

Graphics Track Proposal

Notes:

- Combination of track requirements and electives should total 25 units
- Aim for track that is 13-14 units (roughly 4 courses)
- This leaves 11-12 units (3 to 4 courses) for electives
- Senior project requirement is not considered part of the track

Proposed Graphics Track Requirements:

All required track classes must be taken for at least 3 units each (if the class provides the option to take it for variable units).

a) CS248

(Note: starting in AY 2009-10, CS148 and CS248 will no longer be replacement courses, but will form a two course sequence. At that time, the category (a) requirement will become both CS148 and CS248.)

b) Any one of: CS205A, CME104*, CME108, Math52, Math113

Of the choices above, CS205A is strongly recommended as a preferred choice.

*Students taking CME104 are also required to take its prerequisite course CME102

(Note that the category (b) requirement, which helps ensure mathematical training important for continued work in computer graphics, is not a strict prerequisite for CS248, but it is strongly recommended that students take it prior to or concurrently with CS248.)

c) Any two of: CS164, CS178, CS205B, CS223B, CS268, CS348A, CS348B, CS448

Note:

CS164: Computing with Physical Objects (*new course by Leo Guibas*)

CS178: Digital Photography (*new course by Marc Levoy*)

Note on category (b) requirement: Students in the Graphics track are required to take a course in category (b) to obtain mathematical skills essential for work in computer graphics. It is worth noting many of the courses in category (b) also satisfy a Math elective requirement, so students can choose to have such a course count toward *either* their Math or Graphics track requirement, but it cannot be double counted toward both. Thus, students choosing to count a class that satisfies the category (b) requirement as a Math elective must still take 25 units total counting their track and CS elective requirements.

Note: In general, courses taken as Math electives cannot also count toward satisfying CS electives, and vice versa.

Graphics Track Additional Electives:

Students in the Graphics track may, in addition to the standard set of approved CS elective courses and category (c) above, also count classes from the following set as elective courses:

- ArtStudi 60: Design I: Fundamental Visual Language
- ArtStudi 70: Introduction to Photography
- ArtStudi 179: Digital Art I
- CS48N: The Science of Art
- CS277: Experimental Haptics
- CS326A: Motion Planning
- CME302: Numerical Linear Algebra
- CME306: Numerical Solution of Partial Differential Equations
- CME324: Advanced Methods in Matrix Computation: Iterative Methods
- EE262: Two-dimensional Imaging
- EE264: Digital Signal Processing
- EE278: Introduction to Statistical Signal Processing
- EE368: Digital Image Processing
- ME101: Visual Thinking
- Psych30: Introduction to Perception
- Psych221: Applied Vision and Image Systems
- STS144: Games Studies: Issues in Design, Technology, and Player Creativity

It is recommended (but not required) that students in the Graphics track take at least one course in design, visual thinking, perception, or studio art. Several such courses are listed in the Graphics Track Additional Electives list above. Others courses in these areas may also be considered electives by approval of a student's undergraduate advisor.