. These statements clarify the attributes associated with the award of engineering degrees:

- The awards are in accord with the frameworks for contemporary engineering education.
- The Engineering degrees address the national expectations of the graduate engineers.
- The degrees satisfy the actual and expected market needs.

According to the Accreditation Board for Engineering and Technology (ABET), Engineering is the knowledge of the mathematical and natural sciences, gained by study, experience, and practice, applied with judgment to develop ways to economically utilise the materials and forces of nature for the benefit of mankind. It is the ability to initiate and conduct activities associated with engineering processes, systems, problems, opportunities, history, future impacts and ethics with minimal negative consequences. It involves knowledge, ways of thinking, action coordination and capability development. It helps preparing individuals to make well-informed choices whether they act as consumers, workers, citizens or members of the global community.

The engineering education should achieve excellence in undergraduate and graduate education, research, public service and advancement of the state-of-the art within the discipline. It aims to produce able, broadly educated, highly qualified engineers through academic excellence. Moreover, it motivates students, faculty and staff to learn, grow, achieve and serve the needs of society nationally, regionally and internationally. It also prepares students for a productive and rewarding career in engineering based on strong moral and ethical foundation.

The references for standards considered in the development of this programme were the National Academic Reference Standards (NARS) of Architecture Engineering Programme, August 2009 (as a minimum standards) prepared by the Architecture Engineering - engineering education sector of the supreme council of universities in Egypt. Available copies of the NARS (issued in August 2009).

2.5 Programme Structure & Content

- The programme structure can be seen in Table 2.5
- The expected length of study is four years
- The majority of modules are 30 credits delivered over the whole year and suit a September in take only. A few modules are 15 credits and delivered sequentially to meet specific professional learning outcomes

Table 2.5 BSc Environmental Architecture & Urbanism Programme Structure (please note the module codes may change)

Level	Year	Code		Module title	credit	Core/ Pathway Related
		ASU	UEL			
Architecture and Urbanism pathway						
3	1	EG0311	AR3101	Design Fundamentals Techniques	30	Core
3	1	EG0312	AR3102	Architecture Design Studio (1)	30	Core
3	1	EG0313	AR3103	History, Theory & Communication	30	Core
3	1	EG0314	AR3104	Building Technology and Materials (1)	30	Core
Architecture and Urbanism pathway						
4	2	EG0421	AR4101	Issues of the Built Environment	30	Core
4	2	EG0422	AR4102	Building Technology and Materials (2)	30	Core
4	2	EG0423	AR4103	Architectural Design Studio (2)	30	Core
4	2	EG0424	AR4104	Technical Studies in Architecture (1)	30	Core
Architecture and Urbanism pathway						
5	3	EG0531	AR5103	Principles of Law & Project Evaluation	15	Core
5	3	EG0532	AR5104	Tendering, and Execution Documents	30	Core
5	3	EG0533	AR5105	Architectural Design Studio (3)	30	Core
5	3	EG0534	AR5106	Technical Studies in Architecture (2)	30	Core
5	3	EG0535	AR5107	Real Estate Management and Development	15	Core
Architecture Pathway						
6	4	EG1641	N.A.Y.*	Architectural Design Studio (4)	30	Core
6	4	EG1642	N.A.Y.*	Architectural Design and Contextual Studies	30	Core
6	4	EG0643	N.A.Y.*	Architectural technical studies	30	Core
6	4	EG1644	N.A.Y.*	Technical Studies and Building Systems	30	Core
Urbanism Pathway						
6	4	EG2641	N.A.Y.*	Urbanism Design Studio (4)	30	Core
6	4	EG2642	N.A.Y.*	Urban technical studies	30	Core
6	4	EG2643	N.A.Y.*	Urban Design and Contextual Studies	30	Core
6	4	EG2644	N.A.Y.*	Technical Studies and Urbanism	30	Core

* The module's code will be updated latter according to the UEL partner Web Marks Entry (WME) system.

The following Table shows the content of each module of the ENVR programme courses, percentage weighting and the assessment method:

Module Code	Module Name	(curriculum 2013)		(curriculum 2018)		Assessment Method
		Component of Assessment	%	Component of Assessment	%	
Arch. & Urbanism (UEL)Foundation-ASU Level 1						
EG0311 AR3101 30Credits	Design Fundamentals Techniques	**ARC 136** Digital Presentation of the Built Environment-(2Credits)	30%	**ARC 142** Digital Presentation of the Built Environment-(2Credits)	30%	Portfolio of students' work includes a compilation of coursework of the 3 modules; each module includes samples of the following: Activities/Assignments 2 Quizzes 1 Midterm Exam Final Exam
		ARC 143 Control of Thermal Environment-(3Credits)	35%	**ARC 261** Control of Thermal Environment-(2Credits)	30%	
		UPL 121 Urbanism and Climate - (3Credits)	35%	**ASU112** Report Writing and Communication Skills-(3Credits)	40%	
EG0312 AR3102 30Credits	Architecture Design Studio (1)	**ARC 115** Architectural Design Studio (1)-(3Credits)	35%	**ARC111** Principles of Architecture Design Studio-(3Credits)	35%	Design portfolio, which is a compilation of students' coursework submissions indicating projects' progress 1 Midterm Exam Final Exam
		ARC 116 Shades, Shadows, and Perspective-(2Credits)	30%	**ARC141** Architectural Representation - (3Credits)	30%	
		ARC 152 Architectural Design Studio (2)-(3Credits)	35%	**ARC113** Vernacular Architecture Design Studio-(3Credits)	35%	
EG0313 AR3103 30Credits	History, Theory & Communication	**UPL 111** History and Theory of Urbanism-(2Credits)	25%	**UPL221** History and Theory of Urbanism (3Credits)	35%	Portfolio of students' work includes a compilation of coursework of the 4 modules; each module includes samples of the following: Activities/Assignments 2 Quizzes 1 Midterm Exam Final Exam
		ARC 122 History and Theory of Architecture-(2Credits)	25%	**ARC133** Introduction to History and Theory of Arts and Architecture - (3Credits)	35%	
		HUM x91 Humanities Elective (1) -(2Credits) HUM x72 Trends in Contemporary Arts OR HUM x71 Music Appreciation, OR HUM x86 Engineering History	25%	**ASU Elective (2)** - (2Credits) **ASU335** Literature and Arts **OR** **ASU333** Introduction to Marketing **OR** ASU334 Building Safety and Fire Protection	30%	
		HUM x52 Communication & Presentation Skills-(2Credits)	25%			
EG0314 AR3104 30Credit	Building Technology and Materials **(1)**	**CEP 114** Land Surveying-(2Credits)	20%	**CEP113** Surveying (2Credits)	25%	Portfolio of students' work includes a compilation of coursework of the 4 modules; each module includes samples of the following: Activities/Assignments 2 Quizzes 1 Midterm Exam Final Exam
		CES 117 Structure Analysis- (3Credits)	25%	**CES115** Structural Analysis for Architecture Engineering- (2Credits)	25%	
		CES 143 Building Engineering Materials-(3Credits)	25%	**CES151** Structures and Properties of Construction Materials - (2Credits)	20%	
		ARC 132 Building Technology (1) - (3Credits)	30%	**ARC151** Building (1): Conventional Construction Systems-(3Credits)	30%	

Module Code	Module Name	(curriculum 2013)		(curriculum 2018)		Assessment Method
		Component of Assessment	%	Component of Assessment	%	
Arch. & Urbanism (UEL)Level 4 –(ASU) Level 2						
EG0421 AR4101 30Credit	Issues of the Built Environment	**UPL 211** Introduction to Urban Design-(3Credits)	40%	**UPL212** Principles of Urban Design and Landscape -(3Credits)	40%	Portfolio of students' work includes a compilation of coursework of the 3 modules; each module includes samples of the following: Activities/Assignments 2 Quizzes 1 Midterm Exam Final Exam
		UPL 212 People and Environment -(3Credits)	30%	**ARC241** Modelling of The Built Environment-(2Credits)	30%	
		UPL 224 Sustainable Urban Development-(3Credits)	30%	**ASU114** Selected Topics in Contemporary issues-(2Credits)	30%	
EG0422 AR4102 30Credit	Building Technology and Materials **(2)**	**ARC 232** Building Technology (2) -(3Credits)	40%	**ARC253** Building (3): Sustainable Construction -(3Credits)	35%	Portfolio of students' work includes a compilation of coursework of the 3 modules; each module includes samples of the following: Activities/Assignments 2 Quizzes 1 Midterm Exam Final Exam
		ARC 243 Renewable Energy and Buildings-(2Credits)	25%	**ARC 363** Renewable Energy and Buildings-(2Credits)	30%	
		ARC 245 Principles of Sustainable Architecture-(3Credits)	35%	**ARC 262** Principles of Sustainable Architecture -(3Credits)	35%	
EG0423 AR4103 30Credit	Architectural Design Studio (2)	**ARC 252** Environmental Architectural Design Studio (1) -(3Credits)	35%	**ARC 213** Environmental Architecture Design Studio (1) -(3Credits)	35%	Design portfolio, which is a compilation of students' coursework submissions indicating project progress 1 Midterm Exam Final Exam
		ARC 253 Environmental Architectural Design Studio (2) -(3Credits)	35%	**ARC 214** Environmental Architecture Design Studio (2) -(3Credits)	35%	
		UPL 261 Ecological Landscape -(2Credits)	30%	**UPL242** Sustainable Urban Landscape-(3Credits)	30%	
EG0424 AR4104 30Credit	Technical Studies in Architecture (1)	**ARC 242** Acoustics in Architecture-(2Credits)	25%	**ARC362** Acoustics in Architecture -(2Credits)	25%	Portfolio of students' work includes a compilation of coursework of the 4 modules; each module includes samples of the following: Activities/Assignments 2 Quizzes 1 Midterm Exam Final Exam
		ARC 244 Lighting in Architecture-(2Credits)	25%	**ARC 261** Lighting in Architecture-(2Credits)	25%	
		CES 225 Reinforced Concrete Structures-(2Credits)	25%	**CES226** Concrete Structures for Architecture Engineering -(2Credits)	25%	
		CEP 241 Green Infrastructure-(2Credits)	25%	**CEP251** Green Building Systems and Infrastructure-(2Credits)	25%	

Module Code	Module Name	(curriculum 2013)		(curriculum 2018)		Assessment Method
		Component of Assessment	%	Component of Assessment	%	
Arch. & Urbanism (UEL) Level 5 –(ASU) Level 3						
EG0531 AR5103 15Credit	Principles of Law and Project Evaluation	**ARC 4xx/ UPL 4xx** Technical Elective (1) -(3Credits) ARC 426 Architectural Criticism and Project Evaluation UPL 475 Urban and Architectural Heritage	60%	**Environmental Architecture Elective (1)** -(2Credits) **ARC 322** Architectural Criticism and Project Evaluation **OR** **ARC323** Built Environment Accessibility	40%	Portfolio of students' work includes a compilation of coursework of the 2 modules; each module includes samples of the following: Activities/Assignments 2 Quizzes 1 Midterm Exam Final Exam
		HUM x42 Principles of Law & Human Rights-(2Credits)	40%	**ASU113** Professional Ethics and Legislations -(3Credits)	60%	
EG0532 AR5104 30Credit	Tendering, and Execution Documents	**ARC 334** Working Drawings (1) -(3Credits)	35%	**ARC351** Working Design (1): Execution Drawings Coordination, Annotation and Coding -(3Credits)	35%	Portfolio of students' work includes a compilation of coursework of the 3 modules; each module includes samples of the following: Activities/Assignments 2 Quizzes 1 Midterm Exam Final Exam
		ARC 335 Working Drawings (2) -(3Credits)	35%	**ARC352** Working Design (2): Blow-Ups Detailing, Items Specifications and BOQs-(3Credits)	35%	
		CES 325 Steel Structures-(3Credits)	30%	**CES345** Steel Structures for Architecture Engineering -(2Credits)	30%	
EG0533 AR5105 30Credit	Architectural Design Studio (3)	**ARC 354** Sustainable Architectural Design Studio (1) -(3Credits)	35%	**ARC 312** Sustainable Architecture Design Studio (1) -(3Credits)	35%	Design portfolio, which is a compilation of students' coursework submissions indicating project progress 1 Midterm Exam Final Exam
		ARC 355 Sustainable Architectural Design Studio (2) -(3Credits)	35%	**ARC 313** Sustainable Architecture Design Studio (2) -(3Credits)	35%	
		UPL 362 Eco Urban Design (2) -(3Credits)	30%	**UPL 313** Eco Urban Design -(3Credits)	30%	
EG0534 AR5106 30Credit	Technical Studies in Architecture (2)	**UPL 315** Eco Urban Design (1) -(3Credits)	40%	**UPL332** Sustainable Urban Development -(3Credits)	35%	Portfolio of students' work includes a compilation of coursework of the 3 modules; each module includes samples of the following: Activities/Assignments 2 Quizzes 1 Midterm Exam Final Exam
		ARC 316 Modelling of the Built Environment-(2Credits)	30%	**ARC365** Building Performance Simulation-(3Credits)	35%	
		HUM x53 Research & Analysis Skills-(2Credits)	30%	**ASU Elective (1)- ASU321** Innovation and Entrepreneurship **OR** **ASU324** History of Engineering & Technology **OR** **ASU322** Language Course (2Credits)	30%	
EG0535 AR5107 15Credit	Real Estate Management & Development	**UPL 313** Housing Studies and Design -(3Credits)	50%	**UPL 351** Housing Studies -(3Credits)	60%	Portfolio of students' work includes a compilation of coursework of the 2 modules; each module includes samples of the following: Activities/Assignments 2 Quizzes 1 Midterm Exam Final Exam
		UPL 343 Sustainable Urban Landscape -(3Credits)	50%	**ARC371** Architecture Project Management -(2Credits)	40%	

Module Code	Module Name	(curriculum 2013)		(curriculum 2018)		Assessment Method
		Component of Assessment	%	Component of Assessment	%	
Architecture Track (UEL)Level 6 –(ASU)Level 4						
EG1641 N.A.Y. 30Credit	Architectural Design Studio (4)	**ARC 456** Sustainable Architectural Design Studio (3) -(3Credits)	35%	**UPL412** Sustainable Contextual Architecture Design Studio - (3Credits)	40%	Design portfolio, which is a compilation of students' coursework submissions indicating project progress 1 Midterm Exam Final Exam
		ARC 476 Execution Documents -(3Credits)	35%	**ARC451** Working Design (3): Execution Documents Complexity -(3Credits)	40%	
		UPL 441 Eco Urban Design (3) -(3Credits)	30%	**ASU111** Human Rights --(2Credits)	20%	
EG1642 N.A.Y. 30Credit	Architectural Design and Contextual Studies	**ARC 415** Building Performance Simulation-(2Credits)	25%	**ARC493** Environmental Architecture Graduation Project (1) -(2Credits)	25%	Design portfolio, which is a compilation of students' coursework submissions indicating project progress 1 Midterm Exam Final Exam
		ARC 492 Studies and Program of Graduation Project-(2Credits)	25%	**ARC494** Environmental Architecture Graduation Project (2) -(6 Credits)	75%	
		ARC 493 Graduation Project-(4Credits)	50%			
EG1643 N.A.Y. 30Credit	Architectural technical studies	**ARC xxx** Technical Elective (2) -(3Credits) ARC 447 Outdoor Noise Propagation in Built Environment	25%	**Environmental Architecture Elective (2)** -(2Credits) **ARC368** Soundscape and Aural Architecture **OR** **UPL381** Introduction to Geographic Information Systems	30%	Portfolio of students' work includes a compilation of coursework of the 4 modules; each module includes samples of the following: Activities/Assignments 2 Quizzes 1 Midterm Exam Final Exam
		ARC 4xx Technical Elective (3) -(3Credits) ARC 441 Building Life Cycle Assessment	25%	**Environmental Architecture Elective (3)** -(3Credits) **ARC 473** Building Life Cycle Assessment **OR** **UPL424** Selected Topics in Architecture and Urbanism	35%	
		ARC 4xx Technical Elective (4) -(3Credits) ARC 445 Economics of Green Building	25%	**Environmental Architecture Elective (4)** -(3Credits) **UPL435** Urban and Architectural Heritage **OR** **UPL436** Urban Renewal	35%	
		HUM x92 Humanities Elective (2) -(2Credits) HUM x63 Technology of Ancient Egypt	25%			
EG1644 N.A.Y. 30Credit	Technical Studies and Building Systems	**ARC 443** Renewable Energy Systems -(3Credits)	35%	**ARC463** Renewable Energy Systems and Economics - (2Credits)	30%	Portfolio of students' work includes a compilation of coursework of the 3 modules; each module includes samples of the following: Activities/Assignments 2 Quizzes 1 Midterm Exam Final Exam
		UPL 474 Environmental Impact Assessment -(3Credits)	35%	**UPL 463** Environmental Impact Assessment -(3Credits)	40%	
		ARC 448 Sustainable Building Rating Systems-(2Credits)	30%	**ARC 462** Sustainable Building Rating Systems-(2Credits)	30%	

Module Code	Module Name	(curriculum 2013)		(curriculum 2018)		Assessment Method
		Component of Assessment	%	Component of Assessment	%	
Urbanism Track (UEL)Level 6 –(ASU) Level 4						
EG2641 N.A.Y. 30Credit	Urbanism Design Studio (4)	**ARC 456** Sustainable Architectural Design Studio (3) -(3Credits)	35%	X		Design portfolio, which is a compilation of students' coursework submissions indicating project progress 1 Midterm Exam Final Exam
		UPL 446 Introduction to Geographic Information System (GIS) -(3Credits)	35%	X		
		UPL 441 Eco Urban Design (3) -(3Credits)	30%	X		
EG2642 N.A.Y. 30Credit	Urban technical studies	**UPL 4xx** Technical Elective (2) -(3Credits) UPL 424 Economics for Sustainability	25%	X		Portfolio of students' work includes a compilation of coursework of the 4 modules; each module includes samples of the following: Activities/Assignments 2 Quizzes 1 Midterm Exam Final Exam
		UPL 4xx Technical Elective (3) -(3Credits) UPL 423 Smart Cities	25%	X		
		UPL 4xx Technical Elective (4) -(3Credits) UPL 422 Selected Topics in Urbanism	25%	X		
		HUM x92 Humanities Elective (2) -(2Credits) HUM x63 Technology of Ancient Egypt	25%	X		
EG2643 N.A.Y. 30Credit	Urban Design and Contextual Studies	**UPL 445** Sustainable Urban Mobility-(2Credits)	25%	X		Design portfolio, which is a compilation of students' coursework in the 3 modules. The first module includes samples of the following: Activities/Assignments 2 Quizzes 1 Midterm Exam Final Exam. The second and third modules include samples of the students' report progress, report presentation, posters of the report and the project, and capstone project progress.
		UPL 495 Studies and Program of Graduation Project -(2Credits)	25%	X		
		UPL 496 Graduation Project -(4Credits)	50%	X		
EG2644 N.A.Y. 30Credit	Technical Studies and Urbanism	**CES 447** Sustainable Waste Management-(2Credits)	30%	X		Portfolio of students' work includes a compilation of coursework of the 3 modules; each module includes samples of the following: Activities/Assignments 2 Quizzes 1 Midterm Exam Final Exam
		UPL 448 Environmental Planning-(3Credits)	35%	X		
		UPL 474 Environmental Impact Assessment -(3Credits)	35%	X		

3 KEY STAFF AND CONTACT DETAILS

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Circumstances in which student can access UEL directly

You will find that for most issues that arise during the course of your studies academic and administrative staff at your location of study will be able to help, and further details are provided in this handbook. If however you have concerns that lie outside the remit of these staff you can contact the UEL link person [see further details below] in the first instance who will be able to re-direct your enquiry as appropriate.

The UEL Academic Link Tutor is appointed to manage the relationship between the Programme Leader at ASU- FoE and UEL. Students may meet the UEL Link Person at Programme Committee Meetings.

Please contact your local Student Support/Administrative Office if you have any queries, in the first instance. If you have been advised by your local office to contact UEL then please send an e-mail to the **UEL Academic Link Tutor** at ***h.elsharkawy@uel.ac.uk***.

4 PROGRAMME OPERATION AND STUDENT REGISTRATION

4.1 Enrolment Requirements

- Students eligible to get enrolled on the Programmes are those with the general certificate of secondary education (Thanaweya Amma), mathematics section, or equivalent, who have been deployed to the Faculty through the Coordination Office, or transferred from other Faculties, in accordance with the rules and conditions established annually by the Supreme Council of Universities.
- The Council of the Faculty of Engineering establishes general rules for admission to the programmes considering the student preferences and the principle of equal opportunities as the basis for the admission of students to these programmes.
- All students will be required to have gained an overall IELTS score of 6.0 and meet the required Speaking, Listening, Reading and Writing grades (not less than 5.5) before being enrolled or registered on the UEL/ASU dual award programme.
- A student can gain advanced entry on the dual award programme, if they have successfully completed a previous lower level on the associated ASU programme, including having met the IELTS criterion mentioned above.

4.2 Study Timings and Registration

The academic year comprises three semesters:
- **First main semester (Fall)**: Begins early September and lasts for 15 weeks.
- **Second main semester (Spring)**: Begins early February and lasts for 15 weeks.
- **Summer semester**: Begins late June and lasts for 7 weeks.

- New students' enrolment in the programmes starts two weeks before the starting of the Fall semester, after fulfilling all the programmes requirements and paying the enrolment fees, as recommend by the Programs Administration Council and set by the Council of the Faculty of Engineering.
- Registration for any semester takes place within two weeks before the starting day of the semester. Registration is not final until the full tuition fees of the semester are paid.
- Registration in the Summer semester is optional.
- The student must register 120 credits per academic year or 60 credits per semester, after consulting the academic advisor, at the time of registration and according to the yearly rules issued by the Faculty and published in the student's guide. Registration is not final until the student pays the educational service fees for the semester.
- There will be one intake point per year, which will be in September.
- Late registration is not final unless there is a vacancy in the courses, and the student should pay late registration fees besides the prescribed academic service fees, in accordance with the recommendations of the Programmes Administration Council and approval of the Council of the Faculty of Engineering regarding this issue.
- The student may not register in any course without fulfilling all its prerequisites.

- The programme academic regulations are available at ***https://eng.asu.edu.eg/BylawsAndRegulations***

- The Local Attendance and Engagement policy is available at ***https://eng.asu.edu.eg/uploads/uploadcenter/asu_594_file.pdf***
- UEL University's academic regulations are available at: Academic Framework Regulations (see Manual of General Regulations, Part 3)
- ***https://www.uel.ac.uk/Discover/Governance/Policies-Regulations-Corporate-documents/Student-Policies/Manual-of-General-Regulations***

It is essential that you log in to UEL direct and enrol with UEL using the UEL student number that you have be given prior to attending any lectures. Your programme leader will be able to assist you with this.

