

May 25, 2012

National Architectural Accrediting Board  
1735 New York Avenue, NW  
Washington, DC 2006  
USA

Reference: Application Announcement for NAAB Substantial Equivalency  
University of Dammam  
College of Architecture and Planning  
Bachelor of Architecture (BArch.) degree program

To whom it may concern:

Please accept this announcement of application of the intention to seek NAAB substantial equivalency for the Bachelor of Architecture degree program at the College of Architecture and Planning of the University of Dammam.

We have attached the required Institutional Overview as defined in the NAAB 2009 Procedures for Substantial Equivalency for your review and for determination by the NAAB review panel. We understand that the review panel will reach a decision whether to accept the application provisionally and whether the B. Arch. Degree program is eligible for the substantial equivalency process.

We are also furnishing this application material by e-mail to [info@naab.org](mailto:info@naab.org), including "Application for Substantial Equivalency" in the subject line.

Thank you in advance for your consideration of our application. We look forward to hearing from you and the outcome of your initial review and to discussing the next steps in this important process, including the Visit One eligibility visit. Please advise us if we can be of assistance in providing and clarification of additional materials for your consideration.

Sincerely,



Dr. Abdullah bin Muhammad Al-Rubaish  
Rector  
University of Dammam

Cc: Dr. Abdulsalam Al-Sudairi – Dean, College of Architecture and Planning  
Dr. Ibrahim Al-Naimi – Chairman, Department of Architecture

# **INSTITUTIONAL OVERVIEW**

**University of Dammam  
College of Architecture & Planning  
Department of Architecture  
Dammam, Kingdom of Saudi Arabia**

**Application for NAAB Substantial Equivalency  
For the degree of:**

**Bachelor of Architecture (170 Credit Hours)**

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# Part One – Introduction to the Program

## 1.1 History and Description of the Institution

King Faisal University was founded in 1975/1395H under the auspices of His Majesty King Khalid Bin Abdul Aziz per Royal Decree No. H/67, dated August 1975, following the Council of Ministers Ordinance No. 1964/20/11/1394. The university was named and officially inaugurated by the King on May 24, 1977, nearly two and one-half years after the starting date of studies. The Dammam campus initially comprised two colleges: the College of Medicine and the College of Architecture and Planning, as well as three centers (English Language, Computer, and Publication and Translation). The Dammam campus was established in the coastal area of Al-Rakah, situated between Dammam and Khobar. The main campus of King Faisal University was established in Al-Hassa. As the university grew, other colleges were established: The College of Applied Medical Sciences in 1995; the College of Dentistry in 2001; the College of Applied Studies and Community Services in 2003; and the College of Nursing, also in 2003. Satellite campuses (including new facilities currently under construction) were also established in Qatif, Jubail, and Khafji.

Later, Royal Decree No. A/18/1. Dated 15/9/1430H (2010) separated King Faisal University into two independent universities. Today, the University of Dammam covers six cities: Dammam, Jubail, Khafji, Khobar, Nu'Airiya, and Qatif. The university consists of 24 colleges, 123 departments, 1,414 faculty members, and 24,950 students.

A new campus is being constructed across the Coastal Road (King Faisal Road) from the current Dammam campus. The campus will include a major medical school facility, an administrative building, a library, a mosque, and a new building for the College of Architecture and Design. Future phases of the campus construction will include student support facilities including athletic facilities, food service, and residential facilities. The new administrative center for the university is already complete and occupied, and it is anticipated that the new building for the college of Architecture and Design will be occupied in the winter of 2013.

The University Council assumes responsibilities for the operation of the scientific, administrative and financial affairs, and application of General Policies of Universities in accordance with its Rules & By-Laws. Its functions and duties are as detailed in the regulations. The first session of UoD Council was held on 10/1/1431H (27/12/2009G) in the Conference Room of His Excellency the President. The Council consists of the Minister of Higher Education, who serves as chair and the University President (Rector) as Vice Chairman. Members include the General Secretary of the Higher Education Council, the Vice Presidents of the university, and the deans of the colleges and supporting deanships.

## 1.2 Institutional Mission

The institutional vision, mission, and values of the University of Dammam are as follows:

### VISION

The University of Dammam shall be a pioneering Professional University, committed to qualifying and graduating a strategic professional workforce for the Eastern Province, the Kingdom of Saudi Arabia and the GCC states, and shall be a prime source of ethical and commercially applicable research that supports government and industry priorities in economic development and contributes effectively to the welfare of the society.

## **MISSION**

The University of Dammam is committed, in the context of Islamic values and teachings, to deploy its academic resources in the Health, Technical, Management, and other Professions to:

- Deliver high-quality educational programs that produce skilled professionals aligned with the strategic workforce needs of the Eastern Province, the Kingdom and the GCC states.
- Create a teaching and learning environment that inspires leadership, high standards and values, quality, creativity, teamwork, life-long learning and a strong sense of professional role in the future.
- Sustain an environment of ethical scientific research and discovery that enriches knowledge and creates opportunities for economic development and diversification, as well as improved quality of life in the community.
- Embrace an entrepreneurial spirit that allows [UoD] to be an effective partner in the economic growth in the region.
- Provide outreach services in consulting, clinical care and professional development, as well as cultural and educational programs to meet the needs of the community.

## **VALUES**

The values of the University of Dammam guide our internal culture, and provide connections to the stakeholders and communities we serve.

We Value:

- The human rights of equity, justice, dignity, diversity and respect for ourselves, the communities and the individuals that we serve;
- A culture of appreciation, service, transparency, social responsibility and integrity, both institutional and individual;
- An environment of professional excellence and quality, innovation, creativity, research and intellectual curiosity within ethical bounds;
- Institutional and personal roles that simultaneously include leadership, participation and partnership;
- A spirit of mutual enabling and empowerment in all our professional activities; and
- An entrepreneurial atmosphere that prizes ethical standards, as well as solution and application.

## **IMMEDIATE PRIORITIES**

The University of Dammam has also set a series of immediate priorities to shape the near-term future of the institution. These include efforts to:

- Enable, prepare and equip all Colleges for quality assessment and academic accreditation;
- Sustain state-of-the-art technology in all areas of university activity including learning resources;
- Sign fruitful agreements with national, regional and international organizations and universities;
- Fulfill our vision by working to initiate, approve and implement new programs oriented toward economic development and diversification;
- Improve marketing of our assets in service, research, healthcare and consultation;
- Become more aware of community and environmental issues and develop joint research programs to seek practical solutions;
- Create and sustain a broad range of continuing professional development programs;
- Build the infrastructure of academic and student services to support our students, faculty and staff; and
- Set up mechanisms to communicate effectively with industrial and business communities, alumni, parents and other friends to build a base of advocacy for the University of Dammam.

### 1.3 Program History

The College of Architecture and Planning began at the Al-Dammam campus of King Faisal University in the year 1395H/1975, with an enrollment of 60 students and total teaching staff of 20. It was the first college of architecture and planning established in the Kingdom of Saudi Arabia to prepare qualified scientific and professional graduates who would be specialists in the fields of architecture, engineering and the built environment. Enrollment increased to 200 students in the 1977-1978 academic year.

The Department of Architecture, upon its formation, awarded a Bachelor of Science degree in Architecture. The philosophy of education in this section has been based on a number of principles, such as commitment to architectural and design values to create the appropriate environment for creativity and innovation. It has also concentrated on the development of design skills of students and the development of methods of communications with a special focus on technical sciences and professional training. This is achieved through teaching a range of courses on design, construction, theories of architecture and engineering science, and by implementing the local environmental, economic, and social characteristics in the curriculum.

The Department of Architecture also grants a postgraduate degree, which is a Master's of Science in Architecture.

Separate departments were created in 1976. These included departments of:

- Architecture
- Urban & Regional Planning
- Building Technology & Construction
- Engineering Sciences
- Math/Science/Computer Science<sup>1</sup>
- Landscape Architecture
- Interior Design

The curriculum was structured with an initial 3-year degree program culminating in a Bachelor of Architecture & Planning, followed by a 2-year Field Concentration in five areas: Architecture; Urban & Regional Planning; Engineering & Technology; Landscape Architecture; and Interior Design.

In 1981 the Interior Design department for female students was added. The degree program for the Bachelor of Interior Design began in 1982 with the admission of 29 female students. The degree program in Interior Architecture was the first program of its kind for female students in the region.

In 1984/1404H the College of Architecture & Planning underwent a significant restructuring, based in part on the Integrated Program developed at Rice University in Houston, Texas, USA. The intent of this restructuring was fourfold:

- To introduce integration between all specialties in the college with greater emphasis on technology;
- To provide a strong base at the undergraduate level leading to more specialization at the graduate level;
- To provide a strong base in English Language for one full semester and extending the program to 5.5 years; and
- To provide opportunities for female students in the professions of interior design and interior architecture.

This restructuring resulted in consolidation of the departments of the college to five:

- Architecture
- Urban & Regional Planning
- Building Sciences & Technology

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<sup>1</sup> This was established as a service department.

- Landscape Architecture
- Interior Design (Female)

In conjunction with this restructuring, the curriculum and degree options were also restructured over a five-year period (1984-1988). Undergraduate programs led to a Bachelor of Architecture & Planning and a Bachelor of Interior Design, attained over a course of study of 5.5 years. These were followed by graduate programs for a Master of Architecture, Master of Urban & Regional Planning, Master of Engineering & Technology, and a Master of Landscape Architecture.

The next evolution in the programs of the college was achieved in 1989/1409H, at which time the single Bachelor of Architecture program was branched into five separate degree programs to give individual departments more autonomy. The aims and philosophy of this restructuring were:

- To provide greater autonomy for each department to develop its own undergraduate program;
- To revise graduate programs to minimize the preparatory courses, thus reducing requirements and duration of study;
- To meet market demands for other professions at the undergraduate level; and
- To modify the female interior design program to include arts courses.

The resulting degrees were:

- Bachelor of Architecture & Planning
- Bachelor of Urban & Regional Planning
- Bachelor of Landscape Architecture
- Bachelor of Interior Design, and
- Bachelor of Building Engineering

Undergraduate studies began with shared coursework in general education in the first two years, as well as some shared design courses in the second year, and model that has continued to this day. The 5-year undergraduate programs were also followed by the same options for 2-year graduate masters programs. The Bachelor of Interior Design (Female) was temporarily closed in 1988 and re-opened in 1994 with the inclusion of art courses.

The years from 1996 through 2005 saw much in the way of modifications and alterations that furthered the capabilities of the program without reshaping the vision of the college. These included the introduction of automation (digital presentation and smart classroom technology) in most courses including design studios. Some degree and department names were changed in response to challenges faced by some graduates seeking public sector positions. This included a diploma program in Fire Safety, added in 2005. The college also provided opportunities for designers and university staff (lecturers and teaching assistants) to obtain a doctorate in Urban & Regional Planning.

In 2006, the College of Architecture & Planning began a reassessment that has shaped today's program. One of the most significant changes was to create a separate College of Engineering and a College of Design for Female, both of which were planned to grow to encompass separate departments. Other initiatives have worked towards obtaining local and international recognition, increasing the autonomy of the departments while retaining the integrated concept of the first two years of study, establishing joint programs with other colleges within the university (especially the medical colleges), maximizing the role of the college in the community and maximizing cooperation with the government and private sectors (with a focus on acquiring projects and research).

The most recent restructuring and evolution of the program took place in 2009 as an outcome of the work of the "Review and Preparation Committee of the Proposed Bachelor Program of The College of Architecture and Planning." This brought about the current 3-step format: 1) The First Year preparatory year including general education and spanning other colleges of the university; 2) Second Year joint program, with other departments within the College of Architecture & Planning; and 3) The Three-year program in each department leading to the professional undergraduate degree.

In this evolutionary change, the Second Year was designed to unify all five departments of the college. The outline of this program is perhaps best described by reference to the report of the committee of June 24, 2009/1430H:

- *The College awards Bachelor degree in the above mentioned five disciplines to students who complete 165 credit hours and did the professional practice training as well.*
- *At the beginning of the study at the College, in the Preparatory Year, the freshmen students are given intensive teaching in English language, scientific research, learning methods and computer applications. They are also given basic design skills. This would enhance their scientific and professional skills and prepare them to efficiently utilize specialist scientific references and keep pace and be updated with the scientific advances in the architecture field.*
- *In the second year, which is common to all the five departments, students continue completing the architectural and engineering knowledge and skills which represent the basic foundation before they join any department.*
- *After the completion of the Second Year, every student selects one of the five departments where he studies for three more years before he is awarded his final B.Sc.<sup>2</sup> Degree in the one specific field of the five fields of the college.*

During the Second Year, the program focuses on “*shared courses between the departments of the College that are necessary for all students. These courses include site planning, design methods, drafting skills, construction and building concepts, basic and advanced computer applications in architecture and urban design, and geographic information systems (GIS).*”

The Joint Year (Second Year) is the pivotal point in the career of a student pursuing an architectural degree at the University of Dammam. This program allows students an opportunity to develop awareness of the disciplines of each of the five departments and to make informed choices that suit their needs and aspirations. Admission to the final three years of the architectural degree program is highly selective, requiring a minimum GPA of 3.0 and the satisfaction of other conditions set by the Council of the College of Architecture and Planning.

Today, The College of Architecture and Planning in Al Dammam comprises five departments: Architecture; Urban and Regional Planning, Building Technology; Landscape Architecture; and Interior Architecture. Students working towards the Bachelor of Architecture degree begin in the first two years in shared general education study and some shared design courses. At the conclusion of the second year, a number of students are admitted to continue in the architectural degree program. The final three years encompass the design studio sequence and architectural and related coursework.

The College maintains strong resources for research in all departments, and this will be further enhanced when the programs move to the new college building on the new campus in early 2013. The new building will also offer an exceptional technology and connectivity infrastructure. The Interior Architecture (Female) program is programmed to relocate to the current facilities of the College of Architecture & Planning.

## **1.4 Program Mission**

### **Vision:**

The College seeks to provide distinguished and high quality education in the field of planning, design and construction of a sustainable built and urban environment and to promote scientific research and community service.

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<sup>2</sup> The degree terminology in use in the Kingdom of Saudi Arabia for the professional architecture degree is Bachelor of Science in Architecture (B.Sc.). In practice, this is equivalent to a Bachelor of Architecture. All architects in the KSA call themselves Engineer, and Architecture is a part of the Engineering Committee, the national body that validates degrees and professions.



**Mission:**

The College is committed to educate and prepare specialists who are able to professionally practice architecture, urban design, and to conduct scientific research. This education will prepare graduates to keep pace with rapid developments in the profession and to serve the community.

**Objectives:**

In order to carry out its vision and mission, the College of Architecture and Planning has the following objectives:

1. To provide the best ingredients of the educational process, composed of highly qualified human resources of staff and tutors, curricula, educational plans and methods, an ideal teaching environment, and advanced computer resources;
2. To provide students with sound preparation professionally, scientifically, and ethically, taking into account diversity and comprehensiveness when establishing the curriculum. The goal of this curriculum will be to achieve a correct balance between theory and practice;
3. To prepare qualified graduates from various architectural and engineering disciplines to pursue postgraduate studies in order to be more specialized and to be highly qualified to practice in the architectural profession and the field of building construction, and to work in various academic fields such as scientific research, development management, and other areas of expertise;
4. To help students to gain mastery of various graphic, research, and representative skills, including skills in digital technology to enable them in project design and the preparation of scientific and technical reports;
5. To increase students' awareness about the environment and renewable energy resources;
6. To enhance students' ability to assess the potential environmental impacts of policies and programs and to sharpen their research skills through the use of statistical and analytical methods; and
7. To contribute to the formation of students as scholars and to develop their leadership, organizational, and administrative capabilities.

A review of statistics assembled by the KSA Ministry of Labor in the recent past sheds light on the situation with respect to architectural education in the Kingdom of Saudi Arabia. As indicated early in this Overview, architects are considered a part of the engineering profession, although separate statistics are kept. In the year 2005(1425H) the Ministry of Labor identified a total of 9,023 architects practicing in the KSA. Of this number, only 960, or 10.6% were Saudis. Among all categories of Engineering, the Saudi total was only 10,883 of 114,257, or 9.5%.

Based on this and other evidence, there is a strong ongoing need for well-educated architects and engineers in the future to meet a growing demand. The goal of the national Engineering Committee is to reach a goal of Saudi architects of 30% of the total practicing within the KSA. The College of Architecture & Planning of the University of Dammam must play a strong role if this goal is to be reached. Total enrollment in the Department of Architecture in 2006 was 788 in the B. Arch program plus 90 in post-graduate Masters degree programs, and this will continue to grow as the college moves into its new quarters in 2013. The University of Dammam in 2004 awarded 32.7% of the architectural degrees in the KSA for that year (among five universities) and must bear a key responsibility in the growth of professional architectural education. The vision, mission, and objectives of the program have been developed to enable the University of Dammam to play its part in leadership towards and the achievement of this overall goal.

## Part Two – Supplemental Information

### 2.1 Course Descriptions

#### PROGRAM ORGANIZATION:

Total Credit Hours: 33 (Preparatory) +34 (Joint) +103 (Departmental) =170

First Year Preparatory Program	1 (17/33)	1819-161: (6/16) English I  1900-101: (3/3) Math	ARCH-101: (3/6)  <b>DESIGN I</b>	1900-121: (2/4) Computer Skills	ISLM-101: (1/2) Physical Ed.  ISLM-101: (2/2) Islamic Culture
	2 (16/32)	1918-162: (6/16) English II 1900-112: (3/4) Physics	ARCH-102: (3/6)  <b>DESIGN II</b>	1900-122: (2/4) Learn. & Comm. Skills	ISLM-251: (2/2) Islamic Creed & Ethics
Year	Sem.	Construction Theories	Design Studios	Architectural Theories	Humanities & Electives
Second Year Joint Program	3 (17/24)	ARCH-211: (3/3) Concept of Structure  ARCH-221: (2/3) Surveying	ARCH 201: (4/8) <b>DESIGN III</b> (Architecture & Interior Design)	ARCH-231: (2/2) Env. Design I  ARCH-251: (2/2) Design Methods	ARCH-241: (2/4) CAD Applications  ISLM-351: (2/2) Intro. Islam. Cult.
	4 (17/26)	ARCH-212: (3/4) Cons. Sys & Mat.  ARCH-222: (2/3) Env. Control (Thermal)	ARCH 202: (4/8) <b>DESIGN IV</b> (Landscape & Urban Planning)	ARCH-232: (2/2) Env. Design II  ARCH-252: (2/2) Site Planning	ARCH-242: (2/4) CAD & GIS Applications.  ISLM-251: (2/2) Soc. Pol. Islam
Third Year Architecture Program	5 (20/25)	ARCH 316: (3/3) Structure I  ARCH 315: (3/3) Const. Sys. & Ass.	ARCH 301: (5/10)  <b>DESIGN V</b>	ARCH 311: (3/3) Adv. Des. Meth.  ARCH 314: (3/3) Hist. & Theory I	ARCH 351: (3/3) Computer Modelling
	6 (17/23)	ARCH 326: (3/3) Structure II  ARCH 324: (3/4) Env. Cont. Sys.	ARCH 302: (5/10)  <b>DESIGN VI</b>	ARCH 325: (3/3) Hist. & Theory II	ARCH 317: (3/3) Humanities I
Fourth Year Arch. Program	7 (17/24)	ARCH 431: (3/4) Contract Doc. & Work. Drwg.	ARCH 401: (6/12)  <b>DESIGN VII</b>	ARCH 411: (3/3) Housing & Settlm.  ARCH 423: (3/3) Hist. & Theory III	ISLM 351: (2/2) Islam. Cul. III
	8 (18/25)	ARCH 412: (3/4) Proj. Management	ARCH 402: (6/12)  <b>DESIGN VIII</b>	ARCH 411: (3/3) Issues in Urban Design	Elective: (3/3) ARCH 422: (3/3) Humanities II
<b>SUMMER VACATION</b>					ARCH 455 Prof. Training Pr.
Fifth Year Architecture Program	9 (17/24)		ARCH 501: (6/12)  <b>DESIGN IX</b>	ARCH 521: (3/3) Contem. Issues  ARCH 511: (3/4) Research & Prog.	Elective: (3/3)  ISLM 404: 2/2 Islam. Cul. IV
	10 (14/20)	ARCH 512: (2/2) Prof. Practice	ARCH 502: (6/12)  <b>DESIGN X</b>		Elective: (3/3) Elective: (3/3)

\* The credit hours/contact hours are in parenthesis, following the course ID.

## First Year Preparatory Program

Colleges of Architecture, Engineering & Design, University of Dammam

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The following is the detailed description of the courses offered to students of the Preparatory Year for the three colleges, namely; **Architecture & Planning, Engineering and Design.**

### 1819-161 ENGLISH I

1. **Course Name:** English I
2. **Course Number:** 1819-161
3. **Course Hours:** Credit Hours 6, Contact Hours 16
4. **Course Prerequisite:** Admission

#### 5. Course Description

The English Language Course is an integrated skill development program (reading, writing, speaking, and structure) for the first year students, presenting a systematically structured linguistic material tailored and presented through the scope of English for Special Purposes (ESP) approach.

#### 6. Course Objectives

In the 1st semester, students are taught to;

Express ideas with use of simple and compound sentences both orally and in writing; combine facts/ideas from two or more sources in integrated compositions and participate in class activities; read, summarize and organize facts and concepts from books, articles, speeches, etc.; and develop his/her learning strategies, and gain self-confidence.

#### 7. Expected Course outcomes

At the end of the course, students should be able to:

- Actively participate in all class discussions and real-life situations in English;
- Realize the importance of English, as a language of communication
- Gain reasonable command of the four skills of the language;
- Develop reading strategies, such as scanning, summarizing, and extracting main ideas, and
- Proceed to the specialty phase with confidence.

#### 8. Achievement Evaluation

1. Continuous:	a. Quiz 1	10%
	b. Midterm Exam	30%
	c. Quiz 2	10%
	d. Att. & Part.	10%
2. Final Exam:		40%
	Total	100%

#### 9. NAAB Student Performance Criteria: General Education Course – Not Applicable

#### 10. Textbooks & Reference Materials Recommended

Reading - *Architecture and building construction*, James Cumming, Longman House.

Writing - *Interactions 2*, 4th Edition, Cheryl Pavlik & Margaret Segal.

Grammar - *Fundamentals of English Grammar*, Part I, 3rd Ed., Betty Azar.

Listening - Listen Carefully, Jack Richards.

