CST-186-FA210: Introduction to Game Programming

Monday, 4:00 – 5:55 PM (Room K-107)

August 25 – December 8, 2014

Instructor: Dennis Roebuck
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Open Office Hours: (See News item on Desire2Learn Home page.)

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Course Web Site: elearning.delta.edu

Prerequisites: CST-170
Textbook: Guide to Programming with Python (ISBN-13: 978-1-4239-0112-9, ISBN-10: 1-4239-0112-6)

Materials: USB storage device or some other resource for saving/retrieving work, ability to install software on a computer (if you wish to do work outside of Delta College,) Internet access

Software: Python 2.3.5, PyGame 1.6, and LiveWires 2.0

Course Objectives
This course introduces principles of game and simulation programming through hands-on creation of simple games. It explores text-based and graphics-based game development through algorithm design, development, implementation, testing and documentation. Successful students will be able to:
- Define the specifications for a variety of games and simulations.
- Develop logic for text-based and simple Graphical User Interface game programs using critical thinking.
- Translate the logic of a game or simulation algorithm into a programming language.

- Use a variety of input and output media in game and simulation programming.
- Write documentation for games and simulations.

Instructional Approach
- This course will utilize a combination of instructional methods and resources in order to achieve the course objectives.
- **Students will be expected to prepare themselves for each class by previewing the subject to be covered in the textbook prior to the start of class.**
- Classes may be conducted by the instructor using a combination of lecture, *MS PowerPoint* presentations, CD-ROM video presentations, screen projected real time demonstrations, printed and electronic handouts, white board illustrations, and hands-on exercises.

E-Mail
- All students are required to use their Delta College e-mail account and monitor it regularly.
- If you have any questions about the course or need assistance, please contact me through your Delta College e-mail.
  - o When sending e-Mail, please include your class prefix and number in the Subject line. (i.e. CST-186)
  - o Please be clear, concise, professional, and polite in your e-mails… especially if you have concerns.
  - o Please spell check and proof read your e-mail before sending.
- If I have questions, comments, or other information for you, I will send it to your Delta College e-mail address via the eLearning (Desire2Learn) Course Management System, directly from MS Outlook, or Delta's Webmail.

Grading Scale

100 - 94 = A	87 – 89 = B+	77 – 79 = C+	66 – 69 = D+
90 – 93 = A-	84 – 86 = B	74 – 76 = C	60 – 65 = D
	80 – 83 = B-	70 – 73 = C-	0 – 59 = F

Grading and Evaluation Criteria (Percentages are approximate.)

- **20% of the grade is based on a Final Exam (_or_ a Final Project.)**
  - Final Exam may be completed from home, using the text book, notes, or study guide but must be completed within two (2) hours.
  - Students **_may be_** allowed 2 attempts with the highest score saved in the grade book.
  - Questions may be Multiple-Choice, True/False, Fill-In-The-Blank, Matching, and Short Answer formats.
- **50% of the grade is based on completing Programming Exercises from the textbook.**
  - Exercises will vary in length and complexity.
  - All necessary files must be zipped and submitted to the applicable dropbox by the due date as listed on page 3 of this syllabus.
- **20% of the grade is based on Chapter Quizzes.**
  - Quizzes may be attempted three times. An average score of all attempts will be used in the grade book.
  - Questions may be Multiple-Choice, True/False, Fill-In-The-Blank, and Matching.
  - Questions will be delivered through the eLearning (Desire2Learn) course site.
  - Questions may be completed outside of class while using the textbook or notes.
- **10% of the grade is based on Attendance**
  - Active Participation will be based on activity in the Desire2Learn course site.
  - Students' should complete some assignments during each session date range as described on page 3 of this syllabus.
  - If a student completes all work early, Active Participation points will be assigned, in full, for future sessions.
  - Extended absence from the course site and/or insufficient submission of assignments may result in being dropped from the class.

Late Assignments

- **Assignment due dates are listed on page 3 of this syllabus.**
- All assignments should be submitted in sequential order. For example, you must submit to the Chapter 1 Dropbox before the Chapter 2 Dropbox will be released to you. You must submit the Chapter 1 Review Quiz before the Chapter 2 Review Quiz will be released to you.
- If you miss a Due Date/End Date, you need to request an extension, from the instructor, via e-mail.
- If you are significantly late, the instructor may not accept your work and ask you to move on to the next assignment. If this occurs, the instructor will adjust restrictions allowing you access to the next Dropbox and/or Quiz.
- Insufficient submission of assignments and/or excessive absences may result in being dropped from the class.

- ❖ Delta College is dedicated to your success in the classroom. Because we want to make sure you have all the support necessary to be successful, we have a MyAlert/Student Success System. This is a system that faculty can use to refer students to the MyAlert program or for tutoring assistance. If I feel you could benefit from additional support outside of the classroom, I may make a referral to the facilitators of these programs and you will receive an email with details about how you can access these services.

