Master of Science and Engineering in Computer Graphics and Game Technology (CGGT)

Stephen H. Lane, Director
CGGT Program

Who is it for?

- People interested in working at a
  - game company
  - computer animation studio
  - special effects shop
- Recent graduates
- People already in industry
CGGT Program

What do you need to be admitted?

- Undergraduate Degree in Computer Science or Engineering

- Passion for graphics and animation from both a creative and technical point of view
Focus of CGGT Program

- Middle of Creative Spectrum

Artists

Animators

Technical Animators

Game Designers

Technical Directors

System Programmers R&D

Tool Developers
CGGT Program

**Curriculum**
- 1 year to MSE degree
  - fall, spring and summer semesters
- 10 courses
- Main Areas of Study
  - Creative Arts and Design
  - Communications
  - Computer Science, Systems and Technology
  - Business and Entrepreneurship
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- Creative Arts and Design (1)
  - Typical Courses
    - 3D Modeling
    - Figure Modeling
    - 3D Animation
    - Digital Film Production

- Communications (1)
  - Visual Communications
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- **Computer Science, Systems and Technology (5)**
  - Required Courses
    - Computer Graphics
    - Computer Animation
    - Advanced Graphics and Animation
    - Math
  - Technical Elective Course
    - Game Design and Development
    - GPU Programming
    - AI
    - Physically-Based Animation (also satisfies Math requirement)
    - Software Agents
    - Independent Research/Study
    - Any other course offered at SEAS
CGGT Program

- Business and Entrepreneurship (1)
  - Engineering Entrepreneurship
  - Product Design

- Free Elective (1)
  - Any Graduate-Level Course (500 or above) at the University

- Game Design Practicum (1)
  - Group Game Project
CGGT Program

- Where do you go from here?
  - Many companies in the Computer Game and Animation industries hire CGGT graduates, including:
    - Pixar, Disney, Dreamworks,
    - EA, Activision, Namco, Crystal Dynamics, Zynga,
    - nVidia, Intel, Microsoft,
    - Many other smaller animation and game development studios

- How do you apply?
  - www.cis.upenn.edu/grad/cggt