General Vocabulary - *A Guide to Formation and Usage, Book 1*, W.D. Sheeler & R.W. Markley

Speaking - (Direct exposure to communicative skills)

#### 11. Faculty Assignment

Department of English

## 1918-162 ENGLISH II

1. **Course Name:** English II
2. **Course Number:** 1918-162
3. **Course Hours:** Credit Hours 6, Contact Hours 16
4. **Prerequisite:** 1819-161

### 5. Course Description

Key Features: In the second semester, studies will continue with emphasis principally placed on specialty-based English (English for Specific Purposes -ESP), focusing on developing communicative competence in a specific field, such as architecture, business, science, or technology.

### 6. Course Objectives

In the 2nd semester, students are taught to:

- Establish informal from formal style in spoken and written English;
- Communicate effectively in English in professional and social situations;
- Address jury, report incidents, describe objects, and make responsible decisions;
- Work cooperatively with others to accomplish tasks, organize and express thoughts, and do presentations.

### 7. Expected course outcomes

By completing courses; 1203-161 and 1203-162, students should be able to:

- Speak English with native speakers without hesitation;
- Read, summarize, and prepare scientific reports relevant to the field of specialty;
- Prepare, organize, and present ideas and suggestions;
- Write a multi-paragraph essay utilizing scientific information and data;
- Listen to, comprehend English text, and distinguish between different intonations;
- Address audience and discuss matters of concern;
- Plan for further progressive studies pertaining to specialty; and confidently work in the field of specialty.

### 8. Achievement Evaluation

1. Continuous:	a. Quiz 1	10%
	b. Mid term Exam	30%
	c. Quiz 2	10%
	d. Att. & Part.	10%
2. Final Exam:		40%
	Total	100%

### 9. NAAB Student Performance Criteria: General Education Course – Not Applicable

### 10. Textbooks & Reference Materials Recommended

Reading: -*Architecture and building construction*, James Cumming, Longman House

Writing: -*Interactions 2*, 4th Edition, Cheryl Pavlik & Margaret Segal

Grammar: -*Fundamentals of English Grammar*, Part II, 3rd Ed., Betty Azar.

Listening: -*Improve Your Aural Comprehension*, Joan Morley, The University of Michigan

Scientific Vocabulary: -(Faculty prepared).

Speaking: -*Skills in English, Level 2*, Terry Phillips & Anna Phillips.

### 11. Faculty Assignment

Department of English

## **1900-101 MATHEMATICS**

1. **Course Name:** Mathematics
2. **Course Number:** 1900-101
3. **Course Hours:** Credit Hours 3, Contact Hours 3
4. **Course Prerequisites:** Admission

### **5. Course Description**

Introduction to fundamentals of Algebra: Numbers, polynomials, factoring, exponential, fractional expressions. Equations and Inequalities: Linear equations, formulas, quadratic equations, inequalities and system of equations.

### **6. Course Objectives**

The aim of this course is to review all fundamental mathematics and prepare all students for further studies. Students will be prepared for success in such courses as calculus, statistics, finite mathematics and calculations

### **7. Course Evaluation**

1. Continuous assessment:
  - a. Quiz 1 10%
  - b. Quiz 2 10%
  - c. Mid-term 20%
  - d. Home work 20%
2. Final Exam
  - a. Final Written Exam 40%

8. **NAAB Student Performance Criteria:** General Education Course – Not Applicable

### **9. Course Recommended Books**

Linda Gilbert and Jimmie Gilbert(2001) *College Algebra with Trigonometry*. McGraw-hill USA  
Margaret L. Lial and Charles D. Miller (1999). *Algebra and Trigonometry*. Scott, Foresman and Company. USA

### **10. Faculty Assignment**

Department of Mathematics

## 1900-102 PHYSICS

1. **Course Name:** Physics
2. **Course Number:** 1900-102
3. **Course Hours:** Credit Hours 3, Contact Hours 4
4. **Course Prerequisites:** Admission

### 5. Course Description

Introduction to concepts in physics, including: rectangular co-ordinate systems; vectors; scalars: displacement; velocity; acceleration; equations of motion, work as a scalar product of force and displacement; and work done in gravitational field near earth's surface.

### 6. Course Objectives

- Describe physical phenomena in terms of models, laws and principles;
- Recognize the operation of the scientific principles in established practical applications to apply acquired knowledge, experience and skills to new situations in a novel manner;
- Develop observational skills, confidence in using scientific equipment and relate the knowledge of scientific concepts to quantitative and physical measurement;
- Help the students feel that the advancement in physics and its extended applications are essential for the healthy growth of national economy and to appreciate that physics is a major part of the modern world;
- Develop attitudes such as concern for accuracy and precision, objectivity, and enquiry.

### 7. Course Learning Outcomes

After the completion of this course, the student will be able to:

- Compile clear and concise accounts of experimental work and theoretical treatments.
- Interpret the recorded data.
- Use modes to explain phenomena and discuss issues relating to the social, economic, environmental and technological implications of physics.

### 8. Course Evaluation

Continuous Assessment:	
Quiz1	20%
Quiz2	20%
Mid-term Exam.	20%
Final Written Examination	40%
Total	100%

9. **NAAB Student Performance Criteria:** General Education Course – Not Applicable

10. **Course Recommended Book**

11. **Faculty Assignment**

Department of Physics

## **ARCH-101 DESIGN I**

1. **Course Name:** Design I
2. **Course Number:** ARCH-101
3. **Course Hours:** Credit Hours 3, Contact Hours 6
4. **Course Prerequisites:** Admission

5. **Course Description:**

This is the first studio in the sequence of design courses in all departments, also it is an introductory studio course to develop drafting and graphic skills for visual representation of student's ideas and an introduction to basic equipment, materials, drawing, graphic communication and rendering techniques.

6. **Course Objectives:**

- Understanding fundamentals of drafting and design principles.
- Demonstrating abilities to use graphics skills, presentation & projection techniques using different tools.
- Understanding of basic equipment, materials, drawings and rendering techniques.
- Developing the student's ability and skills for graphic communication as a tool for expressing and developing design ideas.
- To understanding of the two and three dimensional design presentations and all allied medium techniques.
- To enhance the free hand sketching skills.

7. **Course Learning Outcomes:**

After the completion of this course, the student will be able to;

- Use and apply the terminology of engineering & graphic skills.
- Use and apply the various graphic presentation techniques and apply the orthographic projections.
- Use and apply the basic equipment, materials, drawing, graphic communication and rendering techniques.
- Use and apply the two and three dimensional design presentations

8. **Course Evaluation: Continuous Assessment:**

i. Studio Projects.	50%
ii. Mid-term Exam.	20%
iii. Attendance, participation	10
iv. Final Exam	20%
Total	100%

9. **NAAB Student Performance Criteria**

A.3 Visual Communication Skills

10. **Textbooks and References:**

Ching, Francis D.K., "*Architecture Form, Space and Order*", Van Nostrand Reinhold, 2007.  
Albert, Greg & Rachel Wolf, "*Basic Drawing Techniques*", North light Books, Ohio, 1991.  
Ching, Francis D.K., "*Design Drawing*" John Wiley & Sons, New York, 1998.  
Chen, John S.M., "*Architecture in Color Drawings*" N.Y: McGraw Hill, 1996.  
Kopacz, Jeanne, "*Color in Three-Dimensional Design*", McGraw Hill, London, 2003.  
Linton, Harold & Maggie Toy, "*Color in Architecture*", Academy Group, NY 2003.

11. **Faculty Assignment:**

Farghaly (coordinator), Al-Hefnawy, Fakhry and 4 external consultants.

## ARCH-102 DESIGN II

1. **Course Name:** Design II
2. **Course Number:** ARCH-102
3. **Course Hours:** Credit hours 3 Contact Hours 6
4. **Course Prerequisites:** ARCH-101

5. **Course Description:**

Introduction to fundamental of architectural drawing skills and ability to communicate simple forms graphically by transforming visual information into two-dimensional images with shade and shadows.

6. **Course Objectives:**

- To enhance the understanding and comprehension of 2D&3D drawings along with effective use of various representation techniques.
- Study and observation of shade and shadows from real and abstract models, made by the students.
- Sharpening free hand sketching skills, emphasizing proportions, composition, shade, shadows and accuracy, etc.
- Understanding of scale and its application in architectural drawings along with use of symbols, conventions, materials rendering, etc.
- Exposing the students to architectural drawing process using a small scale/ simple design project with emphasis on relationships of internal and external spaces, views and site organizations.

7. **Course Learning Outcomes:**

After the completion of this course, the student will be able to;

- Use and apply the terminology of architectural drawing.
- Use and apply the various architectural graphic presentation techniques.
- Use and apply 3D drawings, such as axonometric, isometric and perspective.
- Draw shades and shadows.
- Draw full orthographic projection for a given building (plans, sections, elevations and site plan) using different scales and presentation techniques.

8. **Course Evaluation:**

i. Studio Projects.	60%
ii. Mid-term Exam.	10%
iii. Attendance & Participation	10%
iv. Final Project	20%
Total	100%

9. **NAAB Student Performance Criteria:**

- A.3 Visual Communication Skills
- A.8 Ordering System Skills

10. **Course Textbooks & References:**

Albert, Greg, "*Basic Drawing Techniques*" Ohio: North Light book, 1991.  
Ching, Francis D.K., "*Architectural Graphics*" 4th Ed., N.Y.: Van Nostrand Reinhold, 2009.  
Smith, Kendra Schank, "*Architects' Drawings,*" A Selection of Sketches by World Famous Architects through History, London: Elsevier, 2005.  
Uddin, M. Saleh, "*Axonometric and Oblique Drawing,*" A 3-D Construction, Rendering, and Design Guide, McGraw Hill, N.Y. 1997.

11. **Faculty Assignment:**

Farghaly (coordinator), Al-Hefnawy, Fakhry and 4 external consultants.



## 1900-121 COMPUTER SKILLS

1. **Course Name:** Computer skills
2. **Course Number:** 1900-121
3. **Course Hour:** Credit hours: 2, Contact hours: 4
4. **Course Prerequisites:** Admission
5. **Course description:**  
Introduction to the fundamentals of Information and Communication Technology (ICT), and exposure to standard stand-alone, local area and Internet networked software used in the building industry.
6. **Course objectives:**
  - To help the student to develop a broad range of ICT skills
  - To develop an understanding of uses and applications of ICT systems including the use of a range of networked computer systems
  - To train students how to produce standard documents
  - To train students how to make and manage contacts and activities
7. **Course learning outcomes:**  
After the completion of the course, the student will be able to:
  - Understand the characteristics of various ICT systems in terms of capabilities and use
  - Produce Word and Spreadsheet standard documents
  - Publish information
  - Communicate and manage communications, activities and tasks
8. **Course evaluation:**
  1. Continuous assessment
    1. Term Work: (Lab activities, homework and quizzes) 40 %
    2. Mid term exam 20 %
  2. Final examination
    1. Final practical examination 40%
    - Total 100%
9. **NAAB Student Performance Criteria:** General Education Course – Not Applicable
10. **Course recommended book**  
*Teach yourself Microsoft Office 2003 in 24 hours*. Perry, Greg M . Sams, c2003  
*Show Me Microsoft Office Outlook 2003*. Johnson, Steve. Que Pub., c2003.
11. **Course references**  
The official site of Microsoft <http://office.microsoft.com/en-us/default.aspx>  
CAD tutorials on the Internet
12. **Faculty Assignment:**  
External Instructor (Consultant)

## 1900-122 LEARNING AND COMMUNICATION SKILLS

1. **Course name:** Learning and Communication skills
2. **Course number:** 1900-122
3. **Course Hours:** Credit Hours: 2 Contact Hours: 4
4. **Course Prerequisites:** Admission

### 5. Course description

Introduction to concepts, theories, methods, and professional practice attitudes, including: writing, graphics, and oral presentation techniques and skills, and technical presentation tools and skills.

### 6. Course Objectives

- Ensuring function, ideological, and applied concepts
- Developing skills of personality's; identity, and responsibility.
- Upgrade skills of thinking and scientific research.
- Concentrates on interactive learning skills; discussion, logic, and team works

### 7. Course learning outcomes

On completion of the course the student shall be exposed to;

- Refinement of educational environmental communication skills for effective professional presentation.
- Have an understanding the process of communication, and its main elements for this process.
- Have an understanding the impact of technology on the process of communication; by using tools and materials of communication such as; video, computers programs, overhead projectors, microphones.
- Increase the student's critical thinking, evaluation and decision making abilities.
- Increase the student's abilities to improve his performance in human relationships.
- Assist the student in developing skills and techniques in research, reading, comprehension, writing skill, and oral presentation.
- Be able to develop the communication skills about environment for effective professional presentation.
- Be able to prepare technical presentation; writing, talking and presentation.
- Be able to present the student as a designer, public relation assistance, marketing and advertising.
- Be able to evaluate technical presentation as; theme, aims, goals, methodology, components, visions, sounds.

### 9. Course evaluation:

1. Continuous assessment	
Term work	40 %
Mid term exam	20 %
2. Final examination	
Final practical examination	40%
Total	100%

10. **NAAB Student Performance Criteria:** General Education Course – Not Applicable

10. **Course recommended book**

11. **Course references**

12. **Faculty Assignment**

Department of English

## **ISLM-101 ISLAMIC CULTURE**

1. **Course name:** Islamic Culture
2. **Course number:** ISLM-101
3. **Course Hours:** Credit Hours: 2 Contact Hours: 2
4. **Course Prerequisites:** Admission

### **5. Course description**

Introduction to the notification of Islamic culture, the relationships between the culture, religion and civilization, the emergence of the Islamic cultural science, Its curriculum, its targets, its features, its sources, and its axes.

### **6. Course objectives**

- The definition of the main concepts to the Islamic culture and their axes.
- The clarification of the pillars of the Islamic culture and the Islam attitude from the other cultures.
- The study of the contemporary challenges that faces the Islamic culture and the Islam attitude from them.
- The notification of human rights in Islam, the clarification of their importance, their sources and the clarification of The Kingdom of Saudi Arabia attitude from the Universal Declaration of Human Rights.

### **7. Course learning outcomes**

The student should be able to provide understanding of the following:

- The definition of the main concepts to the Islamic culture and their axes.
- The clarification of the pillars of the Islamic culture and the Islam attitude from the other cultures.
- The study of the contemporary challenges that faces the Islamic culture and the Islam attitude from them.
- The notification of human rights in Islam, the clarification of their importance, their sources and the clarification of The Kingdom of Saudi Arabia attitude from the Universal Declaration of Human Rights.

### **8. Course evaluation**

1. Continuous assessment	
Exam 1	20 %
Mid term Work	40 %
2. Final examination	
Final practical examination	40%
Total	100%

### **9. NAAB Student Performance Criteria:** General Education Course – Not Applicable

### **10. Course recommended book**

*The Islamic culture and the age challenges*, Dr. shawkat Muhammad Ilyan.

### **11. Course references**

*The introduction to the Islamic culture*, Dr. Ahmad bin Abdul Aziz al-Hulaybi  
*The Islamic culture, Islam and the age issues*, Dr. Mamun Salih al-Sakit and another.  
*The human rights and its main freedoms*, Dr. Abdul Wahab al-shishani.

### **12. Faculty Assignment**

Department of IslamicStudies

## **ISLM-251 ISLAMIC CREED & ETHICS**

1. **Course name:** Islamic Creed & Ethics
2. **Course number:** ISLM-251
3. **Course Hours:** Credit Hours 2, Contact Hours: 2
4. **Course Prerequisites:** Admission

### **5. Course description**

Introduction to concepts of Social Policy in Islam: belief and the importance of its study, its advantages and its sources, the reality of belief, the notification of ethics, and the study of models of Islamic morals.

### **6. Course objectives**

The establishment of the proper Islamic doctrine.

- Linking the Muslim generations with the main Islam sources.
- Showing the importance of the transfer of these sources and knowledge to an alive reality in the behaviour and especially in our contemporary world.
- The clarification of the good ancestors doctrine and the clarification of their belief accuracy and the establishment of their articles in the belief.
- The clarification of the manners position in Islam, and the showing of its features and its connection with the belief and the worship.

### **7. Course expected outcomes**

The student should be able to identify and understand the following:

- The establishment of the right Islamic doctrine.
- Linking the Muslim generations with the main Islam sources.
- Showing the importance of the transfer of these sources and knowledge to an alive reality in the behaviour and especially in our contemporary world.
- The clarification of the good ancestors doctrine and the clarification of their belief accuracy and the establishment of their articles in the belief.
- The clarification of the manners position in Islam, and the showing of its features and its connection with the belief and the worship.

### **8. Course evaluation**

1. Continuous assessment	
Exam 1	20%
Mid Term exam	40 %
2. Final examination	
Final practical examination	40%
Total	100%

### **9. NAAB Student Performance Criteria:** General Education Course – Not Applicable

### **10. Course recommended book**

*The belief: Its truth, its corners, its invalidating*, Dr. Muhammad Na'im Yasin.

### **11. Course references**

The introduction to the belief study, Dr. Uthman Jum'ah.  
The explanation of Al Tahawiyya belief, Ibn Abi al-Izz al-Hanafi.  
The Islamic doctrine, Abdur Rahman Habannaka al-Maydani.  
The Islamic morals, Abdur Rahman Habannaka al-Maydani.

### **12. Faculty Assignment**

Department of Islamic Studies

## **212-101 PHYSICAL EDUCATION**

1. **Course name:** Physical education
2. **Course number:** 212-101
3. **Course Hour:** Credit Hours1, Contact Hours 2
4. **Course Prerequisites:** admission

### **5. Course description**

Introduction about history of sport activities in KSA, the role of Ministry of Education in teaching and Ministry of Youth Affairs in sport activities & development, including study of the elements of physical education and its forms including physical and health fitness and activities.

### **6. Course objectives**

### **8. Course evaluation**

1. Continuous assessment	
Class attendance	20 %
Term Work:	40 %
2. Final examination	
Final practical examination	40%
Total	100%

9. **NAAB Student Performance Criteria:** General Education Course - Not Applicable

10. **Course recommended book**

11. **Course references**

12. **Faculty Assignment**

Department of Physical Education

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The following is the detailed description of the courses offered to 2<sup>nd</sup>. Year students of the department of Architecture, Interior Design, Landscape Architecture, Urban & Regional Planning and Building Technology.

### ARCH-201 DESIGN III

1. **Course Title:** Design III (Architectural and Interior Design)

2. **Course Number:** ARCH-201

3. **Course Hours:** Credit Hours 4, Contact Hours 8

4. **Prerequisites:** Pass Preparatory Year

#### 5. Course Description

Introduction to the architectural and interior design process, through pragmatic studies in a studio context, including: description of each phase, activities and objectives; models for problem-solving process in design utilizing graphic thinking.

#### 6. Course Aim and Objectives

- Enable students to understand the system of design process and development.
- Enable students to understand the basic methods of interior space design.
- Establish a need/requirement, leading to project definition.
- Formulate a comprehensive program through area requirements.
- Form critical appraisals of an existing similar function (case studies).
- Enable students to understand furniture placement, sizing related to function of a space.
- Develop an understanding of psychology of space related to materials, finishes and colors.

#### 7. Course Assessment

1. Assignments and Conceptual design	1 to 6 <sup>th</sup> . week	20%
2. Midterm jury	7 <sup>th</sup> .	20%
3. Design Development	8 to 11	20%
4. Pre-Final Jury	13 <sup>th</sup> .	10%
5. Final Jury	16 <sup>th</sup> .	30%
Total		100%

#### 8. NAAB Student Performance Criteria

A.2 Design Thinking Skills

A.7 Use of Precedents

#### 9. Textbooks & Reference Materials

*Neufert* 3rd edition Author Bousmaha Baiche Nicho Publisher Blackwell Science

*Time Saver Architectural Graphic Standards* Author John Wiley & Sons, Inc. New York, NY  
LAS Walliman Publisher John Wiley & Sons, Inc. New York, NY

Ching, F. (1979) *Architecture: Form, Space, and Order*, New York: Van Nostrand Reinhold Company.

Panero, J. and Zelnik, M. (1989) *Human dimensions and interior spaces: a source Book of design reference standards*, Whitney library of design, New York

Arco Architects and publishers studio (2001) *Newconcepts in House interiors*, Spain: atrium International.

Lock, W. (1997) *Interior design ideas*, London: Eglemoss Publications

Pitrowski, C.M. (1994) *Professional Practice for Interior Designers*, New York: Van Nostrand Reinhold

#### 10. Faculty Assigned

Fakhry, Mansour, El-Kohly, Abdelghany (co-ordinator), instructor from Interior department.

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### ARCH-202 DESIGN IV

1. **Course Title:** Design IV (Landscape and Urban Planning)

2. **Course Number:** ARCH-202

3. **Course Hours:** Credit Hours 4, Contact Hours 8

4. **Prerequisites:** ARCH-201

#### 5. Course Description

Further development of students' previous design projects, with emphasis on small scale projects stressing design principles and composition, landscape design, site planning, and urban planning.

#### 6. Course Aim and Objectives

- Understanding design principles both functional and visual.
- Demonstrating an understanding of composition: form-function relationships, zoning, and context.
- Generating design ideas that address specific design problems.
- Understanding the meaning of form (aesthetic) and functions (criteria).
- Understanding relationships between various components: spaces and masses.
- Demonstrating abilities to use graphics: using appropriate scale to draw plans, sections, elevations, perspectives, and producing models.

#### 7. Course Assessment

1. Term work	1-8 <sup>th</sup> , 10-13 <sup>th</sup> . week	30%
2. Midterm jury	9 <sup>th</sup> .	15%
3. Pre final submission	14 <sup>th</sup> .	15%
4. Final jury	15 <sup>th</sup> .	40%
Total		100%

#### 8. NAAB Student Performance Criteria

A.6 Fundamental Design Skills

B.4 Site Design

#### 9. Textbooks & References

Urban Design Associates: *The Urban Design Handbook: Techniques and Working Methods*. New York: W.W. Norton and Co. 2005.

Booth, Norman, K.: *Basic Elements of Landscape Architectural Design*. New York: Elsevier

Reid, Grant W.: *From Concept to Form in Landscape Architecture*, New York: Van Nostrand Reinhold, 1993.

Scott Van Dyke: *From Line to Design: Design /Graphics/Communication*, Third Edition 1990, Van Nostrand Reinhold.

Grant W. Reid, *Landscape Graphics: From concept sketch to presentation rendering*, 1987, Whitney Library of Design.

Moughtin, Cliff: *Urban Design, Methods and Technique*. NY: Architectural Press, 1999.

#### 10. Faculty Assignment

Fakhry, Mansour, El-Kohly, Abdelghany (co-ordinator), instructors from Landscape and Urban Planning department.

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### **ARCH-222 ENVIRONMENTAL CONTROL SYSTEMS I**

1. **Course Title:** Environmental Control System (Thermal)
2. **Course Number:** ARCH-222
3. **Course Hours:** Credit Hours 2, Contact hours 3
4. **Prerequisites:** Pass Preparatory Year

#### **5. Course Description**

The course aims to enable students to understand the direct relationship between the climate (macro and micro) and human comfort. A brief introduction to climatology and weather deviations. Explaining the techniques and tools of analyzing and controlling the macro and micro climatic factors affecting the building.