Once you have gained admission to the programme you must login to the UEL direct page using your student username which will be your UEL ID number and password and complete the on-line enrolment. ASU – FoE will assist and ensure that you complete your online enrolment task promptly. UEL Direct is available at ***https://www.uel.ac.uk/students***

For general enquiries concerning enrolment, you must contact your local Student Support/Administrative Office for guidance in the first instance and then if you are advised to contact UEL, please send an e-mail to the UEL Academic Partnerships Office at ***apo@uel.ac.uk***.

5 TEACHING, LEARNING AND ASSESSMENT

5.1 Details of local teaching and learning approaches

- No distance learning is implemented.
- The programme is a credit bearing system leading to the Bachelor of Science Degree (Honours) after completing 480 credits. Student evaluation is based not only on final exam, but also on midterm exams, quizzes, assignments, course projects, presentations, papers, essays, in/out of class participation and many other innovative activities.
- The student must pass the College requirements, which consist of basic sciences and engineering courses. These courses must be studied by all students and they represent 120 credits at Foundation level.
- Course instructors in the programme are carefully selected from the distinct full-time world-class faculty members of the Faculty of Engineering at Ain Shams University.
- Although this is not compulsory, the student is encouraged to perform summer training for 12 weeks during his study duration. Training must be performed in an industrial/service facility related to the student's programme, and must be under the full supervision of the faculty.
- With the majority of modules being delivered over the whole year there is excellent scope for formative assessment to stretch and extend the students. Thus, a key feature of the courses is the emphasis on formative feedback and guidance to enable students to develop full understanding of the topics of study, prior to assessment taking place.
- Assessment for these programmes takes the form of examinations, course works, presentations and time constrained assessments as can be seen below in the Assessment Work Load mapping.
- Each course syllabus should contain: course objectives, textbook, outline, material, assessments, grading policy and outcome. Outline should contain sections covered every week with reference to chapters/sections in the textbook. The instructor should give the course syllabus to the students in the first class. The syllabus serves as a contract between the instructor and the students.

5.2 Details of local assessment arrangements

a) Passing Modules

The student must achieve a minimum of 40% in a module in order to pass a module.

b) Incomplete Modules

If a student does not pass the module, another set of assessments (resits) are conducted after the semester's final exams during the resit period). The marks of the resit are capped at 40% unless extenuation is granted (see section 13).

c) Modules opportunities

A module resit is considered a second opportunity. If a student fails at the second opportunity they will be given a maximum of two further opportunities (opportunity three and opportunity four).

The third opportunity requires full attendance of the module in the next academic year. The fourth opportunity will be a further resit. In each case the final mark is capped at 40% unless extenuation is granted (see section 13).

d) Repeating a year

If a student fails to achieve 90 or more credits within an academic year they may, at the discretion of the Exam Board, be asked to either leave the course or repeat the whole academic year (with mark uncapped). A student will only be allowed to repeat an academic year once at most during their studies.

5.3 Degree Classification

Where a student is eligible for an Honours degree by passing a valid combination of modules to comprise an award and has gained a minimum of 240 UEL credits at level 5 or level 6 on the current enrolment for the programme, including a minimum of 120 UEL credits at level 6, the award classification is determined by calculating:

The arithmetic mean of the best 90 credits at level 6	x	0.8	+	The arithmetic mean of the next best 90 credits at levels 5 and/or 6	x	0.2

and applying the mark obtained as a percentage, with all decimals points rounded up to the nearest whole number, to the following classification

70% - 100%	First Class Honours
60% - 69%	Second Class Honours, First Division
50% - 59%	Second Class Honours, Second Division
40% - 49%	Third Class Honours
0% - 39%	Not passed

For full details of the University degree classification refer to ***http://www.uel.ac.uk/wwwmedia/internal/qa/committees/documents/Academic-Framework---Assessment-Regulations---with-changes-approved-for-Transition-Group.doc***

Grades of the ENVR Programme modules

The points of each credit hour are computed as follows:

Ain Shams University			University of East London
Percentage of total mark at ASU	**Grade**	**Points for GPA**	**Percentage equivalent at UEL**
97% and higher	A+	4.0	95% and higher
93% to less than 97%	A	4.0	82% to less than 95%
89% to less than 93%	A-	3.7	70% to less than 82%
84% to less than 89%	B+	3.3	66% to less than 70%
80% to less than 84%	B	3.0	63% to less than 66%
76% to less than 80%	B-	2.7	60% to less than 63%
73% to less than 76%	C+	2.3	56% to less than 60%
70% to less than 73%	C	2.0	53% to less than 56%
67% to less than 70%	C-	1.7	50% to less than 53%
64% to less than 67%	D+	1.3	45% to less than 50%
60% to less than 64%	D	1.0	40% to less than 45%
Less than 60%	F	0.0	Less than 40%

5.4 References to student policies

ASU-FoE available at: ***https://eng.asu.edu.eg/uploads/uploadcenter/asu_594_file.pdf***
UEL available at:
https://www.uel.ac.uk/Discover/Governance/Policies-Regulations-Corporate-documents/Student-Policies

Also detailed in Appendix B which provides full information on referencing and the avoidance of plagiarism.

The electronic version of "Cite Them Right: *the essential referencing guide"* 9th edition, can be accessed whilst on or off campus, via UEL Direct. The book can only be read online and no part of it can be printed nor downloaded.

Reference to Appendix E containing information on Academic Misconduct and Plagiarism. Assessment and Feedback Policy available at:
https://eng.asu.edu.eg/uploads/uploadcenter/asu_594_file.pdf

Assessment and feedback are fundamental parts of your learning experience. The UEL Assessment and Feedback Policy seeks to:

- actively promote student success and academic achievement;
- provide clear, accurate, accessible information and guidelines to all staff and students on assessment and feedback;
- maximise the potential for consistency and fairness in assessment;
- locate assessment and feedback as an integral part of learning and teaching processes.

Every component of assessment that contributes to an award, at all levels, is subject to internal and External Examiner moderation. This ensures the maintenance of standards both internally and in comparison, with similar programmes delivered at other higher education institutions. The UEL Assessment and Feedback Policy outlines the process for the various stages of the marking process and is available at ***https://www.uel.ac.uk/Discover/Governance/Policies-Regulations-Corporate-documents/Assessment-and-Feedback-Policy***

The UEL Skills Curriculum has been designed to ensure that you are taught, have the opportunity to practice, and are assessed in three skillsets: Learning Skills, Professional Skills and Research Skills. These Skills are developed within your programme of study. Further information is available at:
https://www.uel.ac.uk/discover/governance/policies-regulations-corporate-documents/student-policies/skills-curriculum

The UEL Skills Portal has been designed to act as a single gateway to a whole range of skills support that will help you progress through your studies. From tips on academic writing, using IT, to guidance on time management and exam revision - all of the resources in the UEL Skills Portal have been designed to support your learning and achievement, refer to
https://uelac.sharepoint.com/LibraryandLearningServices/Pages/Skillzone.aspx

As a student you will be taught how to write correctly referenced essays using UEL's standard Harvard referencing system from Cite Them Right**.** Cite them Right is the standard Harvard referencing style at UEL for all Schools apart from the School of Psychology which uses the APA system. This book will teach you all you need to know about Harvard referencing, plagiarism and collusion. The electronic version of "Cite Them Right: *the essential referencing guide"* 9th edition, can be accessed whilst on or off campus, via UEL Direct. The book can only be read online and no part of it can be printed nor downloaded.

Further information is available at Appendix E and the weblinks below:
Harvard referencing
https://uelac.sharepoint.com/LibraryandLearningServices/Pages/Harvard-Referencing-.aspx

Academic Integrity
https://uelac.sharepoint.com/LibraryandLearningServices/Pages/Academic-integrity.aspx

5.4 Assessment Criteria

A student's performance will be marked and graded according to pre-specified and clear assessment criteria. These will normally be presented in one document combining marking and grading criteria. Further details can be found in section 2.3 of the Assessment and Feedback Policy and can be found at: ***www.uel.ac.uk/qa/policies/assessmentpolicy/***

As your degree progresses, you will be assessed in a number of different ways. In addition to examinations, you will have a range of coursework assessments such as reports or presentations, for which you will be given clear guidance by the module leader including how you will be assessed for that piece of work. You are also referred to

The section below gives you a general guideline of what we are looking for at different levels of the programme.

5.4.1 Level 3

- You demonstrate understanding of factual information.
- With some help, you can process and evaluate given information and draw some conclusions.
- You can follow guidelines in developing solutions to simple problems.

5.4.2 Level 4

- You can present factual information.
- With some help, you can analyse and evaluate the information presented and draw some conclusions.
- You can follow guidelines in creating solutions to straightforward problems.

Work of a better standard usually reflects an approach where

- You have required little additional guidance in producing your work.
- You have shown initiative where appropriate.
- You meet your obligations to others
- You have fully appreciated the complexity of a task and managed your time and resources accordingly.
- Your work is presented with care and forethought.

5.4.3 Level 5

- Your work displays a detailed knowledge of the topic. You are aware of other contexts that can be applied to this knowledge.
- With some guidance you can analyse data and situations in a range of different contexts.
- You can take information gathered or the ideas of others and re-format it to your own purpose.
- You can select appropriate evaluation techniques. You can use these to evaluate your own findings.

Work of a better standard usually reflects an approach where

- You have required minimal additional assistance
- You have been particularly creative in devising and implementing you chosen solution

- You have identified the key elements of problems and chosen the appropriate strategies to resolve them.
- You have communicated your work in a clear and concise manner.

5.4.4 Level 6

- Your work displays a comprehensive and detailed knowledge of the topic with areas of specialisation showing depth of understanding.
- You are aware of current developments.
- Without guidance you can analyse data and situations in a range of different contexts.
- You can develop creative and innovative solutions with little guidance.
- You can review evidence critically and use your findings to support conclusions and recommendations.

Work of a better standard usually reflects an approach where

- You have not required any additional assistance
- You have proved you can manage your own learning and make full use of a wide range of resources.
- You have been confident in your ability to solve problems.
- You have communicated your work in a thoroughly professional and coherent manner.

- The marks of each course are distributed as percentages of the total mark according to the following rules:
    1. A final written exam will be held for each course at the end of the semester that weighs 40% of the total course marks, with the exception of the graduation project.
    2. Semester-work represents 60% of the total course marks, which includes the mid-term exam in the sixth or seventh week of the semester that weighs 25% of the total course marks. The remaining 35% of the total course marks are distributed among research, reports, quizzes ... etc., practical/oral exams, participations ... etc.
- The student must attend at least 75% of the course.
- The minimum mark that must be earned in any component is 30% of the total mark, 40% overall, otherwise the student will fail the course irrespective of the total marks he earned in the course and he will get an F grade in this course.
- The student fails the course if he obtains an F grade, or was prevented from attending the final examination because of exceeding the absence percentage or cheating … etc, or did not attend the final examination without submitting an excuse that is accepted by the Programmes Administration Council and approved by the Council of the Faculty of Engineering.

Research Integrity

The University of East London conducts high quality, innovative research and is guided by the principles and standards outlined in The Concordat to Support Research Integrity, 2012; the University's Code of Practice for Research; Code of Practice for Research Ethics and Procedures for the Investigation of Misconduct in Research, for staff and students. The Concordat seeks to provide a national framework for good research governance and its conduct, and applies to all fields of research supporting a research environment that is

underpinned by ethical values. The University adheres to its responsibility to support and promote the highest standards of rigour and integrity and embed a culture of honesty, transparency and care and respect for all participants and subjects of research. The University is committed to ensuring that research is conducted with integrity and good research practices are upheld.

Risk Assessment

The University has a duty of care to its researchers and a responsibility to safeguard the welfare of research participants. Risk management should be considered at the same time as planning a research project. A comprehensive risk assessment helps to identify and evaluate potential hazards associated with the research project. Students in consultation with their supervisors should put control measures in place to minimise the likelihood of an event occurring that will cause harm. A risk assessment must be completed for research taking place within and outside of the University, fieldwork and research conducted overseas, before the project commences. The risk assessment should be completed by the student in collaboration with the supervisor and authorised by the Dean of the School or Associate/Acting Dean. If students consider that human participants in their, or others,' research are subject to unreasonable risk or harm, they must report the concerns to their supervisor and, where necessary, to the appropriate regulatory authority. Similarly, concerns relating to the improper and/or unlicensed use or storage of human material or non-human animal or the improper use or storage of personal data, should also be reported.

Further guidance on risk assessments can be found in the University's Health & Safety Handbook:
https://uelac.sharepoint.com/HealthandSafetyUnit/Pages/H%26S-Handbook.aspx

6 MODULE SPECIFICATIONS

<table>
<tr><td>Module Title:
Design Fundamentals Techniques</td><td>Module Code: EG0311 / AR3101

Level: 3

Credit: 30

ECTS credit: 15</td><td>Module Leader:
Dr Sabah Soliman</td></tr>
<tr><td colspan="2">Pre-requisite: None</td><td>Pre-cursor: None</td></tr>
<tr><td colspan="2">Co-requisite:</td><td>Excluded combinations:</td></tr>
<tr><td colspan="3">Location of delivery: Ain Shams University Campus</td></tr>
<tr><td colspan="3">Main aim(s) of the module:
By the end of this module, the student will be able to:

• Enrich their basic knowledge about digital computer graphics (raster and vector graphics).
• Develop the ability to use most popular architectural software to generate architectural graphics.
• Specify most suitable specifications of an image according to its plotted size, resolution and details.
• Differentiate between natural and artificial methods for controlling climate
• Recognize different characteristics of natural elements like the sun, wind, and their interaction with the built environment
• Identify the principles of human thermal comfort
• Analyse problems that might emerge with current practices of high energy-consumption methods of cooling and ventilation
• Decide the better ways and methods to achieve thermal comfort in buildings.
• Integrate different methods to reach thermal comfort in the internal spaces.
• Design buildings to accomplish thermal comfort in their internal spaces.
• Innovate new ways to achieve and integrate methods of thermal comfort in the internal spaces.
• Develop strategies and acquire skills for effective communication in the professional career with the aid of new technologies and software.</td></tr>
<tr><td colspan="3">Main topics of study:

• Digital Presentation of the Built Environment
• Control of Thermal Environment
• Urbanism and Climate</td></tr>
<tr><td colspan="3">Learning Outcomes for the module

At the end of this module, students will be able to:
1. Define the indoor environment quality, thermal comfort, climatic parameters, and micro climate
2. Review and criticise the different thermal comfort charts and tables to conclude the proper thermal treatments inside and outside the buildings.
3. Analyse the effect of the microclimate, vegetation, orientation on the built environment in different climates
4. Suggest different architectural design solutions to achieve thermal comfort by achieving heating, moistening, ventilation, and/or cooling through the internal spaces depending on the building form, materials, and added elements.
5. Design the shading elements for the different facades orientations, by using the sun path diagram of any position and the sun protractor.
6. Use the elements of sun, wind and daylight as they pertain to passive design, focusing on building form and solar radiation, natural ventilation strategies and day lighting design principles and applications</td></tr>
</table>

7. Apply AutoCAD programme to draft simple schematic architectural drawings
8. Apply Adobe Photoshop raster graphics application to render simple graphics
9. Apply Sketchup to create a complete conceptual 3d model.
10. Write & Present Reports and communicate ideas effectively

Teaching/ learning methods/strategies used to enable the achievement of learning outcomes:

For on campus students:

Learning will be supported through lectures delivered on Campus, to explain theoretical background of related topics and explain basic methodology for analysis and practical work. Materials will be available through external websites, chapters from print books, and lectures handouts. The learning process will be also supported through tutorials for understanding the application of theories. This will take place in form of practical assignments and quizzes throughout the module.

The learning content will be organised in a number of topics and clear indication will be given to the students as to how they are advised to progress through the topics. Each topic will have its own learning outcomes and will contain advice on how to engage most effectively with the learning materials for the topic. Key concepts and models will be highlighted and revision notes or summaries will be provided as appropriate. There will be formative assessment or opportunities for self-assessment to enable students to monitor their learning. Feedback on coursework will be provided and students will be able to discuss their feedback with module leaders and tutors.

Assessment methods which enable students to demonstrate the learning outcomes for the module: **For on Campus Students**	**Weighting:**	**Learning Outcomes demonstrated:**
Portfolio of students' work includes a compilation of coursework of the packed ASU courses; Each ASU Course component would include samples of the following: Activities/Assignments 2 Quizzes 1 Midterm Exam Final Exam	100%	1,2, 3, 4, 5, 6, 7, 8, 9, 10

Reading and resources for the module:

Core

- Elwakil, Shafak, CLIMATE, 2nd edition, 2012
- Steffen Lehmann, WHAT IS GREEN URBANISM? Holistic Principles to Transform Cities for Sustainability Steffen Lehmann University of South Australia, Research Centre for Sustainable Design and Behaviour
- Fabbri, K., 2015. Indoor thermal comfort perception. *A Questionnaire Approach Focusing on Children; Springer: New York City, NY, USA*.
- Parsons, K., 2014. *Human thermal environments: the effects of hot, moderate, and cold environments on human health, comfort, and performance*. CRC press.
- Nicol, F., Humphreys, M. and Roaf, S., 2012. *Adaptive thermal comfort: principles and practice*. Routledge.
- http://docs.autodesk.com/3DSMAX/16/ENU/3ds-Max-Help/index.html
- http://www.sketchup.com/learn

Recommended

- Philip James and al., (2011) Urban Ecology: Patterns, Processes, and Applications Reprint Edition) Oxford Press
- Hall, M.R. ed., 2010. *Materials for energy efficiency and thermal comfort in buildings*. Elsevier.
- Orosa, J.A. and Oliveira, A.C., 2012. *Passive methods as a solution for improving indoor environments*. Springer Science & Business Media.
- Huizenga, C., Abbaszadeh, S., Zagreus, L. and Arens, E.A., 2006. Air quality and thermal comfort in office buildings: results of a large indoor environmental quality survey.

- https://www.simscale.com/blog/2016/08/thermal-comfort-in-buildings/. - http://www.hse.gov.uk/temperature/thermal/factors.htm - http://nceub.org.uk/dokuwiki/lib/exe/fetch.php?media=nceub:uploads:members:w200 - 6:session10:w2006_saberi.pdf - http://www.energy-design-tools.aud.ucla.edu/climate-consultant/request-climate-consultant.php - http://www.energy-design-tools.aud.ucla.edu/ - http://susdesign.com/tools.php	
Indicative learning and teaching time (10 hrs per credit):	**Activity**
1. Student/tutor interaction:	- Practical work in the computer lab under supervision of their tutors. - Individual assignments with the guidance of lectures and tutors. - Group assignments of research, including oral presentations. - Participation in lectures and involvement in delivered topics. - Total (200 Hours)
2. Student learning time:	- Preparation of group presentations. - Take home assignments and quizzes (including theory and practice). - Readings assigned. - Preparation for examinations. - Total (100 Hours)
Total hours (1 and 2):	**300 Hours**

Module Title: Architecture Design Studio (1)	**Module Code:** EG0312 / AR3102 **Level: 3** **Credit: 30** **ECTS credit: 15**	**Module Leader**: Dr Sabah Soliman
Pre-requisite: None		**Pre-cursor: None**
Co-requisite:		**Excluded combinations:**
Location of delivery: Ain Shams University Campus		

Main aim(s) of the module:

The module aims to provide students with a broad, varied, stimulating range of projects that introduce them to the skills, processes and practices involved in making design projects. The module intends to facilitate students to develop a critical, disciplined and productive approach to the act of designing and to support independent thinking, making and communicating.

In phase 1 the module aims to support experiment and trial and error, through short design orientated projects and exercises that build confidence and competence. Briefs are introduced so that design ideas are explored both individually and in groups. These aim to introduce a suitable work ethic and the practise of design as an iterative process.

In phase 2, more open ended interpretive and longer individual projects allow for fostering a personal perspective and sense of direction, reinforcing independence and commitment to generating and developing more self-motivated, innovative, enquiry based project work within a principal area of specialisation.

Through completing design projects set in this module, students will develop and evolve their portfolio of work in a distinctive way that is evidence of increasing subject specificity and an ability to make an informed choice of progression pathway. By the end of this module, the student will be able to:

- Relate fundamentals of architectural design through the design process, analysis, concepts, development and presentation.
- Design simple projects focusing on the functional relationships and the internal furniture to accommodate different functions.
- State Design objectives include orientation, privacy and spatial composition.
- Describe their design concepts and to present their designs based on their acquired presentation skills.
- Enhancing the student's ability of transforming architectural three-dimensional forms into two dimensional drawings and vice versa.
- Develop the abilities for visualization& representation based on scientific methods.
- Apply shade and shadow in architectural representation.
- Draw perspectives for architectural projects.

Main topics of study:

- Architectural Design Studio (1)
- Architectural Design Studio (2)
- Shades, Shadows, and Perspective

Learning Outcomes for the module

At the end of this module, students will be able to:

1. Relate different functional behaviour to design spaces in small scale Architectural Projects.
2. Illustrate design concepts in harmony with function and perceptual.
3. Find problem solutions and develop solving skills, developed through a multitude of learning and teaching modes
4. Choose, analyse and apply different Design techniques.
5. Interpret conceptual ideas into various Architectural forms
6. Design small Architecture Projects, with the complexity of iterative spaces.
7. Draw accurately the architectural shade and shadow.
8. Draw accurately different perspective types for buildings.
9. Apply shade, shadow and perspective drawings principles in exercises & architectural project.
10. Demonstrate successful model making skills.

Teaching/ learning methods/strategies used to enable the achievement of learning outcomes:

For on campus students:

Learning will be supported through lectures delivered on Campus, to explain theoretical background of related topics and explain basic methodology for analysis and practical work. Materials will be available through external websites, chapters from print books, and lectures handouts. The learning process will be also supported through tutorials for understanding the application of theories. This will take place in form of practical assignments and projects.

The learning content will be organised in a number of topics and clear indication will be given to the students as to how they are advised to progress through the topics. Each topic will have its own learning outcomes and will contain advice on how to engage most effectively with the learning materials for the topic. Key concepts and models will be highlighted and revision notes or summaries will be provided as appropriate. There will be formative assessment or opportunities for self-assessment to enable students to monitor their learning. Feedback on coursework will be provided and students will be able to discuss their feedback with module leaders
and tutors.

Assessment methods which enable students to demonstrate the learning outcomes for the module: **For on Campus Students**	**Weighting:**	**Learning Outcomes demonstrated:**
Portfolio of students' work includes a compilation of coursework of the packed ASU courses; Each ASU Course component would include samples of the following: submissions indicating projects' progress 1 Midterm Exam Final Exam	100%	1, 2, 3, 4, 7, 8, 9, 10

Reading and resources for the module:

Core

- Ching Francis, D.K., 1996. Architecture: form, space and order. *National Library, Iran*.
- Walliman, N. and Baiche, B., 2002. Architects' data: 3rd.
- Ernst Neufert, Peter Neufert, Bousmaha Baiche & Nicholas Walliman, "Architects' Data (3rd Edition)", Blackwell Publishing Limited, ISBN: 0632057718(22002)
- Yee, R., 2012. *Architectural drawing: A visual compendium of types and methods*. John Wiley & Sons.

