Course Syllabus

CSCI 242 - Computer Science II - Version 2.0.0

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By appointment.

Course Description

This course introduces the student to *object-oriented programming*. Java is an object-oriented programming language that uses abstraction, encapsulation, inheritance, and polymorphism to provide great flexibility, modularity, and reusability in the software development life cycle. In addition, this course introduces the student to elementary Java GUI programming as well as recursion and generics. Finally, this course introduces the student to data structures and algorithms.

General topics include: class inheritance, polymorphism, exception handling and text I/O, abstract classes and interfaces, GUI basics, drawing shapes, event-driven programming, using GUI, components, recursion, generics, lists, stacks, queues, O (), binary search trees and sorting.

Course Goals & Objectives

This course introduces and develops the following UWP shared learning goals (in bold) and CS-major ABET learning outcomes:

- Reasoned Judgment: (specifically) Critical thinking, scientific thinking, analytic skills.
 - Apply knowledge of computing and mathematics appropriate to the discipline
 - Analyze a problem and identify requirements for the solution
 - Design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs

To meet these goals, you will:

- Design, implement and test computer programs that use object-oriented techniques,
- Design, implement and test computer programs that uses multiple control structures,
- Analyze a problem, identify and define computing requirements appropriate to its solution, and
- Develop computer programs that read and write to files.
- Social & Personal Responsibility: (specifically) Teamwork
 - Function effectively on teams
 - You'll develop teamwork skills by working in pairs during the lab sessions.
- Communication: (specifically) literacy
 - Use current techniques, skills and tools
 - You'll use an integrated development environment (NetBeans) to develop programs.

Prerequisites

This course has a prerequisite of C or better in *either CSCI 145 or CSCI 241*. This course also assumes that you took your CS1 class at UWP. The prerequisites are a protection for the students and therefore will be strictly enforced.

Required Text & Materials

Liang, Y. Daniel, <u>Introduction to Java Programming</u>, Comprehensive Version, 10th edition, Pearson Education, 2014, ISBN-10: 0133761312, ISBN-13: 978-0133761313.

It is helpful for students to have a laptop computer. Students may also use (or purchase) a USB flash drive. This will be convenient for carrying files to and from home.

Course Specifics

Communication. All course communication will be accomplished in one of two ways: announcements during lecture and electronic communication.

- Missing a lecture is not an excuse for missing an announcement. See "Attendance & Absences" below.
- Email is the best way to communicate with your instructor outside of class. When using email, please include the following marker in the subject line: CSCl242. This marker shows that the email is from this class and will help me fight spam. If you do not include the marker, I may delete the email without looking at it! Also, I will not reply to general emails regarding the assignments; it is simply too difficult to do this without looking at your work. If you need assistance with your homework, come to the open lab period.
- Desire2Learn (D2L) is used in this class as a course management tool. All course material can be found at the courses D2L Web site

Course Schedule. The course schedule shows you exactly what material will be covered for any particular week during the semester. It is recommended that you print the Course Schedule and keep it in your book or in a folder for quick reference.

Lecture

Attendance & Absences. Attendance to lectures, laboratory and discussion is mandatory and expected. If you miss a class meeting due to some unforeseen circumstance, it is your responsibility to make up the missed material.

Examinations. There will be 3 examinations through the class: 2 midterms and a final. The final will be a comprehensive final exam conducted during finals week. See SOLAR for the exact date and time of the final examination.

Exams cannot be "made-up". If you miss an exam without prior approval by the instructor, you will receive a grade of 0 (zero). If you miss the exam due to an emergency, you must provide written documentation supporting your emergency claim in order to be excused. If you are excused for an exam absence, the exam must be made up before the exam is discussed in class; this is usually the next lecture period. You lose the right to take the exam if you do not make-up the exam before the next class period. The schedule has the exact dates for the exams.

Laboratory

There is a formal laboratory for this course. Thus, laboratories must be completed *during scheduled times* in the Computer Science laboratory, MOLN D116. Laboratories cannot be made up; if you miss laboratory, you will receive a 0 for that laboratory.

Laboratory Preparation. Each set of lab exercises will be based on textbook and lecture material. Additionally, there may be a pre-laboratory reading that will accompany the textbook and lecture material. Be sure to read the assigned textbook reading, attend the lectures and read the pre-laboratory material. Laboratory is successful when the student is properly prepared.

Laboratory Readings: If there is a pre-lab reading, it will be posted in D2L. The laboratory instructions/exercises will also be posted in D2L the day of the laboratory.

Laboratory Exercises: Each week, your instructor will pair you with another student. Your partner will change each week. You and your partner are to work through the laboratory instructions/exercises together.