#### **6. Aim and Objective**

- To develop student's understanding of the relation between micro and macro climate and human comfort
- To promote student's knowledge about sun path, solar angles, shadow angles, different types shading masks and devices
- To increase student's awareness of tools and techniques of passive design to achieve indoor thermal comfort and minimize dependencies of traditional energy sources as part of sustainability objectives
- To develop student's skills in analyzing climatic elements using Mahoney tables, using and extracting information from solar charts, shadow angle protractor, ET chart, Givoni's chart, Olgey's chart, and psychometric chart.

#### **7. Course Assessment**

i. Quizzes	4th, 8th, 12th weeks	30%
ii. Midterm exam	10th week	15%
iii. Assignment	13th week	15%
iv. Final exam	16th week	40%
Total		100%

#### **8. NAAB Student Performance Criteria**

B.10 Building Envelope Systems

#### **9. Textbooks & References**

*Sun, Wind, And Light (Architectural Design Strategies)* G, Z, Brown  
*Design with Climate*, Victor Olgyay  
*Design Primer for Hot Climates*, Allan Konya  
*Natural Solar Architecture*, David Wright  
*Climate & Architecture*, Jeffery E. Aronin  
*Solar Control and Shading Devices*, V. Olgyay  
*Buildings, Climate and Energy*, T. A. Markus & E. N. Morris  
*Thermal Design of Buildings*, Szokolay

#### **10. Faculty Assignment**

Al-Hefnawy, Alsyed (Building Technology)



## ARCH-211 CONCEPT OF STRUCTURE

1. **Course title:** Concept of Structures.

2. **Course Number:** ARCH-211

3. **Course Hours:** Credit hours 3, Contact hours 3

4. **Prerequisites:** Pass Preparatory year

### 5. Course Description

Study of the necessary fundamentals of structure, including an introduction to structural phenomenal loads, forces, reaction, structural elements, types of supports, stability and analysis and determinacy.

### 6. Aims and Objectives

- To demonstrate an understanding of the structural behavior.
- To demonstrate an understanding of the structural components.
- Offer simplified calculation of the straining actions of the structural elements.
- Provide students with fundamental structural formulas to understand their behavior for internal and external subjective forces.

### 7. Course Assessment

1. Quizzes	4, 11 & 13 <sup>th</sup> . week	15% grade
2. Midterm examination	8 or 9 <sup>th</sup> .	20%
3. Assignment	3,7,10 & 12 <sup>th</sup> .	10%
4. Attendance, participation	1 to 15	5%
5. Final examination	16 <sup>th</sup> . week	50%
Total		100%

### 8. NAAB Student Performance Criteria

B.9 Structural Systems

### 9. Textbooks & References

R. Whitlow, *Materials and structures*, Longman, London, 2007

W. Fishe Cassie, *Statics structures and stress*, Longman, London, 2004.

El Dakhakhni, *Theory of Structures Part I*, Dar al-maaref, Cairo, 1988 .

R.E. Shaeffer, P.E. *Building Structures*, Prentice- Hall, New Jersey, 2001

Mario Salvadori, Robert Heller, *Structure in Architecture*, Prentice hall, New Jersey, 1999

### 10. Faculty Assignment

Rahal

## **ARCH-212 CONSTRUCTION SYSTEMS AND MATERIALS**

1. **Course Title:** Construction Systems and Materials
2. **Course Number:** ARCH-212
3. **Course Hours:** Credit Hours 3, Contact Hours 4
4. **Prerequisites:** Pass Preparatory Year

### **5. Course Description**

Principles and fundamentals of building construction and materials, including construction techniques and basic concepts of structural systems and foundations according to building loads and soil characteristics.

### **6. Course Aim and Objectives**

- To develop in the students an understanding the principles and fundamentals of construction of buildings, theoretical concepts on construction systems and types of loading.
- To expose the students to simple thumb rule calculations for preliminary ideas of sizes of columns, beams and floor systems.
- To build up the students knowledge regarding the physical, chemical and structural properties of various materials used in construction and methods of use and potential applications.
- To develop in the students the ability to choose the right type of materials during the design stages.
- To know the alternative building materials those are available in the local market and gulf region.
- Acquire adequate knowledge on different construction systems and their appropriate application in design.

### **7. Course Assessment**

1. Quizzes (4)	Any week	10%
2. Midterm exam	9 <sup>th</sup> .	20%
3. Assignments (4)	4, 8, 12 & 14 <sup>th</sup> .	20%
4. Attendance		10%
5. Final examination	16 <sup>th</sup> .	40%
Total		100%

### **8. NAAB Student Performance Criteria**

B.12 Building Materials and Assemblies

### **9. Textbooks & References**

Frank K. Ching, Cassandra Adams, *Building Construction Illustrated*, John Wiley & Sons, 2001  
Simmons, Leslie H. *Construction: Principles, Materials and Methods*, John Wiley & Sons 2000  
D. Walton, *Building Construction, Principles and Practices*, Macmillan, 1999  
Stephen Emmett & Christopher Gorse, *Barry's Introduction to Construction of Buildings*, Blackwell Publishing, 2005  
Allen, Edward & Joseph, *Fundamentals of Building Construction*. John Wiley & Sons, 2003  
Seely Y.H, *Building Technology*, Macmillan, London, 2002

### **10. Faculty Assignment**

Hussain, Al-Musallam, Tijani (Building Technology)

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### ARCH-221 SURVEYING

1. **Course Title:** Surveying
2. **Course Number:** ARCH-221
3. **Course Hours:** Credit Hours 2, Contact hours 3
4. **Prerequisites:** Pass Preparatory Year

#### 5. Course Description

Introduction to surveying techniques: linear measurements, angular measurements using theodolite and total station, traverses, leveling, contouring, computation of areas and volumes, as well as surveing of building sites.

#### 6. Course Aim and Objectives

- To demonstrate the ability to lay off and lay out buildings.
- To demonstrate an understanding of earthworks.
- Offer simplified calculation for the areas and the excavation volume.
- To demonstrate an understanding of leveling and traverses.
- To demonstrate an understanding of mapping and contouring.

#### 7. Course Assessment

1. Quizzes, practical assignments	4, 11 & 13 <sup>th</sup> . week	15%
2. Midterm examination	8 or 9 <sup>th</sup> .	25%
3. Assignments	3,7,10 & 12 <sup>th</sup> .	5%
4. Attendance		5%
5. Final examination	16 <sup>th</sup> .	50%
	Total	100%

8. **NAAB Student Performance Criteria:** General Education Course – Not Applicable

#### 9. Textbooks and References

*Surveying: Principles and Application*, By Barry F. Kavanagh, 8th Edition 2008, Prentice Hall pub.

*Solving Problems in Surveying*, A. Bannister and R. Baker.

10. **Faculty Assignment:** Not Applicable

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### ARCH-231 ENVIRONMENTAL DESIGN I

1. **Course Title:** Environmental Design I
2. **Course Number:** ARCH-231
3. **Course Hours:** Credit Hours 2, Contact hours 2
4. **Prerequisites:** Pass Preparatory Year

#### 5. Course Description

Introduction to the art and science of Architecture, Interior design, and Building technology as the environmental design professions, and the process of environmental design goal formulation.

#### 6. Aim of the Course and Objective

- To define what is meant by Architecture, Interior design, and Building technology.
- To acquaint the students with different theories of Architecture, Interior design, and Building technology.
- To identify different types of Architecture, Interior design, and Building technology.
- To fully explain the process of Architecture, Interior design, and Building technology.
- To present a historical perspective of Architecture, Interior design, and Building technology.
- To present the major professional activities of Architecture, Interior design, and Building technology.

#### 7. Course Assessment

1. Midterm exam	8 <sup>th</sup> . week	30%
2. Attendance, participation	1 to 15 <sup>th</sup> .	10%
3. Final exam	15 <sup>th</sup> .	60%
Total		100%

#### 8. NAAB Student Performance Criteria

A.9 Hist. Traditions/Global Culture

#### 9. Learning Resources

Roaf, Sue. *Ecohouse – a Design Guide*. Architectural Press, Oxford, U.K. 2001.

Wood, C. *Environmental Impacts Assessment: a Comparative review*. Longman Group Ltd, Harlow, 2000.

Preiser W., Rabinowitz H., White E., *Post Occupancy Evaluation*, Van Nostrand Reinhold Company, New York, 2002,

Botkin, Daniel. *A New Ecology for the Twenty- First Century*. Oxford, 2003.

Bron, G. Z. & Dekay, Mark. *Sun Wind & Light*, John Wiley & Sons. Inc. New York, U.S.A. 2001.

Hardoy, j. E. Mitlin, & Satterthwaite, D. *Environmental Problems in Third World Cities*. London. Earthscan Publication, Ltd. 2002.

Van Der Ryn, Sim & Cowan, Stuart. *Ecological Design*. Island Press. New york, U.S.A.. 2004.

Hassan Fathy “ *Architecture for the Poor “ An Experiment in Rural Egypt*, University Of Chicago Press,

#### 9. Faculty Assignment

Shihab (Interior)

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### **ARCH-232 ENVIRONMENTAL DESIGN II**

1. Course Title: Environmental Design II
2. Course Number: ARCH-232
3. Course Hours: Credit Hours 2, Contact Hours 2
4. Prerequisites: Pass preparatory year

#### **5. Course Description**

Introduction to the art and science of Urban Planning and Landscape Architecture as environmental design professions, with focus on the process of plan making, from goal formulation to master-planning.

#### **6. Course Aim and Objectives**

- To define what is meant by planning.
- To acquaint the students with different levels of planning e.g. national, regional and so forth.
- To identify different types of planning; physical, social, economical and environmental.
- To fully explain the process of plan making.
- To present a historical perspective of the profession of Landscape Architecture;
- To present the major professional activities of Landscape Architects as Designers and Landscape Planners.

#### **7. Course Assessment**

1. Midterm examination	8 <sup>th</sup> . week	30%
2. Attendance, participation	1-15 <sup>th</sup> .	10%
3. Final exam	16 <sup>th</sup> .	60%
Total		100%

#### **8. NAAB Student Performance Criteria**

A.9 Hist. Traditions/Global Culture

#### **9. Textbooks & References**

Katanyse, J. *Introduction to Urban Planning*

Laurie, Michael. *An Introduction to Landscape Architecture*. New York: American Elsevier, 1975.

American Planning Association (2006) "*Planning and Urban Design Standards*", John Wiley & Sons,

Simonds, John O. *Landscape Architecture*. New York: McGraw-Hill, 1983.

Marsh, William M. *Landscape Planning, Environmental Application*. New York: John Wiley & Sons, 1991

#### **10. Faculty Assignment**

Taisan (Landscape)

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### ARCH-241 CAD APPLICATIONS

1. **Course Title:** CAD applications
2. **Course Number:** ARCH-241
3. **Course Hours:** Credit Hours 2, Contact Hours 4
4. **Prerequisites:** Pass preparatory year

#### 5. Course Description

Introduction to the fundamentals of Computer Aided Design, beginning with simple drafting commands and standard drafting methods to produce technical and standard 2D drawings.

#### 6. Course Aim and Objectives

- Develop student's knowledge about technical and standard 2D drafting techniques
- Train students how to deal with various equipments that are used with CAD systems
- Develop basic knowledge of students about Mass modeling
- Train students on proficient production of drawing documents and integrate it with other project documents.

#### 7. Course Assessment

1. Quizzes	4 & 13 <sup>th</sup> . week	5%
2. Midterm exam	9 <sup>th</sup> .	25%
3. Assignments	Every 2 <sup>nd</sup> . week	10%
4. Attendance	1 to 15 week	10%
5. Final Exam	16 <sup>th</sup> . week	50%
Total		100%

#### 8. NAAB Student Performance Criteria

A.3 Visual Communication Skills

#### 9. Textbooks & References

Required Text(s) Book(s) *Using AutoCAD 2005: advanced* Grabowsku, Ralph, Thomas Delmar Learning, 2005.

Reference Books: *AutoCAD 2005: a problem-solving approach*, Tickoo, Sham,. Delmer Learning, 2005.

#### 10. Faculty Assignment

Hazem, Fakhry, Imtaar (Building Technology)

## Second Year Joint Program

Departments of Architecture, Landscape, Interior, Building Technology & Urban Planning,  
University of Dammam

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### **ARCH-242 ADVANCED CAD & GIS APPLICATIONS**

1. **Course Title:** Advanced CAD and GIS Applications

2. **Course Number:** ARCH-242

3. **Course Hours:** Credit Hours 2, Contact hours 4

4. **Prerequisites:** ARCH-241

#### **5. Course Description**

Introduction to the fundamentals of 3D modeling and GIS concepts and techniques, including conversion of 2D to 3D, mash & mesh models, and compilation between these models

#### **6. Course Aim and Objectives**

- To develop Student's sense of architectural space.
- To develop student's knowledge about 3D mass and mesh modeling and techniques
- To increase the students skills in 3D Modeling
- To attract students to the differences between various types of geographic phenomena
- To train students on the use GIS to examine an urban phenomenon
- To train students on various types of computer representations of geographic information

#### **7. Course Assessment**

1. Quizzes	3 & 13 <sup>th</sup> . week	15%
2. Midterm exam	8 <sup>th</sup> .	25%
3. Assignments	4,12 & 14 <sup>th</sup> .	15%
4. Attendance	1 to 15 <sup>th</sup> .	5%
5. Final examination	16 <sup>th</sup> .	40%
Total		100%

#### **8. NAAB Student Performance Criteria**

A.5 Technical Documentation

#### **9. Textbooks & References**

Aubin, Pual F. (2006). *Mastering Autodesk Architectural Desktop*.

The publishing's of ESRI (Getting start, ArcMap, ArcCatalog, ArcEditing)

*ARCGIS Data tutorial and ARCGIS Text tutorial*

#### **10. Faculty Assignment**

Fakhry, Hazem, Muniruzzaman (Urban Planning), Imtaar (Building Technology)

## Second Year Joint Program

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### ARCH-251 DESIGN METHODS

1. **Course Title:** Design Methods
2. **Course Number:** ARCH-251
3. **Course Hours:** Credit Hours 2, Contact hours 2
4. **Prerequisites:** Pass Preparatory Year

#### 5. Course Description

Illustration of the definition, the principle, and the elements of design within the framework of design process, with emphasis on how physical and social aspects of design are analyzed, synthesized, and proposed.

#### 6. Course Aim and Objectives

- To enable students to understand the design process and development.
- To develop an understanding of the theories and methodologies related to Architecture and Interior design.
- To demonstrate design skill through design concept, criteria and design philosophy.
- To construct design program, design definition, relevant need/requirement and different design phases
- To develop the skill of comparing, analyzing and critique exterior and interior environment or ambiance
- To develop awareness of social and cultural influences on exterior/interior environments in contemporary time and place
- To develop an understanding of psychology of space related to all physical aspects
- To enable students to be knowledgeable about different theoreticians, thinkers and scholars and different design school and contemporary architects.

#### 7. Course Assessment

1. First Midterm	1 to 7 <sup>th</sup> . week	30%
2. Class Quizzes	8 <sup>th</sup> .	10%
3. Term Paper	12 to 14 <sup>th</sup> .	20%
4. Attendance		5%
5. Final Exam	16 <sup>th</sup> .	35%
	Total	100%

#### 8. NAAB Student Performance Criteria

A.7 Use of Precedence

#### 9. Textbooks & References

Ching, F. (1997) *A Visual Dictionary of Architecture*, New York: John Wiley & Sons, Inc.  
Giedion, S. (1967) *Time, Space and Architecture*, Massachusetts: Harvard University Press.  
Bianca, S. (2000) *Urban Form in the Arab World*, London: Thames and Hudson Ltd.  
El-Shakhs, S. and Shoshkes, E. (1998) "Islamic Cities in the World system." In *Globalization and World of large cities* edited by Yeung, Y. and Lo, F., 228-269. New York: United Nations Press.  
Samizay, R. and Kazimee, B. (1993) *Life in between residential walls in Islamic cities*. In *Housing, Design, Research, Education* edited by Bulos, M. and Teymur, N. London: Athenaem Press Ltd.

#### 10. Faculty Assignment

Monsour, El-Kholy



## **ARCH-252 SITE PLANNING**

1. **Course Title:** Site Planning
2. **Course Number:** ARCH-252
3. **Course hours:** Credit Hours 2, Contact Hours 2
4. **Prerequisites:** Pass Prep. Year

### **5. Course Description**

Introduction to the theories and methods of spatial arrangement and management of external physical environment, including site selection, creation of meaningful spaces, and site planning to achieve the ideal relationship between the building and the site.

### **6. Course Aim and Objectives**

- To understand site planning principles, process and steps.
- To know site analysis methods and techniques and its effects on the proposed project.
- To have the ability to determine type of project users and how their needs can be satisfied.
- To develop an understanding of design concepts.
- To develop an understanding of site design; form, spatial organization and site hierarchy.

### **7. Course Assessment**

1. Quizzes	2 to14th. week	10%
2. Midterm exam	9 <sup>th</sup> .	20%
3. Assignments	2 to14th.	20%
4. Attendance		10%
5. Final exam	16 <sup>th</sup> .	40%
Total		100%

### **8. NAAB Student Performance Criteria**

B.4 Site Design

### **9. Textbooks & References**

*Site Planning: Environment, Process and Development*, R. Gene Brooks, 1988  
*Site Analysis*, James A. LaGro Jr., 2001

### **10. Faculty Assignment**

Sulbi (Landscape)

## Second Year Joint Program

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### **ISLM-251 INTRODUCTION TO ISLAMIC CULTURE**

1. **Course Title:** Introduction to Islamic Culture

2. **Course Number:** 0500-351

3. **Course Hours:** Credit Hours 2, Contact Hours 2

4. **Prerequisites:** Admission

#### **5. Course Description**

Introduction to the notification of Islamic culture, the relationships between the culture, religion and civilization, the emergence of the Islamic cultural science, Its curriculum, its targets, its features, its sources, and its axes.

#### **6. Course objectives**

- The definition of the main concepts to the Islamic culture and their axes.
- The clarification of the pillars of the Islamic culture and the Islam attitude from the other cultures.
- The study of challenges that faces the Islamic culture and the Islamic attitude from them.
- The notification on human rights in Islam, the clarification of their importance, their sources.

#### **7. Course evaluation**

1. Exam	120 %
2. Midterm Work	40 %
3. Final practical exam	40%
Total	100%

8. **NAAB Student Performance Criteria:** General Education Course – Not Applicable

#### **9. Course Books and References**

*The Islamic culture and the age challenges*, Dr. Shawkat Muhammad Ilyan.

*The introduction to the Islamic culture*, Dr. Ahmad bin Abdul Aziz al-Hulaybi

*The Islamic culture, Islam and the age issues*, Dr. Mamun Salih al-Sakit and another.

*The human rights and its main freedoms*, Dr. Abdul Wahab al-shishani.

#### **10. Faculty Assignment**

Department of Islamic Studies

## Second Year Joint Program

Departments of Architecture, Landscape, Interior, Building Technology & Urban Planning,  
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### **ISLM-252 SOCIETY & POLITICS IN ISLAM**

1. **Course Title:** Society and Politics in Islam
2. **Course Number:** ISLM-252
3. **Course Hours:** Credit Hours 2, Contact Hours 2
4. **Prerequisites:** ISLM-251

#### **5. Course description**

Introduction to concepts of Social Policy in Islam: belief and the importance of its study, its advantages and its sources, the reality of belief, the notification of ethics, and the study of models of Islamic morals.

#### **6. Course objectives**

- The establishment of the right Islamic doctrine.
- Linking the Muslim generations with the main Islam sources.
- Importance of the transfer of these sources and knowledge to a living reality in the behavior and especially in our contemporary world.
- Clarification of the good ancestor doctrine and the clarification of their belief accuracy and the establishment of their articles in the belief.
- Clarification of the manners position in Islam, and the showing of its features and its connection with the belief and the worship.

#### **7. Course evaluation**

1. Exam 1	20 %
2. Mid term Work	40 %
3. Final practical exam	40%
Total	100%

8. **NAAB Student Performance Criteria:** General Education Course – Not Applicable

#### **9. Course Books and References**

*The belief: Its truth, its corners, its invalidating*, Dr. Muhammad Na'im Yasin.  
*The introduction to the belief study*, Dr. Uthman Jum'ah.  
*The explanation of Al Tahawiyya belief*, Ibn Abi al-Izz al-Hanafi.  
*The Islamic doctrine*, Abdur Rahman Habannaka al-Maydani.  
*The Islamic morals*, Abdur Rahman Habannaka al-Maydani.

#### **10. Faculty Assignment**

Department of Islamic Studies

## 3-Years Architecture Program

Department of Architecture, University of Dammam.

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### ARCH 301: DESIGN V

1. **Course Name:** Design V
2. **Course Number:** ARCH 301
3. **Course Hours:** Credit Hours 5, Contact Hours 10
4. **Course Prerequisite:** ARCH 202

#### 5. Course Description

This course teaches students how to deal with architectural design problems with an increasing complexity by integrating spatial, programmatic and material strategies, providing an opportunities to synthesize the skills and ideas developed through the past two years of work and apply these to the development of a design project.

#### 6. Course Objectives:

- Develop students' design skills in regards to the integration of building form, function, context etc.
- Develop students' understanding of how the projects design would develop.
- Develop students' ability to proceed systematically from one stage to another as a design process.
- Enhance students' awareness of the sustainability concept and apply it in the building design.

#### 7. Course Learning Outcomes

After the completion of this course, the student will be able to:

- To integrate between building form and function, context and structure;
- To understand how to develop the design of a project;
- To proceed systematically and to apply sustainability concept in the building design.

#### 8. Course Evaluation:

i.	Attendance and instructor's evaluation	20%
ii.	Site analysis, sketch problem, case study	15%
iii.	Mid-term Review	15%
iv.	Pre-final	20%
v.	Final Jury	30%
	Total	100%

#### 9. NAAB Student Performance Criteria

- A.8 Ordering Systems Skills
- B.3 Sustainability

#### 10. Course Recommended Book

Bousmaha Baiche, Nicho. 2000. *Neufert* Third Edition.

#### 11. Course References

*An overview of the structure of the Design Process*, Archer, B. English Universities Press 2003  
*Time-saver standards for interior design and space planning*. De Chiara, et. al. McGraw Hill, 1991

#### 12. Faculty Assignment:

Hapallas (coordinator), Hazem, Bhzad

## 3-Years Architecture Program

Department of Architecture, University of Dammam.

