Course Specifications:
ARE7123 - Shade and Perspective

1. Basic Information

Program Tile	Architectural Engineering
Department offering the Program	Architectural Engineering
Department Responsible for the Course	Architectural Engineering
Course Title	Shade and Perspective
Course Code	ARE7123
Year/ Level	First Year - Second Semester
Specialization	Minor
Authorization date of course specification	2005

Teaching Hours	Lectures	Tutorial	Practical
	2	4	0

2. Course Attributes:

No.	Attribute
05	Use the techniques, skills, and appropriate engineering tools, necessary for engineering practice and project management.
11	Engage in self- and life- long learning.
12	Design robust architectural projects with creativity and technical mastery.
13	Demonstrate investigative skills, attention to details, and visualize/conceptualize skills.

3. Intended Learning Outcomes (ILOs):

a. Knowledge and Understanding:

No.	Knowledge and Understanding
A_{13}	Principles of architectural design, and the preparation and presentations of design projects in a variety of contexts, scales, types and degree of complexity.
A_{20}	Physical modeling, multi-dimensional visualization, multimedia applications, and computer-aided design.

b. Intellectual Skills

No.	Intellectual Skills
B_{08}	Select and appraise appropriate ICT tools to a variety of engineering problems.
B_{14}	Think three-dimensionally and engage images of places & times with innovation and creativity in the exploration of design.

c. Professional Skills

No.	Professional Skills
C_{05}	Use computational facilities and techniques, measuring instruments, workshops and laboratory equipment to design experiments, collect, analyze, and interpret results.

C_{14}	Produce professional workshop and technical drawings using traditional drawing and computer-aided drawings' techniques.
C_{18}	Display imagination and creativity.

d. General Skills

No.	General Skills
D_{02}	Work in stressful environment and within constraints.
D_{03}	Communicate effectively.
D_{07}	Search for information and adopt life-long self learning.

4. Course Contents:

No.	Topics
1	Introduction to course and Shade and Shadows in Architecture.
2	Basic principles for casting shadows.
3	Exercises on casting shades and shadows on different planes.
4	Casting shadows according to the real directions of sunrays.
5	Representing architectural forms and spaces
6	Cone of vision
7	Vanishing lines for different planes
8	Mid Term Examination
9	Distortion in perspectives
10	One-vanish-point type
11	Exercises on one-vanish-point type
12	Two-vanish-point type
13	Exercises on two-vanish-point type
14	Shadows in perspectives
15	Determination of measuring

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

5.3 Excellent Students:

No.	Teaching Method	Reason
1	Developing course materials gradually to allow excellent students to receive teaching that meets their needs	Excellent students rely on excellent teaching
2	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
1	Mid Term Examination	√	A_{20}, B_{14}, C_{05}, C_{14}, D_{02}
2	Oral Examination	×	-
3	Practical Examination	×	-
4	Semester work	√	A_{13}, A_{20}, B_{08}, B_{14}, D_{02}
5	Other types of assessment	×	-
6	Final Term Examination	√	A_{20}, C_{18}, D_{03} ,D_{07}

6.2 Assessment Schedule:

No.	Assessment Method	Weeks
1	Mid Term Examination	08^{th}
2	Oral Examination	×
3	Practical Examination	×
4	Semester work	2^{nd} -7^{th} ; 09^{th} – 14^{th}
5	Other types of assessment	×
6	Final Term Examination	15^{th}

6.3 Weighting of Assessments:

No.	Assessment Method	Weights
1	Mid Term Examination	10%
2	Oral Examination	-
3	Practical Examination	-
4	Semester work	30%
5	Other types of assessment	-
6	Final Term Examination	60%

Total	100%

7. List of References

No.	Reference List
1	اسكانيان، سوسي وربيع الحرستاني. فن المنظور والإظهار المعماري. الطبعة الثالثة. بيروت: دار قابس للطباعة والنشر والتوزيع، ١٩٨٧ .
2	Ching, Francis D.K. Architectural Graphics. Third Edition. NY: Van Nostrand Reinhold, 1996.
3	http://www.beforethearchitect.com/
4	http://www.designbasics.com/plan/
5	http://scholar.lib.vt.edu/
6	The course notes are to be prepared by groups of students after constant reviewing by the course coordinator.

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	Introduction to course and Shade and Shadows in Architecture.	05	A_{13}	-	-	D_{02}
2	Basic principles for casting shadows.	11	A_{20}	B_{08}	-	D_{02}
3	Exercises on casting shades and shadows on different planes.	11	A_{20}	-	-	-
4	Casting shadows according to the real directions of sunrays.	11	A_{20}	-	-	D_{02}
5	Representing architectural forms and spaces	11, 12	A_{20}	-	-	D_{02}
6	Cone of vision	12	-	B_{14}	-	D_{02}
7	Vanishing lines for different planes	12	A_{20}	B_{08}	-	-
8	Mid Term Examination	05, 11, 12	A_{13}, A_{20}	B_{08}	-	-
9	Distortion in perspectives	12	A_{20}	-	-	-
10	One-vanish-point type	12	A_{13}, A_{20}	-	C_{14}	-

11	Exercises on one-vanish-point type	12, 13	-	B_{14}	-	-
12	Two-vanish-point type	13	-	-	C_{18}	-
13	Exercises on two-vanish-point type	12, 13	-	-	-	D_{03}, D_{07}
14	Shadows in perspectives	13	-	B_{14}	-	D_{07}
15	Determination of measuring	12, 13	-	-	-	D_{07}

Course Coordinator: **Associate Professor Dr. Sherif Ahmed Ali Sheta**

Head of Department: **Professor Dr. Mohammad Mohammad Taha Al-Azab**

Date of Approval: