Programming for Computer Graphics

Instructor: Tomer Weiss
Course: IT-360
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Office Hours: TBD

Academic Integrity
The NJIT Honor Code will be upheld at all times. The work you do and submit is expected to be the result of your effort only. You may discuss the high level (general) solution of a design problem, however, cooperation should not result in one or more student having possession of copied graphics, code, or any other project element created by another student. Any violations of the NJIT Honor Code will be brought to the immediate attention of the Dean of Students.

Objective
This class will be a hands-on, project focused course. This class will show how to work within a visual graphics pipeline, establishing a game like application, and to link to or modify existing code for graphics and game programming. Students will work on a project, and complete a few assignments along the way. This course will also touch on other tangential topics and tools that are useful, such as source control, documentation generation and best practices.

Grading
- Attendance and Participation: 10%
- Assignments and Projects: 90%

Course Materials
- Class website: www.cs.ucla.edu/~tweiss/it360
- MS Development Studio (available from IST) or Linux/Mac alternative
- A Github Account
- GIT-Bash
- Canvas

Submission Criteria
All projects for the class must follow a set of submission guidelines to be eligible for grading. All projects must include the following:
- Github Submission: Provide the URL so I can clone into your repo. Please tag your branch with appropriate titles “finalProject” / “assignment#”. Please be sure to verify that your code provided is what generated the submitted executable and that your changes are fully commented. Note: I will be reviewing your commit history, so commit often!
○ A “Readme” file with all additional instructions for setting up, compiling, and running your code.
○ Compiled library (may require git add -f gamex86.dll)

Late Policy
Any projects that are submitted n days late will have a penalty of pow(2,n-1) points (of its percent value towards your final grade) per day late. No exceptions.

Tentative Course Topics
● Graphics Programming Basics
● Version Control with GIT
● Vector Math
● User Interfaces
● Advanced Topics in Javascript/Java/C++
● Artificial Intelligence

Milestones
● Week 1: Introduction
● Week 2: Assignment 1 given
● Week 4: Assignment 1 due, Assignment 2 given
● Week 6: Assignment 2 due, Assignment 3 given
● Week 8: Assignment 3 due, Assignment 4 given
● Week 8: Project given
● Week 10: Assignment 4 due, Assignment 5 given
● Week 12: Assignment 5 due
● Last week of instruction: Project Due

Syllabus subject to change, including number of assignments, projects, dates, etc. Attend class to keep up to date.