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### ARCH 302: DESIGN VI

1. **Course Name:** Design VI
2. **Course Number:** ARCH 302
3. **Course Hours:** Credit Hours 5, Contact Hours 10
4. **Course Prerequisite:** ARCH 301

#### 5. Course Description

Students will learn how to approach and process the design of relatively complex architectural forms and taking into account conceptual, theoretical, functional, symbolic, organizational, compositional, aesthetic and structural parameters of the architectural space, including long span solutions.

#### 6. Course Objectives

- Develop students' skills in designing complex forms while considering the space design parameters, i.e. the function, context, aesthetics, composition, etc.
- Develop students' awareness of long span structural systems.
- Guide students in exploring possible structural systems and selection of optimum system as part of the architectural solution.
- Instruct students on cultural and environmental dimensions in the application of sustainability in building design.

#### 7. Course Learning Outcomes

After the completion of this course, the student will be able to:

- Demonstrate design skills in regards to the design of complex forms and proper consideration of the spaces' design parameters: the function, context, aesthetics, composition etc.
- Gain good awareness of long span structural systems.
- Assess the capabilities of various structural systems and choose the optimum system.
- Apply cultural and environmental dimensions of the sustainability concept in the building design.

#### 8. Course Evaluation:

i.	Attendance and instructor's evaluation	20%
ii.	Site analysis, sketch problem, case study	15%
iii.	Mid-term Review	15%
iv.	Pre-final	20%
v.	Final Jury	30%
	Total	100%

#### 9. NAAB Student Performance Criteria

- B.9 Structural Systems
- B.11 Building Service Systems

#### 9. Course Recommended Book

Bousmaha Baiche, Nicho. *2000 Neufert* 3<sup>rd</sup>. edition.

#### 10. Course References

Archer, B. *An overview of the structure of the Design Process*. English Universities Press, 2003.  
De Chiara, J. et. al. *Time-saver standards for interior design and space planning*. McGraw-Hill, 1991.

#### 11. Faculty Assignment

Hapallas (coordinator), Hazem, Bhazad

## 3-Years Architecture Program

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### ARCH 401: DESIGN VII

1. **Course Name:** Design VII
2. **Course Number:** ARCH 401
3. **Course Hours:** Contact Hours 6, Contact Hours12
4. **Course Prerequisite:** ARCH 302

#### 5. Course Description

In this studio, housing design problems will be explored within the socio-cultural and environmental context of Saudi Arabia. A housing design vocabulary is developed to encompass theoretical issues of privacy, proxemics, territoriality, perception and neighborhoods.

#### 6. Course Objectives

The design studio builds on the previous work on the housing and human settlements course. It offers students the opportunity to develop and demonstrate their learned abilities, to respond to a housing design problem in a comprehensive and organized fashion. The course goals are;

- Design a residential development in existing urban fabric, address issues of housing design and residential neighborhoods.
- Enhance the quality of the residential environment and manifest architecture as an integrated paradigm of physical, socio-cultural, economic, technological and natural factors.
- Address the issues of sustainability in design development.

#### 7. Course Learning Outcomes

After the completion of the course the students will be able to:

- Design dwellings on the basis of the socio-cultural needs of the Saudi society
- Develop housing master plan on the basis of the local, regional and national building codes and standards
- Design housing complexes by incorporating the ideas of social interaction and a sense of belonging which are essential to the quality of life.
- Incorporate the issue of sustainability in housing design.

#### 8. Course Evaluation

i.	Weekly/biweekly reviews	30%
ii.	Mid-term jury	20%
iii.	Pre-final jury	10%
iv.	Final jury	30%
v.	Class participation	10%
vi.	Total	100%

#### 9. NAAB Student Performance Criteria

- A.5 Investigative Skills
- B.3 Sustainability
- C.2 Human Behavior

#### 10. Faculty Assignment:

Hussain (coordinator), Al-Oweid, Buijan, El-Hafnawy

## 3-Years Architecture Program

Department of Architecture, University of Dammam.

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### ARCH 402: DESIGN VIII

1. **Course Name:** Design VIII
2. **Course Number:** ARCH 402
3. **Course Hours:** Credit Hours 6, Contact Hours 12
4. **Course Prerequisite:** ARCH 401

#### 5. Course Description

This studio focuses on the appropriate design of the urban environment within the socio-cultural and other related factors in the context of Saudi Arabia, exposing students to a vocabulary of urban design based on the theoretical issues of imageability, districts, nodes, edges, paths and landmarks

#### 6. Course Objectives

- The design studio builds on the Urban Design theoretical course of the previous semester. It offers the students opportunity to develop and demonstrate their learned abilities to respond to an urban spatial problem in a comprehensive and organized manner. The course goals are therefore;
- Develop and/or revitalize an existing urban fabric and address the issues of urban design and urban community structures.
- Enhance the urban quality of life and view architecture as an integration of context, climate, culture, technology and economic factors.
- Develop an understanding of urban sustainability as an integral part of urban design.

#### 7. Course Learning Outcomes

After completion of this course the students should be able to:

- Develop an urban environment and specific architecture responsive to local conditions and to contemporary requirements incorporating local, regional and national building codes and regulations.
- Tackle the issue of new urban development as well as urban renewal and upgrading.
- Incorporate the issue of sustainability in urban design.
- Work with others in conducting studies relating to urban issues.

#### 8. Course Evaluation

i.	Weekly/biweekly reviews	30%
ii.	Mid-term Jury	20%
iii.	Pre-final Jury	10%
iv.	Final Jury	30%
v.	Class Participation	10%
	Total	100%

#### 9. NAAB Student Performance Criteria

A.7 Use of Precedence  
A.10 Cultural Diversity  
C.1 Collaboration

#### 8. Faculty Assignment

Hussain (coordinator), Oweid, Buijan, El-Hafnawy

## 3-Years Architecture Program

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### ARCH 501: DESIGN IX

1. **Course Name:** Design IX
2. **Course Number:** ARCH 501
3. **Course Hours:** Credit Hours 6, Contact Hours 12
4. **Course Prerequisite:** ARCH 402

#### 5. Course Description

Specific complex architectural problems will be explored with an emphasis upon institutional planning and criteria for large-scale institutional systems. Appropriate programming techniques will be investigated based on analysis of needs and aspirations of clients and users.

#### 6. Course Objectives

To advance, evolve, and test previous students' skills and experiences through a major project adequate in design depth and complexity considering practicality and time limitations. The final design project should prepare student to undertake his senior project. The course goals are;

- Review similar projects to broaden the scope of possible solutions.
- Develop a sound program that satisfies client's needs and users' aspirations.
- Analyze the selected site/s to the level required to initiate design.
- Initiate a conceptual design based on functionality as well as spatial, structural, formal and other criteria to be full filled on client's and users' priorities.
- Develop and mature up the designs with ideas and details to optimize the final solution.
- Prepare and present adequately the design process and the justification of design decisions at all phases of the process.

#### 7. Course Learning Outcomes

After the completion of the course the students will be able to;

- Design complex projects and solve their various interchangeable issues
- To be able to illustrate his ideas in a professional presentation quality
- Incorporate the issue of sustainability during the design process.

#### 8. Course Evaluation

i.	Review 1	Case Studies	5%
ii.	Review 2	Program, site analysis & concept generation	10%
iii.	Review 3	Concept Generation & Schematic phase	15%
iv.	Review 4	Design Development (mid-term)	25%
v.	Review 5	Pre-Final Review	15%
	Final Jury		30%

#### 9. NAAB Student Performance Criteria

- A.2 Design Thinking Skill
- B.2. Accessibility
- B.5 Life Safety

#### 10. Faculty Assignment

Al-Jofy (coordinator), Imamuddin, Iftekhar Khan, Al-Ohali



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### ARCH 502: DESIGN X

1. **Course Name:** Design X
2. **Course Number:** ARCH502
3. **Course Hours:** Credit Hours 6, Contact Hours 12
4. **Course Prerequisite:** ARCH 501, ARCH 511

#### 5. Course Description

The comprehensive final studio project is based on the cumulative knowledge and skills developed in all the previous design studios, course work and professional experience. The coursework is independent study based on an extensive programming document completed in the previous course.

#### 6. Course Objectives

- To advance students' acquired skills and experiences through a major project adequate in design depth and complexity.
- Present and implement the various project parameters that had been explored in the previous course "Research and Programming", such as project program, site analysis, etc.
- Initiate a conceptual design based on functionality as well as spatial, structural, formal and other relevant or project-specific criteria based on client and user priorities.
- Prepare and present a complete project, highlighting different stages of design with emphasis on the final phase.

#### 7. Course Learning Outcomes

After the completion of the course the students will be able to:

- The Design VIII studio is expected to prepare each student to undertake on his own an architectural project of advanced complexity. It is expected that students will apply skills and knowledge accumulated over the past academic years.
- Each student will work independently with his selected project approved in previous semester through the Research and Programming Course. The practical application of the project, its viability and constructability is significant.
- Adequate knowledge of contemporary building industry and construction techniques to propose a workable structural and HVAC systems. It should be presented with adequate construction details corresponding to the proposed design.
- The broader socio-cultural issues of adaptability with the building designs in Saudi Arabia to be understood and addressed so that the project is justified within its setting.
- Finally, the issue of architectural sustainability is an inseparable part of the generating concept, to be followed through in the design process.

#### 8. Course Evaluation

i.	Review 1	Program & site analysis	5%
ii.	Review 2	Concept Generation & Schematic phase	15%
iii.	Review 3	Design development	10%
iv.	Mid-term Review:		20%
v.	Pre-final		20%
vi.	Final Jury		30%

#### 9. NAAB Student Performance Criteria

- A.1 Communication Skills
- A.11 Applied Research
- B.1 Pre-Design
- B.6 Comprehensive Design
- C.6 Leadership

#### 10. Faculty Assignment

Al-Jofy (coordinator), Imamuddin, Iftekhar Khan, Al-Ohali

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### ARCH 511: RESEARCH & PROGRAMMING

1. **Course Name:** Research & Programming
2. **Course Number:** ARCH 511
3. **Course Hours:** Credit Hours 3, Contact Hours 4
4. **Course Prerequisite:** ARCH 402

#### 5. Course Description

This course, integral part of the final project program, emphasizes the identification and development of architectural ideas and concepts, which are to be researched, analyzed, programmed and documented in an efficient and professional report, independently researched under the direction of a faculty advisor.

#### 6. Course Objectives

- Develop students' ability to search, analyze and write the report.
- Provide a comprehensive program suitable to start the design of the project next semester.
- Enable the student understand the various design parameters of their senior project.

#### 7. Course Learning Outcomes

After the completion of the course the students will be able to:

- Review similar projects to broaden the scope of possible solutions.
- Develop a sound program that satisfies client's needs and users' aspirations.
- Analyze the selected site/s to the level required to initiate design.
- Initiate a conceptual design based on functionality as well as spatial, structural, formal and other criteria in response to clients and user priorities.

#### 8. Course Evaluation

i.	Introduction (project definition)	5%
ii.	Literature review	15%
iii.	Architectural program	15%
iv.	Site Analysis	15%
v.	Primarily submission	20%
vi.	Final submission	30%

#### 9. NAAB Student Performance Criteria

- A.5 Investigative Skills
- B.1 Pre-Design

#### 10. Faculty Assignment

Al-Jofy, Hussain, Al-Sudairy, Al-Sheibani, Al-Naimi, Al-Musallam

## 3-Years Architecture Program

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### ARCH-512: PROFESSIONAL PRACTICE

1. **Course Name:** Professional Practice
2. **Course Number:** ARCH-512
4. **Course Hours:** Credit Hours 3, Contact Hours 3
3. **Course Prerequisite:** ARCH-431

#### 5. Course Description

Study of the architect's professional duties, powers and liabilities in the context of Saudi Arabia, professional ethics and social responsibilities; office administration; finances; fitness for purpose; risk management; quality control; cost control, time management; professional insurance and indemnities; arbitration, litigation and conciliation; computer applications in professional practice.

#### 6. Course Objectives

Achieve an understanding of the following topics:

- Develop understanding of how Architectural firms are formed and organized.
- Understanding of ethical principles embedded in the professional practice of architecture.
- Understanding of office administration, financial, team work, and services in behalf of clients during phases of project design, delivery and construction.

#### 7. Course Learning Outcomes:

After the completion of this course the student will be able to:

- Understand the basic principles of management
- Develop a broad project management perspective in relation to architectural discipline
- Monitor and control a project at various stages.
- Demonstrate the ability to use certain software packages such as excel and Microsoft project management.

#### 8. Course Evaluation:

i.	Attendance & weekly Performance	10%
ii.	Midterm Exam	30%
iii.	Final Exam	60%
	Total	100%

#### 9. NAAB Student Performance Criteria:

- C.5 Practice Management
- C.6 Leadership
- C.8 Ethics & Professional Judgment

#### 10. Faculty Assignment:

Medallah (Building Technology)

### **3-Years Architecture Program**

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#### **ARCH 455: PROFESSIONAL TRAINING PROGRAM**

1. **Course Name:** Professional Training
2. **Course Number:** ARCH 455
3. **Credit Hours:** Credit Hours 0, Contact Hours 400 hrs. (Summer Vacation)
4. **Course Prerequisite:** Completion of 120 contact hours.
5. **The description of the program**  
The professional training should enrich the students' skills and knowledge of architectural practice
6. **The objectives**  
Expose students' to architectural profession and practices in real-world context.  
Introduce students' to their future carrier and work ethics.  
Improve students' understanding of technical and practical issues in field.
7. **The program instructions and conditions**
  1. The student should complete 100 credit hours of the college and the architectural program.
  2. The student should be enrolled in a credited consultant firm that has wide experience in architectural design, preparation of construction documents and field supervision. The Practical Training program of each student must be approved by the training committee.
  3. The training should be for 16 weeks.
  4. The students should be followed-up and supervised by the assigned training committee.
  5. The training program will be evaluated on completion, based on the program report evaluation filed by the design firm.
  6. Student should do a presentation as part of this evaluation.
8. **NAAB Student Performance Criteria**  
Not Applicable
9. **Faculty Assignment**  
Not Applicable

## 3-Years Architecture Program

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### ARCH 313: ADVANCED DESIGN METHODS

1. **Course Title:** Advanced Design Methods
2. **Course Number:** ARCH 313
3. **Course Hours:** Credit Hours 3, Contact Hours 3
4. **Course Prerequisite:** ARCH 251

#### 5. Course Description

This course examines site and environmental issues as well as the building process cycle, including program analysis and space requirement computation. The design process will be explored through detail study of spatial relationships, zoning analysis, and concept formulation, including case study analysis.

#### 6. Course Objective

- Help the students to understand site and functional studies, initiate design concepts
- Help the students to understand the building process such as programming, design, documentation, construction, commissioning and evaluation.
- The student will be exposed to different design issues relating to man and his response to the built and natural environment, with special emphasis on behavior, human factor and anthropometrics.
- Enable the students to study and analyze existing buildings, understand the positive and negative issues for a better approach to design.

#### 7. Course Learning Outcomes

Upon completion of this course, students will be able to;

- Analyze project sites on the basis of inventory and responses.
- Analyze functional issues and determine building program and spaces requirement.
- Initiate design concepts through sketches and physical models
- Understand the environmental effect on the user's behavior.
- Deal with all user groups and considerations in their design
- Undertake case studies to develop a greater understanding of existing buildings.

#### 8. Course Evaluation

i.	Attendance & weekly performance	10%
ii.	Assignments	10%
iii.	Quizzes	40%
iv.	Final Exam	40%
	Total	100%

#### 9. NAAB Student Performance Criteria

- B.1 Pre-Design
- C.2 Human Behavior

#### 10. Course Text Book

Materials collected from different books and journals.

#### 11. Course References

- Analyzing Architecture*, Simon Urwin, Taylor & Francis Inc. 2004
- Site Analysis*, James A. LaGro, John Wiley & Sons Inc. 2007
- Environmental Psychology*, Paul A. Bell, Taylor & Francis Inc., 2005.

#### 10. Faculty Assignment

Hapallas

## 3-Years Architecture Program

Department of Architecture, University of Dammam.

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### ARCH 314: HISTORY & THEORY I

1. **Course Title:** History & Theory I (Ancient and European Architecture)

2. **Course Number:** ARCH 314

3. **Course Hours:** Credit Hours 3, Contact Hours 3

4. **Course Prerequisite:**

5. **Course Description**

Starting with primitive pre-historical architecture, the history of architecture and urbanism of civilizations in the Fertile Crescent, Nile valley, and other ancient civilizations is discussed through an analysis of basic structure, material and geometry. Emphasis is given to European architecture starting with Classical Greece up to Gothic architecture, addressing structure, function and aesthetics in their cultural contexts.

6. **Course Objective**

- Equip the student with a base of understanding of historical architectural elements.
- Discuss different architectural concepts in relation to different civilizations and periods.
- Explore the role of architecture in civilizations' growth and decline.
- Explore and analyze key master buildings that reflect their cultural context.
- Discuss understanding of architecture in relation to historical episodes.

7. **Course Learning Outcomes**

Upon completion of this course, students are expected to reveal the following knowledge and skills:

- Recognize architectural historical elements.
- Identify, analyze and explain the principles of architecture of periods and their master buildings.
- Ability to recognize architectural styles and periods by the underlying design principles.
- Analyze architectural features in relation to their socio-cultural and historical contexts.
- Use historical architectural elements as design vocabularies in studios.

8. **Course Evaluation**

i.	Attendance & weekly performance	10%
ii.	Assignments	30%
iii.	Midterm Exam	20%
iv.	Final Exam	40%
	Total	100%

9. **NAAB Student Performance Criteria**

A.9 History, Traditions/Global Culture

A.10 Cultural Diversity

10. **Course Textbook**

Moffett, M. et al, *A World History of Architecture*, Laurence King Publishing, London, 2003.

11. **Course References**

Nuttgens, Patrick, *The Story of Architecture*, Phaidon Press Limited, London, 1997.

Trachtenburg, & Hyman, *Architecture from Prehistory to Post-modernism: the Western Tradition*, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1985.

12. **Faculty Assignment**

Al-Saati

## 3-Years Architecture Program

Department of Architecture, University of Dammam.

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### ARCH 325: HISTORY & THEORY II

1. **Course Title:** History & Theory I (Modern Architecture and Beyond)

2. **Course Number:** ARCH 325

3. **Course Hours:** Credit Hours 3, Contact Hours 3

4. **Course Prerequisite:** ARCH 314

#### 5. Course Description

An examination of the roots of the modern movement in architecture, from the industrial revolution and the emergence of modern architecture, the growth and influence of Bauhaus, International Style and Chicago School, and the contributions of Le Corbusier, Mies Van Der Rohe and Walter Gropius, etc.

#### 6. Course Objective

- Understanding of modern architectural concepts.
- Appreciation of architecture as a manifestation of socio-economic conflicts that occurred during 19th and 20th century Europe and America.
- Understanding the relationship of architecture with engineering and technological development.
- Understanding the role of new materials in shaping architecture.

#### 7. Course Learning Outcomes

Upon completion of this course, students are expected to reveal the following knowledge and skills:

- Identify, analyze and explain the architectural principles of the different schools and their master buildings.
- Show good analytical thinking and understanding of masters' works.
- Use modern architectural concepts and elements as tools and vocabularies in design studios.

#### 8. Course Evaluation

i.	Attendance & weekly performance	10%
ii.	Assignments	30%
iii.	Midterm Exam	20%
iv.	Final Exam	40%
v.	Total	100%

#### 9. NAAB Student Performance Criteria

A.7 Use of Precedence

A.11 Applied Research

#### 10. Course Text Book

Moffett, M. Et al, *A world History of Architecture*, Laurence King Publishing, London, 2003.

#### 11. Course References

Doordan, D.P., *Twentieth-Century Architecture*, Laurence King Publishing, London, 2001.

Trachtenburg, M., and Hyman, I., *Architecture from Prehistory to Post-modernism; the Western Tradition*, Prentice-Hall, Inc., Englewood Cliffs, New jersey, 1985.

Frampton, K. *Modern Architecture, a Critical History*, Thames and Hudson, London, 2007.

Glancey, J., *20th Century Architecture, The Structures that Shaped the Century*, Carlton, Dubai, 2001.

#### 12. Faculty Assignment

Al-Jawahra, Al-Saati

### 3-Years Architecture Program

Department of Architecture, University of Dammam.

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#### ARCH 423: HISTORY & THEORY III

1. **Course Title:** History & Theory III (Islamic Architecture)
2. **Course Number:** ARCH 423
3. **Course Hours:** Credit Hours 3, Contact. Hours 3
4. **Course Prerequisite:** ARCH 325

#### 5. Course Description

The evolution of Islamic Architecture, from the Umayyad Caliphate through major dynasties will be discussed. Emphasis will be given to the unity of Islamic architecture among regional diversity from Spain to Indonesia. Discussion will also cover works of modern masters, e.g. Hasan Fathi, Wakil, Badran in terms of Islamic context and modern influences.

#### 6. Course Objective

- Provide students a basic understanding of Islamic Architectural concepts and elements.
- Examine the unique features of Islamic architecture in comparison with architecture of other civilizations.
- Explore and analyze master buildings of different Islamic regions and eras.
- Discuss different architectural concepts in relation to different civilizations and periods.
- Compare Islamic Architecture with contemporary architecture in the Muslim world.

#### 7. Course Learning Outcomes

Upon completion of this course, students are expected to reveal the following knowledge and skills:

- Have the fundamental understanding of Islamic Architecture concepts and elements.
- Identify, analyze and explain the principles of architecture of periods and their master buildings.
- Recognize different regional Islamic architecture by understanding principles and form.
- Use Islamic Architectural vocabularies in design criticism and discussions.

#### 8. Course Evaluation

i.	Attendance & weekly performance	10%
ii.	Assignments	30%
iii.	Midterm Exam	20%
iv.	Final Exam	40%
	Total	100%

#### 9. NAAB Student Performance Criteria

- A.9 History, Tradition/Global Culture
- A.11 Applied Research

#### 10. Course Text Book

Grube, E. et al, *Architecture of the Islamic World: Its History and Social Meaning*, Thames and Hudson, London, 1995.

#### 11. Course References

Moffett, M. Et al, *A World History of Architecture*, Laurence King Publishing, London, 2003.  
Hoag, J., *Islamic Architecture (History of World Architecture)*, Harry N. Abrams, Inc., New York, 2004.

#### 12. Faculty Assignment

Al-Jawahra, Al-Saati



## 3-Years Architecture Program

Department of Architecture, University of Dammam.

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### ARCH 411: HOUSING AND SETTLEMENT

1. **Course Title:** Housing and Settlement.

2. **Course Number:** ARCH 411

3. **Course Hours:** Credit Hours 3, Contact Hours 3

4. **Course Prerequisite:**

#### 5. Course Description

Examination of factors effecting settlement patterns, housing layouts, house typologies and their built form in Saudi Arabia. Exploration of the socio-cultural specificity of housing, the modern context of urban housing.

