NOTE to prospective students: This syllabus is intended to provide students who are considering taking this course an idea of what they will be learning. A more detailed syllabus will be available on the course Canvas site for enrolled students and may be more current than this sample syllabus.

Course Name: Web Development
Course Number: CS 290
Credits: 4

Course Description
How to design and implement a multi-tier application using web technologies: Creation of extensive custom client- and server-side code, consistent with achieving a high-quality software architecture.

Prerequisites: CS 162 [C] or CS 165 [C]

Course Credits
This course combines approximately 120 hours of instruction, online activities, and assignments for 4 credits.

Organization
This course is divided into three main sections which are largely addressed sequentially:

- Layout and Styling
  - The first portion of the class focuses on the static layout and styling of a web page. For some this may be review if you have done web publishing in the past. There is quite a bit of information to take in here but the problems to solve are not that intricate.

- Client Side Interaction
  - The second portion of the class focuses on JavaScript and making interactive web pages in the browser. Things like forms that will display an error message if a password is too short or creating drop-down menus are things that will be covered in this portion of the class.

- Server Side Interaction
  - In this portion of the class we look at using a very simple database to store data between website visits. The technologies we will be using this term are Node.js and MySQL. In addition we look at how we can track a user and data from page to page which is a critical first step in designing more complex systems like shopping carts for an on-line shopping web site.

Prior Knowledge
NOTE to prospective students: This syllabus is intended to provide students who are considering taking this course an idea of what they will be learning. A more detailed syllabus will be available on the course Canvas site for enrolled students and may be more current than this sample syllabus.

Before starting work in this class students should know the fundamentals of object oriented programming. The following is a list of topic that you should be very comfortable with:

- **Basic data types**
  - This list ([http://msdn.microsoft.com/en-us/library/cc953fe1.aspx](http://msdn.microsoft.com/en-us/library/cc953fe1.aspx)) of data types should be familiar or at least understandable after reading the type description.

- **Common object types**
  - You should know what a string is. You should know if there is a difference between a string and an array. You should know the difference between a string in C and a string object in C++

- **Complex data types**
  - You should know what an array is, what a struct is and what, if any, differences there are between them.

- **Flow control primitives**
  - You must be very comfortable with for, while, if/else, switch and do/while. You should know how they work, you should know what \[i\] is equal to at the completion of a loop if the condition says for(\[i\]=0, \[i\]<5, \[i\]++) , is it 5 or is it 6?

- **Scope**
  - No matter where I declare int foo in your code, you should be able to figure out if any other arbitrary spot in your code can access that variable. You should know what public and private functions are and what happens (and what it means) when variables go out of scope.

- **Problem solving**
  - If a language does not provide you a tool to do something, but you need that tool to make progress, you should be comfortable making it yourself. You should be comfortable making helper functions, even when the requirements don't call for it.

- **Organization and documentation**
  - You should know that all of your source code probably does not belong in a single file and that every public function should have comments.

- **Things not on this list**
  - This is not a comprehensive list, but it is a good start. If you don't know any of these topics, consider reviewing them before the class begins.

**Technical Assistance**

This course is offered through Oregon State University Extended Campus: [http://ecampus.oregonstate.edu](http://ecampus.oregonstate.edu).
NOTE to prospective students: This syllabus is intended to provide students who are considering taking this course an idea of what they will be learning. A more detailed syllabus will be available on the course Canvas site for enrolled students and may be more current than this sample syllabus.

If you experience any errors or problems while in your online course, contact 24-7 Canvas Support through the Help link within Canvas. If you experience computer difficulties, need help downloading a browser or plug-in, or need assistance logging into a course, contact the IS Help Desk for assistance. You can call (541) 737-8787 or visit the OSU IS Helpdesk online.

Canvas
This course will be delivered via Canvas where you will interact with your classmates and with your instructor. Within the course Canvas site you will access the learning materials, such as the syllabus, class discussions, assignments, projects, and quizzes. To preview how an online course works, visit the Ecampus Course Demo. For technical assistance, please visit Ecampus Technical Help.

