GSAS Advising

Fall 2014

http://games.wp.rpi.edu
http://gsas.rpi.edu

Ben Chang, GSAS Director
changb3@rpi.edu
CURRICULUM

Art for Interactive Media
Introduction to Game Design
Game Mechanics
History and Culture of Games
Character and Story for Games
Game Development I
Game Development II
Experimental Game Design
GSAS Research Project
CURRICULUM

**Computer Science**
- Foundations of Computer Science
- Introduction to Algorithms
- Computer Organization
- Operating Systems
- Programming Languages
- Game Architecture
- Game AI
- Software Design and Documentation
- Advanced Computer Graphics

**Cognitive Science**

**Electronic Arts**

**Core**

**HCI**

**Management**

**Writing**
**CURRICULUM**

**cognitive science**
- Introduction to Algorithms
- Introduction to Cognitive Science
- Behavioural Neuroscience
- Cognitive Psychology
- One of:
  - Game AI or
  - Artificial Intelligence
- One of:
  - Introduction to Philosophy of Science or
  - Minds and Machines
- One of:
  - Sensation and Perception or
  - Structure of Language
- One of:
  - Cognitive Modeling or
  - Programming for Cognitive Science and AI
- One of:
  - Philosophy of Artificial Intelligence
  - Philosophy of Cognitive Science
  - Knowledge, Belief and Cognition
  - Metaphysics and Consciousness
CURRICULUM

computer science
cognitive science
electronic arts
core
HCI
management
writing

Media Studio Imaging
Music and Sound --OR--
Digital Filmmaking
Basic Drawing
Fundamentals of Animation --OR--
Intermediate Digital Imaging
Animation I
Animation II
Advanced Digital 3D Projects
Art History I
The Multimedia Century
CURRICULUM

computer science
cognitive science
electronic arts
core

HCI
Intro to Communication Theory
Intro to Visual Communication Theory
Foundations of HCI Usability
Information Design
Interface Design: Hypermedia
Theory and Application
Communication Design for the WWW
Studio Design in Human Computer Interaction

One of:
User-Centered Design
Information Architecture
Human Factors in Design

management
writing
CURRICULUM

management

Introductory Economics
Introduction to Management
External Environment of Business
Accounting for Decision Making
Managerial Finance
Microcomputers and Applications
Organizational Behavior In High-Performing Organizations
Strategy and Policy
Marketing Principles
CURRICULUM

writing
- Introduction to Communication Theory
- Creative Writing
- Level Design for Games
- Writing for Games I
- Writing for Games II
- Communication Studies
- Writing Internship
## CORE

### Year 1 + 2
- **COGS 2520**: Intro to Game Design
- **ARTS 1963**: Art for Interactive Media
- **COGS 4320**: Game Mechanics
- **COMM 1600**: History and Culture of Games
- **COMM 4960**: Character and Story for Games

### Year 3
- **COGS/CSCI 4520**: Game Development I
- **COGS/CSCI/ARTS 4540**: Game Development II

### Year 4
- **ARTS 4510**: Experimental Game Design
- **IHSS 4xxx**: GSAS Research Project
## GSAS Computer Science Concentration

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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</thead>
<tbody>
<tr>
<td>CSCI 2200</td>
<td>Foundations of Computer Science</td>
</tr>
<tr>
<td>CSCI 2300</td>
<td>Intro to Algorithms</td>
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<tr>
<td>CSCI 2500</td>
<td>Computer Organization</td>
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<tr>
<td>CSCI 4210</td>
<td>Operating Systems</td>
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<tr>
<td>CSCI 4430</td>
<td>Programming Languages</td>
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<tr>
<td>CSCI 4530</td>
<td>Advanced Computer Graphics</td>
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<td>or</td>
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<tr>
<td>ECSE 4750</td>
<td>Computer Graphics</td>
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<tr>
<td>COGS 4964</td>
<td>Game Architecture</td>
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<tr>
<td>COGS 4962</td>
<td>Game AI</td>
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<tr>
<td>CSCI 4440</td>
<td>Software Design and Documentation</td>
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</tbody>
</table>
GSAS Cognitive Science Concentration

CSCI 2300  Introduction to Algorithms
CSCI 4150  Introduction to Artificial Intelligence --OR-- COGS 4962  Game AI
COGS 2120/PHIL 2120/PSYC 2120  Introduction to Cognitive Science
PHIL 2130  Intro to Philosophy of Science --OR-- IHSS 1964  Minds and Machines
PSYC 4320  Behavioural Neuroscience
PSYC 4370  Cognitive Psychology
PSYC 4410  Sensation and Perception --OR-- PSYC 4964  Structure of Language
PSYC 4510  Cognitive Modeling --OR-- COGS 4xxx Programming for Cognitive Science and AI
Choose one of:
PHIL 4620  Philosophy of Artificial Intelligence
PHIL 4xxx  Philosophy of Cognitive Science
PHIL 4440  Knowledge, Belief and Cognition
PHIL 4480  Metaphysics and Consciousness
GSAS HCI Concentration

COMM 1510       Introduction to Communication Theory
COMM 2610       Introduction to Visual Communication
COMM 4180       Studio Design in Human-Computer Interaction
COMM 4420       Foundations of HCI Usability
COMM 4470       Information Design
COMM 4690       Interface Design: Hypermedia Theory and Application
COMM 4770       User-Centered Design --OR--
COMM 4520       Information Architecture
PSYC 2220       Human Factors in Design

