Computer Graphics 2: Graduate Seminar in Computational Aesthetics

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evl.uic.edu/creativecoding/cs526

Computer Graphics 2

Instructor
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Course syllabus
https://evl.uic.edu/creativecoding/cs526

Lab page
https://evl.uic.edu/creativecoding

Computer Graphics 2

Goals:

- to become familiar with 3D graphics programming, especially with GPU shaders.
- to survey interesting topics in computer graphics and new media arts
- to create meaningful projects in “computational aesthetics”, at the intersections of culture and technology

Structure of Class

Meets once a week for 3 to 4 hours

50% lecture; 50% lab discussion

- Informative and thorough, rather than comprehensive
- Programming tutorials, collaborative exercises; planning & developing projects

Pedagogical Philosophy

Project-centered classroom

- learning occurs much more effectively when you have a compelling idea that drives you to learn

Aware of research contexts

- you will have better ideas when you are familiar with current research contexts

Projects

Project based

- you will be involved in (at least) two larger projects which have both a *technical* component and a *conceptual* component.

- projects should be of sufficient quality and novelty to be accepted to either a top-tier graphics conference or a new media arts symposium or exhibition.

Projects

Project based

- target SIGGRAPH conference (submissions due in January) for technical and/or creative projects.

- target ISEA symposium (submissions due in November) for creative demos and project write-ups.

- exhibition during the last week of class or finals, TBA, but possibly at gallery 400.

Writing

Focus on “writing and thinking”

- research journals will help guide your exploration of new ideas, of interesting projects and papers, and of conferences and exhibitions dedicated to computer graphics topics.

- informal (but rigorous) writing assignment every week, lead to end-of-the-term write-up of final project.

Research

- ACM DL
- ISEA
- IEEE Xplore
- Google Scholar
- Lab pages

Coding

Coding agnostic, but...

Will start with Three.js, a wrapper for WebGL in Javascript and (mostly) good introductory tutorials.

http://threejs.org

Who are you?

- Quick intro

- Small groups:

  How long have you been at UIC?

  Why are you interested in this course?

  What experience do you have with graphics? with new media arts?

  What kinds of projects are you interested in developing?

Homework 1

- Follow the suggestions in the Research Journal handout and find and describe THREE papers of your choice.
- Come up with (or refine) FIVE interesting ideas in computer graphics or new media arts
- Research ONE academic or creative venue

Homework 1

- Download and install Three.js and go through the tutorials as far as you can.

Make a note of what you are confused about and post it on Piazza

Computer Graphics 2

UIC Computer Science Courses

HCI / UI
Virtual Reality
Visualization & Vis Analytics
Video Gaming Design & Development
Human Augmentics

Computer Graphics 2

UIC Art & Design Courses

Mobile Design & Development
Web Programming
Motion Graphics
Wearables and Physical Computing
3D Modeling