#### 6. Course Objectives

- Introduce the background of housing problem, theories and prospects.
- Understanding the concept of house, housing needs and delivery systems.
- Provide an overview on the development & diversity of housing in Saudi Arabia.
- Evaluate major factors influencing the design of housing and settlement.
- Familiarize with the design guideline for urban housing developments.
- Explore contemporary housing design issues and their applications.

#### 7. Course Learning Outcomes

- Developing knowledge and understanding of the concept of house and housing in traditional and modern context with specific reference to Saudi Arabia.
- The ability to analyze various issues of contemporary housing problem & process.
- Knowledge on the influencing factors of housing design, application of design principle and guidelines.
- Assessing the future goal and direction of housing design and development in Saudi Arabia.

#### 8. Course Evaluation

i.	Class Tests [Written]	10%
ii.	Mid-term Test [Written]	20%
iii.	Assignment & Term Paper	20%
iv.	Final Examination [Written]	50%
	Total	100%

#### 9. NAAB Student Performance Criteria

A.10 Cultural Diversity

C.3 Clients Role in Architecture

#### 10. Course Recommended Book

Rapoport, Amos. *House Form and Culture*. Prentice-Hall. 1969

Alexander, C. et.al. *A pattern Language*. Oxford University Press, 1977.

Talib, Kaizer. *Shelter in Saudi Arabia*. St. Martin's Press. 1984

Bianca Stefano, *Urban form in the Arab World, Past and Present*, Themes and Hudson, 2000

#### 11. Course References

Turner, John. *Housing by People: Towards autonomy in building environments*. London: Marion Boyars. 1976

Akbar, Jamel. *Crisis in the Built Environment: The case of the Muslim City*. Mimar Book, Concept Media Pte Ltd. Singapore, 1988

Al-Naim, Mashary. *Potentiality of the Traditional House. A case study of Hofuf, Al-Hasa*. The G.C.C. Folklore Centre, Doha 1998.

#### 12. Faculty Assignment

Imamuddin

## 3-Years Architecture Program

Department of Architecture, University of Dammam.

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### ARCH 412: ISSUES IN URBAN DESIGN.

1. **Course Title:** Issues in Urban Design
2. **Course Number:** ARCH 412
3. **Course Hours:** Credit Hours 3, Contact Hours 3
4. **Course Prerequisite:** ARCH 411

#### 5. Course Description

Introduction to the history and theories of urban spatial design, including factors influencing the design of urban spaces, different design elements and the design process. Understanding of urban spaces throughout history including Greek, Roman, Renaissance, Islamic, Modern and Post-Modern periods.

#### 6. Course Objective

- Introduce the students to the discipline of urban design, including highlighting its relationship to architecture and planning.
- Discuss the different elements used in the design of urban spaces, to the factors that shape the form of the urban spaces and to the process of designing these spaces.
- Highlight contemporary problems of urban design in Saudi Arabia, including strategies to address them.

#### 7. Course Learning Outcomes

Upon completion of this course, students are expected to acquire following knowledge and skills:

- Able to understand the fundamentals of urban design.
- Analyze and criticize design of urban settlements in reference to theories.
- Use urban design concepts in design studios.
- Use urban design vocabularies in design criticism and discussions.

#### 8. Course Evaluation

i.	Attendance & weekly performance	10%
ii.	Assignments	30%
iii.	Midterm Exam	20%
iv.	Final Exam	40%
	Total	100%

#### 9. NAAB Student Performance Criteria

- A.7 Use of Precedents
- C.9 Community and Social Responsibility

#### 10. Course Text Book

*Finding the Lost Space: Theories of Urban Design*, Trancik R., Van Nostrand Reinhold Company, New York, 1986.

*Postmodern Urbanism*. Ellin, N, Oxford, Blackwell, 1996

*Arabic Islamic Cities*. Hakim, B London, KPI, 1986

*The Image of the City*, Kevin Lynch, MIT Press, Cambridge, 1960

#### 11. Course References

- Barnett, J., *An Introduction to Urban Design*, Harper & Row Publishers, New York, 1982.
- Elin, N., *Postmodern Urbanism*, BlackWell Publishers Inc., Cambridge, 1996.

#### 12. Faculty Assignment

Al-Ohali, Al-Oweid

## 3-Years Architecture Program

Department of Architecture, University of Dammam.

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### ARCH 521: CONTEMPORARY ISSUES IN ARCHITECTURE

1. **Course Title:** Contemporary Issues in Architecture.
2. **Course Number:** ARCH 521
3. **Credit Hours:** Credit Hours 3, Contact Hours 3
4. **Course Prerequisite:** ARCH 423

#### 5. Course Description

Discussion and independent study investigations of the latest developments and debates in contemporary architecture, centering on crucial issues in modern architecture and their design implications for future development. An emphasis is placed upon architectural theory and technology with specific focus on the relationship and relevance to Saudi Arabian context.

#### 6. Course Objectives

- Learn about the Regional Transformation in Architecture in the era of Globalization.
- Study the Sustainable Architecture: Energy Crisis, Green Architecture and Energy Responsive Design.
- Understand Architecture of Empowerment: Power, Poverty, Shelter, People and Livable cities.

#### 7. Course Learning Outcomes

After the completion of this course the student will be able to;

- Develop awareness of recent developments and debates in contemporary architecture.
- Understand the deeper meaning of contemporary architecture with respect to broader socio-economic and technical issues of global impact.
- Application of new knowledge and research in the design of built environment, especially in Saudi Arabian context.

#### 8. Requirements and Evaluation

i. Class Tests:	40%
ii. Study and Assignment:	30%
iii. Term Paper	30%
Total	100%

#### 9. NAAB Student Performance Criteria

- B.2 Accessibility
- B.3 Sustainability

#### 10. Course Recommended Books

Lechner, Bali: *The Globalization Reader*, Blackwell Publisher, 2000  
Samuel P. Huntington: *The Clash of Civilization?* Foreign Affairs V.72, No. 3 (1993)  
Akbar, J.: *Is there an Islamic City?* Journal of the King Saud University. V.6 (1994)  
Serageldin, Ismail, Ed. *The Architecture of Empowerment – People, Shelter and Livable Cities*, Academy Editions, UK 1997  
Vale, Brenda and Robert, *Green Architecture - Design for sustainable future*, Thames and Hudson, UK, 1991. [Na 2542.35, V 35, 1991]  
Abel, Chris, *Architecture and Identity - Response to cultural and architectural change*, Architectural Press, Oxford, 1997.  
Edwards, Brain, *Sustainable Architecture*, Architectural Press, Oxford 1999.

#### 11. Course References

Articles on the related topics published on latest local and international journals and magazines available in the library.

#### 12. Faculty Assignment

Samir Akbar

## 3-Years Architecture Program

Department of Architecture, University of Dammam.

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### ARCH 315: CONSTRUCTION SYSTEMS AND ASSEMBLAGE

1. **Course Name:** Construction Systems and Assemblage
2. **Course Number:** ARCH 315
3. **Course Hours:** Credit Hours 3, Contact Hours 3
4. **Course Prerequisite:** ARCH 212

#### 5. Course Description

This course exposes students to construction systems, both conventional and industrialized. Emphasis will be given to structural systems utilizing load-bearing wall, masonry, cast-in-place, pre-cast, and pre-stressed concrete, structural steel, domes, shells and tensile systems, with special emphasis on the issue of sustainability and how it can be incorporated in construction.

#### 6. Course Objectives

Achieve an understanding of the following topics;

- Systems used for buildings and other structures.
- Advantages and disadvantages of various construction systems.
- Details of systems that is critical to performance.
- Construction methods and processes that is unique to each system.
- Factors and methods considered in evaluating and selecting the appropriate alternative.
- Sustainability and building construction.

#### 7. Course Learning Outcomes

After the completion of this course the student will be able to;

- Understand the basic principles of the different construction systems.
- Demonstrate the ability to choose the most appropriate system for the design tasks.
- Demonstrate the ability to adopt sustainable construction practices.
- Demonstrate the ability to do appropriate details that determine the success of each construction system.

#### 8. Course Evaluation

i.	Assignments	30%
ii.	Quizzes (3 x 5)	15%
iii.	Mid-term	15%
iv.	Final Exam	30%
v.	Attendance	10%
	Total	100%

#### 9. NAAB Student Performance Criteria

- B.10 Building Envelope Systems
- B.12 Building Materials & Assemblies

#### 10. Course Text Books

*Architects Handbook of Construction Detailing* by David Kent Ballast, John Wiley & Sons (2009)  
*Architectural Detailing: Function, Constructability, Aesthetics*, Edward Allen & Patrick Rand, John Wiley & Sons (2007)  
*Sustainable Construction: Green Building Design and Delivery*, Charles J. Kibert

#### 11. Faculty Assignment

Hussain, Tejani (Building Technology)

### 3-Years Architecture Program

Department of Architecture, University of Dammam.

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#### ARCH 324: ENVIRONMENTAL CONTROL SYSTEMS II

1. **Course Name:** Environmental Control systems (Services, Lighting and Acoustic)

2. **Course Number:** ARCH 324

3. **Course Hours:** Credit Hours: 3, Contact Hours: 4

4. **Course Prerequisite:** ARCH 222

#### 5. Course Description

Introduction to the basic concepts of environmental control systems (i.e. services, lighting and acoustics systems) that are used in buildings, including review of human activities and patterns of buildings' use and teaches students how choose an optimum control system of the internal environment.

#### 6. Course Objectives

- Demonstrate to student how to appreciate the human activities and patterns of building use and how these parameters affect the choice of appropriate control environmental systems.
- Teach students features of natural daylight and principals of artificial lighting systems.
- Illustrate types and principals of building services such as water supply and sewage systems, elevators, escalators and fire safety installations.
- Introduce principals of sound and acoustics system and its application in architectural design of buildings.

#### 7. Course Learning Outcomes

After the completion of this course, the student will be able to;

- To appreciate the human activities and patterns of buildings' use and how these parameters affect the choice of appropriate control environmental systems;
- To understand the basic features of natural daylight and principals of artificial lighting systems;
- To understand principals of the sound and acoustics system and its practical applications in buildings.

#### 8. Course Evaluation

i.	Term Projects	15%
ii.	Midterm	15%
iii.	Quizzes	20%
iv.	Class Attendance	10%
v.	Final Exam	40%
	Total	100%

#### 9. NAAB Student Performance Criteria

B.6 Comprehensive Design

B.8 Environmental Systems

#### 10. Course Recommended Book

*HVAC Systems Design Handbook*, Roger W Haines et al, 1998.

#### 11. Course References

*Heating, Cooling, Lighting Design Methods for Architects*, Norbert Lechner, (John Wiley & Sons), New York, USA.

*Plumbing, Cold Water Supplies, Drainage and Sanitation*, F. Hall Third Edition, (Longman Scientific & Technical), 1994.

*Essential Building services*, F. Hall Third Edition, (Longman Scientific & Technical), 1995.

#### 12. Faculty Assignment

Shihab (Interior)

## 3-Years Architecture Program

Department of Architecture, University of Dammam.

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### ARCH 316: STRUCTURE I

1. **Course Name:** Structure I
2. **Course Number:** ARCH 316
3. **Credit Hours:** Credit Hours 3, Contact Hours 3
4. **Course Prerequisite:** ARCH 211

#### 5. Course Description

Overview of the factors that affect the design of reinforced concrete (R.C) and steel structures such as the pattern of building use, architectural spaces requirements and form, as well as an introduction to the design code of reinforced concrete structures. Through this course, which includes field visits to construction site, students will have a broad knowledge of various concrete building systems.

#### 6. Course Objectives

- Demonstrate the behavior of reinforced concrete structures.
- Demonstrate the behavior steel structures.
- Teach students to design various elements of reinforced concrete structures.
- Introduce students to the basic concepts of structural details of steel structures.

#### 7. Course Learning Outcomes

Upon completion of this course, the student should be able to;

- Understand the behavior of reinforced concrete structures;
- Understand the behavior of steel structures;
- Design various elements of reinforced concrete structures
- Understand the basic concepts of structural details of steel structures.

#### 8. Course Evaluation

i.	Quizzes	10%
ii.	Mid-Term Exam	25%
iii.	Assignment	10%
iv.	Attendance, Participation	5%
v.	Final Exam	50%
	Total	100%

#### 9. NAAB Student Performance Criteria

B.9 Structural Systems

#### 10. Course Text Book

*Reinforced Concrete Design* by Chu. Ko Wang & Chakes G. Salmon.

#### 11. Course References

*Reinforced Concrete A Fundamental Approach* by Edward G. Nawy.

#### 12. Faculty Assignment

Rahal

## 3-Years Architecture Program

Department of Architecture, University of Dammam.

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### ARCH 326: STRUCTURE II

1. **Course Title:** Structure II
2. **Course Number:** ARCH 326
3. **Course Hours:** Credit Hours 3, Contact Hours 3
4. **Course Prerequisite:** ARCH 316

#### 5. Course Description

Introduction to various types of structural systems in general and those used in the Kingdom Saudi Arabia in particular. These systems include: suspended structures, shells, arches, trusses, floor slabs (e.g. Solid Slabs, Hollow Blocks Slabs, Paneled Beam Floors), folded plates structures, space frame and space truss structures.

#### 6. Course Objective

- Demonstrate to students the behavior of reinforced concrete structures.
- Demonstrate to students the behavior steel structures.
- Instruct students on appreciation of the architectural requirements of buildings.
- Demonstrate the relationship between the structural system and the architectural form.
- Assist students in selection of optimum structural system that responds to the architectural requirements.

#### 7. Course Learning Outcomes

Upon completion of this course, students will be able to:

- Understand the behavior of reinforced concrete structures.
- Understand the behavior of steel structures.
- Appreciate the architectural requirements of buildings.
- Understand how the structural system and the architectural form are related.
- Choose the optimum structural system.

#### 8. Course Evaluation

i.	Assignment 1:	20 %
ii.	Assignment 2:	20 %
iii.	Assignment 3:	20 %
iv.	Assignment 4:	40 %
	Total	100%

#### 9. NAAB Student Performance Criteria

B.3 Sustainability

B.9 Structural Systems

#### 10. Course Text Book:

*Structure Systems* by Ralph Rapson & Hannskarl Bandel.

#### 11. Course References:

*Form and Structure in Architecture* by Alexander Zannos

#### 12. Faculty Assignment

Rahal

## 3-Years Architecture Program

Department of Architecture, University of Dammam.

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### ARCH 431: CONTRACT DOCUMENTS & WORKING DRAWINGS

1. **Course Name:** Contract documents and Working Drawings
2. **Course Number:** ARCH 431
3. **Course Hours:** Credit Hours 3, Contact Hours 4
4. **Course Prerequisite:** ARCH 321

#### 5. Course Description

Introduction to the different documents that comprise the agreement between the contractor and the owner as regards to the construction process. These include the form of contracts (including standard contract forms of international and national professional organizations, and the techniques of preparing a complete set of construction detail drawings for buildings based on Saudi Building Code (SBC).

#### 6. Course Objectives

- Expose the students to the components that comprise contract documents (contract forms and working drawings).
- Enable students to understand the basic concept of standard contract forms.
- Enable students to develop awareness of building laws and their relation with forms of contract.
- Enable students to understand the fundamentals of standard working drawings.
- Expose students to the way building codes can be incorporated into working drawings.

#### 7. Course Learning Outcomes

Upon completion of this course, the student will be able to;

- Know the different forms of contract used in the construction industry;
- Understand the terms and condition of these forms;
- To be able to make comparisons between the FIDIC forms and local Saudi contract forms and reach to conclusive conclusions;
- Demonstrate the ability to prepare a set of proper construction drawings
- Incorporate the building codes into construction details.

#### 8. Course Evaluation

i.	Term Projects	30%
ii.	Midterm	10%
iii.	Class Participation	10%
iv.	Class Attendance	10%
v.	Final Exam	<u>40%</u>
	Total	100%

#### 9. NAAB Student Performance Criteria

- A.4 Technical Documentation
- C.7 Legal Responsibilities

#### 10. Course Recommended Book

Jaeger, Axel-Volkmar, Hök, Götz-Sebastian. 2009. *FIDIC - A Guide for Practitioners*.

#### 11. Course References

- FIDIC. 2005. *FIDIC Conditions of Contract for Construction of Building and Engineering Works designed by the Employer (Red Book)*.
- E. Corbett 2005. *FIDIC: The Short Form of Contract*
- The building laws*, the Ministry of Municipalities and Rural Affairs, <http://www.momra.gov.sa>

#### 10. Faculty Assignment

Al-Musallam, Hazem, Bhzad



## 3-Years Architecture Program

Department of Architecture, University of Dammam.

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### ARCH 412: PROJECT MANAGEMENT

1. **Course Name:** Project Management
2. **Course Number:** ARCH 412
3. **Course Hours:** Credit Hours 3, Contact Hours 4
4. **Course Prerequisite:** ARCH 431

#### 5. Course Description

This course serves three primary purposes: introduction to management principles and theory; Introduction to the characteristics, techniques (such as work break-down and scheduling) and issues (project delivery systems, quality control and assurance, project funding and cash flow) associated with design and construction projects.

#### 6. Course Objectives

Achieve an understanding of the following topics;

- Essential principles and techniques of project management.
- Planning, scheduling, and monitoring of design and construction project.
- Factors and methods of managing design/construction projects.
- Sustainability as it relates to building management.

#### 7. Course Learning Outcomes

After the completion of this course the student will be able to:

- Understand the basic principles of management
- Develop a broad project management perspective in relation to architectural discipline
- Monitor and control a project at various stages.
- Demonstrate the ability to use certain software packages such as excel and Microsoft project management.

#### 8. Course Evaluation

i.	Assignments	15%
ii.	Quizzes	25%
iii.	Term Project	20%
iv.	Final Exam	30%
v.	Attendance	10%
	Total	100%

#### 9. NAAB Student Performance Criteria

- B.7 Financial Consideration
- C.4 Project Management

#### 10. Course Text Books

- Meredith and Mante, *Project Management: A Managerial Approach*, Wiley 3<sup>rd</sup> Edition, 1995
- Daniel W. Halpin & Ronald W. Wodhead, *Construction Management*, John Wiley & Sons. 1980

#### 11. Faculty Assignment

- Al-Sudairi, Al-Musallam

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### ARCH 351: COMPUTER MODELING

1. **Course Name:** Computer Modeling
2. **Course Number:** ARCH 351
3. **Course Hours:** Credit Hours 3, Contact Hours 3
4. **Course Prerequisite:** ARCH 242

#### 5. Course Description

Development of knowledge, skills and techniques necessary for carrying out digital visualization processes, using advanced computer programs specialized in rendering and 3D modeling that reflects the student's talent and personal creativity, animation and simulation of reality.

#### 6. Course Objectives

Achieve an understanding of the following topics:

- To learn 3D modeling techniques.
- To create three-dimensional urban environments.
- To develop the student's knowledge, ability and practical skills in this field through learning the technical aspects and implementation of creating computer generated models and animations.

#### 7. Course Learning Outcomes

After the completion of this course the student will be able to;

- Develop knowledge that enables to carry out computer presentation.
- Implement digital visualization skills and requirements.
- Develop necessary skills to use advanced computer programs and knowledge of specialized rendering and modeling programs.

#### 8. Course Evaluation

i.	Assignments	10x4	40%
ii.	Mid Term		20%
iii.	Final Exam		30%
iv.	Attendance		10%
	Total		100%

#### 9. NAAB Student Performance Criteria

- A.3 Visual Communication Skills
- A.8 Ordering Systems Skills

#### 10. Course Text Books:

- McGrath, Brian, *Digital Modeling for Urban Design*, Chichester: Wiley, 2008
- Gerhard, Mark (et al.) *Mastering Autodesk 3DS Max 2010*, Indiana Wiley Publishing. 2010
- Bauer, Peter: *Photoshop CS4 for Dummies*, Indiana Wiley Publishing. 2008

#### 11. Faculty Assignment

Fakhry

## 3-Years Architecture Program

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### ARCH 317: HUMANITIES I

1. **Course Title:** Humanities I (Culture and Architecture)

2. **Course Number:** ARCH 317

3. **Course Hours:** Credit Hours 3, Contact. Hours 3

4. **Course Prerequisite:**

#### 5. Course Description

Introduction to environmental meaning as part of a cultural system of symbols that influences peoples' action. It investigates understanding of the meaning of the built environment in different cultural contexts through cognitive perceptions, nonverbal communication, notion of personal space and territoriality.

#### 6. Course Objective

- Provide the student with a basic of understanding of environmental psychology vocabulary.
- Illustrates concepts of non-verbal communications such as meaning, identity, symbol, and space and building power.
- Discuss the impact of the built environment on people's socio-cultural context.
- Explore and analyze different examples of spaces, buildings, and art objects from different cultures.

#### 7. Course Learning Outcomes

Upon completion of this course, students are expected to reveal the following knowledge and skills;

- Make the student appreciates the impact of the build environment on people's conception and behavior.
- Able to read building shapes, space organization, and art objects.
- Can use environmental psychology concepts in design studios.
- Can use environmental psychology vocabularies in discussions.

#### 8. Course Evaluation

i.	Attendance & weekly performance	10%
ii.	Assignments	30%
iii.	Midterm Exam	20%
iv.	Final Exam	40%
	Total	100%

#### 9. NAAB Student Performance Criteria

General Education Course – Not Applicable

#### 10. Course Text Book

Rapoport, A., *The Meaning of the Built Environment, a Nonverbal Communication Approach*, The University of Arizona Press, Tucson, 1990.

#### 11. Course References

Fisher, J., et al, *Environmental Psychology*, Holt, Rinehart and Winston, New York, 2005.

Etlin, R., *Symbolic Space*, The University of Chicago Press, Chicago, 1996.

Alsayyad, N., ed., *Forms of Dominance*, Avebury, England, 1992.

Gombrich, E., *The Sense of Order, a Study in the Psychology of Decorative Art*, Phaidon, 1993.

#### 12. Faculty Assignment

Samir Akbar

## 3-Years Architecture Program

Department of Architecture, University of Dammam.

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### ARCH 422: HUMANITIES II

1. **Course Title:** Humanities II (Economics and Architecture)

2. **Course Number:** ARCH 422

3. **Course Hours:** Credit Hours 3, Contact Hours 3

4. **Course Prerequisite:** ARCH 317

#### 5. Course Description

The first section of the course examines briefly the influence of economic systems on architectural development over the centuries, beginning with subsistence economy and traditional settlements; barter trade, trade routes and growth of trading posts and towns, feudal economy and its architectural opulence, colonial economy and the architectural symbols of power and control. The second section discusses economy under the Islamic Sharia'a and its role in shaping urban settlements, vernacular architecture and peoples' distribution of wealth.