Suggested summer course: Interactive Media Design

NOTE: Intro to Visual Communication has limited space and is restricted to COMM and EMAC majors. If you want to do the HCI Concentration, consider declaring the full COMM dual major.
GSAS Writing Concentration

Introduction to Communication Theory
Creative Writing
Level Design for Games
Writing for Games I
Writing for Games II
Communication Studies
Writing Internship
GSAS Management Concentration

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Suggested special topics elective: Introduction to Game Production
GSAS Electronic Arts Concentration

ARTS 1020        Media Studio Imaging
ARTS 1010        Music and Sound -- OR --
ARTS 1030        Digital Filmmaking
ARTS 1200        Basic Drawing
ARTS 2060        Fundamentals of Animation -- OR --
ARTS 2040        Intermediate Digital Imaging
ARTS 4060        Animation I
ARTS 4070        Animation II
ARTS 4020        Advanced Digital 3D Projects
ARTS 2530        Art History I: From Paleolithic to Renaissance
ARTS 2540        The Multimedia Century

NOTE: make sure to get into Animation I at least by Sophomore year, so you have 3D experience before Game Development I
GSAS Sound and Music Concentration (Proposal)

ARTS 1020  Media Studio Imaging
ARTS 1010  Music and Sound
ARTS 2400  Music Theory 1
ARTS 4400  Music Theory 2
ARTS 2500  History of Western Music
ARTS 2020  Computer Music
ARTS 49xx  Advanced Computer Music
ARTS 4410  Deep Listening
ARTS 4130  New Media Theory
ARTS 2540  The Multimedia Century
Fall Registration

Sophomores:

Character and Story for Games
Art for Interactive Media, History & Culture of Games
if you didn’t take them yet

Juniors:

Game Development I
1 course, 3 sections, ARTS, COGS, CSCI
CSCI Duals: register for the CSCI section to use this for a CS option

Seniors:

GSAS Research Project OR Experimental Game Design
Take one of these in Fall, the other in Spring. The order doesn’t matter!
What can I do for my GSAS Research Project?

- Join a faculty-led research project. Ask faculty what they’re working on, find a project that fits your interests

- Propose an original research project
  
  “Research” may include many different things, depending on your concentration.
  - User research: study people playing games
  - Game studies research: history, theory, analysis of games
  - Game development and architecture research: new programming techniques
  - Design research: pose a question about game design
  - Artistic research: investigate an artistic question

GSAS Research Projects can be team projects
GSAS Research Project

To register for it, you need a faculty supervisor to work with you.

Fill out the Independent Study Form: [http://www.rpi.edu/dept/srfs/ugindependent_study.pdf](http://www.rpi.edu/dept/srfs/ugindependent_study.pdf) (Form 4U)
GameFest 2014 : NEXT 10

The 10th Anniversary
April 25 - 26, EMPAC
Showcase + Competition

RPI
RIT
Champlain
NYU

Speakers
Leigh Alexander
Dov Jacobson
Michael Nitsche
Jake Elliott + Tamas Kemenc

JustPressPlay

Live electronic music + Projections
PULSE (People Using Live Software and Electronics)
Showcase + Competition

RPI
RIT
Champlain
NYU

Speakers

Leigh Alexander (Gamasutra)
Dov Jacobson (GamesThatWork)
Michael Nitsche (Georgia Tech)
Jake Elliott + Tamas Kemenczy (Cardboard Computer)

JustPressPlay

Live electronic music + Projections
PULSE (People Using Live Software and Electronics)
GameFest Exhibition Entry

- WV Competition First Round:
  - Wednesday April 2, 2:30 - 6:00
- Anyone is welcome to show a game in the exhibition (but competition has limited space)
- Email Marc Destefano
Upcoming Events

• IGDA Albany Monthly Meetup
  • Wednesday April 2
  • 6:00 - 9:00
  • Bootleggers on Broadway, 200 Broadway, Troy
Upcoming Events

Fine Young Capitalists

Game Design Competition for Women

Submission: Pitch Concept, up to 1,500 words

Deadline: April 14

http://www.thefineyoungcapitalists.com/submitWIVG
Upcoming Events

• http://www.gameconfs.com/
Game conferences, USA, April

- 3-7 Foundations of Digital Games (FDG) 2014 Fort Lauderdale, Florida
- 3-7 Procedural Content Generation in Games (PCG 2014) Fort Lauderdale, Florida
- 5-10 NAB Show 2014 Las Vegas, Nevada
- 11-13 PAX East 2014 Boston, Massachusetts
- 11-13 Different Games 2014 New York
- 13 2014 Gamification World Championships San Francisco, California
- 22-24 Games For Change Festival New York
- 23 Game Marketing Summit 2014 San Francisco, California
- 23-24 East Coast Game Conference 2014 Raleigh, North Carolina
- 25-26 GameFest, Rensselaer Polytechnic Institute, Troy, NY
Game conferences, USA, May

- 7-8 NeuroGaming 2014 Conference and Expo San Francisco, California
- 8 LOGIN Conference 2014 San Francisco, California
- 16 Twofivesix 2014 New York
- 23-25 MomoCon 2014 Atlanta, Georgia
- 23-26 KublaCon 2014 San Francisco, California
- 27-30 AnDevCon 2014 Boston, Massachusetts
Internships!

- http://jobs.gamasutra.com/
- http://www.gamesindustry.biz/jobs
- Google [ company you want to work for ] + internship
- http://www.simplyhired.com