

CSCE 4813 – Computer Graphics Class Syllabus – Spring 2018

Instructor:

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Class Times: Mon, Wed, Fri 12:55-1:45
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GTA:

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Course Description:

Computer graphics includes everything you need to know to create synthetic images from mathematical models of objects and their environment. This includes: geometry (object models), animation (making models move), rendering (methods to simulate digital cameras to create images), and composition (storing and combining synthetic and natural images). In this course, students will get a hands-on introduction to a subset of these topics using OpenGL and Unity rendering software. Students are expected to have a working knowledge of C++ in a Linux environment, and a mathematics background that includes calculus and linear algebra.

Text Book:

Optional: Interactive Computer Graphics: A Top-Down Approach with WebGL (7th Edition), by Edward Angel and Dave Shreiner, Pearson / Addison Wesley, 2015.

Grading:

Final grades in this class will be determined by a weighted average of the following:

- Programming Projects: 50%
- Midterm Exam: 20%
- Final Exam: 30%

We use the following scale to assign final grades:

- A: over 90%
- B: 80% - 89%
- C: 70% - 79%
- D: 60% - 69%
- F: below 60%

Programming Projects: There will be 7 programming projects that will integrate material taught in the course. The project requirements and due dates will be posted on the class website. The programming projects will be graded according to the following scale:

- 50% program correctness
- 10% software design
- 10% programming style
- 10% program testing
- 20% documentation

Programming projects must be submitted electronically by midnight of the due date specified in the project description. Projects that are late will lose 10% per day for three days. Projects submitted after three days will receive NO credit. Partial credit will be given for programs which compile but which are not complete. Starting early on programming projects is strongly encouraged.

Exams: There will be two exams in this class, a midterm exam and a comprehensive final exam. All exams will be closed book, but each student will be allowed to bring in a single 8.5 by 11 sheet of paper with any notes the student wishes to include. Cell phones and calculators will not be needed or allowed. Make up exams will only be allowed under exceptional circumstances.

Academic Misconduct:

The department, college, and university have very strict guidelines regarding academic misconduct. Students are expected to follow all policies specified in the University of Arkansas Undergraduate Studies Catalog and on the Academic Initiatives and Integrity website (honesty.uark.edu). In addition, the following policies will apply to this class.

Exams:

- Students are NOT allowed to copy anything from another student.
- Students are NOT allowed to get any outside assistance during the exam.
- Students ARE allowed to bring an 8.5 x 11 sheet of paper with any notes they want into the exam. Otherwise, exams are closed book and closed notes.

Programming Projects:

- Students are expected to submit their own work on programming projects.
- Students are NOT allowed to work in groups to implement programs.
- Students are NOT allowed to lend or distribute code to each other.
- Students are NOT allowed to copy code from other individuals or websites.
- Students ARE allowed to ask the instructor and/or GTAs for assistance.
- Students ARE allowed to borrow and adapt code from this class website.

Instances of academic misconduct will be reported to the Academic Initiatives and Integrity office, and may result in a zero on the project/exam, failure in the class or suspension from the university depending on the severity of the infraction and prior violations.

ADA Statement:

If any member of the class has a documented disability and needs special accommodations, the instructor will work with the student to provide reasonable accommodation to ensure the student a fair opportunity to perform in this class. Please advise the instructor of the disability and the desired accommodations within the first week of the semester.

Inclement Weather:

If the university is officially closed, class will not be held. When the university is open, you are expected to make a reasonable effort to attend class, but not if you do not feel that you can get to campus safely. Assignment due dates will be postponed in case of inclement weather.

Emergency Procedures

Many types of emergencies can occur on campus; instructions for specific emergencies such as severe weather, active shooter, or fire can be found at emergency.uark.edu.

Severe Weather (Tornado Warning):

- Follow the directions of the instructor or emergency personnel.
- Seek shelter in the basement or interior room or hallway on the lowest floor, putting as many walls as possible between you and the outside.
- If you are in a multi-story building, and you cannot get to the lowest floor, pick a hallway in the center of the building.
- Stay in the center of the room, away from exterior walls, windows, and doors.

Violence / Active Shooter:

- CALL - 9-1-1
- AVOID - If possible, self-evacuate to a safe area outside the building. Follow directions of police officers.
- DENY - Barricade the door with desk, chairs, bookcases or any items. Move to a place inside the room where you are not visible. Turn off the lights and remain quiet. Remain there until told by police it is safe.
- DEFEND - Use chairs, desks, cell phones or whatever is immediately available to distract and/or defend yourself and others from attack.