#### 6. Course Objective

- Provide the student with a basic of understanding of the relationship between economy and architecture.
- Introduce fundamental theories of economics.
- Discuss the impact of economics on urban settlements and architecture.
- Highlight differences of capitalist world economy with Islamic Sharia and the impact on urban settlements, city social structure and architecture.

#### 7. Course Learning Outcomes

Upon completion of this course, students are expected to have the knowledge of;

- Fundamentals of economics.
- Understand the impact of economics on architecture and urban settlements.

#### 8. Course Evaluation

i.	Attendance & weekly performance	10%
ii.	Assignments	30%
iii.	Midterm Exam	20%
iv.	Final Exam	40%
	Total	100%

#### 9. NAAB Student Performance Criteria

General Education Course – Not Applicable

#### 10. Course Text Book

#### 11. Course References

#### 12. Faculty Assignment

Samir Akbar

## **3-Years Architecture Program**

Department of Architecture, University of Dammam.

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### **ELECTIVE COURSES:**

Current elective courses are included in the following pages. NAAB Student Performance Criteria are not listed because they are not applicable to electives. The courses are listed in concise form with credit hours and course descriptions.

Electives are organized into several groupings:

**SUSTAINABILITY**  
**ARCHITECTURAL TECHNOLOGY**  
**HISTORY, THEORY & CRITICISM**  
**CONSERVATION**  
**HUMAN FACTORS**

The following course descriptions follow this organization, and where some descriptions are abbreviated there may be two courses listed on a single page.

## 3-Years Architecture Program

Department of Architecture, University of Dammam.

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### The Elective Courses: SUSTAINABILITY

#### ARCH 572: ARCHITECTURE & URBAN FUTURE

1. **Course Title:** Architecture and Urban Future
2. **Course Number:** ARCH 572
3. **Course Hours:** Credit Hours 3, Contact Hours 3
4. **Course Prerequisite:** This is an elective course.

##### 5. **Course Description**

Study of futures as scientific speculation: anticipatory planning and design; major trends and indicators; and measure of corresponding quality of life in Saudi Arabia with a special focus on architectural and urban phenomenon.

#### ARCH 563: HOUSING I

1. **Course Title:** Housing I (Appropriate Technologies)
2. **Course Number:** ARCH 563
3. **Course Hours:** Credit Hours 3, Contact Hours 3
4. **Course Prerequisite:** This is an elective course.

##### 5. **Course Description**

Study of vernacular and contemporary building materials and methods. Comparative studies of built projects; high rise vs. low rise building techniques; pros and cons of industrialized systems and mass production of house.

#### ARCH 564: HOUSING II

1. **Course Title:** Housing II (Management strategies)
2. **Course Number:** ARCH 564
3. **Course Hours:** Credit Hours 3, Contact Hours 3
4. **Course Prerequisite:** This is an Elective.

##### 5. **Course Description**

The process of planning, execution and management with emphasis on life-cycle (cost benefit) analysis; oil economy and its impact on housing in the Gulf Region; urbanization and emerging patterns of housing; urban land use and analysis for Saudi Arabia; site selection techniques; large scale private and public housing management and maintenance; scheduling and post construction operations and the relationship between design decisions and ultimate maintenance and operating costs.

#### ARCH 578: CLIMATE AND ARCHITECTURE

1. **Course Title:** Climate and Architecture
2. **Course Number:** ARCH 578
3. **Course Hours:** Credit Hours 3, Contact Hours 3
4. **Course Prerequisite:** This is an elective course.

##### 5. **Course Description:**

Climate as a formative force in buildings and settlements; survey of systems and techniques of climatic adaptation and control; analysis of climate responsive architecture in history and extracted principles for contemporary design.

## **3-Years Architecture Program**

Department of Architecture, University of Dammam.

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### **ARCH 579: ENERGY AND FORM IN ARCHITECTURE**

1. **Course Title:** Energy and Form in Architecture
2. **Course Number:** ARCH 579
3. **Course Hours:** Credit Hours 3, Contact Hours 3
4. **Course Prerequisite:** This is an elective course.

**5. Course Description:**

This course deals with numerical information and tools required for design in Saudi Arabia, in term of thermal condition. The course explores the design strategies of energy in relation to buildings prototypes, as well as the professional knowledge required for an architect to deal with consultants in thermal aspects of environmental control.

### **ARCH 555: SPECIAL TOPICS IN SUSTAINABILITY**

1. **Course Title:** Special Topics in Sustainability
2. **Course Number:** ARCH 555
3. **Course Hours:** Credit Hours 3, Contact Hours 3
4. **Course Prerequisite:** This is an elective course.

## 3-Years Architecture Program

Department of Architecture, University of Dammam.

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### The Elective Courses: ARCHITECTURAL TECHNOLOGY

#### ARCH 571: ARCHITECTURAL PRESENTATION TECHNIQUES

1. **Course Title:** Architectural Presentation Techniques
2. **Course Number:** ARCH 571
3. **Course Hours:** Credit Hours 3, Contact Hours 3
4. **Course Prerequisite:** This is an elective course.
5. **Course Description:**  
Advanced techniques and skills in graphic design and visual communication; use drawings, models, slides and photographs for architectural presentations, design of displays and exhibitions.

#### ARCH 580: LIGHTWEIGHT ARCHITECTURE

1. **Course Title:** Lightweight Architecture
2. **Course Number:** ARCH 580
3. **Course Hours:** Credit Hours 3, Contact Hours 3
4. **Course Prerequisite:** This is an elective course.
5. **Course Description**  
Understanding of the main principles of lightweight architecture, geometry and the system of forces demonstrated by working with models in laboratory experiments, including study of the intimate relationship of a geometrical system, forces within a structure, unconventional materials and its reflection to form and space to fulfill the functional program.

#### ARCH 577: ARCHITECTURAL COMPUTER GRAPHICS

1. **Course Title:** Architectural Computer Graphics
2. **Course Number:** ARCH 577
3. **Course Hours:** Credit Hours 3, Contact Hours 3
4. **Course Pre-requisites:** This is an elective course.
5. **Course Description**  
The course will deal with communication between user and machine. This is achieved by first covering input and output hardware devices, paying particular attention to devices which find extensive use in architectural application. Software is a vital determinant, techniques for structuring the input and output data in alphanumeric format. Input of data in graphic format, tile production of plots and graphic display, and techniques for computer generation of realistic visual simulations.

#### ARCH 573: GEOMETRY & FORM

1. **Course Title:** Geometry & Form
2. **Course Number:** ARCH 573
3. **Course Hours:** Credit Hours 3, Contact Hours 3
4. **Course Prerequisite:** This is an elective course.
5. **Course Description**  
This course covers the regular and semi-regular patterns of points: lines and surfaces; planar and spatial networks, platonic and Archimedean forms and their attributes; architecture as ordered space aggregation; space partitioning; and space transformation.



### **3-Years Architecture Program**

Department of Architecture, University of Dammam.

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#### **ARCH 575: ECOLOGY AND COASTAL PROTECTION**

1. **Course Title:** Ecology and Coastal Protection.
2. **Course Number:** ARCH 575
3. **Course Hours:** Credit Hours 3, Contact. Hours 3
4. **Course Pre-requisite:** This is an elective course.
5. **Course Description:**  
Introduction to marine site engineering and marine structures, including study of natural phenomenon and related technical issues e.g. (tide, wind, marine currents, waves, marine surveying, materials, soil properties, beaches leveling ). Classification of coastal problems. Fundamentals of choosing protection methods and related techniques such as (Breakwaters, Revetments, Sea-walls and other coastal protections). Designing coastal structures and studying related influences of the coastal region.

#### **ARCH 567: SPECIAL TOPICS IN ARCHITECTURAL TECHNOLOGY**

1. **Course Title:** Special Topics in Architectural Technology
2. **Course Number:** ARCH 567
3. **Course Hours:** Credit Hours 3, Contact Hours 3
4. **Course Prerequisite:** This is an Elective.

## 3-Years Architecture Program

Department of Architecture, University of Dammam.

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### The Elective Courses: HISTORY, THEORY & CRITICISM

#### ARCH 569: CONTEMPORARY ARAB ISLAMIC ARCHITECTURE

1. **Course Title:** Contemporary Arab Islamic Architecture
2. **Course Number:** ARCH 569
3. **Course Hours:** Credit Hours 3, Contact Hours 3
4. **Course Pre-requisite:** This is an Elective
5. **Course Description**  
Critical study of recent architectural planning phenomenon in the context of tradition and the essence of Islamic architecture: problems; potential; and imperative of technology, economic growth and accelerated development.

#### ARCH 571: INDIGENOUS ARCHITECTURE IN SAUDI ARABIA

1. **Course Title:** Indigenous Architecture in Saudi Arabia
2. **Course Number:** ARCH 571
3. **Course Hours:** Credit Hours 3, Contact Hours 3
4. **Course Pre-requisite:** This is an Elective
5. **Course Description**  
Study of indigenous buildings and settlements with the aim of identifying their formative forces and influences. Particular emphasis on case studies in Saudi Arabia, field trips, building measurements and recordings.  
S.Giedion (1981) *Space, Time and Architecture*.

#### ARCH 568: SPECIAL TOPICS IN HISTORY, THEORY AND CRITICISM

1. **Course Title:** Special Topics in History, Theory and Criticism
2. **Course Number:** ARCH 568
3. **Course Hours:** Credit Hours 3, Contact Hours 3
4. **Course Pre-requisite:** This is an Elective.

## **3-Years Architecture Program**

Department of Architecture, University of Dammam.

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### **The Elective Courses: CONSERVATION**

#### **ARCH 582: REUSE AND ADAPTABILITY**

1. **Course name:** Reuse and Adaptability
2. **Course Number:** ARCH 582
3. **Course Hours:** Credit Hours 3, Contact Hours 3
4. **Course Prerequisite:** This is an Elective
5. **Course Description**  
Introduction to concepts of reuse and adaptability in the built environment. Concepts of change and growth through morphological evolution of personal and public spaces and the changing patterns of human activity and association. Economic and demographic patterns of use and their impact on reuse and adaptability.

#### **ARCH 570: CONSERVATION OF BUILDINGS**

1. **Course Title:** Conservation of Buildings
2. **Course Number:** ARCH 570
3. **Course Hours:** Credit Hours 3, Contact Hours 3
4. **Course Prerequisite:** This is an elective course
5. **Course Description**  
This course introduces conservation of buildings and areas; a basic understanding of criteria for identifying heritage, elements of the conservation process, approaches, techniques and materials. The idea of new uses for old buildings is explored through study of examples of the older existing structures in terms of their physical, historical and socio-cultural aspects to develop a logical process and a recognized sequence of decision-making.

#### **ARCH 582: SPECIAL TOPICS IN CONSERVATION**

1. **Course Title:** Special Topics in Conservation
2. **Course Number:** ARCH 582
3. **Course Hours:** Credit Hours 3, Contact Hours 3
4. **Course Prerequisite:** This is an Elective.

## 3-Years Architecture Program

Department of Architecture, University of Dammam.

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### The Elective Courses: HUMAN FACTORS

#### ARCH 574: VISUAL PERCEPTION

1. **Course Title:** Visual Perception
2. **Course Number:** ARCH-574
3. **Course Hours:** Credit Hours 3, Contact Hours 3
4. **Course Prerequisite:** This is an Elective.
5. **Course Description**  
This course introduces students to philosophical foundations of the interaction of cognitive thinking, design, architecture and culture that helps in understating the creative methodology of form's composition, outlining the analytic theory of visual perception with the following dimensions: light, color, shape and motion.

#### ARCH 566: BEHAVIORAL FACTORS IN ARCHITECTURE

1. **Course Name:** Behavioral Factors in Architecture
2. **Course Number:** ARCH 566
3. **Course Hours:** Credit Hours 3, Contact Hours 3
4. **Course Prerequisite:** This is an Elective.
5. **Course Description**  
The course is designed to introduce the students to the general concepts in psychology and sociology, to examine several of these concepts in depth and to give students firsthand experience in conducting experiments relating to human behavior.

#### ARCH 592: SPECIAL TOPICS IN HUMAN FACTORS

1. **Course Title:** Special Topics in Human Factors
2. **Course Number:** ARCH 592
3. **Course Hours:** Credit Hours 3, Contact Hours 3
4. **Course Prerequisite:** This is an Elective.

**3-Years Architecture Program**

Department of Architecture, University of Dammam.

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## Faculty Resumes

Department of Architecture, University of Dammam

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**JAMEL A. AKBAR,**  
Professor

### Courses Taught:

M. Arch Thesis Supervision  
On deputation to Ministry of Higher Education (MOHE)

### Educational Credentials:

1984 **Ph.D.** Architecture, Art and Environmental Studies, M.I.T. Cambridge, USA  
1980 **M.Arch.** Housing Design, M.I.T. Cambridge, USA  
1977 **B.Arch.** King Saud University, Riyadh, Saudi Arabia

### Teaching Experience:

2000-present **Professor**, Department of Architecture, Dammam University, Saudi Arabia.  
1989-2000 **Associate Professor**, Department of Architecture, King Faisal University.  
1990-1991 **Associate Professor** (visiting scholar), Massachusetts Institute of Technology.  
1984-1989 **Assistant Professor**, Department of Architecture, King Faisal University

### Administrative Experience:

1996-2000 **Chair**, Department of Architecture, King Faisal University, Saudi Arabia.

### Selected Awards / Honors:

1986 King Fahd Award for Architectural Research in the Muslim World.  
2002 Selected for "One thousand great Asians" published the International Biographical center (IBC), Cambridge, UK.  
2007 The First Award of the Organization of Islamic Capitals and Cities.

### BOOKS

1988 Akbar, Jamel A., ***Crisis in the Built Environment: the Case of the Muslim City***, Concept Media, Singapore,

### Selected Publications and Recent Research:

2008 "*Al-Umran wa mo'assasatuh wa al-istidamah*" Proceedings of the First Conference of housing organized by Sheikh Zayed Bin Sultan Program for housing, in collaboration with UN Habitat. Abu Dhabi, 13-15 October (in Arabic).  
2008 Akbar "*Traditional Muslim Built Environment: an alternative paradigm*". Big Project magazine, Dubai.  
2004 "*The merits of cities' locations*". Elsheshtawy, Y. (ed.), Planning Middle Eastern Cities: an urban kaleidoscope in a globalized world". London, Routledge, 2004. pp.22-28.  
2002 "*Learning from tradition: land provision and population growth - the case of Saudi Arabia*". Journal of King Saud University. Vol.14, pp. 41-58.  
1988 Akbar, J., Architectural Determinism, DAAR, Department of Architecture, King Faisal U., Oct. 1988, V.1., pp. 8-9.  
1985 Panel Discussions of Regionalism in Architecture: proceedings of a seminar held in Dhaka, Bangladesh, edited by Robert Powell, pp. 173-4.  
1982 Habraken, N. J., Liu, L., and Akbar, J., Thematic Design: Class Notes, Department of Architecture, MIT, 1982.

### CONFERENCES AND SEMINARS

2010 "*Al-Ma'rifah wa al-turath umrani*". Colloquium of "Hiwar fi ta'sil al-umran" (Dialogue in the authentication of built environment) organized by the Jordanian Engineering Association, Amman, (main speaker, in Arabic)  
2010 "*Al-Turath wa al-ma'rifah al-umrania*". First International Conference for Architectural Heritage in the Islamic world, Higher Commission for Tourism, Riyadh, 2010. (keynote speaker)  
2009 "*Damage, prosperity and sustainability in Islam*" paper presented in the international symposium of "The city and civilization" organized by the Municipality of Corum, Turkey, 2009 (invited speaker).

## Faculty Resumes

Department of Architecture, University of Dammam

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### **KHALID AL-SHEIBANI**

Professor

#### **Courses Taught:**

Research & Programming  
Sustainable Architecture (M. Arch. Program)  
Energy Responsive Building (M. Arch. Program)  
Sustainable Development (M. Arch. Program)

#### **Educational Credentials:**

1997 **Ph. D.** in Architecture, University of Sheffield, United Kingdom  
1992 **M. Building Science**, King Faisal University, Dammam, Saudi Arabia,  
1984 **B.Arch.**, King Faisal University, Dammam, Saudi Arabia,

#### **Teaching Experience:**

2010–present **Professor**, University of Dammam,  
2002–2010 **Associate Professor**, King Faisal University, Dammam  
1997–2002 **Assistant Professor**, King Faisal University, Dammam  
1992–1997 **Lecturer**, King Faisal University, Dammam

#### **Administrative Experience:**

2004–2008 **Vice Dean** for Postgraduate Studies and Scientific Research, College of Architecture and Planning, King Faisal University,

#### **Selected Publications and Recent Research:**

2012 *Review of typical vs. synthesized energy modeling weather files*, Journal of Renewable and Sustainable Energy 4(1)  
2011 *Finding frequency distributions of CIE Standard General Skies from sky luminance or irradiance*, Lighting Research & Technology.  
2009 *The Standard General Sky Classification and its Effect on External Illuminance Estimation*, The Scientific Journal of King Faisal University 10 (1)  
2009 *Applicability of daylight estimation methods under the climatic conditions of Saudi Arabia*, Journal of Engineering Science, Assiut University January  
2008 *Glazed openings' design and its effect on energy consumption in Saudi Arabia*, Journal of Engineering Science, Assiut University September  
2004 *A study for estimating light received on external surface in sunny regions*, Umm Al-Qura University Journal of Science-Medicine-Engineering, 16(2)  
*Is It Possible to Develop Criteria for Students Admission in Architectural Departments? Analytical*  
2004 *Study for the Architecture Department, KFU*, King Abdulaziz University Journal of Environmental Design (2)

#### **Research Projects:**

2009 Load management by reducing A/C loads through thermostat settings and the use of the ideal insulation thickness, A research done for the ministry of electricity, Riyadh, Saudi Arabia

#### **Professional Organizations:**

Al-Omran Saudi Association, Eastern Province Chapter, Saudi Arabia,

## Faculty Resumes

Department of Architecture, University of Dammam

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### **Dr. ABDULLAH M. ALOWEID**

Professor

#### **Courses Taught:**

Design VII & VIII,  
Contemporary Arab Islamic Architecture,  
Traditional Arch.in Saudi Arabia,  
Professional Practice,  
Issues in Urban Design.

#### **Educational Credentials:**

1990 **Ph. D.** Queensland University, Australia  
1984 **M.Arch.** Tulane University, Louisiana  
1981 **B.Arch.** King Faisal University, Dammam, KSA.

#### **Teaching Experience:**

2008-present Professor, College of Arch. and Planning, Dammam University,  
1996-2008 Associate Professor, College of Architecture, King Faisal University  
1991-1996 Assistant Professor, College of Architecture, King Faisal University  
1984-1991 Lecturer, College of Architecture, King Faisal University.

#### **Professional Experience:**

1984 Consultant ,Al-Hamed Consulting Engineers.  
1996 Design Manager, Multi-Story Apartment Building (Private)  
2003 Management and evaluator for the Ministry of Rural and Municipal Affairs, KSA.  
2005-present, Joint Consultant for various Governmental Projects.

#### **Selected Publications and Research:**

2007 *GIS and its application in urban development, KSA.* Engineering Journal  
,Alazhar,Egypt,no.2,issue 5.  
2005 *The effect of ceiling fans on electrical energy consumption in residential buildings.* Assute  
University eng. journal, vol.32.  
2004 *Design Patterns and Layout of Shopping centers in S.A.* Al-Azhar University Engineering  
Journal, Cairo.  
1997, *Utilization of Solar Radiation Data in Enhancing the Urban geometry, S.A.* Energy Sources  
Journal,Vol.8,U.K.

#### **Professional Organizations:**

Al-Omran Saudi Association, Riyadh, Saudi Arabia,  
Engineering Committee, Saudi Arabia.



## Faculty Resumes

Department of Architecture, University of Dammam

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### **ABDUSALAM ALI AL-SUDAIRI**

Professor

#### **Courses Taught:**

Construction I, II & III  
Project Management  
Professional Practice

#### **Educational Credentials:**

2000 **Ph. D.** University of Colorado at Boulder, USA  
1993 **M. Arch.** King Faisal University, Dammam, KSA.  
1989 **B. Arch.** King Faisal University, Dammam, KSA.

#### **Teaching Experience:**

2011-present Professor, College of Arch. and Planning, Dammam University,  
2006-2011 Associate Professor, College of Architecture, King Faisal University  
2000-2006 Assistant Professor, College of Architecture, King Faisal University  
1993-2000 Lecturer, College of Architecture, King Faisal University.

#### **Professional Experience:**

2012-present Dean, College of Architecture and Planning, University of Dammam.  
2009-2011 Vice Dean for Academic Affairs, College of Architecture and Planning

#### **Selected Publications and Research:**

2011 (Co-author) *Identifying and Classifying Design Barriers and Measuring Their Impact*, Journal of the Gulf and Arabian Peninsula Studies, Kuwait, No. 143,  
2011 (Co-author) *Reexamining the Limitations of PERT Technique Using Monte Carlo Simulation*, The Emirates Journal for Engineering Research (EJER), Vol. 16, Issue. 1, UAE,  
2010 (co-author) *Multi Objective Land Use Allocation Model Using Priority-Based Goal Programming Technique*, Construction Management and Economics, Vol. 28, No. 2, Taylor & Francis, UK,  
2010 (co-author) *ISO 9001-2000 Applications in Design Consulting Offices in Eastern Province of KSA*, Journal of Building Technology, Ministry of Municipalities and Rural Affairs  
2008 *Activity-Based Costing (ABC) Analysis in Design Processes*, Proceedings of Design Management in the Architectural Engineering and Construction Sector Conference, University of Sao Paulo, Brazil, November  
2007 *Simulation Aided Project Decision Making*, Proceedings of CME 25 Conference: Construction Management and Economics 'Past, Present and Future', University of Reading, UK, 16-18 July.  
2004 *Simulation As an Aid Tool to the Best Utilization of Lean Principles*, Proceedings of International Group of Lean Construction IGLC-12, Edited by Sven Bertelsen and Carlos Formoso, Helsingor, Denmark  
2008 *Design Management in the Architectural Engineering and Construction Sector*, Sao Paulo, Brazil, participation with scientific paper  
2000 *8th Annual Conference on Lean Construction*, Brighton, UK, participation with scientific paper.