Recommended

- Levinson, E.D., 1983. *Architectural rendering fundamentals*. Glencoe/McGraw-Hill School Pub Co.
- Lin, M.W., 1985. *Architectural rendering techniques: A color reference*. John Wiley & Sons.
- Montague, J., 2013. *Basic Perspective Drawing, Enhanced Edition: A Visual Approach*. John Wiley & Sons.
- Uddin, M.S., 1997. *Axonometric and Oblique Drawing: A 3-D Construction, Rendering and Design Guide*. McGraw-Hill.

Indicative learning and teaching time (10 hrs per credit):	**Activity**
1. Student/tutor interaction:	- Individual assignments including sketches for project design and engineering drawings with the guidance of lectures and tutors. (90 hrs.) - Group assignments of research, including oral presentations. (25 hrs.) - Participation in lectures and involvement in delivered topics. (25 hrs.) - 140 Hours
2. Student learning time:	- Preparation of group presentations. (25 hrs.) - Take home assignments and individual project work (90 hrs.) - Research Assignments. (25 hrs.) - Preparation for examinations. (20 hrs.) - 160 Hours
Total hours (1 and 2):	**300 Hours**

Module Title: History, Theory & Communication	**Module Code:** EG0313 / AR3103 **Level: 3** **Credit: 30** **ECTS credit: 15**	**Module Leader**: Prof. Marwa Khalifa
Pre-requisite:		**Pre-cursor:** None
Co-requisite: None		**Excluded combinations:** None
Location of delivery: Ain Shams University Campus		

Main aim(s) of the module:

- Introduce the scientific method to solve design problems and identify ways to design.
- Learn about ancient civilizations and cultures and classical ages
- Study of the relationship between architectural concepts and design philosophy in light of the natural and cultural influences and construction capabilities
- Learn the principles and theories of urbanism and their inter-relation with the surrounded urban environment context.
- Demonstrate knowledge of art/music related vocabulary
- Gain an appreciation for the aesthetics of the visual arts including the visual elements and principles of design in two- and three-dimensional media.
- Develop an informed personal reaction to the arts based upon critical analysis of various art forms

Main topics of study:

- History and Theory of Architecture
- History and Theory of Urbanism
- Trends in Contemporary Arts; OR Music Appreciation; OR Engineering History

Learning Outcomes for the module

At the end of this module, students will be able to:

1. Compose a suitable design approach and a strategic problem-solving technique
2. Recognize how art, music, and engineering history relate to architecture discipline
3. Distinguish the relationship between architectural concepts and design philosophy considering the natural and cultural influences and construction capabilities
4. Distinguish contributing theories and methodologies for formulating architectural thinking
5. List elements and land uses in different cities, variables that affect planning and urban form.
6. Describe the planning types applied in cities through history, different civilizations and their planning practices;
7. Postulate the different tiers of human settlements, according to the urban hierarchy pyramid.
8. Analyse the impact of planning theories developed in the 20th century on contemporary cities
9. Use methods of communication, including IT skills, graphical representation (drawing and CAD), oral communication and written communication
10. Communicate ideas effectively

Teaching/ learning methods/strategies used to enable the achievement of learning outcomes:
For on campus students:

- Lectures about different topics in the module are used.
- Tutorials run parallel to the lectures where more application is introduced.
- Students work on in class and take-home assignments.
- In addition, some site visits are arranged.
- Class presentations, peer review, public reviews or ‘juries’, and tutor feedback

Assessment methods which enable students to demonstrate the learning outcomes for the module: **For on Campus Students**	**Weighting:**	**Learning Outcomes demonstrated:**
Portfolio of students' work includes a compilation of coursework of the packed ASU courses; Each ASU Course component would include samples of the following: Activities/Assignments 2 Quizzes 1 Midterm Exam Final Exam	100%	1, 2,3,4, 5,6, 7,8, 9, 10

Reading and resources for the module:
These must be up to date and presented in correct Harvard format unless a Professional Body specifically requires a different format
Core

- Kostof, S. (1991). The city shaped: Urban patterns and meanings through history. Boston: Little, Brown.
- Fishman, R. (1977). Urban utopias in the twentieth century: Ebenezer Howard, Frank Lloyd Wright, and Le Corbusier. New York: Basic Books.
- Frampton, K., (1990), Modern Architecture: A Critical History
- Jencks, C., (2002), The New Paradigm in Architecture: The Language of Postmodernism, Yale University Press, ISBN-10: 0300095139
- Jencks, C. & Kropf, K. (2006), Theories and Manifestoes of Contemporary Architecture, Academy Press, ISBN-10: 0470014695
- Betsky, A. Zaha Hadid: The Complete Buildings and projects, Rizzoli, 1998.
- Briggs, J. (2006), Fractals: the Patterns of Chaos: Discovering a New Aesthetic of Art, Science, and Nature, Touchstone Book.
- Brookes, Allen J. and Poole D. (2007) Innovation in Architecture. Spon Press, London.
- Klaas de Jong, Aart Oxenaar, Machiel Spaan, (2012). "Music, Space and Architecture" – Publisher: Architecture & Natura.

Indicative learning and teaching time (10 hrs per credit):	**Activity** 300 hours of directed and self-directed study as described below
1. Student/tutor interaction:	Lectures, tutorials, and site visits 160 hours
2. Student learning time:	140 hours private study / research / coursework
Total hours (1 and 2):	300 hours

Module Title: Building Technology and Materials (1)	**Module Code:** EG0314 / AR3104 **Level: 3** **Credit: 30** **ECTS credit: 15**	**Module Leader:** Dr Tamer Samir
Pre-requisite: None		**Pre-cursor:** None
Co-requisite: None		**Excluded combinations:** None
Location of delivery: Ain Shams University Campus		

Main aim(s) of the module:

- Illustrate the basic concepts and theories of load transferring in load bearing and skeleton structure systems.
- Describe basics, principles and theories related to forces and stresses that happened in loadbearing walls and skeleton structure systems and how to deal with.
- Choose when and why to use either the load bearing walls or the skeleton construction systems.
- Use rule of thump to design the basic construction elements in loadbearing walls and skeleton structure systems**.**
- Demonstrate knowledge and branches of surveying science**.**
- Represent the surveying maps, scales and units used in surveying, field sketches and linear measurements.
- Calculate coordinates directions and azimuth for the purpose of surveying and setting out of points representing the borders and axis of buildings.
- Draw Internal forces diagrams, for determinate structures (Beams, Frames, Arches, Trusses).
- Determine and draw Normal Stresses in homogenous sections under different straining actions (N - Mx - My) under applied static loads.
- Draw Influence lines diagrams for statically determined structures (beams, frames, trusses).
- Describe types of loads, supports and reactions of determinate structures (Beams, Frames, Arches, Trusses)**.**
- Specify of engineering materials and products and their Main properties and behaviour under certain types of loads.

Main topics of study:

- Building Technology (1)
- Land Surveying
- Structure Analysis
- Building Engineering Materials

Learning Outcomes for the module
At the end of this module, students will be able to:

1. Recognise the different structural elements in bearing walls and Skelton systems
2. Identify types of staircases, retaining walls, foundations, masonry construction and reinforced concrete slabs
3. Apply rules of thumb for the sizing of main structural components of load-bearing buildings, simple skeleton buildings and simple retaining walls
4. Recognize the basics of surveying instruments.
5. Assess equipment necessary for mapping, coordinates setting out and leveling
6. Identify types of loads, supports and reactions of determinate structures (Beams, Frames, Arches, Trusses)**.**
7. Solve different types of statically determinate structures
8. Formulate internal forces for statically determinate structures
9. Identify main properties of engineering materials (physical chemical, mechanical, etc.).
10. Analyze behavior of metals under static loads, dynamic loads (Impact), repeated loads (fatigue), and Creep.

Teaching/ learning methods/strategies used to enable the achievement of learning outcomes:

For on campus students:
The teaching and learning strategy offers a supportive, creative and critical environment for guided individual and group work. Students are allocated to a design unit, each of which offers a specific project framework.
The projects are taught through a wide variety of means. These may include:

- Lectures about different topics in the module are used.
- Tutorials run parallel to the lectures.
- Students work on in class and take-home assignments.
- Some site visits are arranged.
- Group work producing surveys or modelling

Assessment methods which enable students to demonstrate the learning outcomes for the module; please define as necessary:	**Weighting:**	**Learning Outcomes demonstrated:**
Portfolio of students' work includes a compilation of coursework of the packed ASU courses; Each ASU Course component would include samples of the following: Activities/Assignments 2 Quizzes 1 Midterm Exam Final Exam	100%	All

Reading and resources for the module:
Core

- Minke, G., 2013. *Building with earth : design and technology of a sustainable architecture.* s.l.:Birkhäuser – Publishers for Architecture.
- Hibbeler, R. C. Structural Analysis, Sixth ed.. Prentice Hall, Upper Saddle River, New Jersey07458, 2007, ISBN: 0-13-0181309-5.
- Wolf, P.R. and Brinker, R.C. "Elementary Surveying" Harper Collins Publisher, New York, 1994.
- William Irvine, F. "Surveying for Construction" The McGraw-Hill Companies, 1995

Recommended

- Chudley, R. & Greeno, R.; Building Construction Handbook, 7th ed., Elsevier Ltd., 2008
- McKay, W.C.; Building Construction V 1&2, Longmans
- Mitchell's; Building Construction V 1; B.T.BATSFORD ltd London
- Anderson M. James and Mikhail M. Edward "Surveying theory and practices", The McGraw-Hill Companies, 1998.
- Beer, F. P., Russell, J.Jr., DeWolf, J.T. Mechanics of Materials, 4th edition, McGraw Hill, NY, 2006. ISBN-13: 9780073107950.

Indicative learning and teaching time (10 hrs per credit):	**Activity**
1. Student/tutor interaction:	Tutorials, seminars and workshops, juries, study trips, mid-year and end of year presentations and exhibitions, (140 Hours)
2. Student learning time:	Studio work, research, fieldwork, group work, portfolio work (160 Hours)
Total hours (1 and 2):	**300 Hours**

Module Title: Issues of the Built Environment	**Module Code:** EG0421 / AR4101 **Level: 4** **Credit: 30** **ECTS credit: 15**	**Module Leader**: Prof. Mostafa Refat
Pre-requisite: None		**Pre-cursor:** None
Co-requisite: None		**Excluded combinations:** None
Location of delivery: Ain Shams University Campus		

Main aim(s) of the module:

- Rehearse the basics of urban design theories and its applications in the fields and understand the effects and influences of surrounding urban context on the urban decisions.
- Fosters the development of a personal position and working methods as part of the attributes required by a designer.
- Highlight the significance of environmental issues and the interaction between human needs in terms of comfort and behaviour, built environment and natural environment.
- Understand the effects of global changes on the local outcomes of urban change in a globalizing world
- Understand the principles of social, cultural and demographic studies in Architecture and Urbanism
- Understand the basic objectives, challenges and constraints for the sustainable development
- Enhancing the student's general awareness of sustainable human settlements, the relationship between economy, ecology and equity and what is meant by a sustainable city.

Main topics of study:

- Introduction to Urban Design
- People and Environment
- Sustainable Urban Development

Learning Outcomes for the module

At the end of this module, students will be able to:

1. Integrate successful urban design elements into design process
2. Apply site analysis findings and buildings code to proper design with respect of all environmental contexts (natural, man-made and human) in a positive contribution to them.
3. Find problem solutions and develop solving skills for different site boundaries and environmental contexts (natural, man-made and human), developed through a multitude of learning and teaching modes.
4. Relate different architectural functions and circulation patterns, taking into consideration the environmental behaviour of the whole project and its different spaces.
5. Identify the quality of life indicators and their classifications into environmental, physical, social, economic, and political indicators
6. Relate the significance of socio-economic and cultural studies to the fields of architecture, urban design, and urban planning
7. Formulate the approaches for satisfying the quality of life indicators in new developments
8. Recognise the process of sustainable development and integrate theory, practice, and reflection in the pursuit of a more sustainable world
9. Integrate knowledge from multiple sources and perspectives to understand environmental limits governing human societies and economies and social justice dimensions of sustainability
10. Collaborate effectively the skills which are related to creative thinking, problem solving in different fields.

Teaching/ learning methods/strategies used to enable the achievement of learning outcomes:
For on campus students:

The teaching and learning strategy offers a supportive, creative and critical environment for guided individual and group work. Students are allocated to a design unit, each of which offers a specific project framework.
The projects are taught through a wide variety of means. These may include:

- site visits
- meetings with clients, consultants or users
- visits (real and virtual) to related or more generally relevant events, buildings, exhibitions
- lectures, talks and seminars
- group work producing surveys or modelling
- class presentations, peer review, public reviews or 'juries', and tutor feedback
- project and portfolio tutorials

Design work is developed in the studio environment under the agenda of the unit, through seminars, group and individual tutorials, to continually appraise, evaluate and develop the work. All design work is reviewed at juries at regular, timetabled points in the calendar where students present their work to a panel of critics. Students receive written feedback on their progress after each jury as formative assessment, though no marks are formally awarded.

Mid-way through the year, an individual portfolio review is held with the Unit tutors and formative written feedback is provided on the progress towards the final, comprehensive design portfolio.

Summative assessment of the module is through the submission of a Design Portfolio at the end of the academic year.

Assessment methods which enable students to demonstrate the learning outcomes for the module; please define as necessary:	**Weighting:**	**Learning Outcomes demonstrated:**
Portfolio of students' work includes a compilation of coursework of the packed ASU courses; Each ASU Course component would include samples of the following: Activities/Assignments 2 Quizzes 1 Midterm Exam Final Exam	100%	All

Reading and resources for the module:

Core

- Forbes, D. & Geoff, P., 'Urban projects manual', Liverpool University press, 1996.
- Birkeland, Janis. Design for sustainability: A sourcebook of integrated ecological solutions. Routledge, 2012.
- Sanoff, Henry. Community participation methods in design and planning. John Wiley & Sons, 2000.
- Carmona, Matthew, Taner Oc. Et all, Public Places - Urban Spaces: The Dimensions of Urban Design, Boston : Architectural Press, (2003).

Recommended

- Gosling, David, Gordon Cullen: Visions of Urban Design, Academy Editions, (1996)
- Moughtin. Cliff. ET., Urban Design; Method and Techniques, Architectural Press. (1999).
- Moughtin. Cliff. ET., Urban Design; Street and Square, Third Edition, , Architectural Press. (2003).
- Moughtin. Cliff. ET., Peter Shirley, Urban Design; Green Dimensions, Second Edition, Architectural Press. (2005).

- Alexander, Christopher, A. Neis, H. Anninou, A., and King, I., A New Theory of Urban Design, Oxford: Oxford University Press, (1987)	
Indicative learning and teaching time (10 hrs per credit):	**Activity**
1. Student/tutor interaction:	Tutorials, seminars and workshops, juries, study trips, mid-year and end of year presentations and exhibitions, (140 Hours)
2. Student learning time:	Studio work, research, fieldwork, group work, portfolio work (160 Hours)
Total hours (1 and 2):	**300 Hours**

Module Title: Building Technology and Materials (2)	**Module Code:** EG0422 / AR4102 **Level: 4** **Credit: 30** **ECTS credit: 15**	**Module Leader:** Dr Ashraf Nessim
Pre-requisite: EG0314 Building Technology and Materials (1)		**Pre-cursor:** None
Co-requisite: None		**Excluded combinations:** None

Location of delivery: Ain Shams University Campus

Main aim(s) of the module:

- Draw and specify the different components and details of the different types of doors and windows (timber / wood joinery / Metal Works);
- Deal with external / internal treatments & finishing through the use of different & contemporary high –tech. materials;
- Choose sustainable materials & execution techniques.;
- Integrate relationship of structure, building materials, and construction elements into design process;
- Know the principles of building technologies, structure & construction methods, technical installations, properties of materials, and the way they may influence design decisions;
- Produce professional workshop and technical detailed drawings
- Provide a general knowledge about different construction and finishing materials and their properties
- Applications of Solar Thermal Technology, Concentrated Solar Power (CSP) and Photovoltaic Technologies and Energy Efficiency and Improvement of Energy Use.

Main topics of study:

- Building Technology (2)
- Renewable Energy and Buildings
- Principles of Sustainable Architecture

Learning Outcomes for the module
At the end of this module, students will be able to:

1. Illustrate the basic concepts and theories of miscellaneous finishing materials, wooden opening works, engineering projection and their applications within the field of environmental Engineering*;*
2. Demonstrate competence in identifying, defining and solving environmental building technology related problems*;*
3. Learning the practical applications of these underlying principles to environmental architectural engineering and construction technology
4. Use appropriate environmental techniques and materials to specify and implement different designs to achieve sustainable measures
5. Think in terms of three-dimensional aspects and integrate systems & technologies with innovation and creativity in the exploration of design, to achieve target sustainable measures.
6. Generate new architectural forms and design solutions of real environmental problems*.*
7. Apply protection measures and materials to protect building against surrounding environmental aspects.
8. Illustrate the basic concepts and theories of renewable energy and their applications within the field of environmental Design.
9. Illustrate the significance of energy saving and the relation between human behaviour, built environment and natural environment
10. Develop the ability of time planning and decision making

Teaching/ learning methods/strategies used to enable the achievement of learning outcomes:

For on campus students:
The teaching and learning strategy offers a supportive, creative and critical environment for guided individual and group work. Students are allocated to a design unit, each of which offers a specific project framework.
The projects are taught through a wide variety of means. These may include:

- site visits
- meetings with clients, consultants or users
- visits (real and virtual) to related or more generally relevant events, buildings, exhibitions
- lectures, talks and seminars
- group work producing surveys or modelling
- class presentations, peer review, public reviews or 'juries', and tutor feedback
- project and portfolio tutorials

Mid-way through the year, an individual portfolio review is held with the Unit tutors and formative written feedback is provided on the progress towards the final, comprehensive design portfolio.

Summative assessment of the module is through the submission of a Portfolio at the end of the academic year.

Assessment methods which enable students to demonstrate the learning outcomes for the module; please define as necessary:	**Weighting:**	**Learning Outcomes demonstrated:**
Portfolio of students' work includes a compilation of coursework of the packed ASU courses; Each ASU Course component would include samples of the following: Activities/Assignments 2 Quizzes 1 Midterm Exam Final Exam	100%	All

Reading and resources for the module:

Core

- Wakita, O. A., "The Professional Practice of Architectural Working Drawings", 4th. Edition, Wiley Higher Education, ISBN: 978-0-471-39540-9 (2011)
- Ching, F. and Cassandra A., "Building Construction Illustrated", 5th. Edition, John Wiley & Sons Inc., Hoboken, New Jersey, (2014) ISBN-13: 978-1118458341
- Bryan, T., "Construction technology: Analysis and Choice", 2nd. Edition, Wiley Blackwell Pub, (2010), ISBN-13: 978-1405158749
- Wakita, O., 2011. *The Professional Practice of Architectural Working Drawings.* 4 ed. s.l.:Wiley Higher Education.
- Kishore, V. V. N., ed. Renewable energy engineering and technology: principles and practice. The Energy and Resources Institute (TERI), 2010.
- Steele, J. (1997). Sustainable architecture. New York: McGraw-Hill.
- Sassi, P. (2015). Strategies for sustainable architecture. [Place of publication not identified]: Routledge.

Recommended

- Anon., 2010. *Construction Technology: Analysis and Choice.* 2 ed. s.l.:Wiley Blackwell Pub.
- Ching , F. & Cassandra, A., 2014. *Building Construction Illustrated.* 5 ed. New Jersey: John Wiley.
- Foster, J. & Greeno, R., 2006. *Mitchell's Building Construction: Part 1, Structure and Fabric.* London: Longman.
- Foster, J. & Greeno, R., 2006. *Mitchell's Building Construction: Part 2, Structure and Fabric.* London: Longman.
- The Regional Center for Renewable Energy and Energy Efficiency (RCREEE) http://www.rcreee.org/publications

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- Kao, J., Sung, W. & Chen, R., 2014. *Green Building, Materials and Civil Engineering.* s.l.:CRC Press.
- Zhang, H., 2011. *Building Materials in Civil Engineering.* s.l.:Elsevier.

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<tr><td>Indicative learning and teaching time
(10 hrs per credit):</td><td>Activity
300 hours of directed and self-directed study as described below</td></tr>
<tr><td>1. Student/tutor interaction:</td><td>Tutorials, seminars and workshops, juries, study trips, mid-year and end of year presentations and exhibitions, (140 Hours)</td></tr>
<tr><td>2. Student learning time:</td><td>Studio work, research, fieldwork, group work, portfolio work (160 Hours)</td></tr>
<tr><td>Total hours (1 and 2):</td><td>300 hours</td></tr>
</table>

Module Title: Architectural Design Studio (2)	**Module Code:** EG0423 / AR4103 **Level: 4** **Credit: 30** **ECTS credit: 15**	**Module Leader**: Dr Abeer ElShater
Pre-requisite: EG0312 Architectural Design Studio (1)		**Pre-cursor: None**
Co-requisite:		**Excluded combinations:**
Location of delivery: Ain Shams University Campus		

Main aim(s) of the module:

This module focuses on the process of designing one or more building projects that are clearly integrated into an existing context while considering climatic issues. This is done through the introduction of more complex criteria than at the previous level, and anticipates a higher level of spatial and material resolution. Students are expected to identify relevant contemporary methodologies in environmental architecture and urbanism, knowing the ecology and environmental management principles relevant to architecture and urbanism.

Main topics of study:

- Environmental Architectural Design (1)
- Environmental Architectural Design (2)
- Ecological Landscape

Learning Outcomes for the module

At the end of this module, students will be able to:

1. Relate different architectural functions and circulation patterns, taking into consideration the environmental behaviour of the whole project and its different spaces.
2. Identify appropriate forms and structure systems for different architectural functions and environmental aspects.
3. Find problem solutions and develop solving skills for different site boundaries and environmental contexts (natural, man-made and human), developed through a multitude of learning and teaching modes.
4. Define principles of sustainability in landscape and the related environmental management systems.
5. Identify different sustainable materials for urban landscape.
6. Apply site analysis findings and buildings code to proper design with respect of all environmental contexts (natural, man-made and human) in a positive contribution to them.
7. Integrate relationships of environmental aspects, structure systems, construction elements and building materials into design process.
8. Solve technical constrains in design to corresponding functional requirements
9. Design environmental architecture projects in harmony with urban design features and landscape elements in a specific context
10. Produce and present architectural design projects using an appropriate range of media and design-based software.