Course Outline (Tentative)

Session	Topics	Reading	Assignments	Due Date
Aug 25	Introduction To Python, Data Types, Variables and I/O	Ch. 1 Ch. 2	• Ch. 1 Quiz • Ch. 1 Exercises • Ch. 2 Quiz • Ch. 2 Exercises	**Sep 7**
Sep 8	Branching, Loops, Program Planning, Strings, and Tuples	Ch. 3 Ch. 4	• Ch. 3 Quiz • Ch. 3 Exercises • Ch. 4 Quiz • Ch. 4 Exercises	**Sep 14**
Sep 15	Lists and Dictionaries	Ch. 5	• Ch. 5 Quiz • Ch. 5 Exercises	**Sep 21**
Sep 22	Functions	Ch. 6	• Ch. 6 Quiz • Ch. 6 Exercises	**Sep 28**
Sep 29	Files and Exceptions	Ch. 7	• Ch. 7 Quiz • Ch. 7 Exercises	**Oct 5**
Oct 6 **Oct 13**	Objects	Ch. 8	• Ch. 8 Quiz • Ch. 8 Exercises	**Oct 19**
Oct 20 **Oct 27**	Object-Oriented Programming (OOP)	Ch. 9	• Ch. 9 Quiz • Ch. 9 Exercises	**Nov 2**
Nov 3 **Nov 10** **Nov 17**	Graphics	Ch. 11	• Ch. 11 Quiz • Ch. 11 Exercises	**Nov 23**
Nov 24 **Dec 1**	Sound, Animation, and Program Development	Ch. 12	• Ch. 12 Quiz • Ch. 12 Exercises	**Dec 7**
Dec 8	**Final Exam** (Must be present in class)			

College Policies

The College has a number of policies, procedures, rules and regulations which apply to all students. The Delta College Catalog, which is available both in print form and online at http://www.delta.edu/catalog/, includes many of them.

They include but are not limited to the rules in Section VI on Student Rights and Responsibilities, Integrity of Academic Work, Disruptive Students, Student Complaint and Hearing Process, Electronic Resources Access and Use Guidelines; Safety and Security policies, including Sexual Harassment; and student Records Access and Confidentiality.

They also include, but are not limited to, Academic Policies in Section IV on Grading System including I - Incomplete grades and Attendance Policy and Disputed Final Grade Policy.

The policies, procedures, rules and regulations published in the Catalog apply to you as a student in this course, and you are responsible for knowing and following them. You should also be familiar with, and follow, your instructor's individual policies to ensure your success in the course.

The College also provides free resources to support student success such as the Teaching/Learning Center (http://www.delta.edu/tlc) located in the library and Counseling and Academic Advising, in D-102. If you have a disability that may interfere with your ability to benefit from the courses you are taking, it is your responsibility to make the College aware of this. Please contact the Director of Disability Services, in D-102, phone 686-9794, or e-mail at disabilityresources@delta.edu.

The *Senate Handbook* also contains information for students:

- The Student Code of Ethical Conduct (Senate Policy 8.001) can be accessed at the following link: https://deltanet.delta.edu/myintranet/senate/Senate%20Handbook%20PDF/Section%208/8%20001.pdf
- Student Violation of College Rules and Regulations (Senate Policy 8.045) can be accessed at https://deltanet.delta.edu/myintranet/senate/Senate%20Handbook%20PDF/Section%208/8%20045.pdf. This information also appears in the Catalog in modified language as "Student Complaint and Hearing Process."

The following are two excerpts from Section 4 of the Delta College Academic Policies and Information, which can be found on the Delta College Web site at http://alpha.delta.edu/catalog/archives/pdf01-02/sec4.pdf:

"The principles of truth and honesty are recognized as fundamental to a community of scholars. The College expects that both faculty and students will honor these principles and in so doing will protect the validity of College grades. This means that all academic work will be done by the student to whom it is assigned without unauthorized aid or falsification of any kind. Faculty, for their part, will exercise care in the planning and supervision of academic work so that honest effort will be positively encouraged. Faculty will point out to students acceptable forms of incorporating the thoughts of others into their work."

"If a question of academic honesty should arise, the first efforts toward the solution of the problem will be the responsibility of the faculty involved. The student will be notified of the allegation as soon as it becomes known to the faculty member and given a reasonable opportunity to respond to the faculty member before judgment is reached. Any penalty assessed will be at the discretion of the faculty member, who will take care to match the severity of the penalty with the seriousness of the situation. In any instance in which a failing grade in a course is given based on a charge of academic dishonesty, the faculty will notify the Division Chair and the student in writing of the circumstances and the evidence on which the action was based."