## CSCI 4070 & 6070
## *Introduction*
## *Game Programming*

*[heavy programming focus]*

**Course Overview**

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## Short Term 3 week Plan

- **Today go over expectations and course plan**
- **Next Week**
  - » History of Games and background
  - » Case Study: Mojang movie
- **Following week (lecture oriented)**
  - » Introduction to game programming (tutorial based)
  - » TED talk (Will Wright's Spore Talk – 16 minutes)
  - » Create a simple game. [theme of course: simple/ basic tutorials to provide fundamentals for hackathons and projects]
  - » Hackathon introduction

Dive in

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## Administration / Logistics

- **Who am I?**
  - » Office: Boyd 219C
- **Class:**
  - » Check Web Page
- **maria.hybinette@mac.com**
- **Office Hours: Thursday after class**
  - » And by e-mail appointment

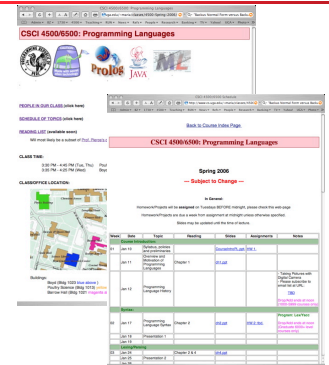- **TA: TBD - check class web page for updates… office hours …**

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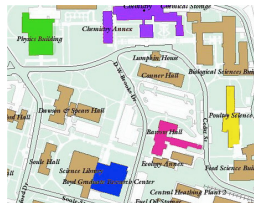
## The 3 Communication Links

1. **Web Page (different from image on right), navigate via:**
   **www.cs.uga.edu/~maria/**
2. **Your responsibility**
   - » Understand policies, honor code
   - » Work independently on projects & homework
   - » Check page often for updates "refresh" to get latest copy
3. **Email list (tentative name)**
   **piazza! Setting up.**

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## Course Outline

- **Learn about creating games on different platforms, environments**
  - » Understand what a game engine provides.
- **Learn about using different gaming engines and environments**
  - » 2D: HTML5/Canvas
    - – Game Engine : ImpactJS ($99 not free),
  - » *3D Unity (free)*,
  - » Python/Pygame
- **Algorithms:**
  - » Path planning,
  - » Intelligent behaviors (tentatively)
  - » Events, Physics: Collision and Animation
- **Hands on programming (heavy focus),**
- **Game History**

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## Course Theme: Gamified Course

- **Self Learning**
- **Social Learning**
  - » Learn from your peers
  - » Interact with your peers
  - » While maintaining integrity
    - – end up with a game that you created not your peers (no line by line sharing, concept sharing is OK)
- **Practice programming**
  - » Create a game under different time constraints
    - - Within the class    : Hackathons
    - - Within 12 hours.    : Embellish Hackathon Code
    - - Within 20 hours    : HW
    - - 1 -2 weeks, .. & 2-3 weeks (final project)

## The Truth:  Time Commitment

"*A sword wielded poorly will kill it's owner*"

-- Ancient Proverb

- Game programming is time consuming and not for everyone, even if it may sound fun to everyone … but  it is not for everyone…
- 9-10 hours per week
  » You will learn a lot of material on your own.

https://en.wikipedia.org/wiki/Course_credit

## How to get an A? B? C?... F?

- Theory 40%
  » 2 Exams (10% each) + Final 15% + { Homework, quizzes } 05% = 40%
- Practice 50%
  » Projects – planning/design
  » Hackathons –think on your feet (90% if complete it in 10 hours – before midnight)
    – Should raise your grade
    – A+ if you do complete it in class.
- Participation 05%
  » 100% attendance will raise your final grade by 2%
  » Constructive participation on class list may raise your grade by ½ %
- Demos: you need 'volunteer' for at least one show and tell.

## How to get an A? B? C?... F?

- See syllabus web page …

  percentage break down

## Policy on Collaboration

- Assignments/projects/summaries:
  » Purpose: familiarization of concepts and details of game programming
  » Work on project independently (people or things)
    – No direct sharing of code
    – No line-by-line assistant
    – No exchange of code snippets
  » You are encouraged to ask questions of one another, and to respond to other student's questions (and especially on the email list)
- Exams:
  » (Laptops ARE  required – UGA rentals will not work)
  » No make-up tests  unless absence is due to serious illness. Doctor's diagnostic note is required. The final grade will be scaled accordingly.

## Tentative/past projects for class

- Projects using different gaming engines
- HTML5, JavaScript, PyGame, and Unity.
- Class Presentations: Social Media Games: Facebook Game / Case Studies. (Social Media
- (see cover page of class)

## Games

- http://cobweb.cs.uga.edu/~wah/games/Mario/index.html
- http://cobweb.cs.uga.edu/~ja/P2/index.html
- http://cobweb.cs.uga.edu/~burghaus/SaveBaseball/
- WASD: http://localhost/~ingrid/WASD/
- StarCraft:     http://hollums.github.io/games/SCBELdeploy/index.html
- Pacman:      http://hollums.github.io/games/Pac-Man/pacman.html
- file:///Users/ingrid/Library/Mail/V3/AosIMAP-maria.hybinette/INBOX.mbox/DD53B8DA-4EF8-45A5-B277-A8D41C1BA453/Data/1/7/0/1/Attachments/1071960/2/impactJSProject/lady_killer/index.html

# Homework 1

- **See schedule for details…**
- **Digital Image -- How to get out of the dog pound (and improve your grade).**