#### **Professional Organizations:**

Al-Omran Saudi Association, Riyadh, Saudi Arabia,  
Saudi Council of Engineers

## Faculty Resumes

Department of Architecture, University of Dammam

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### ABU HYDAR IMAMUDDIN

Professor

**Courses Taught:** (Two academic years prior to June, 2012)

Design IX & Design X

History, Theory and Criticism (M. Arch. Program)

Globalization and Architecture (M. Arch. Program)

Building Conservation Philosophy (M. Arch. Program)

### Educational Credentials:

1982 **MAE** Master of Architectural Engineering, Katholieke Universiteit Leuven, Belgium

1975 **B. Arch.** Bangladesh University of Engineering & Technology, Bangladesh

### Teaching Experience:

1997-present **Professor**, Department of Architecture, University of Dammam.

1989-1996 **Professor**, Department of Architecture, BUET, Dhaka, Bangladesh.

1986-1989 **Associate Professor**, Department of Architecture, BUET, Dhaka, Bangladesh.

1978-1986 **Assistant Professor**, Department of Architecture, BUET, Dhaka, Bangladesh.

1975-1978 **Lecturer**, Department of Architecture, BUET, Dhaka, Bangladesh.

### Professional Experience: [Design Projects]

1. 'SHAROCHITO SHEBOTI'- ARCHITECT'S OWN RESIDENCE, DHANMONDI, DHAKA : Completed 1995: Three storied one unit house built with a small studio in the front. IAB Design Award 1996, Single Family House category.

2. 'NAGAR BHABAN', DHAKA MUNICIPAL CORPORATION HEAD OFFICE, FULBARIA, DHAKA: Project completed in 1994. The design reflects formal and traditional architectural characteristics in conformity with the physical and functional context of the project as the City Hall of Dhaka.

### Selected Publications and Research:

1. Author of '*Design Reety O Sthapatya Dhara*': A Bengali book on Design Theory published by Sthapatya Kala Kendra, Dhaka. Bangladesh,

2. '*Mainamati-Deveparvata, Gawr-Lakhnawti and Sonargaon-Panam*': Three volumes of research publication by the Asiatic Society Bangladesh: sponsored by the Getty Grant. Co-edited all the three books. 3. Editor, **Architectural Conservation, Bangladesh**; Proceedings of the Symposium, Published by the Asiatic Society of Bangladesh, Dhaka

4. Co-Editor, **Architectural and Urban Conservation in the Islamic World**; Volume one; the book based on the Workshop held in Dhaka, April 1989. Published by the Aga Khan Trust for Cultures; Geneva, Switzerland.

5. Co-Edited **Contemporary Architecture, Bangladesh**, published by the Institute of Architects Bangladesh [IAB]

### Licensure/Registration:

Registered Member, Institute of Architects Bangladesh (IAB)

### Professional Organizations:

Life Member, Asiatic Society of Bangladesh, Dhaka [Council Member 1992-93]

Life Member, Bangla Academy, Dhaka

### Selected Awards / Honors:

1. **IAB Design Award 1996** given by the Institute of Architects Bangladesh, for Architects own house *Sharochito Sheboti* at Dhanmondi Dhaka,

2. Bangladesh University of Engineering and Technology Teacher's Award 1987, for excellence in architectural design work.

3. Obtained the **Ahsanur Rahman Memorial Award** 1975 for outstanding performance in undergraduate thesis project.

4. Design Competition for **Mujib Nagar memorial** at Meherpur, Kushtia. Awarded Second Prize.

5. Design Competition for **Unknown Martyr's Memorial** at Savar, Dhaka. Awarded Third Prize.

## Faculty Resumes

Department of Architecture, University of Dammam

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### IFTEKHAR MAZHAR KHAN

Professor

#### Courses Taught:

Design IX & X

Theories in Architecture (M. Arch. Program)

#### Educational Credentials:

1982 **Ph. D.** Katholieke Universiteit, Leuven (KUL) Belgium

1976 **M. Arch** School of Planning and Architecture, New Delhi, India

1972 **B. Arch.** Bangladesh University of Engineering & Technology (BUET) Dhaka.

#### Teaching Experience:

2010-present **Professor**, College of Arch. and Planning, Dammam University,

1988-1997 **Associate Professor**, Department of Architecture, King Faisal University

1988-1988 **Professor**, Department of Architecture, B.U.E.T. Dhaka

1984-1988 **Associate Professor**, Department of Architecture, B.U.E.T. Dhaka

1977-1984 **Assistant Professor**, Department of Architecture, B.U.E.T. Dhaka

1976-1977 **Lecturer**, Department of Architecture, B.U.E.T. Dhaka

#### Professional Experience:

1997-2009 **Senior Project Manager**, Camburas & Theodore, Ltd. Des Plaines, IL

2009 Custom designed **Jewel Osco** (LEED certified) at Des Plaines & Kinzie street, in downtown Chicago, IL

2003 Custom-designed **Jewel Osco**, Roosevelt & Wabash street, Chicago, IL.

1998 **Jewel Osco**, Humboldt Yard, Milwaukee, WI

#### Selected Publications and Research:

1986 "*Reflection of Local Tradition in Contemporary Architecture*" Published in FORM, a magazine of the Arts. Number 4, Spring

1986 "*City Planning in Old Dhaka*" Bangladesh Quarterly, Vol. 6, No. 5, Autumn.

1985 "*Regionalism in Architecture – Exploring Architecture in Islamic Cultures*" (co-edited) Published AGA KHAN AWARD for ARCHITECTURE. Concept Media Pte. Ltd. Singapore,

1985 "*Livability in Old Dhaka; Evolving Urban Residential Pattern in Mohallas*" Published in 'Regionalism in Architecture' Concept Media Pte. Ltd. Singapore,

#### Licensure/Registration:

Registered Member, Institute of Architects Bangladesh (IAB)

#### Professional Organizations:

1987-1988 Vice President, Institute of Architects, Bangladesh.

#### Selected Awards / Honors:

2000 **Honorable Mention**: Creative –Professional Still, CADALYST IMAGE AWARD

1988 **Recipient**: Commonwealth Staff Fellowship, University College LONDON

1988 **Award** for Excellence in Creative Design: University Syndicate. BUET

## Faculty Resumes

Department of Architecture, University of Dammam

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### Name: ABDULAZIZ AL-SAATI

Associate Professor

### Courses Taught:

History and Theory I

Research Methods

### Academic Qualifications

1987 **Doctor of Architecture**, University of Michigan, U.S.A.

1980 **M. Arch**, University of Michigan, U.S.A.

1977 **B. Arch**, King Saud University, K.S.A.

### Administrative Positions

2010-Present Vice President for Higher Studies & Scientific Research, University of Dammam,

2001-2007 Vice Rector, Dammam Campus, King Faisal University (KFU),

1996-2001 Chairman, Department of Interior Design, College of Architecture, KFU,

1990-1996 Dean, College of Arch. & Planning (3 terms), King Faisal University,

1988-1990 Vice Dean for Academic Affairs, College of Architecture & Planning, KFU,

1988-1990 Chairman, Department of Architecture, College of Architecture & Planning, KFU,

### Committees

2010-Present Member, University Council, University of Dammam,

2010-Present Chairman, University Scientific Council, University of Dammam,

2001-2007 Member of the University Council, King Faisal University,

1997-1999 Member, University Scientific Council, King Faisal University,

1997-1999 Member of the University Higher Council, King Faisal University,

### Technical Committees & Consultancy

1995-present. **Member**, Supervisory Committee of Al-Khobar Housing, Eastern Province Branch,

2001-2003 **General Supervisor**, University Project Office (New Campus Projects), KFU.

1997 **Member**, Examining Committee to Evaluate the New Proposed Interior Design and Architecture Programs for Girls (Undergraduate), College of Engineering, Qatar University,

1997 **Member**, Jury Committee for "The Private House Design Competition", organized by Al-Benaa Magazine, Riyadh, Saudi Arabia.

1994. **Member**, Jury Committee to Evaluate the Special Development Project: Oasis of Sciences (Arriyadh Development Authority), design by A. Ibrahim and R. Badran Consultant.

### Scholarships and Awards

2010 **Certificate of Distinguish Professor**, College of Architecture & Planning, KFU,

1981 **Certificate of Merit** from the American Institute of Architecture (AIA), Scholastic Award,

1981 **Tau Sigman Delta** Certificate by the Honor Society in Architecture and Allied Arts, University of Michigan, Ann Arbor, U.S.A,

### Professional Organizations:

1995-1997 **Member**, Higher Board, Saudi Al-Omran Society, Riyadh, Saudi Arabia,

1997-2002 **Chairman**, Saudi Al-Omran Society, Eastern Province Chapter, Dammam.

## Faculty Resumes

Department of Architecture, University of Dammam

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### EGAL KHALAF AL-JOFI

Associate Professor

**Courses Taught:** (Two academic years prior to June, 2012)

Design IX & X

Research & Programming

Introduction to Environmental Design

Environmental Control System II

Special topics in Architecture: Daylight in architecture (Elective)

Energy & Form (Elective)

Advanced issues in Architectural Theory & Design. (Master's Program)

### Educational Credentials:

1995 **Ph. D.** University of Wales, Cardiff, UK

1987 **M. Arch** University of Colorado, Denver, USA

1983 **B. Arch** King Faisal University, Dammam, KSA

### Teaching Experience:

1987-present **Associate Professor**, Department of Architecture, University of Dammam

1995-2010 **Assistant Professor**, Department of Architecture, King Faisal University

1988-1995 **Lecturer**, Department of Architecture, King Faisal University

### Professional Experience:

1999 – 2003 Vice Dean for Academic Affairs, College of Architecture, King Faisal University

1986 -1987 Member of the Saudi Society council, Denver, USA

1990 – 1992 Director of Cardiff Saudi School, Cardiff, UK

1982 – (2 months) – Training program, Frank Basil Inc. Tabuk

### Selected Publications and Research:

2009. *"An assessment of environmental performance of glazed office buildings in hot climates"*; *Building Technology*, 19.

2009. *"Determination of Basic wind pressure for structural design in Saudi Arabia"*; *Journal of the Gulf and Arabian Peninsula studies*, vol 43, no. 35, 7.

2009. *"The Reflected light performance of Rawshans"*; *Cairo University Scientific Journal*, vol 56, no. 3, 6.

2006. *The Role of Environmental Control in Concern to the Theories sustainability*

(A practical Study to the Systems of Ecological Control in the College of Architecture & planning at King Faisal University); *Building Technology Journal*, No.9, October

2004. *"The Traditional Courtyard As A Daylight Regulator"*; *University of Assute Journal of Engineering Sciences* Vol.32, No.5 November.

### Licensure / Registration: None

### Professional Organizations:

Member, Saudi engineering committee, 2011

Member, CIBSE

Member, Saudi Al-Omran Society

### Selected Awards / Honors: None

## Faculty Resumes

Department of Architecture, University of Dammam

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### RAFIQUL HUSSAIN

Associate Professor

**Courses Taught:** (Two academic years prior to June, 2012)

Design VII (Housing Studio) & Design VIII (Urban Design Studio)

Construction Systems & Materials

Construction Systems & Assemblage

Research & Programming

### Education Credentials:

1988 **Ph.D.** Architecture, Katholiek Universiteit, Leuven (KUL), Belgium

1978 **M.Arch.** Katholiek Universiteit, Leuven (KUL), Belgium

1972 **B.Arch.** Bangladesh University of Engineering & Technology (BUET), Dhaka, Bangladesh

### Teaching Experience:

1990-present **Associate Professor**, College of Architecture & Planning, University of Dammam

1988-1990 **Professor**, Department of Architecture, Bangladesh University of Engineering & Technology (BUET), Dhaka, Bangladesh.

1982-1988 **Associate Professor**, Department of Architecture, BUET, Dhaka, Bangladesh.

1975-1982 **Assistant Professor**, Department of Architecture, BUET, Dhaka, Bangladesh.

1973-1975 **Lecturer**, Department of Architecture, BUET, Dhaka, Bangladesh.

### Professional Experience:

1988-1990 Consultant Architect, Prasthapana Ltd., Dhaka, Bangladesh

1978-1984 Consultant Architect, Building Design Center, Dhaka, Bangladesh

1974-1976 Consultant Architect, Prasthapana Ltd., Dhaka, Bangladesh

1972-1973 Field Coordinator (Sulla Project), Bangladesh Rural Advancement Committee, Dhaka, Bangladesh.

### Selected Publications, Papers Presented & Research:

2002 *Architectural Office & Design Studio: When shall the twain meet?* Presented at the Symposium on Architectural Education, College of Architecture & Planning, UOD.

1990 May *Lessons from Conservation Workshop 1989, Dhaka.* Presented at the Architectural Conservation Workshop, Karachi, Pakistan, under the Aga Khan Foundation for Architecture

1989 Dec *Role of District Hospitals in Bangladesh.* PROTIBESH, Journal of the Department of Architecture, BUET, Dhaka, Bangladesh

1989 June *Evaluation of District Hospitals in Bangladesh.* PROTIBESH, Journal of the Department of Architecture, BUET, Dhaka, Bangladesh

### Professional Organizations:

Member of the Institute of Architects Bangladesh (IAB)

Member of the Saudi Al Omran Society

### Selected Awards:

1972 Department of Architecture, Bangladesh University of Engineering & Technology, **Ahsanur Rahman Award** for excellence in design for best fifth year terminal project

1976-1978 Katholiek Universiteit, Leuven, Belgium, **Inter-Faculty Scholarship** for M.Arch studies

1984-1988 Katholiek Universiteit, Leuven, Belgium, **Inter-Faculty Scholarship** for PhD in Architecture

1990 Jan **British Council Visitor Fellowship** to the Building Research Station, Watford, UK & Architectural Association School of Architecture, London, UK

## Faculty Resumes

Department of Architecture, University of Dammam

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### **GAMAL ELDIN AHMED ABDELGHANY**

**Courses Taught:** (Two academic years prior to 2012):

Design III & IV

Design V & VI

**Educational Credentials:**

1990 **Ph.D.** in Architecture, Faculty of Fine Arts, Alexandria University.

1986 **M.Sc.** in Architecture, Faculty of Fine Arts Alexandria, Helwan University.

1979 **B.Sc.** in Architecture, Faculty of Fine Arts Alexandria, Helwan University.

**Teaching Experience:**

2004-present **Associate Professor**, Department of Architecture, Dammam University.

1997-2004 **Associate Professor**, Fine Arts, Alexandria University, Egypt.

1990-1997 **Assistant Professor**, Fine Arts, Alexandria University. Egypt.

1986-1990 **Lecturer**, Fine Arts, Helwan University. Egypt.

**Professional Experience:**

2009 Technical management for Tawaf area of the Holy Mosque in Makkah.

1979 Member of Syndicate of Engineers, Building Division

1979 Member of the Fine Artists Association, Division of Photography.

1993 Founding member of the consulting group (Dar-Elbenaa) in Alexandria.

1995 The degree of a consulting architect of the Engineers Association

1997 Presidency of the Association of Housing Association.

1984 Member of the Heritage Conservation Commission - a comprehensive plan for Alexandria.

**Selected Publications and Research:**

2001 *'Design Criteria for Models of sculpture within the Squares'* Third Scientific Conference, Faculty of Fine Arts, Helwan University.

2001 *'Conservation strategies and platforms for re-employment of the traditional components'* Eleventh Annual meeting, Saudi Society for Science, Dammam.

**Licenses/Registration:**

1979. Egypt Engineers Syndicate

**Professional Memberships:**

1979 **Member**, Syndicate of Engineers, Building Division

1979 **Member**, Fine Artists Association, Division of Photography

2000 Saudi Arabia Sciences Construction Committee - Dammam

## Faculty Resumes

Department of Architecture, University of Dammam

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### **BHZAD SIDAWI**

Associate Professor

**Courses taught:** (Two academic years prior to June, 2012)

Arch CAD I& II

Contract Documents and Working Drawings

Design I & II, III & IV, V & VI

Building technology Design Studio 4<sup>th</sup> year

### **Educational credentials:**

2004 **Ph.D.** Cardiff University, Welsh School of Architecture, Cardiff, UK

1997 **M. Phil.** University of Bath, School of Architecture, Bath, UK

1982 **B.Sc.** University of Damascus, Faculty of Architecture and Planning, Damascus, Syria

1998 Further and Adults Teaching Course certificate, City of Bath College, Bath, UK

### **Teaching Experience:**

2011-present **Associate Professor**, College of Architecture, University of Dammam

2006-2011 **Assistant Professor**, College of Architecture, University of Dammam

1998. **Lecturer**, City of Bath College, UK

1990-1992. **Instructor**, Ibn Al Haithaim, private institute, Damascus, Syria

### **Professional Experience:**

2005-2006 Architectural technician, Tutlow King architects, Bristol, UK

2004-2005 Architectural designer, ADS, Bath, UK

2003-2004 CAD consultant, Brooks chartered surveyors, Bath, UK

2001-2003 Architectural technician, Westlea Housing association, Chippenham; McCarthy & Stone, Almondsbury business park, Bristol, UK

1998-2000 CAD technician, J. K. Developments LTD, Calne; Westbury Homes and Mason Richards partnership, AztecWest, UK

### **Selected publications and research:**

2012. Sidawi, B., the possible role of CAAD systems in initiating innovation in the design studio, *the proceedings of 6<sup>th</sup> ASCAAD 2012 conference*, Manama, Bahrain

2011. Sidawi, B., Potential use of communications and project management systems in remote construction projects: the case of Saudi Electric Company, *the Journal of Engineering, Project, and Production Management (EPPM)*, Association of Engineering, Project, and Production Management (EPPM), Pingtung, Taiwan

2011. Bhzad Sidawi and Sheikh Meeran, A framework for providing finance for the purchase of affordable housing dwellings in the Kingdom of Saudi Arabia, *Cities*, EMERALD

2011. Sidawi, B, Initiating innovation in the design studio: Mission Impossible! *the 12th International Conference on Quality in Research (QiR 2011)*, 4 to 7 July 2011, Bali, Indonesia

### **Licensure/ registration:**

Registered Architect, Syrian Engineers' Commission, Syria (1982-present)

### **Professional organizations:**

Syrian Engineers' Commission, Syria

Royal Institute of British Architects (RIBA), UK (Guest membership)

Arab Society of Computer Aided Architectural Design ASCAAD (Board of directors)

AHRA- Architectural Humanities Research Association, UK

### **Selected awards/honors:**

2010 & 2012 ASCAAD, Appreciation Certificates

2010 Eastern province Emirates, the Prince's office, appreciation certificate

2009 University of Bahrain, appreciation certificates

2007-2009 King Faisal University, appreciation certificates and Ideal teacher certificate



## Faculty Resumes

Department of Architecture, University of Dammam

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### **YOUSEF NASSER AL-OHALI**

Assistant Professor

**Courses Taught:** (Two academic years prior to June, 2012)

Design III & IV

Design IX & IX

Urbanization and Housing in the Context of Saudi Arabia (Elective)

Research & Programming

Design Methods I

History and Theory I

Issues in Urban Design.

### **Educational Credentials:**

1983 **M. Sc.** in Architectural Studies. M.I.T. Cambridge, Massachusetts, U.S.A.

1978 **B. Arch.**, Riyadh University, (King Saud University) Saudi Arabia.

### **Professional Experience:**

1986-present **Assistant Professor**, Department of Architecture, University of Dammam

1983-1985 **Lecturer**, Department of Architecture, King Faisal University, Dammam

### **Selected Publications and Research:**

2007 *A detailed study and a comprehensive urban design development study of the old part of the city center.* Restoration of commercial and entertainment activity. Onaizah Governorate.

2008 *Detailed study of the historic Palace of Mizanah Al Matrudi, the historic Al Ain Palace, as well as development of the village as magnet for tourist,* Onaizah Governorate.

1978 World Conference – Housing - State of Mexico. Mexico.

1985 Workshop - Housing King Fahd University of Petroleum and Minerals. Dhahran.

2007 International Conference on Engineering and Sustainability and 2009, Pittsburgh, Pennsylvania.

**Licensure/Registration:** None.

**Professional Organization:** None.

### **Selected Awards/Honors:**

2011 Best Faculty Awards, Department of Architecture, University of Dammam

2010 Shortlist in the world Architecture Festival. Barcelona, Spain

## Faculty Resumes

Department of Architecture, University of Dammam

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### **MOHAMMAD SULAIMAN MOHAMMAD AL-MANSOUR**

Assistant Professor

**Courses Taught:** (Two academic years prior to June, 2012)

Design III & IV

Design IX & X

Design Methods I

Research & Programming

#### **Educational Credentials:**

1981 **M. Arch.** University of Tulane, New Orleans, USA

1978 **B. Arch.** King Saud University, Riyadh, Saudi Arabia

#### **Teaching Experience:**

1985–present **Assistant Professor**, Department of Architecture, University of Dammam

1982-1985 **Lecturer**, Department of Architecture, King Faisal University, KSA

#### **Professional Experience:**

2002–Present Chairman, Department of Architecture, University of Dammam.

1997-1999 Dean, College of Architecture and Planning, KFU

1996-1997 Vice Dean, Academic Affairs, College of Architecture and Planning, KFU

1983-1985 Vice Dean, Administrative Affairs, College of Architecture and Planning, KFU

1982-1983 Vice Dean, Student Administration, KFU

**Selected Publications and Research:** None

**Licensure / Registration:** None

#### **Professional Organizations:**

1989 Member of the Al-Omran Society, Eastern province Chapter

## Faculty Resumes

Department of Architecture, University of Dammam

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### **HASSAN MOTEA AL-NAKHLI**

Assistant Professor

**Courses Taught:** (Two academic years prior to June, 2012)

Basic Design I&II, Design III & IV, Design V & VI, and Design VII,  
Design Methods I&III

Energy and Form in Architecture.

### **Educational Credentials:**

1994 **Ph.D.** University of Sheffield, U.K.

1984 **M.Arch.** Tulane University, Louisiana, USA.

1980 **B.Arch,** King Faisal University, Dammam.

### **Teaching Experience:**

1994-present **Asst. Professor**, Department of Architecture, University of Dammam

1984-94 **Lecturer**, Department of Architecture, King Faisal University

### **Professional Experience:**

1994-1995 Member in Academic Committee

1996-1999 Chairman of Academic Committee

2000 Member, Development Committee for the Document Center

2000 Member, Annual Report Committee

2004-2010 Chairman of Design Committee

**Selected Publication and Research:** None

### **Selected Awards/Honors**

1998 Appreciation Certificate from the Deanship of Student Affairs.

### **Professional Organizations:**

2002 Member, Saudi Society for Architectural Science

1997-2009 Member in ACI-Saudi Arabia Section

## Faculty Resumes

Department of Architecture, University of Dammam

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### **IBRAHIM MUBARAK AL-NAIMI,**

Assistant Professor

#### **Courses Taught:** (Two academic years prior to June, 2012)

Design V & VI

Design IX & X

Environmental Control System I

Environmental Control System II

Research & programming

Energy & form (Elective)

Climate & Architecture (Elective)

#### **Educational Credentials:**

1990 **Ph.D.** University of Newcastle upon Tyne, Newcastle upon Tyne, UK

1985 **M.Arch.** University of Arizona, Tucson, USA

1981 **B.Arch.** King Faisal University, Dammam, KSA

#### **Teaching Experience:**

1990–present **Assistant Professor**, Department of Architecture, University of Dammam

1985- 1986 **Lecturer**, Department of Architecture, King Faisal University, KSA

#### **Professional Experience:**

2002–present Chairman, Department of Architecture, University of Dammam.

