CS-105L
Introduction to Computer Programming
using JavaScript Spring 2018

Instructor:

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Office: Farris Engineering Center (FEC) Room 2110

Office Hours: Tuesday and Thursday 8:00 AM – 9:15 AM and by appointment.

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Course Description

CS-105L, Introduction to Computer Programming, is a gentle and fun introduction. Students will use a simple Integrated Development Environment to author small programs in a high level language that do interesting things.

Pre-Requisites: Basic computer literacy: how to save, open and find files on a Windows or Mac computer, how to use an Internet browser, and how to use a keyboard and mouse.

Detailed Description: This semester, we will be programming in JavaScript to make small, but fun programs that run in Web Browsers. In addition to programming, the course also covers some of the great ideas in computer science such as modeling, visualization, emergence, search engine page ranking systems, and complex adaptive systems. Throughout the course, students will author many short programs that preform two-dimensional graphics, animations, customized image manipulations and some simple games.

CS-105 is designed as a first course in computer programming for:

1. Pre-CS majors who do not have previous programming experience and are not yet ready for the fast pace and rigor of CS-152 (Computer Programming Fundamentals).
2. Students without programming experience who want to learn the basics of programing, an introduction to the JavaScript, HTML 5, and CSS to gain practical skills in Web design, how to create customized multi-media effects and other tasks.

Required Textbooks and Supplies

1. 3.0 USB Flash Drive (2.0 is ok, but 1.0 is too slow) - Bring to every lab class.
2. i>clicker® (needed for lectures only, not labs). Available UNM bookstore.

Grading

Each student's final course grade is a ***weighted average*** of four component grades:

60% Lab Projects.
10% Quizzes (in class i-clicker).
30% Exams (Midterm and Final).

$$G = 60\%\left(\frac{labPointsEarned}{totalLabPoints}\right) + 10\%\left(\frac{quizPointsEarned}{totalQuizPoints}\right) + 30\%\left(\frac{examPointsEarned}{200}\right)$$

The course letter grade is calculated form the numerical course grade by the table:

Letter Grade Score Ranges					
>100%	A+	93 - 100%	A	90 - 92%	A-
88 - 89%	B+	83 - 87%	B	80 - 82%	B-
78 - 79%	C+	70 - 77%	C		
68 - 69%	D+	50 - 67%	D		
		< 50%	F		

Lecture Attendance

Lecture class meets twice per week: Tuesday and Thursday 9:30 to 10:45. Lecture Attendance is a required component of the course. Quizzes, via i-clickers, will be given during almost every lecture. There are no make-up quizzes.

Lab Attendance

Lab class meets once per week in a computer lab. Lab attendance is taken both at the beginning and end of class. If you are absent, leave early or arrive more than ten minutes late, then you will be marked as absent. Each student may miss up to three lab classes during the semester without there being any direct effect on the grade. Each additional missed lab class will result in -2% to the student's final lab grade average. There are six lab sections at different times during the week. If for some reason you cannot attend your regularly scheduled lab class but are able to attend one of the other lab classes ***during the same week***, then that other lab can count as your lab attendance.

NOTE: Before attending a different lab section, check with that section's lab instructor to make sure there is an open space for you.

NOTE: In order to receive credit for attending a different lab section, ***it is your responsibility*** to make sure the lab instructor of that section ***counts you as present while you are in the lab*** class (NOT after the fact). Your name will not be on that

instructor's roster. You must make sure to speak to the lab instructor during the lab class, telling him or her first and last name, and in what section you are registered.

NOTE: The three lab classes that every student may miss without having final grade points deducted are designed to cover sports travel that prevents attending a different lab during the same week, short-term illnesses and other such events. A student that needs to miss many classes due to an extended or reoccurring illness or hospitalization will need to request a grade of *Incomplete* for the semester. With this, arrangements can be made for missed lab attendance and work to be completed during the following semester.

If you feel you need extra help or would simply like to attend lab section in addition to your own, then you are encouraged to do so. First, however, please contact the lab instructor of the extra lab you want to attend to make sure that there is enough space.

Late Policy

Lab assignments and projects can be turned in late with a penalty of FIVE PERCENT PER DAY (This would be -1 point per day on a 20 point lab). Assignments more than 7 days late will not be accepted. The primary reason for no negotiation in this is that solutions are generally released and discussed in class one week from the due date. There are, however, opportunities to make up some missed work through extra credit on assignments. A student that needs to miss many classes due to an extended or reoccurring illness or hospitalization will need to request a grade of *Incomplete* for the semester. With this, arrangements can be made for missed work to be completed during the following semester.

The lateness of an assignment is determined solely by the due date and the Blackbard Learn *timestamp of the final version* you submit.

When you submit an assignment in Blackboard Learn, it is ★YOUR RESPONSIBILITY★ to:

1. Exit Blackbard Learn,
2. Log back into Blackbard Learn,
3. Check that all required files are attached,
4. Check that the files uploaded correctly, and
5. Check that the contents of the submission are what you expect them to be. Do this by opening and examining your files from Blackbard Learn. Be sure to examine them carefully to make sure you submitted the correct version.

Up until the assignment due date, you can take back your submission, and resubmit. Doing this correctly is your responsibility and part of learning how to use computer systems.

Academic Honesty

Students are encouraged to help each other on labs through personal interaction and through the Blackboard Learn discussions. There is, however, a difference between helping and cheating. Cheating includes:

1. Copying another person's work,
2. E-mailing or giving an electronic version of your work to anyone other than a course instructor.
3. Leaving a paper or an electronic version of your work where others can get it: you are responsible for your own computer security. If you save a local copy of your work on a lab computer, delete it and empty the trash before logging off!
4. Having another person complete any portion of your work.

The first time a student is caught cheating; the student will receive a negative grade for the assignment (i.e. if the assignment is worth 100 points, then a score of -100 is assigned).

Title IX:

In an effort to meet obligations under Title IX, UNM faculty, Teaching Assistants, and Graduate Assistants are considered "responsible employees" by the Department of Education (see pg 15 - http://www2.ed.gov/about/offices/list/ocr/docs/qa-201404-title-ix.pdf). This designation requires that any report of gender discrimination which includes sexual harassment, sexual misconduct and sexual violence made to a faculty member, TA, or GA must be reported to the Title IX Coordinator at the Office of Equal Opportunity (oeo.unm.edu). For more information on the campus policy regarding sexual misconduct, see: https://policy.unm.edu/university-policies/2000/2740.html

ADA:

In accordance with University Policy 2310 and the Americans with Disabilities Act (ADA), academic accommodations may be made for any student who notifies the instructor of the need for an accommodation. If you have a disability, either permanent or temporary, contact Accessibility Resource Center at 277-3506 for additional information.

Syllabus	
Week 1	**Drawing Lines and Shapes**
Week 2	**Numbers, Strings, Variables and Loops**
Week 3	**If, else if, else statements**
Week 4	**HTML5: Text, Buttons, Sliders, and Edit Fields**
Week 5	**Functions, Random Numbers**
Week 6	**Animation and Mouse Input**
Week 7	**Linux and creating a Website**
Week 8	**Review and Midterm exam**
Week 9	**Objects**
Week 10	**Arrays**
Week 11	**Modeling and Simulation I**
Week 12	**Modeling and Simulation II**
Week 13	**Simple Complex Adaptive Systems**
Week 14	**Sound**
Week 15	**WebGL and 3D Graphics**
Week 16	**Final Exam (Tuesday May 8th, 7:30 AM – 9:30 AM)**