Evaluation of Student Performance

- Activities/Exercise - 20%
- Homework Assignments - 50%
- How-To - 10%
- Final Exam  20%

Course Policies

Proctored Exams
This course will have a final exam which must be proctored. You can find out more about proctoring at the central Ecampus page on tests and proctoring (http://ecampus.oregonstate.edu/services/proctoring/). The final exam window will run from the Monday at the start of finals week through Thursday of finals week. If you are unable to take the exam in that window you must make arrangements prior to the end of the 2nd week of classes. Beyond this deadline only emergency situations will be considered for alternate testing times.

Where possible I suggest using an in-person proctor. Should an issue arise it is historically a lot easier to get it resolved at a testing center than with ProctorU. If you do use ProctorU and an issue does arise, please document the situation as thoroughly as possible and forward that on to the instructor as soon as is reasonable.

Statement Regarding Students with Disabilities
Accommodations for students with disabilities are determined and approved by Disability Access Services (DAS). If you, as a student, believe you are eligible for accommodations but have not obtained approval please contact DAS immediately at 541-737-4098 or at http://ds.oregonstate.edu. DAS notifies students and faculty members of approved
NOTE to prospective students: This syllabus is intended to provide students who are considering taking this course an idea of what they will be learning. A more detailed syllabus will be available on the course Canvas site for enrolled students and may be more current than this sample syllabus.

academic accommodations and coordinates implementation of those accommodations. While not required, students and faculty members are encouraged to discuss details of the implementation of individual accommodations.

Expectations for Student Conduct

Student conduct is governed by the university’s policies, as explained in the Student Conduct Code.

Academic Integrity

Students are expected to comply with all regulations pertaining to academic honesty. For further information, visit Student Conduct and Community Standards, or contact the office of Student Conduct and Mediation at 541-737-3656.

OAR 576-015-0020 (2) Academic or Scholarly Dishonesty:

a) Academic or Scholarly Dishonesty is defined as an act of deception in which a Student seeks to claim credit for the work or effort of another person, or uses unauthorized materials or fabricated information in any academic work or research, either through the Student’s own efforts or the efforts of another.

b) It includes:

i) CHEATING - use or attempted use of unauthorized materials, information or study aids, or an act of deceit by which a Student attempts to misrepresent mastery of academic effort or information. This includes but is not limited to unauthorized copying or collaboration on a test or assignment, using prohibited materials and texts, any misuse of an electronic device, or using any deceptive means to gain academic credit.

ii) FABRICATION - falsification or invention of any information including but not limited to falsifying research, inventing or exaggerating data, or listing incorrect or fictitious references.

iii) ASSISTING - helping another commit an act of academic dishonesty. This includes but is not limited to paying or bribing someone to acquire a test or assignment, changing someone’s grades or academic records, taking a test/doing an assignment for someone else by any means, including misuse of an electronic device. It is a violation of Oregon state law to create and offer to sell part or all of an educational assignment to another person (ORS 165.114).

iv) TAMPERING - altering or interfering with evaluation instruments or documents.

v) PLAGIARISM - representing the words or ideas of another person or presenting someone else’s words, ideas, artistry or data as one’s own, or using one’s own previously submitted work. Plagiarism includes but is not limited to copying another
NOTE to prospective students: This syllabus is intended to provide students who are considering taking this course an idea of what they will be learning. A more detailed syllabus will be available on the course Canvas site for enrolled students and may be more current than this sample syllabus.

person's work (including unpublished material) without appropriate referencing, presenting someone else's opinions and theories as one's own, or working jointly on a project and then submitting it as one's own.

c) Academic Dishonesty cases are handled initially by the academic units, following the process outlined in the University's Academic Dishonesty Report Form, and will also be referred to SCCS for action under these rules.

Tutoring

NetTutor is a leading provider of online tutoring and learner support services fully staffed by experienced, trained and monitored tutors. Students connect to live tutors from any computer that has Internet access. NetTutor provides a virtual whiteboard that allows tutors and students to work on problems in a real time environment. They also have an online writing lab where tutors critique and return essays within 24 to 48 hours. Access NetTutor from within your Canvas class by clicking on the Tools button in your course menu.