Syllabus for CS 297, Programming Capstone

Spring 2018

CRN	43567	Credits	5	Day and time	M, Tu, W, Th: 12:00 – 1:50

Instructor	Brian Bird	Office phone	541-463-3024
Office	Building 19, Room 152	E-mail	birdb@lanecc.edu
Office hours	M – Th 2:00 – 3:00		

Course Description
This course is an advanced course in programming methods with an emphasis on applying best practices for software development in the context of a development team. The course ties together topics covered in the first and second years of curriculum. It emphasizes practical application and working knowledge and is project oriented. Students will work together in teams to produce a moderately complex software application (or system) and prepare it for release to end users.

Learning Outcomes
Upon completion of this course you will be able to:

1. Analyze, design and implement a medium scale, but significant programming project
2. Demonstrate an ability to integrate knowledge and skills acquired in previous coursework
3. Demonstrate the ability to work as an effective member of a project team
4. Research, analyze and describe the current state of the state and regional job markets.

Learning Resources

Text
No textbook is required, but you may optionally refer chapters 9-17 of *Systems Analysis and Design in a Changing World*, Satzinger, Jackson, and Burd

Moodle site
All course activities and resources will be managed through this course's Moodle site. Assignment instructions will be made available on Moodle by the instructor and assignments will be submitted to Moodle by the students.

Software
Licenses for all software and hosting platforms used for development (Visual Studio, Eclipse, Unity, Azure, git, issue tracking, project management, etc.) will be provided at no cost to students.

Assessment and Grading

Since one of the main objectives for this class is to learn to produce a major software project as a team, 40% of your grade will be based on the work done by your team. The other 60% of your grade will be based on individual participation and assignments.

Since this is a five-credit class and your main activity is to work with your team, we only meet for eight hours a week of in-class lab time. In addition, you should budget at least six hours a week for work outside of class.

Attendance
Attendance is both required and graded. The main activity you will do in this class is the work you do with your team, you need to be present with your team to do that work effectively.

No Show Drop
The college's "no show, drop" policy requires that during the first week of the term, on-campus students must physically attend at least one class session.

Syllabus for CS 297, Programming Capstone

Spring 2018

The table below shows the grade percentage for each assessment task:

Assessment Activities	***Percentage***
Team programming project	40%
Individual assignments	20%
Participation in your team • Git commits and pull requests • Completed user stories • Class attendance and hours worked	40%

Letter grades for the course will be determined by the following percentages:

	-		+
A	90 - 91	92 – 97	98 - 100
B	80 - 81	82 – 87	88 - 89
C	70 – 71	72 – 77	78 - 79
D	60 - 61	62 – 67	68 - 69
F	Below 60		

Late Work

- The grade for assignments will be reduced 10% if they are submitted late.
- The final project is due at the time scheduled for the final exam. It will not be accepted late.
- Exceptions will be made only for illness or serious emergency situations.

Academic Honesty

Students will be trusted to accurately report their class and team participation, Git commits and pull requests, and records of work completed in their team's project management system.

Academic Calendar for Spring Term 2018

Term begins	4/2/18
Last day to receive refund	4/28/18
Spring Conference, College closed	5/4/18
Last day for schedule changes	5/25/18
Memorial Day holiday	5/28/18
Finals week	6/11/18 - 6/16/18

Accessibility and Accommodations

To request accommodations, contact the Center for Accessible Resources at (541) 463-5150 or AccessibleResources@lanecc.edu

Please be aware that any accessible tables and chairs in this room should remain available for authorized students who find that standard classroom seating is not usable.

Syllabus for CS 297, Programming Capstone

Spring 2018

Term Schedule (tentative)

Week	*Lecture Topics / in-class activities*	*Exercises / Assignments*
1	**Agile Project Management and Git repositories**	Write user stories, set up project management, set up a Git repository
	Practice using Git and Agile tools	
2	**Git Workflow**	Use branches and pull requests
	Use pull requests to do code review	
3	**Getting user feedback**	Create UI mock-ups, prototypes, or initial versions. Revise requirements
	Present user feedback on your project	
4	**Continuous Integration**	Read and report on how you will apply continuous integration to your project
	Team discussion	
5	**Testing** (Unit tests, integration tests, acceptance tests)	Write a manual test procedure, evaluate unit test coverage
	Team discussion	
6	**Project "Alpha" Release**	Get user feedback again
	Alpha project presentations	
7		
8	**Dev Ops**	Read and report on how Dev Ops applies to your project
	Team discussion	
9	**Project Beta Release**	Preliminary project report
	TBD	
10		
11	**Final presentations**	Final project report
	In-class project presentations. No final exam	