Department of Computer Science and Engineering  
University of Notre Dame  

CSE 40655 – Technical Concepts of Visual Effects  
Spring 2020

Instructor: Ramzi K. Bualuan  
office: 384B Fitzpatrick  
phone: 1-7388  
email: ramzi@nd.edu  
office hours: Wed, 10 am – noon; or by appointment

Textbook: There are no textbooks required for this course. Online resources are plentiful.

Objectives: This class introduces students to 3D computer-generated imagery and animation as it is used in the field of visual effects, and to the technical aspects of the field. The main emphasis of the class will be placed on understanding fundamental concepts of 3D modeling, texturing, lighting, rendering, compositing, scripting. The software used in the course is Autodesk Maya 2020, and the renderer will be Arnold 6. The class is taught from the perspective that it seeks to introduce and prepare students for a typical production studio work environment, with emphasis on technical skills.

Homework: Several homework assignments and projects will be given throughout the class, and a final project will be due at end of the semester. All work will be done with Maya, with some programming in MEL and/or Python. Most of the assignments will consist of tutorials.

Grading: Considering the simulated “production studio environment” approach to this class, deadlines will be treated in class just as they are treated in the industry: late work will incur severe penalty.

Homework & Participation: 25 %  
Projects 1, 2, 3: 15 % each  
Midterm: 10 %  
Final Project: 20 %