Teaching/ learning methods/strategies used to enable the achievement of learning outcomes:

For on campus students:

The teaching and learning strategy offers a supportive, creative and critical environment for guided individual and group work. Students are allocated to a design unit, each of which offers a specific project framework.
The projects are taught through a wide variety of means. These may include:

- site visits
- meetings with clients, consultants or users
- visits (real and virtual) to related or more generally relevant events, buildings, exhibitions
- lectures, talks and seminars
- group work producing surveys or modelling
- class presentations, peer review, public reviews or 'juries', and tutor feedback
- project and portfolio tutorials

Design work is developed in the studio environment under the agenda of the unit, through seminars, group and individual tutorials, to continually appraise, evaluate and develop the work. All design work is reviewed at juries at regular, timetabled points in the calendar where students present their work to a panel of critics. Students receive written feedback on their progress after each jury as formative assessment, though no marks are formally awarded.

Mid-way through the year, an individual portfolio review is held with the Unit tutors and formative written feedback is provided on the progress towards the final, comprehensive design portfolio.

Summative assessment of the module is through the submission of a Design Portfolio at the end of the academic year.

Assessment methods which enable students to demonstrate the learning outcomes for the module: **For on Campus Students**	**Weighting:**	**Learning Outcomes demonstrated**
Portfolio of students' work includes a compilation of coursework of the packed ASU courses; Each ASU Course component would include samples of the following: 1 Midterm Exam Final Exam	100%	All

Reading and resources for the module:

Core

- Ernst Neufert, Peter Neufert, Bousmaha Baiche & Nicholas Walliman, (2002), "Architects' Data (3rd Edition)", Blackwell Publishing L imited, ISBN: 0632057718.
- J.Chiara & J.Callender, (1983), "Time Saver Standards for Building Types", McGraw-Hill, USA.
- Ching, Francis D.K., "Architecture: Form, Space and order", Wiley, ISBN: 0471286168 (1996)
- Hellmund, Paul Cawood, Smith, Daniel Somers. Designing Greenways: Sustainable Landscapes for Nature and People. Washington, D.C.: Island Press, 2006

Recommended

- Bentley, Alcock, Murrain, Mcglynn, and Smith, Responsive Environments, A Manual for designer, Butterworth Architecture, (1985).
- Steele, J. (1997). Sustainable architecture. New York: McGraw-Hill

Indicative learning and teaching time	**Activity**

(10 hrs per credit):	
1. Student/tutor interaction:	Tutorials, seminars and workshops, juries, study trips, mid-year and end of year presentations and exhibitions, (140 Hours)
2. Student learning time:	Studio work, research, fieldwork, group work, portfolio work (160 Hours)
Total hours (1 and 2):	**300 Hours**

Module Title: Technical Studies in Architecture (1)	**Module Code:** EG0424 / AR4104 **Level: 4** **Credit: 30** **ECTS credit: 15**	**Module Leader**: Dr Ashraf Nessim
Pre-requisite: None		**Pre-cursor: None**
Co-requisite:		**Excluded combinations:**
Location of delivery: Ain Shams University Campus		

Main aim(s) of the module:

This module aims to develop a student's repertoire of conceptual, practical and technical skills that can keep pace with their growing knowledge of architectural design. In this regard, drawing ability is a necessary skill for designing an adequate Architectural space, in terms of Acoustic comfort and day lighting evaluation, whether related to the selection inner layer materials or separating building fabrics. The module aims to assist the student in beginning to understand how to achieve structured, technically competent, sustainable designs and prepare them with the knowledge and skills to engage with the technical demands of the systems of their design projects and learn about structure safety requirements.

Main topics of study:

- Acoustics in Architecture
- Lighting in Architecture
- Reinforced Concrete Structures
- Green Infrastructure

Learning Outcomes for the module

At the end of this module, students will be able to:

1. Assess the acoustical environmental within the rooms and external spaces.
2. Modify the materials within the rooms to be in line with acoustic requirements.
3. Deal with professional equipment to assess the acoustical environment within the rooms.
4. Recognise the principles of day lighting, artificial lighting design, and the fundamentals of the lighting requirements.
5. Draw lighting plan for facades and landscape lighting design.
6. Choose the appropriate lighting technique and design the lighting for an architectural project
7. Identify key principles for green infrastructure planning and network design.
8. Recognise the fundamentals of water supply works and distribution networks, waste water treatment, Firefighting and protection systems, in compliance with environmental basics and considerations.
9. Understand the behaviour of different reinforced concrete structural elements
10. Design and calculate requirements of different reinforced concrete structural elements

Teaching/ learning methods/strategies used to enable the achievement of learning outcomes:

For on campus students:

This module focuses on two important modes of learning, on the one hand the process of constructing coherent and usable principles or bodies of knowledge, on the other, seeing first-hand how these principles are enacted.

In the technology component, the learning and teaching is organised around a series of lectures in three separate areas introducing Acoustics and Lighting in Architecture. The lectures are supplemented by practical 'workshops' that engage the students, often working in groups, in the different subject areas through active learning and problem solving.

It is taught in the form of

- lectures
- seminars and workshops
- practice visits and field trips
- precedent studies
- attendance at trade fairs and exhibitions
- tutorials and using on-line resources

Assessment is through the submission of illustrated reports and precedent studies. Students receive regular formative feedback throughout the process before the official hand-in and marking process takes place.

Assessment methods which enable students to demonstrate the learning outcomes for the module: **For on Campus Students**	**Weighting:**	**Learning Outcomes demonstrated**
Portfolio of students' work includes a compilation of coursework of the packed ASU courses; Each ASU Course component would include samples of the following: Activities/Assignments 2 Quizzes 1 Midterm Exam Final Exam	100%	All

Reading and resources for the module:

Core

- Rea, M.; "The IESNA Lighting Handbook: Reference and Application", 9th Edition, Publication Department, the Illuminating Engineering Society of North America (IESNA), New York, 2000
- The Institution of Lighting Engineers; "The Outdoor Lighting Guide", Taylor and Francis Group, London, 2005
- Egan, M. David, "Architectural Acoustics", McGraw Hill book company, 1988.
- Benedict, Mark A. and McMahon, Edward T. Green Infrastructure: Linking Landscapes and Communities. (Island Press, 2006)
- McCormac, J. & Nelson, J., 2005. *Design of Reinforced Concrete.* 6 ed. s.l.:John Wiley.

Recommended

- Ching, Francis D.K. (2007) Building Construction Illustrated. London: John Whiley and Sons
- Alfred Meistermann, (2007), Loadbearing Systems, Birkhauser
- Bean, R.; "Lighting: Interior and Exterior", Architectural Press, Elsevier, Oxford, 2004.
- Brandi, U., and Brandi, C.G.; "Light for Cities: Lighting Design for Urban Spaces – A Handbook", Birkhauser - Publishers for Architecture, Berlin, 2006
- Jankowski, W.; "Lighting: Exteriors and Landscape", PBC International Inc., New York, 1993

- Hassoun, M. & Al-Manaseer, A., 2015. *Structural Concrete: Theory and Design.* s.l.:John Wiley	
Indicative learning and teaching time (10 hrs per credit):	**Activity**
1. Student/tutor interaction:	Lectures, seminars and workshops, building visits, precedent studies, tutorials (160 Hours)
2. Student learning time:	Seminar preparation, self-directed research, making and testing, jury and presentation preparation, precedent studies, attendance at trade fairs and exhibitions, using on-line resources and tutorials (140 Hours)
Total hours (1 and 2):	**300 Hours**

Module Title: Principles of Law and Project Evaluation	**Module Code:** EG0531 / AR5103 **Level 5** **Credit: 15** **ECTS credit: 7.5**	**Module Leader**: Dr Tamer Samir
Pre-requisite: None		**Pre-cursor:** None
Co-requisite: None		**Excluded combinations:** None
Location of delivery: Ain Shams University Campus		

Main aim(s) of the module:

The module aims at developing and applying theory and critical thinking to contemporary issues and practices the area of international and local human rights. It also shed the light on the Human rights in the field of Engineering and how it should influence the working environment. In the second topic of the module, the focus is more on the field of Architecture (specialization pathway) and it discusses the theoretical background of an architectural end-product within its context, and relevant architectural discourse. The notion of conceptualization will be given for encouraging the students for using architectural criticism as a tool for producing new ideas or creating products. The importance of re-reading of an architectural end-product for a better comprehension and evaluation will be emphasised. Principles of architectural criticism and techniques of evaluating projects are discussed.

Main topics of study:

- Principles of Law and Human Rights (Wider Scope)

- Principles of Criticism and Project Evaluation in the Architecture Field (Narrower Scope)
  OR:
- Urban and Architectural Heritage

Learning Outcomes for the module

At the end of this module, students will be able to:

1. Demonstrate a critical awareness of knowledge, current problems and new insights of the field of international human rights, and evaluate and apply about the human rights in the field of engineering as well
2. Apply intellectual and subject/professional skills to open-ended discussions on the topic and communicate results in appropriate style
3. Learn interdependently and independently and accept responsibility for subsequent career and continuing professional development, appropriate to the topics
4. Apply intellectual and subject/professional skills to open-ended discussions on the topic and communicate results in appropriate style

<u>In Case of Principles of Criticism and Project Evaluation in the Architecture Field:</u>

5. List the principles of architectural criticism and Explain architectural theoretical approaches and thoughts.
6. Identify environmental problems: subsoil water, air pollution, visual pollution, misuse of buildings and spaces, negligence and lack of maintenance
7. Analyze different ideas related to architectural concept evaluation.
8. Use the tools of creative thinking to criticize and evaluate architectural products.

<u>In Case of Urban and Architectural Heritage:</u>

9. Gain insight into the principles of preservation and techniques of restoration for architectural heritage
10. Develop Criteria for classifying and documenting urban and architectural heritage

Teaching/ learning methods/strategies used to enable the achievement of learning outcomes:
For on campus students:

-Tutorials and lectures (Engaging the students in multiple discussions on the topics of the module)

- Research assignments (prepare individually or in groups comprehensive research on the studied topics)

Assessment methods which enable students to demonstrate the learning outcomes for the module: For on Campus Students	**Weighting:**	**Learning Outcomes demonstrated:**
Portfolio of students' work includes a compilation of coursework of the packed ASU courses; Each ASU Course component would include samples of the following: Activities/Assignments 2 Quizzes 1 Midterm Exam Final Exam	100%	All

Reading and resources for the module:
These must be up to date and presented in correct Harvard format unless a Professional Body specifically requires a different format

Core

1- Employment law and human rights. 2nd ed. Oxford: Oxford University Press, 2007, by Allen, R. Crasnow,R. & Beale, A.
2- International human rights. Oxford: Oxford University Press, 2012, by Alston, P, Goodman, R.
3- Essays in Architectural Criticism: Modern Architecture and Historical Change Paperback – August 28, 1985, by Alan Colquhoun (Author), Kenneth Frampton (Preface)
4- Why Architecture Matters (Why X Matters Series) Mar 29, 2011, by Paul Goldberger.

Recommended

1- Human Rights Law. 2nd edition, Oxford: Hart Publishing, 2014, by Amos, M.
2- Measurement framework for equality and human rights. Manchester: Equality and Human Rights Commission, 2017, by Equality and Human Rights Commission
3- Human rights in the community: rights as agents for change. Oxford: Hart Publishing, 2005, by Harvey, C.,
4- Essays in Architectural Criticism: Modern Architecture and Historical Change. JAE, 36(1), p.54, 1982, by Wishne, B. and Colquhoun, A.
5- Architectural criticism and journalism: global perspectives: proceedings of an international seminar organised by the Aga Khan Award for Architecture in association with the Kuwait Society of Engineers, 6-7 December 2005, Kuwait. Turin, Italy, Umberto Allemandi & C. for Aga Khan Award for Architecture, 2006, by AL-ASAD, M., & MUSA, M.

Indicative learning and teaching time (10 hrs per credit):	**Activity**
1. Student/tutor interaction:	- Lecture and tutorial - Individual research assignment (presentation) - Group research assignment (presentation) - Participation in class **Total 90 hours**
2. Student learning time:	unsupervised studio work/ research/ group work/ readings and reflections, etc… **Total 60 hours**
Total hours (1 and 2):	**150 hours**

Module Title: Tendering, and Execution Documents	**Module Code: EG0532** / AR5104 **Level 5** **Credit:** 30 **ECTS credit: 15**	**Module Leader**: Dr Ashraf Nessim
Pre-requisite: None	**Pre-cursor: None**	
Co-requisite: None	**Excluded combinations: None**	
Location of delivery: Ain Shams University Campus		

Main aim(s) of the module:

By the end of the course the student must be able to:

- Assess the required preliminary set of working drawings
- Differentiate between the scopes of work of the different engineering disciplines.
- Design and implement architectural solutions and details for various building items
- Develop the student's ability in preparing a complete set of documents for an architectural project with emphasis on how to put a building together. Specific focus is on base drawings, material finishes, structure and understanding the technical symbols and expression of architectural work, in addition to some architectural and technical detailing and preliminary studies of site and landscaping.
- Produce professional workshop and technical detailed drawings.
- Provide an overview of the principles of architectural structures and material construction.
- Introduce the behaviour and design of steel structural members according to the limit states design concept.

Main topics of study:

- Working Drawings (1)
- Working Drawings (2)
- Steel Structures

Learning Outcomes for the module

At the end of this module, students will be able to:

1. Relate the conceptual architectural drawings to preliminary working drawings.
2. List the different types of systems related to structural, electrical, plumbing, HVAC, …etc
3. Match different systems (structural, electrical, plumbing, HVAC) with architectural requirements for a specific project
4. Develop the required preliminary working drawings for small and medium scale types of buildings.
5. Design the required details for various types of finishes.
6. Prepare a complete set of drawings for a certain project (Architectural, electrical, etc.)
7. Outline a suitable contract agreement and guarantee against construction flaws.
8. Prepare a correct consultation contract between the architect and the owner in light of the FIDIC.
9. Analyse the architectural project legality considering local building codes and legislations.
10. Propose a structural concept appropriate to the design; applying the principles, procedures and current code requirements to the analysis and design of steel tension members, beams, columns, beam-columns and connections

Teaching/ learning methods/strategies used to enable the achievement of learning outcomes:
For on campus students:
There are three aspects to the teaching in this course: Face-to-Face Classes: the course is structured around a weekly lecture, tutorials and personal support face-to-face at specific times in the labs. The lectures will range in theme, but are designed to provide the necessary understanding of current and future

trends in Tendering, and Execution Documents' disciplines. The lab tutorial classes will aid about project work, etc. On-line Resources: Moodle is used in this course to provide the learning resources and general course management. Homework: students are required to complete a steady stream of work each week outside classes. A set of demonstration videos are available to provide students with self-directed guide.

Assessment methods which enable students to demonstrate the learning outcomes for the module: **For on Campus Students**	**Weighting:**	**Learning Outcomes demonstrated:**
Portfolio of students' work includes a compilation of coursework of the packed ASU courses; Each ASU Course component would include samples of the following: Activities/Assignments 2 Quizzes 1 Midterm Exam Final Exam	**100%**	**All**

Reading and resources for the module:
Core

a. Essential books (text books)

- The Professional Practice of Architectural Working Drawings, Third Edition, Osamu A. Wakita, Richard M. Linde, John Wiley & Sons, Inc., New York, 2003
- W.B. McKay, "Building Construction" LONGMANS.
- Mitchell's, "Building Construction" B.T.BATSFORD ltd, London.
- Sleeper, Ramsey - Wiley, "Architectural Graphical Standards".
- Naasar; Gamal El-Din, Arabic translation of conditions of contract for construction for building and engineering works designed by the employer, guidance for the preparation of particular conditions, forms of letter of tender, contract agreement and dispute adjudication board, 2001
- Building Law No.119 Est. 2008 2009
- Egyptian Code for design principals and construction conditions for buildings fire protection (Part 1)
- Deplazes, A. ed. (2005) Constructing Architecture: Materials, Processes, Structures, a Handbook. Basel, London: Birkhäuser.
- Lam, D., Ang, T-C. and Chiew, S-P, Structural Steelwork: Design to Limit State Theory, 3rd Edition, Butterworth-Heinemann Ltd.
- Morris, L. J. & Plum, D. R., Structural Steelwork Design to BS 5950, 2nd Edition, Prentice Hall.
- Nethercot, D. A., Limit States Design of Structural Steelwork, 3rd Edition, Spon Press.
- Gardner, L. and Nethercot, D. A., Designer's guide to Eurocode 3: Design of steel structures, Thomas Telford Limited, 2005
- Eurcode 3: Design of steel structures general rules and rules for buildings

b. Periodicals, Web sites, … etc

- Sweets – McGraw Hill Construction - ***http://products.construction.com/***

Indicative learning and teaching time (10 hrs per credit):	**Activity**
1. Student/tutor interaction:	Lectures, tutorials, project supervision, practical classes and workshops, supervised time in studio/workshop, work based learning 200 hours
2. Student learning time:	Seminar reading and preparation/assignment preparation/ background reading/ on-line activities/group work/portfolio/diary preparation, unsupervised studio work 100 hours
Total hours (1 and 2):	300 hours

Module Title: Architectural Design Studio (3)	**Module Code: EG0533** / AR5105 **Level 5** **Credit:** 30 **ECTS credit: 15**	**Module Leader**: Dr Sabah Soliman
Pre-requisite EG0432 **Architectural Design Studio (2)**		**Pre-cursor: None**
Co-requisite: None		**Excluded combinations: None**
Location of delivery: Ain Shams University Campus		

Main aim(s) of the module:

Students taking this course should learn the principles and theories of urban design and their inter-relation with the surrounded urban environment context. The course in addition examines the underlying principles of sustainable design within the built environment. It focuses on environmental issues and design processes that enable professionals to create a more sustainable world. Students will develop an understanding of the concepts and terminologies of sustainable design and how these have evolved over time. The course provides context for the green building movement and will help students understand the scope of this field of study. Students will gain an understanding of sustainable design by examining the impact of human interactions, the built environment, and natural processes. This course also examines the underlying principles of sustainable design including energy efficiency, public policy, indoor environmental quality, ecology, and land use.

Main topics of study:

- Sustainable Architectural Design Studio (1)
- Sustainable Architectural Design Studio (2)
- Eco Urban Design (2)

Learning Outcomes for the module

At the end of this module, students will be able to:

1. Demonstrate competence in understanding the sustainable architecture strategies and in identifying, defining and solving environmental design problems
2. Utilize the awareness of international sustainable architecture approaches in deepening the understanding of the strategies suitable for the local context
3. Conduct research, prepare and give oral presentations, related to issues of environmental and sustainable architecture.
4. Apply the understanding of ecological, social and economic principles of sustainable architecture in their produced designs
5. Evaluate the performance of different buildings regarding (energy efficiency and indoor environmental quality)
6. Illustrate design concepts in harmony with function and perceptual
7. Solve technical constrains in design to corresponding functional requirements
8. Design medium size Architecture Projects, with the complexity of iterative spaces
9. Integrate systems & technologies with innovation and creativity in the exploration of design, to achieve sustainable architecture through different approaches
10. Demonstrate successful physical and digital model making skills.

Teaching/ learning methods/strategies used to enable the achievement of learning outcomes:

For on campus students:

The teaching and learning strategy offers a supportive, creative and critical environment for guided individual and group work. Students are allocated to a design unit, each of which offers a specific project framework.
The projects are taught through a wide variety of means. These may include:

- site visits
- meetings with clients, consultants or users
- visits (real and virtual) to related or more generally relevant events, buildings, exhibitions
- lectures, talks and seminars
- group work producing surveys or modelling
- class presentations, peer review, public reviews or 'juries', and tutor feedback
- project and portfolio tutorials

Design work is developed in the studio environment under the agenda of the unit, through seminars, group and individual tutorials, to continually appraise, evaluate and develop the work. All design work is reviewed at juries at regular, timetabled points in the calendar where students present their work to a panel of critics. Students receive written feedback on their progress after each jury as formative assessment, though no marks are formally awarded.

Mid-way through the year, an individual portfolio review is held with the Unit tutors and formative written feedback is provided on the progress towards the final, comprehensive design portfolio.

Summative assessment of the module is through the submission of a Design Portfolio at the end of the academic year.

Assessment methods which enable students to demonstrate the learning outcomes for the module: **For on Campus Students**	**Weighting:**	**Learning Outcomes demonstrated:**
Portfolio of students' work includes a compilation of coursework of the packed ASU courses; Each ASU Course component would include samples of the following: submissions indicating project progress 1 Midterm Exam Final Exam	100%	All

Reading and resources for the module:

Core

- [1] Carmona, Matthew, Taner Oc. Et all, Public Places - Urban Spaces: The Dimensions of Urban Design, Boston : Architectural Press, (2003).
- [2] Bentley, Alcock, Murrain, Mcglynn, and Smith, Responsive Environments, A Manual for designer, Butterworth Architecture, (1985).
- [3] Steele, J. (1997). Sustainable architecture. New York: McGraw-Hill.
- [4] Sassi, P. (2015). Strategies for sustainable architecture. [Place of publication not identified]: Routledge.
- [5] Rettenwender, T. and Spitz, N. (2009). The principles of green building design. [Monterey, Calif.]: [Monterey Peninsula College].
- [6] [Ching, Francis D.K., "Architecture: Form, Space and order", Wiley, ISBN: 0471286168 (1996)
- [7] Ernst Neufert, Peter Neufert, Bousmaha Baiche & Nicholas Walliman, "Architects' Data (3rd Edition)", Blackwell Publishing Limited, ISBN: 0632057718 (22002)

Recommended

- [1] Gosling, David, Gordon Cullen: Visions of Urban Design, Academy Editions, (1996)
- [2] Moughtin. Cliff. ET., Urban Design; Method and Techniques, Architectural Press. (1999).
- [3] Moughtin. Cliff. ET., Urban Design; Street and Square, Third Edition, , Architectural Press. (2003).
- [4] Moughtin. Cliff. ET., Peter Shirley, Urban Design; Green Dimensions, Second Edition, Architectural Press. (2005).

- [5] Alexander, Christopher, A. Neis, H. Anninou, A., and King, I., A New Theory of Urban Design, Oxford: Oxford University Press, (1987)
- [6] Krier, Robert, Urban Space, Academy edition, Rizzoli, New York, , (1979).
- [7] Jon Lang (2005),URBAN DESIGN: A TYPOLOGY OF PROCEDURES AND PRODUCTS, Illustrated with over 50 Case Studies, The Master in Urban Development and Design Programme University of New South Wales, Sydney, Australia.
- [8] Bauer, M., M'sle, P. and Schwarz, M. (2009) Green building: Guidebook for sustainable architecture, New York: Springer, 2009.
- [9] Kibert, C. J. (2007) Sustainable construction: Green building design and delivery, 2nd Edition, Hoboken: Wiley.
- [10] Steele, J. (1997) Sustainable architecture: Principles, paradigms, and case studies, New York: McGraw.

