Course ID/Name: Comp425 Introduction to Programming – Java   *(rev 1/24/17)*

Semester: Spring 2017

Instructor: Michael Jonas   (**office:** room 141. **email:** mcy59@unh.edu)

Time and Location: Tuesday, 1 – 4pm, Room 132

Office Hours: Tuesday, 4 – 5pm or by appointment

Web Presence:

> Website: http://pubpages.unh.edu/~mcy59/comp/425
>
> Twitter: unhm_prof_jonas

Course Description:

An introduction to problem solving and object-oriented programming. Emphasis is on programming concepts and techniques and their application to software development. Students learn to write, review, document, share, and demonstrate interactive applications and participate in pair programming, peer-led tutoring, and collaborative learning throughout the course. 4 cr.

Learning Objectives:

Upon completion of this course, students should be able to:
- Apply object-oriented programming concepts and techniques
- Create and experiment with interactive applications
- Write, review, document, share, and demonstrate programming applications
- Communicate timely and work in teams effectively
- Argue for the use of open source software tools and adoption of open source collaboration practices

Textbook:

Primary: *Introduction to Programming with Greenfoot,* Michael Kolling, Prentice Hall, 1st ed 2010 (ISBN-10: 0-13-603753-4*)*

Software Tools:

- Java 6. Go to Java SE (Standard Edition) Development Kit (JDK) 6 Update 21 Download.
- Greenfoot software from http://www.greenfoot.org/download.

Student Work and Class Pedagogies:

Class will be divided into two parts, a lecture followed by a lab (with a break in between). Lectures will generally take the form of a board presentation with questions and answers, although at times we may break up into groups to take on a case study of an active topic.

Lab Work:

Labs will take on a more collaborative format where students can team up to solve problems. Some labs will be guided by the instructor whereas others, students will be given an assignment to solve in pairs or groups. Most of the lab work will also translate to further homework assignments where student can show individually what they have learned within the collaborative setting of the lab.

Assignments:

A total of 5 assignments are given during the semester. Each assignment will build on the previous set of assignments and become progressively harder. All assignments are expected to be done individually unless otherwise stated.

Schedule:

Class Date	Class Topics	Readings	Progress	Assigned Lab	Assignments Due
Jan 24	*CANCELLED: SNOW*				
Jan 31	Course Overview, Tools & Basics of Programming	chapter 1		Lab1	
Feb 7	Object behaviors and attributes	appendix D			Hw1
Feb 14	Writing a Java program with Greenfoot	chapter 2, appendix A		Lab2	
Feb 21	Object interactions	chapter 3			Hw2
Feb 28	Object animation	chapter 4		Lab3	
Mar 7	Review				Hw3 draft
Mar 14	**No classes, Spring Break**				
Mar 21	**Exam 1** *(1 hour)*				Hw3 final
Mar 28	Method call analysis	appendix B		Lab4	
Apr 4	Arrays & Quoridor API	chapter 5		Lab5	
Apr 11	More Quoridor API	chapter 6			Hw4
Apr 18	Class lab: *transition Lab5 & Hw4 into project*	chapter 7			
Apr 25	Class lab: upgrade wall placement	appendix C		Lab6	Project: design
May 2	Class lab: work on project & Review				
May 9	**Exam 2** *(1 hour)* & Battle Royal				
					Project: final (due May 15th)

Grading:

15% Participation
> This includes attendance and participation

20% Lab work
> Lab assignments done during lab: 5 out of 6 at 4 points each

20% Homework
> You will have 4 homework assignments at 5 points each

15% Programming Project
> Design worth 5 points and implementation worth 10 points

30% Exams
> You will have 2 exams worth 15 points each

Policies:

Academic Honesty and Collaboration:

Collaboration is encouraged and supported in the classroom through lab activities and discussion, and outside the classroom via emails and direct interaction. However, the homework assignments and tests you submit **must be entirely your own work.**

See the University policy on **Academic Honesty** for more information.

Attendance:

Is mandatory and you will lose on class participation grade if you miss class without an excuse.

Late Assignments and Make-Up Exams:

Policies for late assignments and make-up exams are very strict and apply only in exceptional cases of student illness, accident, or emergencies that are properly documented. It is your responsibility to make arrangements with instructor before the deadline as soon as you are aware you will miss a deadline, exam or class. Unexcused late assignments are penalized 20% per day.

Use of Electronic Devices in Classroom:

Not allowed during examinations. Absolutely no cell phone use during class time.