1998-2002 Coordinator For The Students' Senior Projects

1994-1997 President, Al-Omran Saudi Association, Eastern Province Chapter.

1993-1995 Vice Dean, Deanship of Students Affairs

1993-1995 Chairman, College Solar Energy Committee

1990-1992 Vice Dean for Academic Affairs, College of Architecture and Planning, KFU

#### **Selected Publications and Research:**

2006, *"Developing an Efficient Presentation Techniques in the Era of Computers, The Changing Trends in Architectural Design Education: Sharing Experiences and Building Partnerships across the Mediterranean Rim*, 14-16 November, Rabat, Morocco.

2004, *"Evaluating the Use of Computer in Senior Design Studios at the Architectural Department, College of Architecture And Planning, King Faisal University, Saudi Arabia."*, Journal of Engineering Sciences, Volume 32- No.2 April, 2004, Faculty of Engineering- University of Assiut, Egypt.

2000, *"The Impact On the Traditional Cooling Systems By the Contemporary Buildings Due To the Rapid Urbanization In the Arabian Gulf Regions"*, *AIMa'thurat Alsha'biyyah Journal*, issue No.57 January, Doha, Qatar

1990, *"The Development Of a Simple Model For Predicting The Energy Consumption Of Houses In Hot Maritime Climate"*, The International Symposium on Energy, Moisture And Climate In Buildings, 3-6 September 1990, Rotterdam, Netherlands.

#### **Licensure / Registration: None**

#### **Professional Organizations:**

1992 American Solar Energy Society

1989 Member of the Al-Omran Society, Eastern Province Chapter

2011 member, Saudi Engineering Committee,

## Faculty Resumes

Department of Architecture, University of Dammam

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### **MOHAMMED AHMED HELAL HAPALLAS**

Assistant Professor

**Courses Taught:** (Two academic years prior to June, 2012)

Design III & IV

Design V & VI,

Design VII & VIII

Advanced Design Methods

Contemporary Issues

### **Educational Credentials:**

1978 **M.Arch.** University of Colorado, Denver, USA

1983 **B.Arch.** King Faisal University, Dammam, KSA

### **Teaching Experience:**

1993-Present **Assistant Professor**, Department of Architecture, University of Dammam

1987-1993. **Lecturer**, Department of Architecture, King Faisal University, Dammam

### **Professional Experience:**

2006-present. Design Studios 3,4,5,6 coordinator

2010-2011 Design Team member of Mataaf increasing capacity, Makkah Holy Mosque

2008-2009 Design Team member of the Mataaf Handicapped way, Makkah Holy Mosque 1995-

2007 Private projects design Consultant Residential projects. Eastern Province, KSA

### **Publications:**

2012. نماذج تطبيقية للتعليم المعماري الإلكتروني. (تحت النشر بمجلة جامعة الأزهر، مصر.

2011. Conservation of Urban heritage in the kingdom of Saudi Arabia, King Faisal University Scientific Magazine (sent for publication)

1992. The Use of Daylight in the Office Buildings in Saudi Arabia, CIBSE National Lighting Conference

### **Selected Publications and Recent Research:**

2011 April - Wind Energy conference. Wellington, New Zealand,

2008 -09 The Arabic Universities (Challenge & Motivation). Marrakesh, Morocco

2008 - 26<sup>th</sup>. International Commission of Lighting Conference. College of Architecture, Quebec, Canada, Organizer: International Building Performance Simulation Association.

2006 - Different Directions of Architectural Design Learning. Rabat, Morocco

2005 - Architectural courses teaching strategies. Boston, United States of America

2000 - Arabic Countries Architectural Building Symposium in the Law, Planning and administration. Rabat, Morocco

2000 - Architecture and engineering teaching strategies symposium. College of Engineering, King Abdul-Aziz University, Jeddah, Saudi Arabia

1999 - New Cities Symposium in the Arabic Countries and its role in the Sustainable, Development, Agadeer, Morocco

1998 - The Cultural of the Local Architecture in the Teaching Process. King Saud University, Riyadh, Saudi Arabia

**Licensure / Registration: None**

### **Professional Organizations:**

Member of the Al-Omran Society, Eastern Province Chapter

## Faculty Resumes

Department of Architecture, University of Dammam

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### **SAMEER A. AKBAR**

Assistant Professor

#### **Courses Taught:** (Two academic years prior to June, 2012)

Design VII & VIII

Humanities I

Humanities II

Contemporary Issues in Architecture

Behavioral Factors in Architecture (Elective)

#### **Educational Credentials:**

1998 **Ph.D.** University of New Castle, UK

1990 **M.Arch.** Washington University, St. Louis, MO, USA

1990 **Master of Social Work.** Washington University, St. Louis, MO, USA

1985 **B.Arch.** King Faisal University, Dammam, KSA

#### **Teaching Experience:**

1998-Present Assistant Professor, Department of Architecture, University of Dammam

1990-1993. Lecturer, Department of Architecture, King Faisal University, Dammam

#### **Professional Experience:**

2008-2009 Vice President, Project Development at Nomou Properties.

2008-2008 Acting CEO, Alhakmiah Real Estate Development

2004-2008 Vice President, Business Development, Aloula Real Estate Development

#### **Selected Publications and Recent Research:**

2006 "Urban Dynamics in Saudi Arabia: Lessons for the Future" A lecture delivered in "Real Estate Investments in the Middle East Forum" organized by Fleming Gulf Conferences.

2005 "Cultural Aspects and Real Estate In the Gulf" A lecture delivered in "Opportunities for Real Estate Development in the GCC" conference, organized by Jacob Fleming Group, Dubai,

2004 "Real Estate in the Gulf: Bridging the Gap" A lecture delivered in Cityscape Conference, Dubai.

2001 "Dialectics of Meaning & Function in the Interiors of the Traditional and Modern Built Environment, Jeddah, Saudi Arabia" A lecture delivered in 11<sup>th</sup> annual conference of Saudi Society of the Built Environment Science.

**Licenses/Registration:** None

#### **Professional Memberships:**

Al-Omran Scientific Society

## Faculty Resumes

Department of Architecture, University of Dammam

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### **ABED ABDULLAH M. AL-MUSALLAM**

Assistant Professor

#### **Courses Taught:** (Two academic years prior to June, 2012)

Design V & VI  
Construction Materials  
Project Management  
Contract Documents  
Buildings Conservation & Preservation  
Research & Programming  
Contract Documents & Specifications (Grad)  
Master Thesis advising and jury (Grad)

#### **Educational Credentials:**

2002 **Ph.D.** in Construction Management, Illinois Institute of Technology, Chicago, USA  
1995 **M.Arch** King Faisal University (KFU), Dammam, KSA  
1988 **B.Arch.** King Faisal University (KFU), Dammam, KSA

#### **Teaching Experience:**

2002-present **Assistant Professor**, Department of Architecture, University of Dammam (UD), KSA  
1995-2002 **Lecturer**, Department of Architecture, King Faisal University (KFU), Dammam, KSA

#### **Professional Experience:**

2010-Present. Vice-Dean for Academic Affairs of Preparatory Year and Support Studies, UD, KSA  
2005-2009 Vice-Dean of Students Affairs for Activities, KFU, Dammam, KSA  
2005-2009 Vice-President of Students Financial Box, KFU, Dammam and Al-Hasa, KSA  
1999-2002 Research Assist, College of Architecture, IIT, Chicago, USA

#### **Research & Publications:**

2011 "*Re-engineering Design Package Approval Process at Mega firms*", Master Thesis supervisor,  
2005 "*Primary Studies For Determining The Needy Houses for Re-Habitation in Dammam*", Field-study Prince Abdullah Charitable Society, KSA  
2002 "*A Web-Based Approach for Coordinating Architectural Drawings with Other Construction Documents*", unpublished Ph.D. dissertation, IIT, Chicago, USA

#### **Professional Organizations:**

Al-Omran Scientific Society, KSA

#### **Conferences / Short-courses:**

Nov 2011 Teaching, Learning and Assessment Strategies at Institutional & Program Levels, w shop, NCAAA and British Council, Jeddah, KSA.  
Jun 2011 Introduction in iTWO and 5D, (Training Course), RIB Software AG, Stuttgart, Germany,  
Mar 2011 Qualifying Requirement for Institutional and Program Accreditation, w-shop, NCAAA and British Council, Jeddah, KSA.  
Jan 2011 Program & Course Documentation" (Seminar), UD & Monash University, Dammam, KSA.  
Jun 2010 Creative Teaching and Learning, 2010 STLHE Confer, Ryerson University, Toronto, Canada  
Jun 2010 Project Management Professional Exam Preparation, UD and PMI House, Al-Khobar, KSA  
Jul 2009 Summer Institute in Sustainability, Continuing Studies, UBC, Vancouver, Canada  
Mar 2009 Planning and Monitoring Academic Student Counseling and Other Services, w-shop, NCAAA and British Council, Dammam, KSA

## Faculty Resumes

Department of Architecture, University of Dammam

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### **HAZEM MOHAMED NOUR AFIFY**

Assistant Professor

**Courses Taught:** (Two academic years prior to June, 2012)

Design V & VI

Contract Document & Working Drawing

CAD Application

Advanced CAD & GIS applications

Lightweight Architecture

### **Educational Credentials:**

1999 **Ph.D.** Stuttgart University, Germany,

1991 **M.Sc.** Ain Shams University, Egypt

1986 **B.Sc.**, Helwan University, Egypt

### **Teaching Experience:**

2005–2009 **Assistant Professor**, Department of Architecture, University of Dammam

2004–2005 **Associate Professor**, Department of Architecture, Monofieya University, Egypt

1999–2004 **Assistant Professor**, Department of Architecture, Monofieya University, Egypt

### **Professional Experience:**

1987-1992 Designer in many architectural offices in Cairo.

1993-1996, Project Architect in Architektur & mbient and GUS Architekten, Stuttgart

1997-1999 Researcher, Institute of Spatial Conception and Design - Stuttgart University

2000-2005 Designing and supervising a number of projects through the Private Office and

Engineering Consulting Center, Minofiya University.

2008 Competition “increasing the capacity of Tawaf area of the Holy Mosque in Makkah”- (First Place)

2008-2009. Technical management for developing the proposal of increasing the capacity of the Tawaf area of the Holy Mosque in Makkah

### **Selected Publications and Research:**

*Developing The Performance Of Lightweight Façade Facing Units In Affordable Housing*, The Second Symposium of Charitable and Affordable Housing in Saudi Arabia, Al Khober April, 2008  
*Advanced Digital Manufacturing Techniques (CAM) in Architecture*, 3rd International Conference of the Arab Society for Computer Aided Architectural Design ASCAAD 2007, Alexandria, Nov. 2007

### **Licenses/Registration:**

Egypt Engineers Syndicate (1986)

### **Professional Memberships:**

Egyptian Architectural assemblage



## Faculty Resumes

Department of Architecture, University of Dammam

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### MOHAMMED ALHEFNAWY

Assistant Professor

**Course Taught:** (Two academic years prior to June, 2012)

Housing Studio, Urban Design Studio

Special Topics in Sustainability

Environmental Control System I

### Educational Credentials:

2003 **Ph.D.** in Architecture, Tanta University, Egypt.

1996 **M.Sc.** in Environmental Studies, Alexandria University, Egypt.

1991 **B.Sc.** in Architectural Engineering, Alexandria University, Egypt.

### Teaching Experience:

2008-present. **Assistant Professor**, Department of Architecture, University of Dammam, KSA

2003-2012. **Assistant Professor**, Faculty of Engineering, Tanta University, Egypt

2000-2002. **Visiting Scholar**, School of Architecture & Planning, SUNY at Buffalo, USA

1996-2003. **Lecturer**, Faculty of Engineering, Tanta University, Egypt

### Professional Experience:

2010-present. BREEAM Specialist, ET Environmental Trend Consulting Office, Alexandria

2006. Senior Architect, Zuhair Fayes Partners, Cairo

2005. Senior Architect, Gulf Architecture Consulting Office, Cairo

2003-2004. Consultant, Educational Hospital Building, Tanta University

1997-1998. Project Architect, Haggag Consulting Office, Alexandria

1992-1996. Project Architect, Aldarweesh Consulting Office, Alexandria

1991-1992. Architect, Hassan Ezzat Consulting Office, Alexandria

### Selected Publications and Research:

2012. *"Energy Saving: A Practical Guide in the Urban Environment"* PRESCO, Hiroshima, Japan

2011. *"Environmental Threats and Responsive Policies in the Arab States"* SB11 Conference, Helsinki

2011. *"Assessing Sustainability of a Commercial Building: A LEED Approach"* King Abdulaziz University Journal of Environmental Design

2010. *"Techniques of Energy Savings in the Sustainable Urban Built Environment"* ICEBO 2010, Kuwait

2007. *"A Practical Guide for School Building Maintenance"* Assuit University Bulletin for environmental Researches, Vol. 10. No. 1

2007. *"Life Cycle assessment Tools for Maintenance Management and Resource Conservation"* Assuit University Bulletin for environmental Researches, Vol. 10. No. 1

2004. *"Materials for Sustainable Construction: Concrete and Masonry"* Mansoura Engineering Journal. Vol. 29. No. 2

2004. *"Life-Cycle Assessment Technique for Materials Management and Resources Conservation: Materials of Building Maintenance"*, 3rd International Operation and Maintenance Conference in the Arab Countries (Omaintec), Beirut

2004. *"High Performance Buildings: Meaning, Benefits, and the Pathway Towards them"* 2nd International Conference for Development and Environment in the Arab World, Assiut University

1996. *"The Impacts of Squatter Areas upon Urban Environment: A Case Study of Alexandria City"* the Scientific Journal of the School of Architecture, Vol. 10, Beirut Arab University

### Selected Awards/Honors

2000. King Faisal Foundation Prize for Arab researchers to study the Ph.D. in USA

1986. Honor Role Certificate for the first rank of high school certificate in Egypt.

## Faculty Resumes

Department of Architecture, University of Dammam

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### **MOSTAFA M. EL-KHOLY**

Assistant Professor

#### **Courses Taught:** (Two academic years prior to 2012)

Design III

Design VII

Design IX

Design Method

History & Theory II

#### **Educational Credentials:**

1996 **Ph.D.** Ain Shams University, Egypt ,

1989 **M.Sc.** Zagaziek University, Egypt ,

1977 **B.Sc.** Ain Shams University, Egypt,

#### **Teaching Experience:**

2006–present **Assistant Professor**, Department of Architecture, University of Dammam

2000–2006 **Associate Professor**, Architecture Department, University of Banha, Egypt,

1999-2000 **Assistant Professor**, Architecture Department, United Arab Emirates University

1996–1999 **Assistant Professor**, Architecture Department, University of Banha. Egypt

#### **Professional Experience:**

2009-2010 1<sup>st</sup> price Tawaf Makka-Haram Competition - Dammam University

2008 5<sup>th</sup> price Waqf – King Abdulla, Medina-Monawara Competition - Dammam University

2007 Conceptual proposal image for Tiera island UAE Ras-Elkhaima Dimensions office

2005- 2006 King Saud University Girls Campus, Girls Campus Al -Qassiem University and El-Goof Campus University. Mohamed Alsabeg For Study & Consulting Engineering

2002 – 2004 5<sup>th</sup> price ABHA Campus University - Competition.

1<sup>st</sup> price King Saud University for Girls - Competition.

2<sup>nd</sup> price El-Goof Campus University - Competition.

#### **Selected Publications and Research:**

2003. Urban Design Vision for using Fences "*Prefabricated units as Economic and Esthetic Constrains*" AL- Azhar Engineering 7<sup>th</sup> International Conference, Cairo,

2003 *Egypt Identity of Urban Spaces for national Festival Projects in Egypt*, AL- Azhar Engineering 7<sup>th</sup> International Conference, Cairo, Egypt.

2004 *Sustainable Architecture & Urban Development*, Faculty of Engineering, Cairo University, Cairo, Egypt.

#### **Licenses/Registration:**

Egypt Engineers Syndicate (1977)

#### **Professional Memberships:**

Egyptian Architectural Assemblage

## Faculty Resumes

Department of Architecture, University of Dammam

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### **YASSER AHMED FARGHALY**

Assistant Professor

#### **Course Taught:**

Basic Design Studio 1

Basic Design Studio 2

#### **Educational Credentials:**

2005 **Ph.D.** Department of Architecture, Faculty of Fine Arts, Alexandria University.

2001 **M.A.** Department of Architecture, Faculty of Fine Arts, Alexandria University.

1996 **B.Sc.** Department of Architecture, Faculty of Fine Arts, Alexandria University.

#### **Teaching Experience:**

2009-present **Assistant professor**, Department of Architecture, University of Dammam.

2005-2009 **Assistant professor**, Architectural Eng. & Environmental Design department, College of Engineering & Technology, Arab Academy for Science & Technology, Alexandria.

2001-2005 **Lecturer**, Architectural Engineering & Environmental Design Department, College of Engineering & Technology, Arab Academy for Science & Technology, Alexandria.

#### **Professional Experience:**

2011-present, Secretary of Educational development Unit, College of Architecture and Planning, University of Dammam.

2010-present, Basic Design Courses Coordinator, Deanship of preparatory year and supporting studies, University of Dammam.

2002-2005, Arts Center, Bibliotheca Alexandria.

#### **Selected Publications and Research:**

2008 *“Environmental Hazards in the Arabian Villages and Means of Treatment”*, Symposium on disasters management & safety of buildings in Arab countries, Riyadh.

2009 *“Using smart materials to reduce energy consumption in buildings”*, Ascee-3-Third Ain Shams International Conference on Environmental Engineering. Ain Shams University, Cairo.

2009 *“Rebuilding the Desert: A New Ecological Vision for the Desert Environment”*, Archcairo the 5th International Conference: Towards A New Architectural Vision New Glasses: Presentation and Representation, Cairo.

2010 *“Building The Culture Of Comprehensive E-Services Through The Determination Of Responsibility Levels In Architectural Education”*, The Fifth eServices Symposium of the Eastern Province: Comprehensive eServices: Successes and Challenges, Khobar.

#### **Licensure/Registration:**

1996, Member of the Egyptian Engineers Syndicate.

#### **Professional Organizations:**

Arts Center, Bibliotheca Alexandria.

#### **Selected Awards/Honors:**

2006, first position in the architectural competition of a” Residential – Commercial Complex “at the 10th of Ramadan City.

2008, Rotary Award, for a series of public speeches.

2008, Second position in the Egyptian Schools Competition – Port Said model.

## Faculty Resumes

Department of Architecture, University of Dammam

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### **MOHAMED RAHAL**

Assistant Professor

#### **Courses taught:**

Concept of Structure.

Structure I

Structure II

#### **Educational credentials:**

1994. **Ph.D.**, Civil Engineering, Moscow State University, USSR

1987. **M.Sc.**, Faculty of Engineering, Alexandria University, Egypt.

1980. **B.Sc.**, Faculty of Engineering, Alexandria University, Egypt.

#### **Teaching Experience:**

2000-present **Assistant Professor**, Department of Architecture ,University of Dammam.

1980-1987 **Instructor**, Structural Engineering Department, Alexandria University, Egypt.

#### **Professional Experience:**

1980-1990 Design engineer, The Consulting Civil Engineering Office (EKR), Egypt.

1995-2000 Head of design Sector, The African Consultant Office (ACO), Egypt.

#### **Selected publications and research:**

2009. Mohamed Rahal, Egal Aljofi, Mohamed Abdelnaby, *Determination of Basic Wind Pressure for Structural Design in Saudi Arabia.*, Journal of the Gulf and Arabian Peninsula Studies– No. 134 – Vol. 35 July 2009.

2000, Mohie Shukry, Mohamed Rahal, Tarek Ebeido, *Analysis of Reinforced Concrete Pile Caps By The Finite Element Method*, Alexandria Engineering Journal Vol. 39, No. 3, 2000.

2000, Mohie Shukry, Mohamed Rahal, Gehad Rasad, *Effect of Beam Stiffness on Behavior of Reinforced Concrete Slabs*, Alexandria Engineering Journal, Vol. 39, No. 1, 2000.

1997, Dr. Korish, Dr. Helmy Dr. Rahal, *The Behavior of Ribbed Slab Under Linear Load*, Third Alexandria Conference on Structural and Geotechnical Engineering, 1997.

1990, Dr. Korish, Dr. Helmy Dr. Rahal, *Strength and Behavior of the Joints in Tied-Frame*, Alexandria Engineering Journal, Vol. 29, No. 3, July 1990.

#### **Licensure/ registration:**

Registered Consultant Engineer, Egyptian Engineers' Commission, Egypt (1980-present)

#### **Professional organizations:**

Egyptian Engineers' Commission, Egypt.

**Selected awards/honors:** None

## Faculty Resumes

Department of Architecture, University of Dammam

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### **MOHAMED FAKHRY FOUAD HUSSEIN**

Lecturer

#### **Courses Taught:** (in the past 2 years)

Design I & II

Design III & IV

CAD Applications

CAD & GIS Applications

Computer Modeling

Architectural Computer Graphic

#### **Educational Credentials:**

2005 **B.Arch.** Alexandria University,

2008 **M.S.** Alexandria University,

#### **Teaching Experience:**

2010–present: **Lecturer**, Department of Architecture, Dammam University

2009–2010. Lecturer, Arabic Education and training group,

#### **Professional Experience:**

2006-2007. Junior Architect - Dr. Magdy Moussa for Urban Studies office, Alexandria

2009. Architect - Dar Al Dowailah-Engineering Consultants and Construction Managers, Kuwait,

1988–1991 Intern, Smith, Howard, and Johnson, Phoenix,

1992–2010 Project Architect, Gensler, Chicago,

#### **Licenses/Registration:**

Egypt

Kuwait

## Faculty Resumes

Department of Architecture, University of Dammam

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Following Faculties are on **study leave** for post-graduate studies or on **deputation** to Ministry of Higher Education (MOHE)

Professors;

2011-present **MASHARY AL-NAIM** (Royal Commission on Historic Conservation and Tourism)

2010-present **HANI AL-JAWAHRA** (University of Dammam, Post Graduate Studies and Scientific Research)

Lecturers;

2009-present **BADRAN MASOUD AL-ZUNAIFER** (Ph.D. candidate, University of Cardiff, UK)

2010-present **SAIF AL-SAIF**, (Ph.D. candidate, University of Dammam)