

Game and Simulated Environments Program

Overview, Status and Continuing
Development



Game and Simulation as a Career

- Multi-billion-dollar industry
 - Compared to the film industry
 - Salaries competitive with other career paths
- Texas a major center of development
- Migration into and out of game industry
- Interdisciplinary development model



Undergraduate Curriculum

- Interdisciplinary Curriculum
- Specialization of the BSCS
 - Accredited BSCS degree
 - Fewer electives
 - Technical and non-technical coursework to support the specialization
- Non-technical Courses
 - Four courses from Film and Digital Media, one each year
 - Calculus-based physics (4th and 5th semester)
 - Cooperation with other academic units

Undergraduate Curriculum

- Most courses from the BSCS sequence
- Specialized Courses in Computer Science
 - Computer Graphics (6th semester)
 - Game/Simulation Frameworks (7th semester)
 - Game/Simulation Capstone (8th semester)

Program Visibility

- Engagement with gaming industry in Texas
- Recognized as a top program



Student Interest

- About 80 percent of new freshmen interested in this program
- Almost half of new CS freshmen pursuing the track
- Interest meetings have attracted more than 50 students



Maintaining Student Interest

- Five semesters before specialized computing courses
- Challenging curriculum
- Need to keep students engaged
 - Keep them in the major
 - Raise the visibility/priority of the program
 - Continue to attract new students

Extracurricular Support

- Enhance program with activities outside the curriculum
 - Expose students to advanced/specialized material early
 - Engage students from other academic programs
 - Maintain and build industry connections
- Game Nights
- Student organization

Extracurricular Support

➤ Game Development

- Exposure to game development software
- Engage students at all levels of expertise
- Enable interdisciplinary teams
- Permit students to present and review work in progress



Game Development



Game Development Lab

Game Development



Game Development Meeting

University Support

- Small game development lab
 - Second-hand equipment from the department
 - Equipment on loan from other departments
- Strategic Plan Approval
- Possibility of a new tenure-track hire
- Volunteer faculty support

Support Needs and Efforts

- Development lab
 - Development systems
 - Supporting Software
 - Presentation Equipment
- Lecturer faculty position



Support Needs and Efforts

- Game club membership
 - Software support
 - Free engine and modeling software
 - Emergent Gamebryo
 - Valve Cyber Café
 - Cooperation with local retailers
 - Keck grant proposal
 - University capital campaign
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