PROTOCOLS FOR MULTIMEDIA INTERFACES - FALL 2014 - SYLLABUS

Course Number and Title: DIG6751C - Protocols for Multimedia Interfaces Meeting Times and Location: Tuesdays, period: 7, and Thursdays, periods: 7-8, CSE E413 Credit Hours: 3.0 Instructor: Angelos Barmpoutis Instructor Office Location and Hours: Room: ORC office, NRG bldg., Tuesdays & Thursdays, period: 4 Instructor Contact Information: angelos@digitalworlds.ufl.edu

Course Description The goal of this class is to learn about the protocols that control the interface of devices such as computers, mobile phones, multimedia players etc. through the means of programming and scripting. This class offers an introduction to programming for non-programmers ideal for those who are interested in developing computer applications or mobile apps, such as educators, digital humanists, digital artists, scientists, and game developers, and there is no requirement for prior knowledge on this field. A wide range of human-computer interaction components will be covered, from standard keyboard/mouse/joystic functions up to state of the art touch screens and other natural user interfaces (Microsoft KINECT and others). The students will be exposed to the basic principles of interactive event handling and they will acquire skills in coding touch screen interaction using Java-based platforms, web-based interaction using Java script, as well as standard interaction methods for computer applications.

Course Objectives/Goals To learn general programming concepts, to acquire scripting skills, to understand multimedia representations in digital devices, to script interaction in virtual environments.

Week	Торіс	Tools
1	Introduction on computer interfaces - Variables & Conditions	Jeliot
2	Loops & Arrays	Jeliot
3	Functions	Jeliot
4	Programming Animations using Images	Processing
5	Object-oriented Programming	Processing
6	Custom Graphical User Interfaces - Pointing device interaction	Processing
7	Interactive applications with graphical user interfaces	Processing
8	Programming 3D Animations	Processing
9	Programming 3D Animations - Part 2	Processing
10	Developing Interactive 3D Games - Part 1	Processing
11	Developing Interactive 3D Games - Part 2	Processing
12	Professional Integrated Developing Environments	Eclipse - Java
13	Developing applications in IDE	Eclipse - Java
14	Programming Kinect interactions	Eclipse - Java
15	Review	Eclipse - Java

Course Outline (Topics, or, preferably, a more detailed listing of topics, assignments, assessments, papers, etc.)

Grading Scale

Letter	%	GPA
Grade	Equivalency	Equivalency
А	94 – 100%	4.0
A-	90 – 93%	3.67
B+	87 – 89%	3.33
В	84 – 86%	3.00
В-	80 – 83%	2.67
C+	77 – 79%	2.33
С	74 – 76%	2.00
C-	70 – 73%	1.67
D+	67 – 69%	1.33
D	64 – 66%	1.00
D-	60 – 63%	.67
E, I, NG, S-		0.00
U, WF		

Evaluations and Grades

_60% of the final grade comes from Weekly Homework Projects
_5% of the final grade comes from In-Class Projects
_5% of the final grade comes from Pop Quizzes
_30% of the final grade comes from Final exam

1) Class Attendance/Demeanor Policy

Policy on Absences

a. At the sole discretion of the instructor, documented Emergencies or medical situations may be the only acceptable reasons for an excused absence. At the very least, students must contact the Instructor 24 hours before class time if they wish to be considered for an excused absence.

b. Unexcused absences will accrue to the detriment of the portion of the final grade given for class participation.

2) OFFICE HOURS and RELATED POLICIES (Making Up Exams or Late Submissions, etc)

Office Hours for Student Consultation

a. The course instructor will post and hold weekly office hours for face-to-face meetings

b. Students are encouraged to begin assignments early enough such that instructors can provide assistance during regularly scheduled office hours if needed

Late policy

a. At the sole discretion of the instructor, late work may be penalized according to the late policy.

b. Any assignment turned in past the due date may lose up to 10% of the total point value of the assignment for each class day it is late.

Policy on Making up Exams

a. At the sole discretion of the instructor, Exams may or may not be taken late. Documented Emergencies or medical situations may be the only accepted reasons for an excused absence on the day of an exam. b. Any assignment turned in past the due date may lose up to 10% of the total point value of the assignment for each class day it is late.

3) Students with disabilities

Instructor will make every attempt to accommodate students with disabilities. At the same time, anyone requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide you with the necessary documentation, which you must then provide to Instructor when requesting accommodation.

4) Require texts and other materials (for texts: author, title, year, publisher)

- 1. LEARNING PROCESSING: A BEGINNER'S GUIDE TO PROGRAM by DANIEL SHIFFMAN, ISBN: 9780123736024
- JAVA FOR ARTISTS: THE ART, PHILOSOPHY, AND SCIENCE OF OBJECT-ORIENTED PROGRAMMING by KASPARIAN RAFFI, ISBN: 1932504052
- BEGINNING SMARTPHONE WEB DEVELOPMENT: BUILDING JAVASCRIPT, CSS, HTML AND AJAX-BASED APPLICATIONS FOR IPHONE, ANDROID, PALM PRE, BLACKBERRY, WINDOWS MO by GAIL FREDERICK, RAJESH LAL, ISBN: 143022620X

Additionally, there are several useful on-line tutorials and resources

5) Critical Dates

Final exam date: December 9 (Tuesday), 1:55pm-3:00pm, in our classroom

6) Academic Honesty

The university's policies regarding academic honesty, the honor code, and student conduct related to the honor code will be strictly enforced. Full information regarding these policies is available at the following links:

- Academic Honesty: http://www.registrar.ufl.edu/catalog/policies/students.html#honesty
- Honor Code: http://www.dso.ufl.edu/sccr/honorcodes/honorcode.php
- Student Conduct: http://www.dso.ufl.edu/sccr/honorcodes/conductcode.php

7) University Counseling Services

Contact information:

Counseling Center <u>Address</u>: 3190 Radio Rd. P.O. Box 112662, University of Florida Gainesville, FL 32611-2662 <u>Phone</u>: 352-392-1575 <u>Web</u>: www.counsel.ufl.edu

8) UF Computer Policy

a. In keeping with the University of Florida's student computer policy <u>http://training.helpdesk.ufl.edu/computing.shtml</u> all assignments completed for this class should be typed using a word processing program. Use of spellchecking and grammar-checking programs is strongly encouraged. Excessive spelling/grammar errors detract from quality of scholarship, and will be appropriately assessed.

b. Use of desktop publishing software and computer generated graphics for course deliverables that may eventually be included in student's portfolios is also strongly encouraged.

9. EMAIL and Response times

a. All students must maintain and USE their registered Gatorlink email address for email communications related to the class

b. Students will be contacted via their registered Gatorlink email address with any course updates or other items of pertinence to the course.

c. Students are expected to read their Gatorlink email at least once during every business day.

d. Allow a minimum of 24 business hours for the Instructor to reply to email from students.

10. Student Concerns

a. If you have any concerns or questions about any situation in the course please consult the instructor ASAP.

b. If after consultation with the Instructor, the student has unresolved concerns or questions, they may request an appointment with the program director.

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