

Course name: RENDERING TECHNIQUES & ANIMATION

Course code: DEG 312

Course hours: Credit hours 3, Contact hours 4

Course Pre-requisites: DEG 111

Course Description

Introduction to the fundamentals of Computer modelling, documentation and visualization in BIM environment. This course introduces the efficient methodology to generate and modify computer models that contains visualized geometric, parametric, quantity and time management data. In addition, materials, lighting, cameras, and other visualization techniques.

Course Main Objective

In this course, the students will be to:

- Introduce the potential of BIM practices, and the benefits of full informative models.
- Introduce BIM modelling and parametric design.
- Familiarize the students to visualization techniques both technical model views and rendering.
- Introduce basic animation techniques.

Course Learning Outcomes

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

- Outline BIM methods and data structures.
- Create BIM that contains 3D, 4D, and 5D data.
- Use parametric modelling techniques to visualize architecture.
- Manage model views achieving maximum accuracy.

Course evaluation

- Quizzes, practical assignments
- Weekly/biweekly reviews
- Midterm examination
- Attendance
- Final examination

Course recommended books

- Mastering Autodesk Revit 2018 By Lance Kirby, Eddy Krygiel, Marcus Kim 2018
- 3D Photorealistic Rendering: Interiors & Exteriors with V-Ray and 3ds Max By Jamie Cardoso 2017.

Course References

- Revit advanced step by step guide by Dr. Ehab Sanad
- Introduction to Revit 2017 by Dr. Ehab Sanad