Computer Science 600.457/657
Computer Graphics
Fall, 2019 (3 credits, EQ)

Instructor
Professor Michael Kazhdan, misha@cs.jhu.edu, www.cs.jhu.edu/~misha/.
  Office: Malone 229
  Office hours: Friday 2:00–3:00 pm and by appointment

Teaching Assistant
Karen Poblete: Friday 10:00-11:00 @ Malone 216

Course Assistants:
Cindy Yang: Wednesday 1:00-2:00 @ Malone 122
Tony Yang: Tuesday 3:00-4:00 @ Malone 122
Steve Zhao: Thursday 12:00-1:00 @ Malone 122
Evonne Zhu: Wednesday 3:00-4:00 @ Malone 122

Meetings
Monday, Wednesday, Friday, 11:00–11:50 am, Shaffer 303

Online Resources
Please log in to Blackboard for all materials related to this course.

Course Information

- This course introduces computer graphics techniques and applications, including image processing, rendering, modeling and animation. [Applications]
- **Prerequisites**
  Intermediate Programming (EN.600.120)
  Data Structures (EN.600.226)

Course Goals

Specific Outcomes for this course are that
- Students will become familiar with the basics of computer graphics.

This course will address the following Criterion 3 Student Outcomes
- An ability to apply knowledge of computing and mathematics appropriate to the discipline (a)
- An ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs (c)
• An ability to use current techniques, skills, and tools necessary for computing practice (i)
• An ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices (j)
• An ability to apply design and development principles in the construction of software systems of varying complexity (k)

Course Topics

• Image processing
• Ray tracing
• Rendering
• Animation
Course Expectations & Grading
There will be four assignments and two exams.
Class participation is not mandatory but will help the grade.

Key Dates
See blackboard

Assignments & Readings
See blackboard

Ethics
The strength of the university depends on academic and personal integrity. In this course, you must be honest and truthful, abiding by the Computer Science Academic Integrity Policy:

Cheating is wrong. Cheating hurts our community by undermining academic integrity, creating mistrust, and fostering unfair competition. The university will punish cheaters with failure on an assignment, failure in a course, permanent transcript notation, suspension, and/or expulsion. Offenses may be reported to medical, law or other professional or graduate schools when a cheater applies.

Violations can include cheating on exams, plagiarism, reuse of assignments without permission, improper use of the Internet and electronic devices, unauthorized collaboration, alteration of graded assignments, forgery and falsification, lying, facilitating academic dishonesty, and unfair competition. Ignorance of these rules is not an excuse.

Academic honesty is required in all work you submit to be graded. Except where the instructor specifies group work, you must solve all homework and programming assignments without the help of others. For example, you must not look at anyone else’s solutions (including program code) to your homework problems. However, you may discuss assignment specifications (not solutions) with others to be sure you understand what is required by the assignment.

If your instructor permits using fragments of source code from outside sources, such as your textbook or on-line resources, you must properly cite the source. Not citing it constitutes plagiarism. Similarly, your group projects must list everyone who participated.

Falsifying program output or results is prohibited.

Your instructor is free to override parts of this policy for particular assignments. To protect yourself: (1) Ask the instructor if you are not sure what is permissible. (2) Seek help from the instructor, TA or CAs, as you are always encouraged to do, rather than from other students. (3) Cite any questionable sources of help you may have received.

On every exam, you will sign the following pledge: "I agree to complete this exam without unauthorized assistance from any person, materials or device. [Signed and
dated]. Your course instructors will let you know where to find copies of old exams, if they are available.

Report any violations you witness to the instructor.

You can find more information about university misconduct policies on the web at these sites:

- For undergraduates: [http://e-catalog.jhu.edu/undergrad-students/student-life-policies/](http://e-catalog.jhu.edu/undergrad-students/student-life-policies/)
- For graduate students: [http://e-catalog.jhu.edu/grad-students/graduate-specific-policies/](http://e-catalog.jhu.edu/grad-students/graduate-specific-policies/)

**Students with Disabilities**
Any student with a disability who may need accommodations in this class must obtain an accommodation letter from Student Disability Services, 385 Garland, (410) 516-4720, studentdisabilityservices@jhu.edu.