Indicative learning and teaching time (10 hrs per credit):	**Activity**
1. Student/tutor interaction:	Lectures, tutorials, seminars and workshops, juries, study trips, mid-year and end of year presentations and exhibitions, (140 Hours)
2. Student learning time:	Studio work, research, fieldwork, group work, portfolio work (160 Hours)
Total hours (1 and 2):	**300 Hours**

Module Title: Technical Studies in Architecture (2)	**Module Code:** EG0534 / AR5106 **Level 5** **Credit: 30** **ECTS credit: 15**	**Module Leader:** Dr Tamer Samir

Pre-requisite: EG0424 Technical Studies in Architecture (1) None	**Pre-cursor:** None
Co-requisite: None	**Excluded combinations:** None

Location of delivery: Ain Shams University Campus

Main aim(s) of the module:

- To prepare architecture students with the knowledge and skills to engage with the technical demands of the systems of their design projects
- Integrate ecological urban design theories in the design process
- To enhance student abilities to use computers as a medium for 3D modelling, form generation, and the analysis and evaluation of architectural design models.
- To give students a practical, hands-on introduction to BIM and related computer-based techniques for the documentation and modelling of designed structures
- To reflect on the capabilities of the student to analyse built environments.

Main topics of study:

- Eco Urban Design (1)
- Modelling of the Built Environment
- Research & Analysis Skills

Learning Outcomes for the module
At the end of this module, students will be able to:

1. Identify relevant contemporary methodologies in environmental architecture and urbanism.
2. Propose an environmental design strategy that relates to the sensory experience and needs of building users, and consideration of the influences of climate, form and orientation.
3. Effectively use a wide range of media and at a range of drawing scales for their design proposals.
4. Understand the concepts and processes of Building Information Modelling and a wide range of BIM applications used in the architecture, engineering and construction (AEC) industry.
5. Develop design strategies to formulate effectively solutions through the architectural integration of environmental strategies and low-energy systems towards energy demand reduction and of methods for the quantification of building performance
6. Confidently use Building Information Modelling systems for the design, documentation and visualisation of buildings.
7. Review and critically analyse key issues affecting ecological urban design from the sustainable perspective
8. Carry out a design analysis process based on a BIM model of a building design to measure some aspects of the anticipated performance of the design, including an appreciation of the opportunities and challenges faced by the profession in the adoption of such technologies.
9. Share ideas, collaborate and communicate effectively

Teaching/ learning methods/strategies used to enable the achievement of learning outcomes:
For on campus students:

- Lectures delivered on Campus, to explain theoretical background of related topics and explain basic methodology for analysis and practical work.
- Tutorials and Computer Lab work run parallel to the lectures where more application is introduced. They will include practical in class and take-home assignments and a progressive project work to check understanding and application of theories throughout the module.

Assessment methods which enable students to demonstrate the learning outcomes for the module; please define as necessary:	**Weighting:**	**Learning Outcomes demonstrated:**
Portfolio of students' work includes a compilation of coursework of the packed ASU courses; Each ASU Course component would include samples of the following: Activities/Assignments 2 Quizzes 1 Midterm Exam Final Exam	100%	All

Reading and resources for the module:

Core

- Murcutt G. (2008) Thinking Drawing/Working Drawing. Museum of Modern Art.
- Pelsmakers, S. (2012) The Environmental Design Pocketbook. London: RIBA
- Duerksen, Christopher and Snyder, Cara. Nature Friendly Communities, Habitat Protection and Land Use Planning. (Island Press, 2005)
- Flannery, J. A. & Smith, K. M. (2011). *Eco-urban design*, Springer Science & Business Media.
- Gravitt, D. (2012). *Eco-Urban Design*. Taylor & Francis.
- Birkeland, Janis. *Design for sustainability*: A sourcebook of integrated ecological solutions. Routledge, 2012.

Recommended

- Crammer, J. (2007) Architecture in existing Fabric: Planning Design Building. Birkhauser
- McLean, W. and Silver, P. (2013) Introduction to Architectural Technology, 2nd ed. Laurence King.
- Report. Eastman, C, Teicholz, P, Sacks, R and Liston, K. 2008, BIM Handbook: A Guide to Building Information Modelling for Owners, Managers, Designers, Engineers, and Contractors, Australia, John Wiley & Sons, 2008
- Kwok, A. and Grondzik, W. (2011) The Green Studio Handbook: Environmental Strategies for Schematic Design 2nd ed. Architectural Press.

Indicative learning and teaching time (10 hrs per credit):	**Activity** 300 hours of directed and self-directed study as described below
1. Student/tutor interaction:	200 hours: Lectures, tutorials, project supervision, practical classes and workshops, supervised time in studio/workshop, work based learning
2. Student learning time:	100 hours: Private study / progressive project / take home assignments
Total hours (1 and 2):	300 hours

Module Title: Real Estate Management and Development	**Module Code:** EG0535 / AR5107 **Level 5** **Credit: 15** **ECTS credit: 7.5**	**Module Leader**: Dr Abeer ElShater
Pre-requisite: None		**Pre-cursor: None**
Co-requisite:		**Excluded combinations:**
Location of delivery: Ain Shams University Campus		

Main aim(s) of the module:

This module is intended to provide introduction to context, history and framework of regional, city and urban planning. It explains concepts, features and characteristics of human settlements. It clarifies the interrelationships between socio-cultural contexts and housing processes. The aim of this module is to rehearse the basics of urban design theories and its applications in the fields and understand the effects and influences of surrounding urban context on the urban decisions. The module fosters the development of a personal position and working methods as part of the attributes required by a designer. The student also develops the significance of environmental issues and the interaction between human needs in terms of comfort and behaviour, built environment and natural environment.

By the end of the course the students will be able to:

- Enhancing the student's general awareness of sustainable human settlements, the relationship between economy, ecology and equity.
- Understand the basic objectives, challenges and constraints for the sustainable development.
- Enabling students to identify the target group for housing projects based on socio-economic factor and calculate the housing programme needed (housing units & services) for new communities.
- Enabling students to respond to human needs of target dwellers in housing design, in the light of specific socio-cultural data

Main topics of study:

- Sustainable Urban Landscape
- Housing Studies and Design

Learning Outcomes for the module

At the end of this module, students will be able to:

1. Find problem solutions and develop solving skills for different site boundaries and environmental contexts (natural, man-made and human), developed through a multitude of learning and teaching modes.
2. Define principles of sustainability in landscape and the related environmental management systems.
3. Identify different sustainable materials for urban agriculture and landscape.
4. Recognise the process of housing production and its economics
5. Design residential units of various typologies, sizes and target group
6. Design a sustainable housing project in a new community
7. Share ideas, collaborate and communicate effectively within a multidisciplinary team

Teaching/ learning methods/strategies used to enable the achievement of learning outcomes:

For on campus students:

The teaching and learning strategy offers a supportive, creative and critical environment for guided individual and group work. Students are allocated to a design unit, each of which offers a specific project framework.
The projects are taught through a wide variety of means. These may include:

- site visits
- meetings with clients, consultants or users
- visits (real and virtual) to related or more generally relevant events, buildings, exhibitions
- lectures, talks and seminars
- group work producing surveys or modelling
- class presentations, peer review, public reviews or 'juries', and tutor feedback
- project and portfolio tutorials

Design work is developed in the studio environment under the agenda of the unit, through seminars, group and individual tutorials, to continually appraise, evaluate and develop the work. All design work is reviewed at juries at regular, timetabled points in the calendar where students present their work to a panel of critics. Students receive written feedback on their progress after each jury as formative assessment, though no marks are formally awarded.
Mid-way through the year, an individual portfolio review is held with the Unit tutors and formative written feedback is provided on the progress towards the final, comprehensive design portfolio.
Summative assessment of the module is through the submission of a Design Portfolio at the end of the academic year.

Assessment methods which enable students to demonstrate the learning outcomes for the module: **For on Campus Students**	**Weighting:**	**Learning Outcomes demonstrated**
Portfolio of students' work includes a compilation of coursework of the packed ASU courses; Each ASU Course component would include samples of the following: Activities/Assignments 2 Quizzes 1 Midterm Exam Final Exam	100%	All

Reading and resources for the module:
Core

- Forbes, D. & Geoff, P., 'Urban projects manual', Liverpool University press, 1996.
- Geoff, P.. 'low income housing in the developing countries', Liverpool University press, 1986.
- Bechtel, R. E., & Churchman, A. Handbook of Environmental Psychology. NY, USA: Wiley and Sons, 2002
- Birkeland, Janis. Design for sustainability: A sourcebook of integrated ecological solutions. Routledge, 2012.
- Bentley, Alcock, Murrain, Mcglynn, and Smith, Responsive Environments, A Manual for designer, Butterworth Architecture, (1985).

Recommended

- Cieraad, I. 'At Home: An Anthropology of Domestic Space', Syracuse: Syracuse University Press.
- Moughtin. Cliff. ET., Peter Shirley, Urban Design; Green Dimensions, Second Edition, Architectural Press. (2005).

Indicative learning and teaching time	**Activity**

(10 hrs per credit):	
1. Student/tutor interaction:	90 Hours: Tutorials, seminars and workshops, juries, study trips, mid-year and end of year presentations and exhibitions,
2. Student learning time:	60 Hours: Studio work, research, fieldwork, group work, portfolio work
Total hours (1 and 2):	**150 Hours** Studio and project work, research, fieldwork, group work, portfolio preparation

Architecture Track

Module Title: Architectural Design Studio (4)	**Module Code:** EG1641 **Level: 6** **Credit: 30** **ECTS credit: 15**	**Module Leader**: Prof. Mostafa Refat & Prof. Marwa Khalifa
Pre-requisite: EG0533 Architectural Design Studio (3)	**Pre-cursor: None**	
Co-requisite: EG1642 Architectural Design and Contextual Studies EG1643 Architectural technical studies EG1644 Technical Studies and Building Systems	**Excluded combinations:**	
Location of delivery: Ain Shams University Campus		

Main aim(s) of the module:

This module is intended to be a comprehensive application of sustainable and ecological urban design principles in the studio sequence. It is intended to be a design studio focusing upon the study of sustainable building concepts, green architecture strategies, and systems development. A comprehensive studio design project will encompass site and environmental planning, material and system selection, and integration of technology to create works that are functionally, aesthetically, and environmentally sound and comprehensive. Students will develop integrated design solutions in public, commercial, or industrial contexts in a "responsive" manner to the local context and the surrounded environment.

By the end of the course the students will be able to:

- Enhancing the student's general awareness of sustainability and ecological design principles in the built environment and acquired conceptual and hands-on knowledge about sustainable architecture
- Enhancing the student's ability to understand and critically assess sustainability as a cultural, economic and environmental phenomenon
- Identify key learning resources from existing sources and datasets as well as collect numerical data from observations, measurements, surveys and technical studies to create innovative environmentally friendly architecture solutions and approaches using established principles and standard classification and benchmarks
- Prepare and present projects of diverse scale and, complexity, and type in a variety of contexts, using a range of media, and in response to brief and real context

Main topics of study:

- Sustainable Architecture Design (3)
- Ecological urban design in practice (framework & Method)
- Execution Documents

Learning Outcomes for the module

1. Recognise the process of sustainable building design and its various components including building performance, building services and structural design as an essentially cross-disciplinary challenge
2. Think in terms of three-dimensional aspects and integrate systems & technologies with innovation and creativity in the exploration of design, to achieve target sustainable measures.
3. Develop design strategies to formulate effectively solutions through the architectural integration of environmental strategies and low-energy systems towards energy demand reduction and of methods for the quantification of building performance

4. Use appropriate tools and techniques to analyse the nature of a particular urban site and to devise a particular programme of use in order to prepare designs for an urban building.
5. Use appropriate environmental control techniques and materials to specify and implement different designs to achieve sustainable measures.
6. Review and critically analyse key issues affecting ecological urban design from the sustainable perspective
7. Generate new architectural forms and design solutions of real environmental problems
8. Contribute positively and constructively to group work, being able to adopt a leadership role as well as being an effective team player.
9. Outline a suitable contract agreement and guarantee against construction flaws.
10. Analyse the architectural project legality considering local building codes and legislations.

Teaching/ learning methods/strategies used to enable the achievement of learning outcomes:

For on campus students:

The teaching and learning strategy offers a supportive, creative and critical environment for guided individual and group work. Students are allocated to a design unit, each of which offers a specific project framework.
The projects are taught through a wide variety of means. These may include:

- site visits
- meetings with clients, consultants or users
- visits (real and virtual) to related or more generally relevant events, buildings, exhibitions
- lectures, talks and seminars
- group work producing surveys or modelling
- class presentations, peer review, public reviews or 'juries', and tutor feedback
- project and portfolio tutorials

Design work is developed in the studio environment under the agenda of the unit, through seminars, group and individual tutorials, to continually appraise, evaluate and develop the work. All design work is reviewed at juries at regular, timetabled points in the calendar where students present their work to a panel of critics. Students receive written feedback on their progress after each jury as formative assessment, though no marks are formally awarded.

Mid-way through the year, an individual portfolio review is held with the Unit tutors and formative written feedback is provided on the progress towards the final, comprehensive design portfolio.

Summative assessment of the module is through the submission of a Design Portfolio at the end of the academic year.

Assessment methods which enable students to demonstrate the learning outcomes for the module: **For on Campus Students**	**Weighting:**	**Learning Outcomes demonstrated**
Portfolio of students' work includes a compilation of coursework of the packed ASU courses; Each ASU Course component would include samples of the following: submissions indicating project progress 1 Midterm Exam Final Exam	100%	All

Reading and resources for the module:

Core

- Calkins, Meg. *The sustainable sites handbook: A complete guide to the principles, strategies, and best practices for sustainable landscapes*. John Wiley & Sons, 2011.
- Haas, Tigran. *Sustainable urbanism and beyond: rethinking cities for the future.* Rizzoli, 2012.
- Birkeland, Janis. *Design for sustainability*: A sourcebook of integrated ecological solutions. Routledge, 2012.
- Bellew, Patrick, and Meredith Davey. *Green House, Green Engineering: Environmental Design at Gardens by the Bay*. Oro editions, 2012.
- Flannery, J. A. & Smith, K. M. (2011). *Eco-urban design*, Springer Science & Business Media.
- Gravitt, D. (2012). *Eco-Urban Design*. Taylor & Francis.
- Naasar; Gamal El-Din, Arabic translation of conditions of contract for construction for building and engineering works designed by the employer, guidance for the preparation of particular conditions, forms of letter of tender, contract agreement and dispute adjudication board, 2001

Recommended

- Hester, Randolph T. *Design for ecological democracy*. Cambridge, MA: MIT press, 2006
- Ehmann, Sven, Stephan Bohle, and Robert Klanten, eds. *Cause and Effect: Visualizing Sustainability.* Gestalten, 2012.
- Odum, Howard T. *Ecological and general systems: an introduction to systems ecology. Univ*. Press of Colorado, 1994.

Indicative learning and teaching time (10 hrs per credit):	**Activity**
1. Student/tutor interaction:	Lectures, tutorials, seminars and workshops, juries, study trips, mid-year and end of year presentations and exhibitions, (140 Hours)
2. Student learning time:	Studio work, research, fieldwork, group work, portfolio work (160 Hours)
Total hours (1 and 2):	**300 Hours** Studio and project work, research, fieldwork, group work, portfolio preparation

Module Title: Architectural Design and Contextual Studies	**Module Code:** EG1642 **Level: 6** **Credit: 30** **ECTS credit:** 15	**Module Leader**: Prof. Mostafa Refat and Prof. Marwa Khalifa
Pre-requisite: EG0533 Architectural Design Studio (3)		**Pre-cursor:**
Co-requisite: EG1641 Architectural Design Studio (4) EG1642 Architectural Design and Contextual Studies EG1644 Technical Studies and Building Systems		**Excluded combinations:**
Location of delivery: Ain Shams University Campus		

Main aim(s) of the module:

Developing a project which is considered as the last outcome of this programme at a detailed architectural and urban level based on a real subject and location which are chosen by the coordinator. Each student's project should include a technical report including site analysis, environmental analysis, urban studies and more. The project design should integrate between different disciplines (ecology, urban planning, landscape, etc.). It should also realise a comprehensible environmental urban and architectural design which is based on original and creative concept. The study of sustainable building concepts, green architecture strategies, and systems development should be taken in consideration. An understanding of these issues is gained through research activities and practical simulations covering the latest developments in the field of environmental interdependence, and the building performance.

Main topics of study:

ARCHITECTURE TRACK:

- Building Performance Simulation
- Studies and Programme of Graduation Project
- Graduation Project

URBANISM TRACK:

- Sustainable Urban Mobility
- Studies and Programme of Graduation Project
- Graduation Project

Learning Outcomes for the module

At the end of this module, students will be able to:

1. Integrate urban design tools and contemporary methodologies in environmental architecture and urbanism.
2. Analyse the range of patterns and traditions that have shaped and sustained cultures and the way that they can inform design process
3. Think in terms of three-dimensional aspects and integrate systems & technologies with innovation and creativity in the exploration of design, to achieve target sustainable measures.
4. Conduct research and collect data from various sources (field work, archival records, internet…. etc)
5. Produce and present architectural forms and urban design solutions using an appropriate range of media, simulation and design-based software.
6. Apply appropriate mathematical and computer-based methods for modelling and analysing environmental design problems.
7. Demonstrate the ability to communicate ideas through the development of formal and visual communication and presentation skills

8. Contribute positively to the aesthetic, architecture and urban identity, and cultural life of the community.
9. Effectively manage tasks, time, and resources.

Teaching/ learning methods/strategies used to enable the achievement of learning outcomes:
For on campus students:

- Lectures to introduce the subject and present different topics.
- Technical and study comprehensive research should be developed by each student or group.
- Tutorials run separately or in parallel to the lectures. The tutorials are mainly focusing on practical applications and instant supervision.
- Students mostly work and prepare for assignments in class.
- Site visits are usually arranged separately and/or during the tutorial time.
- Class presentations, peer review, public reviews or 'juries' are the key for the assessment process.

Assessment methods which enable students to demonstrate the learning outcomes for the module: **For on Campus Students**	**Weighting:**	**Learning Outcomes demonstrated:**
Portfolio of students' work includes a compilation of coursework of the packed ASU courses; Each ASU Course component would include samples of the following: submissions indicating project progress 1 Midterm Exam Final Exam For the 3 modules: ARC 415 Building Performance Simulation ARC 492 Studies and Program of Graduation Project ARC 493 Graduation Project	**100%**	**All**

Reading and resources for the module:
These must be up to date and presented in correct Harvard format unless a Professional Body specifically requires a different format
Core

- Pena, William M. & Parshall, Steven A. Problem Seeking, An Architectural Programming Primer. John Wiley and Sons, 2001.
- Brown, G. Z. & Dekay, Mark. Sun, Wind and Light-Architectural Design Strategies. John Wiley and Sons, 2014.
- Egan, M. & Olygyay, V. Architectural Lighting. McGraw Hill Book Co., 2002.
- Karlen, M. & Benya, J. Lighting Design Basics. John Wiley and Sons, 2004.
- Shrauder, D. Outdoor Lighting: Physics, Vision and Perception. Springer Science & Business Media, 2008.
- Hensher, David A & Kenneth, B. Handbook of Transport Modelling. Pergamon Press, 2000.
- Maclay, B. The new net zero: Leading-edge design and construction of homes and buildings for a renewable energy future. Chelsea Green Publishing, 2014.
- G.Kwok, Alison & T. Grondzik, Walter. The Green Studio Handbook: Environmental Strategies for Schematic Design. Routledge, 2017.

Recommended

- Calkins, M. The sustainable sites handbook: A complete guide to the principles, strategies, and best practices for sustainable landscapes. John Wiley & Sons, 2011.
- Cook, M., & Garrett, D. Green Home Building: Money-saving Strategies for an Affordable, Healthy, High-performance Home. New Society Publishers, 2014.
- Bauer, M., M'sle, P. and Schwarz, M. Green building: Guidebook for sustainable architecture. New York: Springer, 2009.

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<tr><td colspan="2">

- Kibert, C. J. Sustainable construction: Green building design and delivery. 2nd Edition, Hoboken: Wiley, 2007.
- Egan, M. Architectural Acoustics. McGraw Hill Book Co., 1988.

</td></tr>
<tr><td>Indicative learning and teaching time
(10 hrs per credit):</td><td>Activity
300 hours of directed and self-directed study as described below</td></tr>
<tr><td>1. Student/tutor interaction:</td><td>Lectures, tutorials, project supervision, practical classes, supervised time in studio, site visits, presentations, final jury.

120 hours</td></tr>
<tr><td>2. Student learning time:</td><td>Reading, assignment preparation, digital applications, surfing the internet, self-directed research, group work, unsupervised studio work, Field work.

180 hours</td></tr>
<tr><td>Total hours (1 and 2):</td><td>300 Hours</td></tr>
</table>

Module Title: Architectural Technical Studies	**Module Code:** EG1643 **Level: 6** **Credit: 30** **ECTS credit:** 15	**Module Leader**: Dr Tamer Samir

Pre-requisite: None	**Pre-cursor:**
Co-requisite: EG1641 Architectural Design Studio (4) EG1642 Architectural Design and Contextual Studies EG1644 Technical Studies and Building Systems	**Excluded combinations:**

Location of delivery: Ain Shams University Campus

Main aim(s) of the module:

- Explaining outdoor sound propagation fundamentals, atmospheric sound propagation as well as environmental acoustics
- Introducing the techniques used in evaluating life-cycle costs of competing project alternatives.
- Introducing the techniques of green building construction estimation, and the concept of building economic analysis, time value of money and life cycle costing
- Describing advances of structure and constriction technologies in ancient Egypt.

Main topics of study:

- Outdoor Noise Propagation in Built Environment
- Building Life Cycle Assessment
- Economics of Green Building
- Technology of Ancient Egypt

Learning Outcomes for the module

At the end of this module, students will be able to:

1. Understand fundamentals of Outdoor sound propagation and atmospheric sound propagation.
2. Measure and Analyze Environmental acoustics
3. Learn environmental regulations, standards and regulations and how to control sounds and vibrations in outdoor environment
4. Apply outdoor noise mitigation strategies
5. Evaluating buildings life cycle costs
6. Conduct research and collect data from various sources
7. Apply and use computer-based models for life cycle assessment
8. Estimate green building construction techniques, building economics, time value of money and life cycle costing.
9. Learn the advances of devices and technologies related to construction in ancient Egypt
10. Share ideas, collaborate and communicate effectively

Teaching/ learning methods/strategies used to enable the achievement of learning outcomes:
For on campus students:

• Lectures are given about different topics in the module.
• Tutorials run in parallel to the lectures in which more applications are introduced.
• A technical comprehensive research should be completed by each student or group to achieve the course objectives.
• Site visits are usually arranged separately and/or during the tutorial time.
• Class presentations, peer review, public reviews are the key for the assessment process.

