



**Course Specifications:  
ARE7424 – Project**



**1. Basic Information**

<b>Program Title</b>	Architectural Engineering
<b>Department offering the Program</b>	Architectural Engineering
<b>Department Responsible for the Course</b>	Architectural Engineering
<b>Course Title</b>	Project
<b>Course Code</b>	ARE7424
<b>Year/ Level</b>	Fourth Year – Second Term
<b>Specialization</b>	Major
<b>Authorization date of course specification</b>	2005

<b>Teaching Hours</b>	Lectures	Tutorial	Practical
	4	10	0

**2. Course Attributes:**

No.	Attribute
02	Design a system; component and process to meet the required needs within realistic constraints.
05	Use the techniques, skills, and appropriate engineering tools, necessary for engineering practice and project management.
06	Work effectively within multi-disciplinary teams.
08	Consider the impacts of engineering solutions on society & environment.
11	Engage in self- and life- long learning.
12	Design robust architectural projects with creativity and technical mastery.
15	Demonstrate knowledge of cultural diversity, differences and the impact of a building on community character and identity.
16	Address urban issues, planning, and community needs through design work.
17	Recognize the new role of architectural engineer as the leader of design projects— who has the ability to understand, assemble, and coordinate all of the disciplines— to create a sustainable environment.

**3. Intended Learning Outcomes (ILOs):**

**a. Knowledge and Understanding:**

No.	Knowledge and Understanding
A <sub>07</sub>	Quality assurance systems, codes of practice and standards, health and safety requirements and environmental issues.
A <sub>08</sub>	Current engineering technologies as related to disciplines.
A <sub>18</sub>	The significance of urban spaces and the interaction between human behavior, built environment and natural environment.
A <sub>20</sub>	Physical modeling, multi-dimensional visualization, multimedia applications, and computer-aided design.
A <sub>21</sub>	The role of the architecture profession relative to the construction industry and the overlapping interests of organizations representing the built



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	environment.
A <sub>23</sub>	Principles of sustainable design, climatic considerations, and energy consumption and efficiency in buildings and their impacts on the environment.

**b. Intellectual Skills**

<b>No.</b>	<b>Intellectual Skills</b>
B <sub>03</sub>	Think in a creative and innovative way in problem solving and design.
B <sub>04</sub>	Combine, exchange, and assess different ideas, views, and knowledge from a range of sources.
B <sub>10</sub>	Incorporate economic, societal, environmental dimensions and risk management in design.
B <sub>13</sub>	Integrate different forms of knowledge, ideas from other disciplines, and manage information retrieval to create new solutions.
B <sub>17</sub>	Integrate relationship of structure, building materials, and construction elements into design process.
B <sub>18</sub>	Integrate community design parameters into design projects.
B <sub>19</sub>	Appraise the spatial, aesthetic, technical and social qualities of a design within the scope and scale of a wider environment.
B <sub>20</sub>	Discuss, search and formulate informed opinions appropriate to specific context and circumstances affecting architecture profession & practice.
B <sub>21</sub>	Analyze the range of patterns and traditions that have shaped and sustained cultures and the way that they can inform design process.

**c. Professional Skills**

<b>No.</b>	<b>Professional Skills</b>
C <sub>02</sub>	Professionally merge the engineering knowledge, understanding, and feedback to improve design, products and/or services.
C <sub>09</sub>	Demonstrate basic organizational and project management skills.
C <sub>10</sub>	Apply quality assurance procedures and follow codes and standards.
C <sub>11</sub>	Exchange knowledge and skills with engineering community and industry.
C <sub>13</sub>	Produce and present architectural, urban design, and planning projects using an appropriate range of media and design-based software.
C <sub>17</sub>	Demonstrate professional competence in developing innovative and appropriate solutions of architectural and urban problems.
C <sub>18</sub>	Display imagination and creativity.
C <sub>19</sub>	Respect all alternative solutions; changes in original plan of the project, differences in style, culture, experience and treat others with respect.
C <sub>20</sub>	Provide leadership and education to the client particularly with reference to sustainable design principles.
C <sub>21</sub>	Respond effectively to the broad constituency of interests with consideration of social and ethical concerns.
C <sub>22</sub>	Contribute positively to the aesthetic, architecture and urban identity, and cultural life of the community.