Computer Science Lab Use

The Computer Science Laboratory (CS lab) in MOLN D116 holds computer workstations from which you can reach your individual lab account. These workstations are connected via a Local Area Network to a server so you can use any of the machines and log in to your own account. These machines use a version of the Linux operating system. We will cover some of the basics of Linux during the first laboratory.

You must use your Ranger Card to enter MOLN D116. Contact the Ranger Card Desk (in the Student Center) if you need a Ranger Card.

Your computer account is your private property, and should be treated as such. Keep your password private and make sure to completely log out every time you use your account. It is your responsibility to prevent others from plagiarizing your work.

Assignment Submission Policy and Guidelines

You will receive a new programming assignment every two or three weeks. Assignments must be submitted electronically. Programming assignments are due at the beginning of lecture on the assigned due date. Late assignments will not be accepted. Extensions may be granted in rare cases when extenuating circumstances (like serious illness or disability, a death in the family, an accident, etc.) exist, and are supported by written documentation. There will be no extension of assignment deadlines if computing facilities are down close to the due date unless the downtime exceeds 24 hours. NO EXCEPTIONS!

You must electronically submit your programming assignments to D2L. Your assignments must be "zipped" up and submitted to a D2L dropbox. Details for submission are contained in each programming assignment.

Your assignment must be properly and completely documented. Please see the document titled, "Coding Guidelines" for details on the assignment documentation requirements.

Course Software

Many students successfully install course software on their home computers to write, compile and run programs. All course software is free. However, your instructor will grade your assignments on a CS Lab machine. If you work at home, make certain that you test your program in the lab environment before submitting.

Academic Performance

Letter Grades. At the end of the course, letter grades (including plus/minus) will be assigned based upon you cumulative score percentages as follows:

Letter Grade	+	Grade	-
А		93.3% - above	90.0 – 93.2%
В	86.6 – 89.9%	83.3 – 86.5%	80.0 – 83.2%
С	76.6 – 79.9%	73.3 – 76.5%	70.0 – 73.2%
D	66.6 – 69.9%	63.3 – 66.5%	60.0 – 63.2%
F		Below 60%	

Weighting Distribution. The following weighting distribution will be used to compute your final grade:

Programming assignments	30%	2 Midterm examinations (15% each)	30%
Laboratory	20%	1 Comprehensive final examination	20%

General

Grading questions. If you have a question about a grade, you should see me within one week of the day the graded work is returned to you (via D2L). You lose the right to re-grading after that.

Incompletes. Incompletes (a grade of "I") are rarely granted. The University has strict policies regarding grades of incomplete. These policies will be enforced. Incompletes are not to be used as a shelter from potentially low grades.

Academic Misconduct and Cheating. All coursework should be done individually except for weekly lab exercises, unless otherwise directed by the instructor. Copying is strictly forbidden. According to the severity of the offense, students caught cheating may either share a grade or receive a zero for the assignment. Repeated offenses will result in dismissal from the course and possible disciplinary sanctions by the university. Chapter UWS 14 covers academic Misconduct definitions and procedures.

Students with a Disability. Anyone who has special needs that must be accommodated to fulfill the course requirements should notify the instructor and Renee Kirby in the Office of the Educational and Career Development (WLLC D175, 595-2610). The University has many resources available to assist students with their academic studies.

Accommodation of Religious Observances. UW Parkside Senate policy requires that this institution make reasonable accommodations for a student's religious beliefs. Please notify your instructor within the first two weeks of class about any scheduled class date(s) that conflict with a religious observance.

Food and Drink in Class. Beverages and food are allowed in class as long as I do not have clean up after you. This is a privilege that I will revoke if I end up having to be your mother. Please practice a "carry in – carry out" policy.

Mobile Devices in Class. As a courtesy to the instructor and other students, please disable the ringtone of your mobile device or turn your mobile device off during lecture and lab. If you must use the phone, please leave the classroom or lab and go to a place that will not disturb other students. Use your mobile device courteously.

Illnesses. If you are sick, please stay home. You are able to get all of your course materials on-line and you are able to turn in assignments on-line. So, if you are sick, there is no reason to be at school increasing others chances of getting sick. *However, see Attendance & Absences and Examinations above.*

Weapons. Weapons are prohibited in UW-Parkside buildings and all outdoor events. Anyone found in violation will be subject to immediate removal in addition to academic and/or legal sanctions. If you have a concern regarding weapons at this university, please contact the University Police (595-2455).

The instructor reserves the right to modify this syllabus at any time, as deemed necessary