Assessment methods which enable students to demonstrate the learning outcomes for the module; please define as necessary:	Weighting:	Learning Outcomes demonstrated:
Portfolio of students' work includes a compilation of coursework of the packed ASU courses; Each ASU Course component would include samples of the following: Activities/Assignments 2 Quizzes 1 Midterm Exam Final Exam	100 %	All

Reading and resources for the module:
These must be up to date and presented in correct Harvard format unless a Professional Body specifically requires a different format
Core

- Kotaji, Shpresa, Agnes Schuurmans, and Suzy Edwards, eds. *Life-Cycle Assessment in Building and Construction: A state-of-the-art report, 2003*. Setac, 2003.
- Nicholson, Paul T., and Ian Shaw, eds. *Ancient Egyptian materials and technology*. Cambridge University Press, 2000.
- Kibert, Charles J. *Sustainable construction: green building design and delivery*. John Wiley & Sons, 2016.
- Kats, Gregory. *Green building costs and financial benefits*. Boston: Massachusetts Technology Collaborative, 2003.

Recommended

- Egan, M. David, "Architectural Acoustics", McGraw Hill book company, 1988.

- Arnott, R., & McMillen, D. (2006). A companion to urban economics. Malden, MA: Blackwell Pub.
- Brown, D. (1974). Introduction to urban economics. New York: Academic Press.

Indicative learning and teaching time (10 hrs per credit):	Activity 300 hours of directed and self-directed study as described below
1. Student/tutor interaction:	lectures, tutorials, fieldwork, external visits **160 hours**
2. Student learning time:	reading and preparation, assignment preparation, on-line activities, group work **140 hours**
Total hours (1 and 2):	**300 hours**

Module Title: Technical Studies and Building Systems	**Module Code:** EG1644 **Level: 6** **Credit: 30** **ECTS credit:** 15	**Module Leader**: Dr Tamer Samir

Pre-requisite: EG1644 Technical Studies in Architecture (2)	**Pre-cursor:**
Co-requisite: EG1641 Architectural Design Studio (4) EG1642 Architectural Design and Contextual Studies EG1643 Architectural technical studies	**Excluded combinations:**

Location of delivery: Ain Shams University Campus

Main aim(s) of the module:

This course focus on studying the environmental impact of buildings then, identifying potential impacts to develop projects' activities and to use the convenient renewable energy systems in buildings and on the surrounding environment as well. The module also introduces the concept of building rating systems, rating system categories and the scoring system to enable the students to develop a preliminary sustainable planning and design concepts based on detailed studies as well as technical concerns.

Main topics of study:

- Renewable Energy Systems
- Environmental Impact Assessment
- Sustainable Building Rating Systems

Learning Outcomes for the module

At the end of this module, students will be able to:

1. Use their knowledge of renewable energy systems with their understanding of the underlying concepts and theories to reach a comprehensible sustainable design.
2. Define and compare the differences between the existing rating systems around the world (LEED, BREEAM, Green star, DGNB, etc…)
3. Explore the process of achieving a rated building globally and locally
4. Identify methods and prediction techniques for use within the EIA and SEA process
5. Exchange knowledge and skills with engineering sectors and industrial sectors working in the field of environmental control.
6. Select the appropriate impact identification method according to the available resources in terms of data availability, time and money.
7. Propose adequate mitigation measures to avoid, reduce or remedy potential negative impact resulted from development activities in architectural projects
8. Use appropriate renewable technologies and materials to specify and implement unique designs to achieve sustainable measures.
9. Make design decisions that could be certified by one of the rating systems and learn about the management of such projects to sustain
10. Share ideas, collaborate and communicate effectively

Teaching/ learning methods/strategies used to enable the achievement of learning outcomes:
For on campus students:

• Lectures are given about different topics in the module.
• Tutorials run in parallel to the lectures in which more applications are introduced.
• A technical comprehensive research should be completed by each student or group to achieve the course objectives.
• Site visits are usually arranged separately and/or during the tutorial time.

• Class presentations, peer review, public reviews are the key for the assessment process.		
Assessment methods which enable students to demonstrate the learning outcomes for the module; please define as necessary:	**Weighting:**	**Learning Outcomes demonstrated:**
Portfolio of students' work includes a compilation of coursework of the packed ASU courses; Each ASU Course component would include samples of the following: Activities/Assignments 2 Quizzes 1 Midterm Exam Final Exam	100 %	All

Reading and resources for the module:
These must be up to date and presented in correct Harvard format unless a Professional Body specifically requires a different format
Core

- Kishore, V. V. N. ed. Renewable energy engineering and technology: principles and practice. The Energy and Resources Institute (TERI), 2010.
- Walker, A. Solar energy: technologies and project delivery for buildings. John Wiley & Sons, 2013.
- Reeder, L. Guide to green building rating systems. Hoboken, N.J.: Wiley, 2010.
- Curran, M. Life cycle assessment handbook. Hoboken, N.J.: Wiley, 2012.

Recommended

- Glasson, J., Therivel, R. and Chadwick, A. (1994), Introduction to Environmental Impact Assessment: Principles and procedures, process, practice and prospects, UCL Press.)
- Kaule, Giselher (2000), Ecologically Oriented Planning, Peter Lang GmbH.
- Wiesner, D., (1995), EIA the environmental impact assessment process: What it is and what it means to you. A manual for everyone concerned about the environment and decisions made about its development, Prism Press

Indicative learning and teaching time (10 hrs per credit):	**Activity** 300 hours of directed and self-directed study as described below
1. Student/tutor interaction:	lectures, tutorials, fieldwork, external visits **160 hours**
2. Student learning time:	reading and preparation, assignment preparation, on-line activities, group work **140 hours**
Total hours (1 and 2):	**300 hours**

Urbanism Track

Module Title: Urbanism Design Studio (4)	**Module Code:** EG2641 **Level 6** **Credit: 30** **ECTS credit: 15**	**Module Leader**: Prof. Mostafa Refat and Prof. Marwa Khalifa
Pre-requisite: EG Architectural Design Studio (3)		**Pre-cursor: None**
Co-requisite: EG2642 Urban technical studies EG2643 Urban Design and Contextual Studies EG2644 Technical Studies and Urbanism		**Excluded combinations:**
Location of delivery: Ain Shams University Campus		

Main aim(s) of the module:

This module is intended to be a comprehensive application of sustainable and ecological urban design principles in the studio sequence. It is intended to be a design studio focusing upon the study of sustainable building concepts, green architecture strategies, and systems development. A comprehensive studio design project will encompass site and environmental planning, material and system selection, and integration of technology to create works that are functionally, aesthetically, and environmentally sound and comprehensive. Students will develop integrated design solutions in public, commercial, or industrial contexts in a "responsive" manner to the local context and the surrounded environment.

By the end of the course the students will be able to:

- Enhancing the student's general awareness of sustainability and ecological design principles in the built environment and acquired conceptual and hands-on knowledge about sustainable architecture
- Enhancing the student's ability to understand and critically assess sustainability as a cultural, economic and environmental phenomenon
- Identify key learning resources from existing sources and datasets as well as collect numerical data from observations, measurements, surveys and technical studies to create innovative environmentally friendly architecture solutions and approaches using established principles and standard classification and benchmarks
- Prepare and present projects of diverse scale and, complexity, and type in a variety of contexts, using a range of media, and in response to brief and real context
- The analysis and management of geographic information systems (GIS).

Main topics of study:

- Sustainable Architectural Design Studio (3)
- Ecological urban design in practice (framework & Method)
- Introduction to Geographic Information System (GIS)

Learning Outcomes for the module

1. Recognise the process of sustainable building design and its various components including building performance, building services and structural design as an essentially cross-disciplinary challenge
2. Think in terms of three-dimensional aspects and integrate systems & technologies with innovation and creativity in the exploration of design, to achieve target sustainable measures.

3. Gain first-hand experience in data input, data management, data analyses, and result presentation in a geographical information system.
4. Develop design strategies to formulate effectively solutions through the architectural integration of environmental strategies and low-energy systems towards energy demand reduction and of methods for the quantification of building performance
5. Use appropriate tools and techniques to analyse the nature of a particular urban site and to devise a particular programme of use in order to prepare designs for an urban building.
6. Use appropriate environmental control techniques and materials to specify and implement different designs to achieve sustainable measures.
7. Review and critically analyse key issues affecting ecological urban design from the sustainable perspective
8. Produce professional technical and workshop drawings using traditional drawing tools and computer-aided drawings' techniques, as well as building information modelling.
9. Generate new architectural forms and design solutions of real environmental problems
10. Contribute positively and constructively to group work, being able to adopt a leadership role as well as being an effective team player.

Teaching/ learning methods/strategies used to enable the achievement of learning outcomes:

For on campus students:

The teaching and learning strategy offers a supportive, creative and critical environment for guided individual and group work. Students are allocated to a design unit, each of which offers a specific project framework.
The projects are taught through a wide variety of means. These may include:

- site visits
- meetings with clients, consultants or users
- visits (real and virtual) to related or more generally relevant events, buildings, exhibitions
- lectures, talks and seminars
- group work producing surveys or modelling
- class presentations, peer review, public reviews or 'juries', and tutor feedback
- project and portfolio tutorials

Design work is developed in the studio environment under the agenda of the unit, through seminars, group and individual tutorials, to continually appraise, evaluate and develop the work. All design work is reviewed at juries at regular, timetabled points in the calendar where students present their work to a panel of critics. Students receive written feedback on their progress after each jury as formative assessment, though no marks are formally awarded.

Mid-way through the year, an individual portfolio review is held with the Unit tutors and formative written feedback is provided on the progress towards the final, comprehensive design portfolio.

Summative assessment of the module is through the submission of a Design Portfolio at the end of the academic year.

Assessment methods which enable students to demonstrate the learning outcomes for the module: For on Campus Students	**Weighting:**	**Learning Outcomes demonstrated**
Portfolio of students' work includes a compilation of coursework of the packed ASU courses; each ASU Course component would include samples of the following: submissions indicating project progress 1 Midterm Exam Final Exam	100%	All

Reading and resources for the module:
Core

- Calkins, Meg. *The sustainable sites handbook: A complete guide to the principles, strategies, and best practices for sustainable landscapes*. John Wiley & Sons, 2011.
- Haas, Tigran. *Sustainable urbanism and beyond: rethinking cities for the future.* Rizzoli, 2012.
- Birkeland, Janis. *Design for sustainability*: A sourcebook of integrated ecological solutions. Routledge, 2012.
- Bellew, Patrick, and Meredith Davey*. Green House, Green Engineering: Environmental Design at Gardens by the Bay*. Oro editions, 2012.
- Flannery, J. A. & Smith, K. M. (2011). *Eco-urban design*, Springer Science & Business Media.
- Gravitt, D. (2012). *Eco-Urban Design*. Taylor & Francis.
- Longley, P. (2001), Geographic Information Systems and Science

Recommended

- Hester, Randolph T. *Design for ecological democracy*. Cambridge, MA: MIT press, 2006
- Ehmann, Sven, Stephan Bohle, and Robert Klanten, eds*. Cause and Effect: Visualizing Sustainability.* Gestalten, 2012.
- Odum, Howard T. *Ecological and general systems: an introduction to systems ecology. Univ*. Press of Colorado, 1994.

Indicative learning and teaching time (10 hrs per credit):	**Activity**
1. Student/tutor interaction:	Lectures, tutorials, seminars and workshops, juries, study trips, mid-year and end of year presentations and exhibitions, (140 Hours)
2. Student learning time:	Studio work, research, fieldwork, group work, portfolio work (160 Hours)
Total hours (1 and 2):	**300 Hours** Studio and project work, research, fieldwork, group work, portfolio preparation

Module Title: Urban technical studies	**Module Code:** EG2642 **Level 6** **Credit: 30** **ECTS credit:** 15	**Module Leader**: Dr Abeer ElShater

Pre-requisite: EG2641 Urbanism Design Studio (4)	**Pre-cursor:**
Co-requisite: EG2641 Urbanism Design Studio (4) EG2643 Urban Design and Contextual Studies EG2644 Technical Studies and Urbanism	**Excluded combinations:**

Location of delivery: Ain Shams University Campus

Main aim(s) of the module:

This course aims at improving the students' knowledge of economics and valuing ecosystems. The irrational growth in the physical scale of the economy and its rapacious character under economic globalization has depleted resources, destroyed ecosystems, overwhelmed natural waste disposal sinks, waged war on subsistence cultures, and produced shocking mal-distribution of wealth and income. How, then, can economy be turned around to reinforce sustainable development rather than to destroy ecosystems, resource endowments, and indigenous cultures is the core of this course. The course also addresses the use of information technology (IT) to accentuate the positive and eliminate the negative in urban life, which can result in an unprecedented opportunity to optimize the operations of cities – energy, water, transportation systems, food supply, urban design, resilience and much more. This course will explore the "smart city", and the IT that underpins it. It will discuss what IT can and cannot do. The course is designed to introduce students to contemporary urbanism challenges and improve their critical understanding of their local context.

Main topics of study:

- Economics for Sustainability
- Smart Cities
- Selected Topics in Urbanism
- Technology of Ancient Egypt

Learning Outcomes for the module

At the end of this module, students will be able to:

1. Critically analyse how the economy can be harnessed to reinforce sustainable development.
2. Build awareness of the potential for IT to improve the interactions between mankind in cities and the planet, and encourage students to think.
3. Improve the students' technical knowledge about the different aspects of smart cities e.g. energy, mobility and buildings
4. Develop a vision on which steps can be taken to transform our cities to smart cities.
5. Acquaint students with the wide body of literature pertinent to the historical roots of technology of Ancient Egypt.
6. Demonstrate the ability to communicate ideas through the development of formal and visual communication and presentation skills
7. Effectively manage tasks, time, and resources.
8. Enhance their communicative and management skills in team work environments.

Teaching/ learning methods/strategies used to enable the achievement of learning outcomes:
For on campus students:

The teaching and learning strategy offers a supportive, creative and critical environment for guided individual and group work. Students are allocated to a design unit, each of which offers a specific project framework.
The projects are taught through a wide variety of means. These may include:

- site visits
- meetings with clients, consultants or users
- visits (real and virtual) to related or more generally relevant events, buildings, exhibitions
- lectures, talks and seminars
- group work producing surveys or modelling
- class presentations, peer review, public reviews or 'juries', and tutor feedback
- project and portfolio tutorials

Design work is developed in the studio environment under the agenda of the unit, through seminars, group and individual tutorials, to continually appraise, evaluate and develop the work. All design work is reviewed at juries at regular, timetabled points in the calendar where students present their work to a panel of critics. Students receive written feedback on their progress after each jury as formative assessment, though no marks are formally awarded.

Mid-way through the year, an individual portfolio review is held with the Unit tutors and formative written feedback is provided on the progress towards the final, comprehensive design portfolio.
Summative assessment of the module is through the submission of a Design Portfolio at the end of the academic year.

Assessment methods which enable students to demonstrate the learning outcomes for the module: **For on Campus Students**	**Weighting:**	**Learning Outcomes demonstrated:**
Portfolio of students' work includes a compilation of coursework of the packed ASU courses; Each ASU Course component would include samples of the following: Activities/Assignments 2 Quizzes 1 Midterm Exam Final Exam	**100%**	**All**

Reading and resources for the module:

Core

- Ikerd, J. The Essentials of Economic Sustainability, 2012.
- Townsend, A., Smart Cities: Big Data, Civic Hackers, and the Quest for a New Utopia, 2013
- Dunn, C., Lost Technologies of Ancient Egypt: Advanced Engineering in the Temples of the Pharaohs, 2010.

Recommended

- Higgins, K. Economic Growth and Sustainability, 2014.
- Song, H. Smart Cities: Foundations, Principles, and Applications, 2017.

Indicative learning and teaching time (10 hrs per credit):	**Activity** 300 hours of directed and self-directed study as described below
1. Student/tutor interaction:	Lectures, tutorials, project supervision, practical classes, supervised time in studio, site visits, presentations, final jury. **120 hours**
2. Student learning time:	Reading, assignment preparation, digital applications, surfing the internet, self-directed research, group work, unsupervised studio work, Field work. **180 hours**
Total hours (1 and 2):	**300 Hours**

Module Title: Urban Design and Contextual Studies	**Module Code:** EG2643 **Level 6** **Credit: 30** **ECTS credit:** 15	**Module Leader**: Dr Abeer ElShater

Pre-requisite: EG0533 Architectural Design Studio (3)	**Pre-cursor:**
Co-requisite: EG2641 Urbanism Design Studio (4) EG2642 Urban technical studies EG2644 Technical Studies and Urbanism	**Excluded combinations:**

Location of delivery: Faculty of Engineering, Ain Shams University

Main aim(s) of the module:

Developing a project which is considered as the last outcome of this programme at a detailed architectural and urban level based on a real subject and location which are chosen by the coordinator. Each student's project should include a technical report including site analysis, environmental analysis, urban studies and more. The project design should integrate between different disciplines (ecology, urban planning, landscape, etc.). It should also realise a comprehensible environmental urban and architectural design which is based on original and creative concept. The study of sustainable building concepts, green architecture strategies, and systems development should be taken in consideration. An understanding of these issues is gained through research activities and practical simulations covering the latest developments in the field of environmental interdependence, and the building performance.

Main topics of study:

URBANISM TRACK:

- Sustainable Urban Mobility
- Studies and Programme of Graduation Project
- Graduation Project

Learning Outcomes for the module
At the end of this module, students will be able to:

1. Integrate urban design tools and contemporary methodologies in environmental architecture and urbanism.
2. Analyse the range of patterns and traditions that have shaped and sustained cultures and the way that they can inform design process
3. Think in terms of three-dimensional aspects and integrate systems & technologies with innovation and creativity in the exploration of design, to achieve target sustainable measures.
4. Conduct research and collect data from various sources (field work, archival records,
5. internet…. etc)
6. Produce and present architectural forms and urban design solutions using an appropriate range of media, simulation and design-based software.
7. Apply appropriate mathematical and computer-based methods for modelling and analysing environmental design problems.
8. Demonstrate the ability to communicate ideas through the development of formal and visual communication and presentation skills
9. Contribute positively to the aesthetic, architecture and urban identity, and cultural life of the community.
10. Effectively manage tasks, time, and resources.

Teaching/ learning methods/strategies used to enable the achievement of learning outcomes:
For on campus students:

- Lectures to introduce the subject and present different topics.
- Technical and study comprehensive research should be developed by each student or group.
- Tutorials run separately or in parallel to the lectures. The tutorials are mainly focusing on practical applications and instant supervision.
- Students mostly work and prepare for assignments in class.
- Site visits are usually arranged separately and/or during the tutorial time.
- Class presentations, peer review, public reviews or 'juries' are the key for the assessment process.

Assessment methods which enable students to demonstrate the learning outcomes for the module: **For on Campus Students**	**Weighting:**	**Learning Outcomes demonstrated:**
Portfolio of students' work includes a compilation of coursework of the packed ASU courses; Each ASU Course component would include samples of the following: submissions indicating project progress 1 Midterm Exam Final Exam	**100%**	**All**

Reading and resources for the module:
These must be up to date and presented in correct Harvard format unless a Professional Body specifically requires a different format

Core

- Pena, William M. & Parshall, Steven A. Problem Seeking, An Architectural Programming Primer. John Wiley and Sons, 2001.
- Brown, G. Z. & Dekay, Mark. Sun, Wind and Light-Architectural Design Strategies. John Wiley and Sons, 2014.
- Egan, M. & Olygyay, V. Architectural Lighting. McGraw Hill Book Co., 2002.
- Karlen, M. & Benya, J. Lighting Design Basics. John Wiley and Sons, 2004.
- Shrauder, D. Outdoor Lighting: Physics, Vision and Perception. Springer Science & Business Media, 2008.
- Hensher, David A & Kenneth, B. Handbook of Transport Modelling. Pergamon Press, 2000.
- Maclay, B. The new net zero: Leading-edge design and construction of homes and buildings for a renewable energy future. Chelsea Green Publishing, 2014.
- G.Kwok, Alison & T. Grondzik, Walter. The Green Studio Handbook: Environmental Strategies for Schematic Design. Routledge, 2017.

Recommended

- Calkins, M. The sustainable sites handbook: A complete guide to the principles, strategies, and best practices for sustainable landscapes. John Wiley & Sons, 2011.
- Cook, M., & Garrett, D. Green Home Building: Money-saving Strategies for an Affordable, Healthy, High-performance Home. New Society Publishers, 2014.
- Bauer, M., M'sle, P. and Schwarz, M. Green building: Guidebook for sustainable architecture. New York: Springer, 2009.
- Kibert, C. J. Sustainable construction: Green building design and delivery. 2nd Edition, Hoboken: Wiley, 2007.
- Egan, M. Architectural Acoustics. McGraw Hill Book Co., 1988.

Indicative learning and teaching time (10 hrs per credit):	**Activity** 300 hours of directed and self-directed study as described below
1. Student/tutor interaction:	Lectures, tutorials, project supervision, practical classes, supervised time in studio, site visits, presentations, final jury. **120 hours**

2. Student learning time:	Reading, assignment preparation, digital applications, surfing the internet, self-directed research, group work, unsupervised studio work, Field work. **180 hours**
Total hours (1 and 2):	**300 Hours**

Module Title: Technical Studies and Urbanism	**Module Code:** EG2644 **Level 6** **Credit: 30** **ECTS credit:** 15	**Module Leader**: Prof. Marwa Khalifa

Pre-requisite: EG0534 Technical Studies in Architecture (2)	**Pre-cursor:**
Co-requisite: EG2641 Urbanism Design Studio (4) EG2642 Urban technical studies EG2643 Urban Design and Contextual Studies	**Excluded combinations:**

Location of delivery: Ain Shams University Campus

Main aim(s) of the module:

This course focus on studying the environmental impact of buildings then, identifying potential impacts to develop projects' activities and focuses on land use and open space planning, planning and use of urban resources, interactions of urban residents and the physical environment, and the role of government in formulating appropriate policies and strategies. The module also introduces the concept of building rating systems, rating system categories and the scoring system to enable the students to develop a preliminary sustainable planning and design concepts based on detailed studies as well as technical concerns. The course provides students with technical and professional knowledge in waste technology and management in order to meet the requirements expected of modern waste managers working in the industrial, government and consulting sectors.