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d. General Skills

No.	General Skills
D <sub>01</sub>	Collaborate effectively within multidisciplinary team.
D <sub>02</sub>	Work in stressful environment and within constraints.
D <sub>03</sub>	Communicate effectively.
D <sub>04</sub>	Demonstrate efficient IT capabilities.
D <sub>05</sub>	Lead and motivate individuals.
D <sub>06</sub>	Manage tasks and resources efficiently.
D <sub>07</sub>	Search for information and adopt life-long self learning.
D <sub>08</sub>	Acquire entrepreneurial skills.
D <sub>09</sub>	Refer to relevant literature effectively.

4. Course Contents:

No.	Topics
1	الدراسات التمهيدية للبرنامج الوظيفي للمشروع
2	الدراسات العمرانية الخاصة بموقع المشروع المقترح
3	دراسة وتحليل النظريات المعمارية المتعلقة بموضوع المشروع
4	الدراسات البيئية الخاصة بالموقع
5	دراسة الفكر الوظيفي والتشكيلي لعناصر المشروع
6	تقييم الأداء الوظيفي والتشكيلي لبدائل الفكر التصميمي للمشروع
7	مرحلة عرض المشروع في صورة رسومات معمارية ودراسات ومجسمات وعرض رقمي للمناقشة

5. Teaching and Learning Methods:

5.1 Normal Students:

No.	Teaching Method	Choice
1	Lectures	√
2	Discussion Sessions	√
3	Information Collection from Different Sources	√
4	Practical	√
5	Research Assignment	√
6	Field Visits	√
7	Case Studies	√
8	Smart Sessions	√

5.2 Disable Students:

No.	Teaching Method	Reason
1	Presentation of the course in digital material.	Better access any time.
2	Web communication with students	Better communication with certain cases.
3	Asking small groups to do assignments; each	Knowledge and skills



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	composed of low, medium, and high performance students.	transfer among different levels of students.
<b>4</b>	Asking disabled students to do PowerPoint/Poster presentations.	Encouraging disabled students' engagement and interaction.

**5.3 Excellent Students:**

No.	Teaching Method	Reason
<b>1</b>	Developing course materials gradually to allow excellent students to receive teaching that meets their needs	Excellent students rely on excellent teaching
<b>2</b>	Encouraging students to participate in competitions with rewarded bonus marks.	Increasing excellent students' competitiveness

**6. Student Assessment:**

**6.1 Student Assessment Methods:**

No.	Assessment Method	Choice	ILOs
<b>1</b>	Mid Term Examination	√	-
<b>2</b>	Oral Examination	×	-
<b>3</b>	Practical Examination	×	C <sub>02</sub> , D <sub>01</sub> , D <sub>02</sub> , D <sub>03</sub> , D <sub>04</sub> , D <sub>06</sub> , D <sub>07</sub> .
<b>4</b>	Semester work	√	A <sub>07</sub> , A <sub>08</sub> , A <sub>18</sub> , A <sub>20</sub> , A <sub>21</sub> , A <sub>23</sub> , B <sub>03</sub> , B <sub>04</sub> , B <sub>13</sub> , B <sub>17</sub> , B <sub>18</sub> , B <sub>19</sub> , C <sub>02</sub> , C <sub>13</sub> , C <sub>17</sub> , C <sub>18</sub> , C <sub>19</sub> , C <sub>22</sub> .
<b>5</b>	Other types of assessment	×	-
<b>6</b>	Final Term Examination	√	B <sub>20</sub> , B <sub>21</sub> , C <sub>09</sub> , C <sub>10</sub> , C <sub>11</sub> , C <sub>12</sub> , C <sub>13</sub> , C <sub>17</sub> , C <sub>18</sub> , C <sub>19</sub> , C <sub>20</sub> , C <sub>21</sub> , C <sub>22</sub> , D <sub>01</sub> , D <sub>02</sub> , D <sub>03</sub> , D <sub>04</sub> , D <sub>05</sub> , D <sub>06</sub> , D <sub>07</sub> , D <sub>08</sub> , D <sub>09</sub> .

