Western Oregon University

345 N. Monmouth Ave.
Monmouth, OR 97361

Term
Spring, 2016

Instructors
Dr. Becka Morgan,
Alison Omlid (labs)

Office Hours
See your instructors web site
wou.edu/~morganb
wou.edu/~omlida

Time and Location
Lecture
CRN: 31151 (Morgan)
9:00 – 9:50 MWF ITC301
CRN: 31152 (Morgan)
10:00 – 10:50 MWF MOD101

Labs
CRN: 31163 (Morgan)
14:00 – 16:50 W ITC311
CRN: 31164 (Omlid)
14:00 – 16:50 R ITC311

CS-162
Computer Science 2
Course Syllabus

Course Description
Second term in the 161-162 sequence that provides students with a foundation in software development and computer programming. Includes advanced object-oriented programming concepts, GUI and event driven programming, file I/O, recursion, and further explorations of the language libraries.

In this class students apply the fundamental programming concepts gained in the CS161 to create more complex programs. Additionally, new concepts and tools are introduced, including tools that help in the construction of larger, more durable programs that can be used for practical applications.

Required Text/Materials
Barnes, David J. and Kolling, Michael, Objects First with Java, Fifth Edition, Prentice Hall, 2011. ISBN 9780132492669

Online/Digital class materials can be found on WOU Online (Moodle), the course site, or your instructors website (content is accessible from any of these):

http://online.wou.edu
http://wou.edu/las/cs/csclasses

USB Flash drive required for in class work.

Prerequisites
A "C" or better grade in CS161 is required.

Performance Based Learner Outcomes
Upon successful completion of the class, students should be able to:

- ✓ Demonstrate proper application of coding style according to commonly accepted professional engineering standards
- ✓ Understand fundamental algorithm concepts and design algorithmic solutions for basic problems
- ✓ Construct an algorithm representation using pseudo-code or flowcharts
- ✓ Translate an algorithmic representation into an executable Java program
- ✓ Design solutions and Java programs utilizing inheritance and interfaces
- ✓ Detect and recover from run-time errors using exception handling
- ✓ Create, write to, and read from external storage
- ✓ Create user-friendly programs using event driven, graphical interfaces
- ✓ Trace and develop recursive algorithms and programs

Primary Teaching Method
Readings, on-line tutorials, and hands-on labs focused on programming and software engineering are used to introduce computer science concepts and provide guidance in software engineering methods and principles. This content is supplemented with interactive lectures, discussions and classroom activities.

ADA

Any student who feels s/he may need an accommodation based on the impact of a disability should contact your instructor privately to discuss your specific needs. Please contact the Office of Disability Services at *503-838-8250* to coordinate reasonable accommodations for students with documented disabilities

Diversity

By providing a multicultural campus community, WOU offers students the knowledge, attitudes, and skills to function effectively within and beyond their cultural boundaries as required in today's global society. To accomplish this WOU has developed active communities of learning representing diverse populations and perspectives. We provide access to an array of diverse and inclusive populations to foster a quality workforce and well-educated citizens.

Code of Student Responsibility

All members of the University community have a responsibility to maintain a level of behavior that reflects favorably upon the person and the University. The University expects students to abide by local, state, and federal laws as well as University policies, procedures and regulations.
Please read the school catalog for campus policies on student rights and responsibilities, and on academic dishonesty. All campus policies will be enforced.

Student Success

Students in this class may be referred to the WOU Student Success Specialist (SSS) if the instructor determines their performance in the class is placing them at academic risk. The SSS will offer to work with referred students to address issues and develop a student success strategy. Irrespective of whether a referral has or has not been made, you are ultimately responsible for tracking your own progress in this course.

Course Requirements

✓ Quizzes and Exams must be taken at the times and dates scheduled. **Quizzes and Exams may not be taken outside of the lab.** There will be no makeup quizzes or exams. If you must miss an exam due to a REAL emergency, contact your instructor (phone or email) PRIOR to the exam time.

✓ The Final Project is required for a passing grade of greater than C-

✓ A minimal mastery of the content is necessary to be successful in the next class in the CS program; so a minimal mastery grade is required on the final in order to receive a passing grade in the course.

Grading policies

Components	*Grade Scale*		
Labs/Exercies:25% Quizzes: 25% Project: 10% Final Exam: 40%	 89% - 88% B+ 79% - 78% C+ 69% - 68% D+	100% - 92% A 87% - 82% B 77% - 72% C 67% - 62% D 59% - 0% F	91% - 90% A– 81% - 80% B– 71% - 70% C– 61% - 60% D–
Notes:	See the "Student Tips" page for more details on labs/exercises, quizzes, grading and points.		

Course Content/Assignment Outline (visit the class web site for weekly outlines; see http://wou.edu/provost/registrar/calendar.php for academic calendar)

Week	*Topics and Notes*	*Pre-Lab*	*Labs*	*Exams*
1	Class introduction and overview Java basics Review			
2	Chapter 8: Improving structure with inheritance	PL2	L1	Q1
3	Chapter 9: More about inheritance	PL3	L2	
4	Chapter 10: Further abstraction techniques	PL4	L3	Q2
5	Chapter 11: Building graphical user interfaces	PL5	L4	
6	Supplemental material on GUI Programming	PL6	L5	Q3
7	Chapter 12: Handling Errors	PL7	L6	
8	Chapter 13 and 14: Designing applications	PL8	L7	Q4
9	Supplemental material on Recursive Programming		L8	
10	ADT's; Stacks & Queues; Review for Final		Project	Q5
11	***Finals Week*** **See week #11 outline for exam details**			Final Exam

Course Notes

✓ READ THE CLASS POLICIES & STUDENT TIPS FILE on ***the class website (http://csclasses.wou.edu)*** for detailed class policies and tips.

✓ It is important finish the reading/tutorials PRIOR to doing the labs. The topics covered in this course are ***difficult*** and may be hard to understand otherwise.

✓ An incomplete grade will be given only in unusual circumstances. You must be passing the class at the time of the request for an incomplete, and there must be a serious event that prevents you from completing the class.

✓ Please review Western's Students Rights and Responsibilities, and the campus policy on plagiarism.

✓ See the "academic calendar" at: http://wou.edu/provost/registrar/calendar.php for all important academic dates for the term and holidays.

✓ Remember that the syllabus is a guideline to this course, it is not a legal contract. Situations may arise that could require modifications to this guide. Any changes will be announced in class or posted on the class web site.