Main topics of study:

- Sustainable Waste Management
- Environmental Impact Assessment
- Environmental Planning

Learning Outcomes for the module

At the end of this module, students will be able to:

1. Define and compare the differences between the existing rating systems around the world (LEED, BREEAM, Green star, DGNB, etc…)
2. Explore the process of achieving a rated building globally and locally
3. Identify methods and prediction techniques for use within the EIA and SEA process
4. Exchange knowledge and skills with engineering sectors and industrial sectors working in the field of environmental control.
5. Select the appropriate impact identification method according to the available resources in terms of data availability, time and money.
6. Select and apply scientific, technical and engineering principles; assess economic consequences and risks of waste management options.
7. Propose adequate mitigation measures to avoid, reduce or remedy potential negative impact resulted from development activities in architectural projects
8. Use appropriate renewable technologies and materials to specify and implement unique designs to achieve sustainable measures.
9. Make design decisions that could be certified by one of the rating systems and learn about the management of such projects to sustain
10. Share ideas, collaborate and communicate effectively

Teaching/ learning methods/strategies used to enable the achievement of learning outcomes:
For on campus students:

• Lectures are given about different topics in the module.
• Tutorials run in parallel to the lectures in which more applications are introduced.

• A technical comprehensive research should be completed by each student or group to achieve the course objectives.
• Site visits are usually arranged separately and/or during the tutorial time.
• Class presentations, peer review, public reviews are the key for the assessment process.

Assessment methods which enable students to demonstrate the learning outcomes for the module: **For on Campus Students**	**Weighting:**	**Learning Outcomes demonstrated:**
Portfolio of students' work includes a compilation of coursework of the packed ASU courses; Each ASU Course component would include samples of the following: Activities/Assignments 2 Quizzes 1 Midterm Exam Final Exam	100%	All

Reading and resources for the module:
These must be up to date and presented in correct Harvard format unless a Professional Body specifically requires a different format
Core

- Reeder, L. Guide to green building rating systems. Hoboken, N.J.: Wiley, 2010.
- Curran, M. Life cycle assessment handbook. Hoboken, N.J.: Wiley, 2012.
- Madu,C., Environmental Planning and Management, 2007.
- Chang, N., Sustainable Solid Waste Management: A Systems Engineering Approach, 2015.
- Ludwig, C., Municipal Solid Waste Management, 2003.

Recommended

- Glasson, J., Therivel, R. and Chadwick, A. (1994), Introduction to Environmental Impact Assessment: Principles and procedures, process, practice and prospects, UCL Press.)
- Kaule, Giselher (2000), Ecologically Oriented Planning, Peter Lang GmbH.
- Wiesner, D., (1995), EIA the environmental impact assessment process: What it is and what it means to you. A manual for everyone concerned about the environment and decisions made about its development, Prism Press

Indicative learning and teaching time **(10 hrs per credit):**	**Activity** 300 hours of directed and self-directed study as described below
1. Student/tutor interaction:	lectures, tutorials, fieldwork, external visits **160 hours**
2. Student learning time:	reading and preparation, assignment preparation, on-line activities, group work **140 hours**
Total hours (1 and 2):	**300 hours**

7 PLACEMENT REQUIREMENTS

Students eligible to get enrolled in the Credit Hours Engineering Programmes are those with the general certificate of secondary education (Thanaweya Amma), mathematics section, or equivalent, who have been deployed to the Faculty through the Coordination Office, or transferred from other Faculties, in accordance with the rules and conditions established annually by the Supreme Council of Universities.

The Council of the Faculty of Engineering establishes general rules for admission to the programmes considering the student preferences and the principle of equal opportunities as the basis for the admission of students to these programmes. When the student applies to the credit hours programmes, the Council of the Faculty of Engineering may assign him a maximum of two basic courses as an admission prerequisite. These courses will not be included in the student's GPA and are recommended by the Programmes Administration Council and approved by the Council of the Faculty of Engineering. Concerning the internal students transfer to/from the credit hours system and the Transfer from outside the Faculty, kindly refer to Articles (43 and 44) of the Internal Regulations.

For the Academic Calendar, please refer to Appendix A

Scholarships

The student who achieves an accumulative GPA of 3.6 or higher after any semester and did not fail any course throughout his course of study is included in the Dean's List and receives partial exemption from charges on the next semester. This exemption is dependent on the student's GPA as recommended by the Programmes Administration Council in this regard and after approval of the Council of the Faculty of Engineering. The student who keeps an accumulative GPA of 3.3 or higher in every semester all through his course of study and does not fail any course, graduates with an Honor Degree, which is documented in his graduation certificate. Additionally, the top 30 students in Thanaweya Amma, mathematics section, who enrolled in the credit hours programmes, are fully exempted from paying any tuition fees in their first semester.

To maintain this exemption in the following semesters, the student should maintain an accumulative GPA of 3.6 or higher in every semester. This exemption is declined once the student fails to achieve this accumulative GPA in any semester. The faculty sets a system for encouraging distinguished students through reducing their tuition fees in accordance with their accumulative GPAs. At the beginning of each semester, the distinguished students' list is announced together with the associated tuition fees reductions.

Reference to the Suitability procedure and provide web link

https://www.uel.ac.uk/Discover/Governance/Policies-Regulations-Corporate-documents/Student-Policies/Manual-of-General-Regulations

(Manual of General Regulations, Part 13)

8 PROGRAMME MANAGEMENT

- Students' support and guidance are provided through a range of resources. A welcome and induction process is starting in their first week, where all students are guided to their programme studies.

- The programme pays special attention to the learning management system that helps students and staff members to intercommunicate effectively in terms of course material, assignment, term-work marks … etc.

- The programme's learning management system is setup to have a page for each course studied during the semester. The student can access his courses from the main programme web-page.

- All electronic services provided to the students requires the use of university e-mail, hence, it is created automatically for the programme's student when he is first enrolled to the programme, and he retains this e-mail until he graduates.

- The Student Information System (SIS) is the place where students can access all your academic records. It can be reached on the main programme web-page, which also provides brief information about the mission and vision of the programme, and the important dates related to student academic activities.

- Every student is assigned an Academic Advisor who is one of the faculty members and may continue with the student for the whole study duration. The Academic Advisor should follow-up with the student, assist him in selecting courses each semester, and request to place the student under probation for one semester.

- For each hour (lectures or tutorials) the instructor should have an office hour. It could be twice a week for 1.5 hours each. Office hours will be determined in the first class and will be posted on the Instructor's office door.

- Students will be given a student handbook at the start of their programme of study.

- Programme Committees provide a formal structure for student participation and feedback on their programme of study. Programme committees provide a forum in which students can express their views about the management of the programme, and the content, delivery and assessment of modules, in order to identify appropriate actions to be taken. Terms of reference are provided in Appendix D.

Students Involvement

There are different facilities that ensure students involvement that include:

a) Students' Affairs Administration

The students' affairs administration is chaired by the Vice-Dean for education and students' affairs and is located in the main building. This administration has representatives at the programmes' administration offices (Ground Floor of the New Educational Building). The secretariat of each programme (at the programmes secretariat office – Ground Floor of the New Educational Building) also collaborates with the previous representatives in accomplishing the following tasks:

- Archiving of the students' files.
- Issuing the students' identity cards.
- Electronic recording of the students' course registration, add/drop, and withdraw.
- Processing the students' course evaluation at the end of each semester.
- Issuing the students' records at the end of each semester.
- Issuing the students' graduation certificates.
- Processing the students' appeals and requests.

b) Students' Union

The students' union is also under the general supervision of the Vice-Dean for education and students' affairs. As part of the Faculty of Engineering, the programmes' students are members in the union and have similar rights and benefits as the mainstream students, including entering the union's yearly elections.

c) Financial Affairs Administration

The programmes' financial affairs administration, located at the Ground Floor of the New Educational building, is responsible for issuing the payment orders for the students' tuition fees at the beginning of each semester. The administration is also responsible for collecting the copies of the students' payment receipts, which should be presented by the students after making their payment at the Faculty treasury. Programmes' students who fail to present copies of the payment to the programmes' financial administration risk having no payment records at the programmes.

d) Library

The Faculty library provides a service specially designed to fulfil the requirements of all academic programmes. It is open for all Faculty members for reference use and borrowing. The main library has a shelf space for over 40,700 books on all subjects forming part of the Faculty curriculum. It has 353 technical periodicals (the Faculty receives 23 periodicals yearly in a regular basis). Additionally, it has more than 3,340 Ph.D. and M.Sc. theses resulted from all Faculty departments' activities. The students' library has multiple copies of textbooks, amounting to over 13,000, available for short-term borrowing to students. According to the Engineering Faculties libraries
development project, annexed to the Ministry of Higher Education, the library is interconnected through the Internet with all the libraries of engineering faculties nationwide.

VTLS library software system has been installed which contains all the modules to provide library services to the Faculty community.

e) ASU -FoE Information Systems

ASU - FoE have a solid understanding of the importance of information systems in each aspect in the CHEP academic environment. Hence, a comprehensive web portal has been created for CHEP that has all information and services needed for the student, parents, and staff members. Learning Management System (LMS) is one of the available service at the ASU - FoE portal for all students mainly to have their course materials posted regularly on it with a dedicated protected access to the courses he enrolled in them. More importantly, a comprehensive Student Information System (SIS) is another service that is available on the portal to all parties involved in the system. The student can use SIS to access his academic records, do course registration, request to open courses that are not offered, or even request advising appointment with his academic advisor.

9 STUDENT SUPPORT

9.1 Local arrangements for academic and pastoral care for students

- Programme teams must ensure that Academic Advisor have the knowledge and skills to carry out the role. The role includes helping students to understand:
  i. The academic and related skills required for successful study at CHEP.
  ii. The need for self-direction and responsibility for own learning.
  iii. Their learning needs beyond their current courses and immediate assessments.
  iv. An opportunity to identify areas of weakness.
  v. Where to find information, help and support.
  vi. Clarification of aims and choices for progression, employment and further study [internship]

- Academic Advising in ASU-FoE:
  i. Must exist for every year.
  ii. That it must form part of the student induction process especially for General Level Year Students.
  iii. Must be used as a mechanism, to identify 'at risk students'.
  iv. Must happen at critical moments in each semester. [week 1 & 8]

- Programme teams must carefully manage the Academic Advising system so that students understand its role and know how to access it.
- Academic Advising needs to be carefully managed with its importance being emphasised:
  i. During the induction period for each Level of the programme.
  ii. In student handbook.
  iii. By Academic Advisor
  iv. By Course Instructors-via class announcements
  v. Via email and SIS.

- Unit Heads agree procedures and systems to manage Academic Advising. These will include:
  i. Allocation of Academic Advisors for all Levels
  ii. Ensuring student is informed
  iii. Delivery of Academic Advising
  iv. Identification of students at risk

9.2 Local Personal Tutor support

- Programme teams must meet the minimum requirements for delivery of Academic Advising.

  - Meet in weeks 1 and 8 each semester
  - Identify issues and agree strategies
  - Keep a record of meetings [SIS+ student copy]
  - Feedback issues and takes action as appropriate

- Advertise Office Hours when 1:1 appointments can be made according to Advisor and student Schedule.

- Advisor need to be clear about the focus of the meeting:
  i. To check that student has settled into the Programme?
  ii. To identify any concerns the student may have?
  iii. To review student's progress [preferably quantitative]?
  iv. To review and offer advice on student's performance in assessments/exams?
  iv. To address concerns about performance or attendance?
  v. To review progression or career plans [internship]?

- Meeting -encouraging change
  i. Encouraging change -telling or helping?
  ii. Giving constructive feedback
  iii. Discussing options
  iv. Agreeing actions –SMART targets
  v. Producing a realistic plan of action
  vi. Getting commitment
  vii. What's going well?
  viii. What could go better?

- Follow-up from meetings –ensuring action
  i. What actions are required by the student or by the Academic Advisor?
  ii. Does this involve liaison with:
    - Course Instructors?
    - Unit Heads?
    - Vice Director?

9.3 Local Careers Advice

- Programme teams must ensure that staff acting as Academic Advisors are aware of relevant learner support services.
- Academic Advising is only a part of Learner Support:
  i. Employability Skills (through events)
  ii. Students Activities
  iii. The Library
  iv. Disability issues
  v. The Student Union

Employability and Career Development Centre (ECDC) is a Centre constructed through the collaboration between Ain Shams University and the American University, it has a permanent headquarter in Faculty of Engineering and another headquarter in Ain Shams University. It provides special training programmes for students in order to develop their capabilities in the professional and employment fields. The centre aims to guide the trainee to his excellence and weaknesses points, and how to raise points of excellence and overcome weaknesses.

9.4 Local arrangements for supporting students with disabilities/dyslexia

Faculty of Engineering provides support and equal opportunity for learning to its diverse community especially to those with disability. The faculty aimed to provide equal learning

environment to experience the same level of equality and meet the same level of academic potential. The objectives are:

i. Ensure the accessibility to all faculty facilities
ii. Ensure that admission requirements do not hinder anyone from enrolment by unnecessary barriers
iii. Encourage people with disability to courses admission by providing any possible support.
iv. Determine the needs of the disable and support staff to deal with their needs

This is through a student disability services unit. The student should fill in the form describing his/her conditions to request for disability services.
According to each case, the unit can provide:

i. Quiet areas for exams equipped with the required physical changes
ii. Providing staff members assisting for writing in exams
iii. Extra exam time
Extended deadline for the assignments and attendance
iv. Providing special seating place in class
v. Providing large print hand-outs, verbal description for visual aids

Please refer to Appendix F for Student Entitlements, for support available at UEL.

10 RESOURCES

a) Local library and IT resources

ASU - FoE central library serves students and researchers in various fields besides the Digital Library to provide an online service for users. There is (1) central library with (3) halls according to the following:

- The student library hall contains (16,461) books.
- The teaching staff hall contains (29,607) books.
- Digital Library Hall

The Digital Library serves to provide an online Service for users. It gives online access to the contents of the library, including books and theses. The digital library website: ***http://srv2.eulc.edu.eg/eulc_v5/libraries/start.aspx***

Other learning resources are the Egyptian Bank of Knowledge (EBK) through the website: ***http://www.ekb.eg/*** "Egyptian Knowledge Bank", is one of the largest national projects that is concerned with education in Egypt, it aims to provide huge and diversified sources for knowledge and culture for free. It comes after contracting with several international publishing houses to publish their contents in all scientific and cultural disciplines, to have the system for the new Egyptian Cultural Revolution completed. Generally, 25 global publishing house and specialised companies, the Egyptian Knowledge Bank managed to contract with to provide their contents & technologies. E-Mail Services involved a developed Cooperation of the University with Microsoft Corporation to Serve Undergraduate and Postgraduate Students offering new features for the official e-mail users.

b) Other local resources relevant to supporting the programme

The faculty offers students Training Support through **Global Training Technology Centre**. It aims to be a centre for innovation in technology and entrepreneurship, as to form a link between academic study and labour market. The centre offers training programmes to serve students and graduates at the same time, these training programmes aim to develop the creative sense of the trainees in order to integrate them into creative and innovative works that would serve the industrial field and the community. Depends on the overlap between the different disciplines in various fields and at various levels. The centre is nearly 1000 m² area, it works as the headquarters for the students to practice their activities in the future, and the college is preparing the headquarters of the centre to accommodate the necessary training activities.

Employability and Career Development Centre (ECDC) is a Centre constructed through the collaboration between Ain Shams University and the American University, it has a permanent headquarter in Faculty of Engineering and another headquarter in Ain Shams University. It provides special training programmes for students in order to develop their capabilities in the professional and employment fields. The centre aims to guide the trainee to his excellence and weaknesses points, and how to raise points of excellence and overcome weaknesses.

The number of computers available to students is about 600 modern machines. A suitable number of computers are available for faculty members in their respective laboratories and offices in different sections. The number of computers available to employees is 250 devices. Computer labs are run centrally for students. The method of using these labs has been

adopted by setting a nominal fee of not less than two pounds per hour to use the central labs which are open to access the network, while the student does not bear any burdens to enter the laboratories associated with the ministry while the Income is suitable for the maintenance and modernization of computers in college. The databases and information systems of faculty staff members, their assistants, students, graduate students, expatriates, administrators and libraries have been developed and updated. The databases are continuously updated.

The Faculty of Engineering has a website through the main website of Ain Shams University. The website is: ***https://eng.asu.edu.eg/*** . The website provides various services for students and faculty members by presenting the internal regulations of the bachelor's degree course as well as higher education. The site is being developed and data recorded within it are consistently updated. The contents of the various educational materials are displayed. The course schedules and exam results are announced at the end of the semester. The site is available in Arabic and English so that the user can choose the appropriate language. This site is regularly updated by site administrators and college administration. E-mail access is also available to the faculty members and the assistant staff and the students on the website of the College.

In order to update the educational services to the international standards, an online portal was developed in order to open the access to students and staff members to perform efficiently online. Students can view their courses, submit coursework and view their grades. Staff members can upload their lectures, view the online submissions and grade online. An information technology unit was set up for the electronic portal of the college to be the main focus of interaction between students and faculty.

11 INFORMATION ABOUT QUALITY AND STANDARDS

11.1 Assuring the quality and standards of the award

You are enrolled on a programme of study leading to the award of a degree of the University of East London (UEL). As such, you are regarded as a student of the University of East London as well as ASU- FoE and both institutions work together to ensure the quality and standards of the programme on which you are registered. The final responsibility for all quality assurance, validation and standards' matters rests with UEL.

Some of the ways in which we ensure the quality and standards of the programme include:

Approval of the programme and institution at which you are studying
Before the programme started, our University, through an approval process, checked that:

- there would be enough qualified staff to teach the programme;
- adequate resources would be in place;
- the overall aims and objectives were appropriate;
- the content of the programme met national benchmark requirements, where applicable
- the programme met any professional/statutory body requirements if applicable;
- the proposal met other internal quality criteria covering a range of issues such as admissions policy, teaching, learning and assessment strategy and student support mechanisms.

Appointment of external examiners
The standard of this programme is monitored by at least one external examiner external to UEL, appointed by UEL. External examiners have two primary responsibilities:

- To ensure the standard of the programme;
- To ensure that justice is done to all students.

External examiners fulfill these responsibilities in a variety of ways including:

- Approving exam papers/assignments;
- Attending assessment boards;
- Reviewing samples of student work and moderating standards;
- Ensuring that regulations are followed;
- Providing feedback to the University through an annual report that enables us to make improvements for the future.

Review and Enhancement Process

- This annual review includes the evaluation of and the development of an action plan based on:
- external examiner reports and accreditation reports (considering quality and standards);
- statistical information (considering issues such as the pass rate);
- student feedback obtained via programme committee and module evaluation questionnaires.

Periodic reviews of the partnership and programme

- This is undertaken by a panel that includes at least two external subject specialists. The panel considers documents, looks at student work, speaks to students and speaks to staff before drawing its conclusions.

Award certificates

Issuing transcripts of results to students, and award certificates to successful students on programmers.

The student who achieves an accumulative GPA of 3.6 or higher after any semester and did not fail any course throughout his course of study is included in the Dean's List and receives partial exemption from charges on the next semester. This exemption is dependent on the student's GPA as recommended by the Programme Administration Council in this regard and after approval of the Council of the Faculty of Engineering.

Students who complete 480 credits, graduate with an Honours Degree, which is documented in their graduation certificate. The faculty sets a system for encouraging distinguished students through reducing their tuition fees in accordance with their academic performance. At the beginning of each semester, the distinguished students' list is announced together with the associated tuition fees reductions.
Students who manage to fulfil all graduation requirement are awarded a dual B.Sc. degree from ASU – FoE in Environmental Architecture and Urbanism.

Equality and Diversity

ASU Equality and Diversity Strategy

- ASU commits to ensuring equality and diversity in its campus. Equality is ensured for everyone regardless any grounds of discrimination such as gender, age, color, disability and religion.

- The university supports a safe environment for both working and studying. The university environment must be free of bullying, harassment, and any form of discrimination. Any act of the aforementioned will not be tolerated and any complaints will be taken seriously. Anyone who feels being subjected to these acts is encouraged to raise complaints.

- All academic staff members, students and employees are supposed to treat each other with mutual respect and fairness. Everyone should respect the presence of individual differences, diversity in culture, personal opinions and beliefs.

- Equal opportunities and access to facilities are allowed for all staff and students. Each staff member or student is given full support to develop their skills and talents. Selection for employment, promotion, training, or any other benefits will be based on aptitude and ability.

UEL Equality and Diversity Strategy
https://www.uel.ac.uk/Discover/Governance/Policies-Regulations-Corporate-documents/Student-Policies (for all general policies)

12 ACADEMIC APPEALS

12.1 Students who wish to appeal against decisions of an Assessment Board, should notify the Credit Hours Engineering programs at Ain Shams University in writing, via official appeal forms downloadable via
https://eng.asu.edu.eg/uploads/uploadcenter/asu_337_file.pdf

12.2 Students who wish to appeal against a decision of an Assessment Board may appeal in accordance with the procedure for *Appeals against Assessment Board decisions* (Manual of General Regulations, Part 7).

12.3 An appeal may only be made on the following grounds:

(a) The assessment was not conducted in accordance with the current regulations for the programme, or there has been a material administrative error or some other material irregularity relevant to the assessments has occurred.

(b) For a student with a disability or additional need, the initial needs assessment was not correctly carried out, or the support identified was not provided, or the agreed assessment procedures for that student were not implemented.

12.4 Appeals **will not be accepted** on the grounds of disagreement with the academic judgement of an assessment board. These remain the exclusive prerogative of the Assessment Board.

Any student who wishes to appeal against the decision of an Assessment Board must:

1. Notify the Institutional Compliance Office (***appeals@uel.ac.uk***) **within ten working days of the publication of results**.

2. Complete all sections of the notification of appeal form (please contact Institutional Compliance Office if you require the form in a different format).

3. Attend a conciliation meeting with the Chair of the Assessment Board to attempt to resolve your appeal (the meeting should be convened within 10 working days of lodging the appeal).

12.4 If you are dissatisfied with the outcome of the conciliation meeting you should submit the completed notification of appeal form to the Institutional Compliance Office **within five working days of the conciliation decision** and Institutional Compliance will formally investigate your appeal.

12.5 Further information about the UEL appeals process, including copies of the formal Notification of Appeal Form, is available for view at
https://www.uel.ac.uk/Discover/Governance/Policies-Regulations-Corporate-documents/Student-Policies/Student-Appeals

12.6 To help you decide whether your query would be an Appeal or Complaint, please refer to ***https://www.uel.ac.uk/Discover/Governance/Policies-Regulations-Corporate-documents/Student-Policies***

12.7 If you would like to lodge a formal appeal or have any queries, please email the Institutional Compliance Office at ***appeals@uel.ac.uk***

13 COMPLAINTS

13.1 If you feel that you have not received the standard of service which it would be reasonable to expect, you may be entitled to lodge a complaint, in accordance with section 14 of the *Manual of General Regulations*. The Complaints Procedure should be used for serious matters, and not for minor things such as occasional lapses of good manners or disputes of a private nature between staff and students. A complaint may be submitted collectively by a group of students who should nominate a spokesperson who will be the channel of communication for the group, however, a complaint may not be lodged by a third party on behalf of the complainant. The complaints procedure is an internal process.