**6.2 Assessment Schedule:**

No.	Assessment Method	Weeks
<b>1</b>	Mid Term Examination	×
<b>2</b>	Oral Examination	×
<b>3</b>	Practical Examination	8 <sup>th</sup>
<b>4</b>	Semester work	Weekly
<b>5</b>	Other types of assessment	×
<b>6</b>	Final Term Examination (Oral Discussion)	15 <sup>th</sup>

**6.3 Weighting of Assessments:**

No.	Assessment Method	Weights
<b>1</b>	Mid Term Examination	-
<b>2</b>	Oral Examination	-
<b>3</b>	Practical Examination	12.5%



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4	Semester work	37.5%
5	Other types of assessment	-
6	Final Term Examination (Oral Discussion)	50%
Total		100%

### 7. List of References

No.	Reference List
1	كتب ومراجع النظريات المعمارية ومدارس التصميم المعماري المعاصرة والمستقبلية طبقا لطبيعة كل مشروع

### 8. Facilities Required for Teaching and Learning:

No.	Facility	Choice
1	Lecture Classroom	√
2	Lab Facilities	√
3	White Board	√
4	Data Show System	√
5	Visualizer	×
6	Smart Board	√

No.	Facility	Choice
7	Wireless Board	×
8	Presenter	√
9	Sound System	√
10	Wire-Internet	×
11	Wireless Internet	√
12	...	-

### 9. Matrix of Knowledge and Skills of the Course:

No.	Topic	Attributes	Knowledge & Understanding	Intellectual Skills	Professional Skills	General Skills
1	الدراسات التمهيديّة للبرنامج الوظيفي للمشروع	02, 05, 06	A <sub>07</sub>	-	-	-
2	الدراسات العمرانية الخاصة بموقع المشروع المقترح	06, 08, 11, 12	A <sub>07</sub> , A <sub>08</sub>	-	C <sub>02</sub> , C <sub>09</sub>	-
3	دراسة وتحليل النظريات المعمارية المتعلقة بموضوع المشروع	08, 15	A <sub>07</sub> , A <sub>08</sub>	B <sub>03</sub> , B <sub>04</sub> , B <sub>10</sub>	C <sub>10</sub> , C <sub>11</sub> , C <sub>12</sub>	D <sub>01</sub> , D <sub>02</sub>
4	الدراسات البيئية الخاصة بالموقع	15, 16	A <sub>18</sub> , A <sub>20</sub>	B <sub>13</sub> , B <sub>17</sub> , B <sub>18</sub>	C <sub>13</sub> , C <sub>17</sub>	D <sub>02</sub> , D <sub>03</sub>
5	دراسة الفكر الوظيفي والتشكيلي لعناصر المشروع	12, 15, 17	A <sub>18</sub> , A <sub>20</sub> , A <sub>21</sub> , A <sub>23</sub>	B <sub>19</sub> , B <sub>20</sub> , B <sub>21</sub>	C <sub>17</sub> , C <sub>18</sub> , C <sub>19</sub> , C <sub>20</sub>	D <sub>02</sub> , D <sub>03</sub> , D <sub>04</sub> , D <sub>05</sub> , D <sub>06</sub>
6	تقييم الأداء الوظيفي والتشكيلي لبدائل الفكر التصميمي للمشروع	12, 15, 17	-	B <sub>19</sub> , B <sub>20</sub> , B <sub>21</sub>	C <sub>17</sub> , C <sub>18</sub> , C <sub>19</sub> , C <sub>20</sub> , C <sub>21</sub>	D <sub>07</sub> , D <sub>08</sub> , D <sub>09</sub>
7	مرحلة عرض المشروع في صورة رسومات معمارية ودراسات ومجسمات وعرض رقمي للمناقشة	12, 15, 16, 17	-	-	C <sub>19</sub> , C <sub>20</sub> , C <sub>21</sub>	D <sub>05</sub> , D <sub>06</sub> , D <sub>07</sub> , D <sub>08</sub> , D <sub>09</sub>

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Date of Approval: