

Faculty of Engineering & Technology

Graphic & Visual Skills 2

Information :

Course Code : ARC 232

Level : Undergraduate

Course Hours : 3.00- Hours

Department : Department of Architectural Engineering

Instructor Information :

| Title | Name | Office hours |
|--------------------|--------------------------------------|--------------|
| Lecturer | Amr Abdalla Salem Bagneid | 4 |
| Lecturer | Fahim Magued Fahim Iscandar | 5 |
| Assistant Lecturer | Sameh Ibrahim Abdul Samie Ahmed Emam | |
| Assistant Lecturer | Sameh Ibrahim Abdul Samie Ahmed Emam | |
| Teaching Assistant | Kamal Abdeleziz Ali Selim | 1 |
| Teaching Assistant | AYA TAREK IBRAHEM ABDELHADY AHMED | |
| Teaching Assistant | Salma Mohamed Eltohamy Elgendy | |
| Teaching Assistant | Kamal Abdeleziz Ali Selim | 1 |
| Teaching Assistant | Omar Magdy Ahmed Ibrahim Elbahrawy | |

Area Of Study :

By the end of this course, the student will be able to:

- Develop the abilities for visualization & representation based on scientific methods.
- Apply shade and shadow in architectural representation.
- Draw perspectives for architectural projects.

Description :

Architectural presentation, Shade and shadows of a dot, a line, a surface, and a volume, Shade and shadow of buildings in plans, elevations, perspectives and layouts. Architectural perspective, one and two vanishing point perspectives, computer simulated perspectives.

Course outcomes :

a. Knowledge and Understanding: :

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| 1 - | Understand and compare between shade and shadow. |
| 2 - | Understand the fundamentals of shadow (shadow of points, lines, planes, and volumes). |
| 3 - | Understand the fundamentals of perspective (plane of image, position of the observer, cone of vision, angles of vision, vanishing points). |

b. Intellectual Skills: :

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| 1 - | Compare between the different perspective views. |
| 2 - | Apply shadow principles in architectural projects. |

c. Professional and Practical Skills :

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| 1 - | Draw accurately the architectural shade and shadow. |
| 2 - | Draw accurately different perspective views for buildings |
| 3 - | Observe and describe through photography choosing best angles for shots. |

d. General and Transferable Skills :

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| 1 - | Develop the ability to work in groups. |
| 2 - | Develop drawing and presentation skills. |
| 3 - | Share ideas and communicate with others. |

Course Topic And Contents :

| Topic | No. of hours | Lecture | Tutorial / Practical |
|--|--------------|---------|----------------------|
| 1. Shadow of Points | 6 | 2 | 4 |
| 2. Shadow of Points and Lines | 6 | 2 | 4 |
| 3. Shadow of Planes . Squares | 6 | 2 | 4 |
| 4. Shadow of Planes on Broken and Curved Planes | 6 | 2 | 4 |
| 5. Shadow of Planes . Circles | 6 | 2 | 4 |
| 6. Quiz # 1 | 6 | 2 | 4 |
| 7. Shade & Shadow of 3D Objects . Pyramids and Cuboids | 6 | 2 | 4 |
| 8. Shade & Shadow of 3D Objects . Cylinders | 6 | 2 | 4 |
| 10. Shade & Shadow of 3D Objects . Cuboids, Chimneys and Cylinders | 6 | 2 | 4 |
| 11. Quiz # 2 | 6 | 2 | 4 |
| 12. Shade & Shadow of 3D Objects . Cylinders and Cones | 6 | 2 | 4 |
| 13. Architectural Applications . Stairs | 6 | 2 | 4 |
| 14. Architectural Applications . Arches, Niches and Columns | 6 | 2 | 4 |
| 15. First Midterm Exam | 6 | 2 | 4 |
| 16. Architectural Applications . Oculus, Minarets, Pilasters and Balconies | 6 | 2 | 4 |
| 17. Two Vanishing Points . Bird's Eye, Ant's Eye and Exterior Views | 6 | 2 | 4 |
| 18. Two Vanishing Points Perspective (Pyramids) | 6 | 2 | 4 |
| 19. Two Vanishing Points Perspective (Cylinders) | 6 | 2 | 4 |
| 20. Second Midterm Exam | 6 | 2 | 4 |
| 21. Two Vanishing Points Perspective (Sloped Roofs) | 6 | 2 | 4 |
| 22. Two Vanishing Points Perspective (Links & Cables) | 6 | 2 | 4 |
| 23. One Vanishing Point Perspective (Interior) | 6 | 2 | 4 |
| 24. Final Exam | 6 | 2 | 4 |

Teaching And Learning Methodologies :

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| Lectures. |
| Design studios. |

Course Assessment :

| Methods of assessment | Relative weight % | Week No | Assess What |
|-------------------------|-------------------|---------|-------------|
| Attendance | 5.00 | | |
| Final Exam | 20.00 | | |
| Participation | 5.00 | | |
| Perspective Assignments | 25.00 | | |
| Sciagraphy Assignments | 25.00 | | |
| Two Midterm Exams | 20.00 | | |

Course Notes :

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Recommended books :

- "Shafie, Z. H. (1997). . Giza: Faculty of Engineering, Cairo University.
- "Shafie, Z. H. (1997). . Giza: Faculty of Engineering, Cairo University.
- "D'Amelio, J. (2004). Perspective Drawing Handbook. New York: Dover Publications.
- "Norling, E. R. (1999). Perspective Made Easy. New York: Dover Publications.
- "Architectural Magazines and Projects.

Periodicals :

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Web Sites :

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