13.2 Separate procedures exist for the following, which therefore cannot form the substance of a complaint:

- appeals against the decisions of Assessment Boards (see Part 7 of the Manual of General Regulations);
- appeals against annual monitoring reviews, transfer of research degree registration or oral examination decision for postgraduate research students (see Part 9 of the Manual of General Regulations);
- appeals against the decisions of the Extenuation Panel (see Part 6 of the Manual of General Regulations);
- complaints against the Students' Union (see the Complaints Procedure in the Students' Union constitution);
- appeals against decisions taken under disciplinary proceedings (see Part 12 of the Manual of General Regulations);
- complaints about businesses operating on University premises, but not owned by our university (contact the Deputy Vice-Chancellor and Chief Operating Officer);
- complaints about the behaviour of other students (see Part 12 of the Manual of General Regulations this Manual);
- appeals against the decisions of Academic Misconduct Panels (see Part 8 of the Manual of General Regulations)
- appeals against the decisions of Attendance Appeal Panels (see the University's Attendance Policy).

13.3 ASU- FoE has a complaints process which adheres to the four stages of the University of East London complaints process. The three possible stages of the complaint process are:

STAGE 1: Local Resolution
STAGE 2: Formal Complaint
STAGE 3: Review

13.4 Stages 1 and 2 will be administered by ASU- FOE and the University of East London will administer Stage 3, including the issuing of a Completion of Proceedings letter in response to each Stage 3 complaint. ASU – FoE is responsible for keeping the University of East London informed of all complaints received.

13.5 Complainants are strongly advised to make every reasonable effort to resolve their complaint informally through meeting with the *member of ASU - FoE staff* most directly concerned with the matter, such as the Programme or Module Leader, before proceeding to Stage 2 and submitting a formal complaint.

13.6 Complaints must normally be lodged within set time limits (please see Complaints Procedure for further details). This ensures that the people involved still remember the case, and the facts can be established.

13.7 Further information about our University's complaints procedure, including copies of the formal Complaints Form, is available for view at ***https://www.uel.ac.uk/Discover/Governance/Policies-Regulations-Corporate-documents/Student-Policies/Student-Complaint-Procedure***

13.8 If you would like to lodge a formal complaint or have any queries, please email the Institutional Compliance Office at ***complaints@uel.ac.uk***

14 EXTENUATION

General Information about extenuation can be found at
https://www.uel.ac.uk/Discover/Governance/Policies-Regulations-Corporate-documents/Student-Policies/Extenuation-Procedures

The University of East London has agreed, through Academic Board, procedures governing extenuation for students concerning the assessment process.

Computer Engineering and Software Systems programme will be subject to equivalent procedures, with the process being administered by, and the panel being held within Ain Shams University – Faculty of Engineering

If granted by the panel, **Extenuation can**

(i) Allow students to hand in coursework up to 7 days late.

or

(ii) Allow students to proceed to their next attempt uncapped.

Extenuation doesn't

(i) Give students more attempts to pass a module
(ii) Reschedule exams
(iii) Uncap a capped module
(iv) Give students a higher mark.
(v) Allow students to hand in work over 7 days late.

The basic principle is that extenuation should put you in the same position that you would have been in had you not missed the exam or handed in the assessment late – it does not confer any advantages.

UEL decided that its procedures would be

- Evidentially based
- Handled centrally by an panel of senior staff (not devolved to various parts of the organisation)
- Retain student anonymity where possible

The extenuation procedures are intended to be used rarely by students not as a matter of course.

The procedures govern circumstances which

- Impair the performance of a student in assessment or reassessment
- Prevent a student from attending for assessment or reassessment
- Prevent a student from submitting assessed or reassessed work by the scheduled date

Such circumstances would normally be

- Unforeseeable - in that the student could have no prior knowledge of the event concerned
- Unpreventable - in that the student could do nothing reasonably in their power to prevent such an event

- Expected to have a serious impact

Examples of circumstances which would normally be regarded as serious are:

- *A serious personal illness* (which is not a permanent medical condition – this is governed by disability procedures)
- *The death of a close relative immediately prior to the date of assessment*

Examples of circumstances which would *not* normally be regarded as extenuating circumstances are:

- Failure of computer equipment / USB stick
- Transport problems, traffic jams, train delays
- Misreading the exam timetables / assessment dates
- Minor illnesses

The judgement as to whether extenuation is granted is made by a panel of senior persons in the organisation who make this judgement on the basis of the evidence the student provides (not on their knowledge of the student) – where possible the identity of the student is not made available to the panel. The judgement is made on the basis that the circumstances could reasonably be thought to be the sort of circumstances which would impair the performance of the student etc. The actual performance of the student is not considered and is not available to the panel.

It is the responsibility of the student to notify the panel, with independent evidential documentary support, of their claim for extenuation.

More information and student guidance notes can be found at:
https://www.uel.ac.uk/Discover/Governance/Policies-Regulations-Corporate-documents/Student-Policies/Extenuation-Procedures

14.2 Seeking Advice: Academic Advisor

Every student is assigned an Academic Advisor who is one of the faculty members and may continue with the student for the whole study duration.
The Academic Advisor should follow-up with the student, assist him in selecting courses each semester.
The Academic Advisor may ask the student to repeat courses which he already passed or ask him to register in additional courses to raise his accumulative GPA to that required for graduation

Appendix A

Academic Calendar 2019/2020

Semester	Activity	From	To
First Semester Fall 2019	Course Registration	07/09/2019	19/09/2019
	Classes	21/09/2019	02/01/2020
	Adding Courses	21/09/2019	26/09/2019
	Dropping Courses	21/09/2019	03/10/2019
	Midterm Exams	08/11/2019	15/11/2019
	Withdraw Courses	19/10/2019	28/11/2019
	Final Exams	04/01/2020	24/01/2020
	Break	25/01/2020	06/02/2020
Second Semester Spring 2020	Course Registration	01/02/2020	06/02/2020
	Classes	08/02/2020	21/05/2020
	Adding Courses	08/02/2020	13/02/2020
	Dropping Courses	08/02/2020	20/02/2020
	Midterm Exams	27/03/2020	03/04/2020
	Withdraw Courses	07/03/2020	16/04/2020
	Final Exams	27/05/2020	19/06/2020
	Break	20/06/2020	09/07/2020
Summer 2020 Semester	Course Registration	27/06/2020	02/07/2020
	Classes	04/07/2020	20/08/2020
	Adding Courses	04/07/2020	06/07/2020
	Dropping Courses	04/07/2020	09/07/2020
	Withdraw Courses	08/08/2020	13/08/2020
	Final Exams	21/08/2020	28/08/2020
	Break	29/08/2020	17/09/2020
Start of Academic Year 2020/2021		19/09/2020	

USEFUL WEB PAGES **APPENDIX B**

Academic Appeals
https://www.uel.ac.uk/Discover/Governance/Policies-Regulations-Corporate-documents/Student-Policies/Student-Appeals

Academic Integrity Policy
https://www.uel.ac.uk/Discover/Governance/Policies-Regulations-Corporate-documents/Student-Policies

Accreditation of Experiential Learning
https://www.uel.ac.uk/Discover/Governance/Policies-Regulations-Corporate-documents/Student-Policies/Manual-of-General-Regulations
(Manual of General Regulations – Part 2 – Admission of Students)

Assessment and Feedback Policy
https://www.uel.ac.uk/Discover/Governance/Policies-Regulations-Corporate-documents/Assessment-and-Feedback-Policy

Civic Engagement
https://www.uel.ac.uk/Connect/Civic-Engagement

Complaints procedure
https://www.uel.ac.uk/Discover/Governance/Policies-Regulations-Corporate-documents/Student-Policies/Student-Complaint-Procedure

Equality and Diversity Strategy
https://www.uel.ac.uk/Discover/Governance/Policies-Regulations-Corporate-documents/Student-Policies
(for all general policies)

Extenuating Procedures
https://www.uel.ac.uk/Discover/Governance/Policies-Regulations-Corporate-documents/Student-Policies/Extenuation-Procedures

Library and Learning Services
https://www.uel.ac.uk/lls/

Manual of General Regulations
https://www.uel.ac.uk/Discover/Governance/Policies-Regulations-Corporate-documents/Student-Policies/Manual-of-General-Regulations

Referencing guidelines
https://uelac.sharepoint.com/LibraryandLearningServices/Pages/Harvard-Referencing-.aspx

Skills Curriculum
https://www.uel.ac.uk/discover/governance/policies-regulations-corporate-documents/student-policies/skills-curriculum

Skills Portal
https://uelac.sharepoint.com/LibraryandLearningServices/Pages/Skillzone.aspx

Suitability Procedures
https://www.uel.ac.uk/Discover/Governance/Policies-Regulations-Corporate-documents/Student-Policies/Manual-of-General-Regulations
(Manual of General Regulations – Part 13 – Suitability Procedure)

Write it Right ***http://writeitright.uelconnect.org.uk/***

UEL Intranet (UEL ID required to login) ***https://www.uel.ac.uk/students***

APPENDIX C

Student Attendance and Engagement Policy – Guidance for Students

Teaching Policy

Language: English language should be used for lecturing, discussions, exams, and all verbal and electronic communications. Use of Arabic language is strictly forbidden even in one-to-one conversation between the instructor and the students.

Course Syllabus: Each course syllabus should contain: course objectives, textbook, outline, material, assessments, grading policy and outcome. Outline should contain sections covered every week with reference to chapters/sections in the textbook. The instructor should give the course syllabus to the students in the first class. The syllabus serves as a contract between the instructor and the students.

Textbook: The instructor is free to select/recommend a textbook but it should be international and available. The textbook information should be provided to the administration office or the unit head before the first class of the course.

Attendance: Attendance is taken in lecture and tutorial classes. It is assigned a percentage based on the grading policy. Students should not be allowed to enter the class after 5 minutes from the scheduled time. No eating, drinking, or mobile use in the class. If the student wants to leave the class for any reason, he will not be allowed to come back to the class. The student's attendance should not be less than 75% during the course. Otherwise, the student should not be allowed to attend the final exam.

Assignments: Assignments are given every week (spelled out in the course syllabus), preferably from the textbook. Assignments should constitute 20% of the total grade. Instructors are allowed to drop the least assignment from the grade. The assignment is collected at the end of the tutorial period of the next week. Instructors may grade only selected problems from the assignment. The graded assignment should be returned and discussed with the class.

Quizzes: Unannounced quizzes are given in the tutorials to force the students to study and be ready all time. These quizzes should constitute 10% of the total grade. The quiz is given at the end of the session for 15 minutes max. Up to 6 quizzes can be given and the least one can be dropped from the grade. The graded quiz and the model answer should be returned the following tutorial and discussed with the class.

Exams: One midterm exam should be given. Time should be indicated in the course syllabus. The midterm exam should be given during the 6th - 7th week. This exam will be held during lectures/tutorials based on course progress and will constitute 25% of the grade. The graded midterm exam and its model answer should be returned and discussed with the class. The instructor can arrange for a bigger or more suitable room for the midterm exam. The final

exam constitutes 40% of the grade. It should be a comprehensive exam covering all material. The student fails the course if he gets less than 30% of the final exam total grade. Instructors may select to have all exams open-book or closed-book.

APPENDIX D

UNIVERSITY OF EAST LONDON

TITLE: PROGRAMME COMMITTEE (COLLABORATIVE)

TERMS OF REFERENCE

To be responsible for assuring and enhancing the quality of the student experience at programme level by:

- Providing a forum in which students can express their views about the management of the programme, and the content, delivery and assessment of modules, or equivalent, in order to identify appropriate actions to be taken in response to the issues raised and to ensure that the implementation of these actions is tracked.

- Providing formal yearly student feedback on the programme as input into the preparation of the Programme REP.

- Reviewing programme questionnaire results and making recommendations and changes arising from these.

- Receiving, considering and approving the Programme REP and identifying responsibilities for action to be taken before it is considered by School Learning and Taeching Quality Committee.

- Reviewing progress on REP action plans at each meeting.

- Reviewing the relevant documentation and other evidence prepared for Academic and collaborative Institutional Review and other external review processes.

- Reviewing proposals for modification of the programme structure (validated programmes only) and noting implementation arrangements for modifications.

- Advising the Programme Leader on mechanisms by which University policy statements, which have an impact on programme design and delivery, are implemented.

MEMBERSHIP

Programme Leader (Chair)
Administrator/Servicing Officer (ex-officio)
Programme staff making a significant teaching contribution to the programme
Learning Support Services representative
Technician representative (for laboratory based programmes)
Dean of School/department or equivalent (ex officio)
UEL Dean of School/Associate Dean of School, or equivalent (ex officio)

UEL link person (ex officio)
Two student representatives for each level and at least one part-time student (where appropriate)

The meeting will be held once per semester/term and will be quorate if 40% of the members are present.

APPENDIX E

ACADEMIC MISCONDUCT

For the purposes of university's regulations, academic misconduct is defined as any type of cheating in an assessment for the purposes of achieving personal gain. Examples of such misconduct are given below: the list is **not** exhaustive and the use of any form of unfair or dishonest practice in assessment can be considered potential misconduct.

Coursework Submitted for Assessment

For coursework submissions, academic misconduct means:

(a) The presentation of another person's work as one's own with or without obtaining permission to use it.

(b) The inclusion within one's own work of material (written, visual or oral), originally produced by another person, without suitable acknowledgment.

(c) The submission, as if it were one's own work, of anything which has been offered to you for your use, but which is actually not your own work.

(d) The inclusion within one's work of concepts paraphrased from elsewhere without citing your source.

(e) The inclusion in submitted work of sections of text, whether from electronic or hard copy sources, without appropriate acknowledgement of the source.

(f) The submission of work that the student, as the author, has previously submitted, without suitable acknowledgement of the source of their previous work; this should not normally be more than a short quotation as the same work cannot be submitted for different assignments.

(g) Including or quoting the work of other students in one's work, with the exception of published work, or outputs held in the library as a learning resource, which should be cited and acknowledged appropriately.

(h) Being party to any arrangement whereby the work of one candidate is represented as that of another.

(i) The submission, as your own work, of any work that has been purchased, or otherwise obtained from others, whether this is from other students, online services, "cheat sites", or other agents or sources that sell or provide assignments.

(j) Practices such as 'cutting and pasting' segments of text into your work, without citing the source of each.

(k) For work not intended to be submitted as a collaborative assignment: producing work with one or more other students, using study practices that mean the submitted work is nearly identical, overall or in part, to that of other students.

(l) Offering an inducement to staff and/or other persons connected with assessment.

Examinations

For examinations, academic misconduct means:

(a) Importation into an examination room of materials or devices other than those which are specifically permitted under the regulations applying to the examination in question.

(b) Reference to such materials (whether written or electronically recorded) during the period of the examination, whether or not such reference is made within the examination room.

(c) Refusing, when asked, to surrender any materials requested by an invigilator.

(d) The application of an electronic device, unless this has been expressly permitted for that examination.

(e) Copying the work of another candidate.

(f) Disruptive behaviour during examination or assessment.

(g) Obtaining or seeking to obtain access to unseen examination questions prior to the examination.

(h) Failure to observe the instructions of a person invigilating an examination, or seeking to intimidate such a person.

(i) Offering an inducement to invigilators and/or staff and/or other persons connected with assessment.

Where academic misconduct is suspected, the matter will be dealt with under the *Procedure to be followed in the event of a suspected case of academic misconduct, Part 8, paragraph 4 (or, for postgraduate research students, Appendix I)* of the Manual of General Regulations (available for view at ***https://www.uel.ac.uk/Discover/Governance/Policies-Regulations-Corporate-documents/Student-Policies/Manual-of-General-Regulations***). If it is determined that academic misconduct has taken place, a range of penalties may be prescribed which includes expulsion from the programme.

PLAGIARISM - A GUIDANCE NOTE FOR STUDENTS

1. Definition of Plagiarism

Our University defines plagiarism and other academic misconduct in Part 8 of the UEL Manual of General Regulations (to which all students are referred upon joining UEL), which is reprinted in "The Essential Guide to the University of East London". In this document, the following example of an assessment offence is given:

The submission of material (written, visual or oral), originally produced by another person or persons or oneself, without due acknowledgement*, so that the work could be assumed to be the student's own. For the purposes of these Regulations, this includes incorporation of significant extracts or elements taken from the work of (an)other(s) or oneself, without acknowledgement or reference*, and the submission of work produced in collaboration for an assignment based on the assessment of individual work. (Such misconduct is typically described as plagiarism and collusion.)

The following note is attached:
*(Note: To avoid potential misunderstanding, any phrase that is not the student's own or is submitted by the student for a different assessment should normally be in quotation marks or highlighted in some other way. It should also be noted that the incorporation of *significant* elements of (an) other(s) work or of one's own work submitted for a different assessment, even with acknowledgement or reference, is unacceptable academic practice and will normally result in failure of that item or stage of assessment.)

2. Plagiarism in Greater Detail

Work that students submit for assessment will inevitably build upon ideas that they have read about or have learnt about in lectures. That is perfectly acceptable, provided that sources are appropriately acknowledged. It should be noted, however, that the wholesale reproduction of the ideas and words of others, however well referenced, is likely to lead to failure at assessment (see section 6 below)

The submission of work that borrows ideas, words, diagrams, or anything else from another source (or sources), without appropriate acknowledgement, constitutes plagiarism. Plagiarism is not limited to unattributed cutting-and-pasting; it includes the reproduction, without acknowledgement, of someone else's work, taken from a published (or unpublished) article, a book, a website, a friend's (or anybody else's) assignment, or any other source.

When an assignment or report uses information from other sources, the student must carefully acknowledge exactly what, where and how s/he has used them. If someone else's words are used, they must be within quotation marks and a reference must follow the quotation. (See section 6 for further guidance on referencing.)

Where a concept or argument in another source is paraphrased (rather than directly quoted), quotations marks should not be used, but it will still be necessary to acknowledge the source. Remember, however, that the making of simple changes to the wording of a source, while retaining the broad structure, organisation, content and/or phraseology of the source, is unacceptable academic practice and will probably be regarded as plagiarism. (For helpful tips on how to avoid plagiarism, see "The Study Skills Handbook" by Dr Stella Cottrell, pages 122-125.)

3. Collusion

Collusion is the term used to describe any form of joint effort intended to deceive an assessor as to who was actually responsible for producing the material submitted for assessment. Clearly, students are encouraged to discuss assignments with their peers, but each student must always ensure that, where an individual assignment is specified, the report/essay submitted is entirely the student's own. Students should, therefore, never lend work (in hard or electronic copy) to friends. If that work is subsequently plagiarised by a "friend", an act of friendship might lead to a charge of collusion.

4. When to Reference

Our regulations do not distinguish between deliberate and accidental plagiarism, but you will not be accused of plagiarism, provided that you properly reference everything in your work that was said, written, drawn, or otherwise created by somebody else.

You need to provide a reference:

- when you are using or referring to somebody else's words or ideas from an article, book, newspaper, TV programme, film, web page, letter or any other medium;

- when you use information gained from an exchange of correspondence or emails with another person or through an interview or in conversation;

- when you copy the exact words or a unique phrase from somewhere;

- when you reprint any diagrams, illustrations, or photographs.

You do not <u>need</u> to reference:

- when you are writing of your own experience, your own observations, your own thoughts or insights or offering your own conclusions on a subject;

- when you are using what is judged to be common knowledge (common sense observations, shared information within your subject area, generally accepted facts etc.) As a test of this, material is probably common knowledge if

  - you find the same information undocumented in other sources;

  - it is information you expect your readers to be familiar with;

  - the information could be easily found in general reference sources.

5. <u>How to Reference</u>

Our University has agreed on a single version of the Harvard referencing system (the School of Psychology uses the American Psychological Association (APA) referencing style) and this (along with APA) can be found in Cite Them Right:

Pears, R. and Shields, G (2013) *Cite Them Right.* Newcastle: Pear Tree Press
Cite Them Right is available on line and hard copies can be found in our libraries and bookshops

6. <u>Plagiarism, or Unacceptable Academic Practice</u>?

If work that you submit for assessment includes substantial and significant elements of other sources and all of those sources are appropriately acknowledged, you will not have plagiarised, but you will be culpable of unacceptable academic practice, because there will be too little of your "own voice" to allow your knowledge to be assessed. Work that you submit for assessment must:

- use your own words;
- provide a critical commentary on existing literature;
- aim for novelty and originality;

- demonstrate your understanding of the subject area by paraphrasing.
  Work that does not meet those criteria will fail.

APPENDIX F

COLLABORATIVE STUDENT ENTITLEMENTS AT UEL

[Please append the student entitlement letter provided by UEL]

APPENDIX G

HEALTH AND SAFETY

- One of the principle roles of Ain Shams University administration is controlling dangers and risks. The University is aware that failures in health and safety administration can possibly prompt loss of life, injury, and damage to the University properties.
- According to the University, a fundamental standard of the Health and Safety policy is that it is in the hands of the individuals who cause the dangers and risks to manage and control them.
- The University appoints persons “capable to advice” to help with identifying, recognizing and controlling health and security dangers and risks. They may work in any sector of the University.
- Each College of the University holds a responsibility regarding the management and use of its own health and security policies and strategies. Despite that, the University and Colleges are still obliged to coordinate on the mutual matters of health and security which affect the more extensive University community.
- Heads of the different Departments must set out their own organizational courses of action for the safety measures. In addition, they abide by the general University Health and Safety Policies and are responsible for their implementation and management in their own departments and domains of responsibility.
- Each Head of Department might set up a Departmental Safety Policy, which works hand in hand with this University Health and Safety Policy to satisfy the prerequisite Health and Safety at Work measures.
- Each Head of Department must guarantee that everybody who might be influenced by the activities of the Department, knows about the health and security policies and arrangements, and has sufficient knowledge, information, time, preparation and supervision authority to allow for the identification, recognition and control of the dangers and risks to health and security.
- The supervisor of any departmental activity (field trip, practical work, office work or teaching activities) must have a comprehensive understanding of the related dangers and risks and conduct the risk assessment suitable for the circumstances of the activity. This is to fulfil the requirements of the Health and Safety at Work Regulations and different measures which state that no work might be attempted unless reasonable and adequate risk assessment has been done to define a safe and secure system of work.
- All University staff members are expected to be fully aware of both the University and Department policies and know that they hold the responsibility of this aspect for all those under their supervision or

management. This implies ensuring and promoting good working practices and environment. It also includes ensuring that practical and office work is done in safe spaces, equipment being maintained and checked in safe procedures, that the policies and strategies are being implemented and disseminated and that immediate reporting of any accidents or dangers takes place in order to take the necessary measures.

- The health and safety policy is also abiding to any private body or entity working inside the University premises. They must coordinate with the University on all matters related to health and safety management.