Fall 9-1-2015

# CSCI 136.10: Fundmentals of Computer Science II

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# Fundamentals of Computer Science CSCI 136 Syllabus Fall 2015

**CSCI 136 Section 10**
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## Overview:

This class is designed to give you a good general understanding of software development and logical reasoning. This course focuses on a continuation of introducing general programming and object oriented programming concepts using the Java programming language. This course will introduce all of these concepts as well as provide a number of hands on opportunities to become proficient in using these tools.

- General Computing Concepts
- Object Oriented Concepts
- Logical Reasoning and Critical Thinking
- Java Programming Constructs

Upon completing this course, a student will be able to:

- Create UML diagrams based on requirement descriptions
- Be more proficient with reading and writing files
- Be proficient with using static and dynamic data structures
- Instantiate and use classes from the built-in Java library as well as custom classes
- Create graphical programs using appropriate layout managers and event handlers
- Create Inherited class structures
- Leverage Inherited classes and Interfaces for Polymorphism
- Design and implement recursive algorithms
- Understand basic searching and sorting algorithms
- Make programs more robust with built-in and custom exception handling
- Create class libraries, add them to jar files and reuse them
- Create test cases and leverage them for programs written
- Understand linear and non-linear data structures

## Attendance:

Attendance is mandatory however I realize there are times when you must be absent. Please give me advance notice of any absences, and I will provide you with the same courtesy.

Class is held Mondays and Wednesdays from 11-12 am in GBB 119. Lab is held from 9-10 am on Thursday in LA 206 or 10-11 am Thursday in LA 206. You are also welcome to attend the 135 lab from 1-2 pm on Wednesday in ED 214 and 2-3 pm Thursday in LA 206.

## Grading:

**Homework** 35%
**Labs** 20%
**2 Exams** 15% for each test
**Final Exam** 15% **Final: Thursday Dec 17th, 2015 8-10 am**

**All Assignments will be submitted through Moodle assignments. If you have trouble with your submission, please send them to**

**michael.cassens@mso.umt.edu**

**Your subject must be CSCI 136 Assignment # (e.g CSCI 136 Assignment 1)**

**If you have multiple files, please zip all your files and label your file:**
**"CSCI136LastNameAssignment1.zip"**

### Grading Scale:

- 100-90 A, A-
- 89-80 B+, B, B-
- 79-70 C+, C, C-
- 69-60 D+, D, D-
- 59-and beyond F

P/NP – pass/no pass, 70 or greater is passing determined by Computer Science Department policy, which is a C or better.

### Late Assignments:

- Late assignments will not be accepted. Sorry for the inconvenience.

## Requirements:

### Required Texts:

- **Java Software Solutions 8th edition – Lewis and Loftus**

### Pre-requisites for this course:

- CSCI 100, CSCI 135

### Required Software:

- **Java JDK**
  - **http://www.oracle.com/technetwork/java/javase/downloads/jdk8-downloads-2133151.html**
- **Eclipse**
  - **http://www.eclipse.org/downloads/**
  - **Get the IDE for Java Developers (should be on top)**

## Suggestions:

- It would be beneficial to read and ask as many questions as you can.
- Feel free to set up an appointment if you need help. I am here to help you understand and do well.

## Collaboration:

- I encourage you all to work together through problems – make sure you comment who you worked with at the top of the page, but copying and plagiarism will not be tolerated. If you are caught cheating, I will give you an F for the course.
- Please refer to the Student Conduct Code in how this will be dealt with: http://life.umt.edu/VPSA/student_conduct.php

## Incompletes:

"Incomplete for the course is not an option to be exercised at the discretion of students. In all cases it is given at the discretion of the instructor…." Some guidelines for receiving an incomplete are listed in the catalog which include having **a passing grade up to three weeks before the end of the semester** and being in attendance. "**Negligence and indifference are not acceptable reasons**." Also note that there may be financial aid implications.

## Late Drops:

The University's policy on drops after **45** days of instruction is very specific. The Computer Science Department follows this policy rigorously. There are five circumstances under which a late drop might be approved: registration errors, accident or illness, family emergency, change in work schedule, no assessment of performance in class after this deadline. Except in very unusual circumstances, I will only approve late drops if there is documented justification for one of these circumstances.

## Disabilities:

This course is accessible to and usable by otherwise qualified students with disabilities. To request reasonable program modifications, please consult with the instructor. Disability Services for Students will assist the instructor and student in the modification process. For more information, visit the Disability Services website at http://life.umt.edu/dss/.

## Class Etiquette:

- Be respectful of your fellow classmates.
- Call me anytime if you have a question.
- Profanity and Obscenity will not be tolerated in class or assignments.

## Special Dates:

- Aug 31, 2015 Classes Begin
- Sept 7, 2015 Labor Day – No Class
- Sept 21-24th, 2015 online and will try and find a sub for labs
- Nov 11, 2015 Veteran's Day
- Nov 25-27 Thanksgiving

- Dec 14th-18th, 2015 Finals
- **Final: Dec 17th, 2015 8-10 am**

## Tentative Schedule:

Syllabus Review and Overview of the course
Week 1 Chapter 4 Review of CSCI 135
Week 2 Chapters 5, 6, 7 Review of CSCI 135
Week 3 Chapter 8 Arrays
Week 4 Chapter 8 Arrays cont.
Week 5 Chapter 9 Inheritance
Week 6 Exam 1 – Oct 7, 2015
Week 7 Chapter 10 Polymorphism
Week 8 Chapter 10 Polymorphism cont.
Week 9 Chapter 11 Exceptions
Week 10 Chapter 12 Recursion
Week 11 Chapter 12 Cont.
Week 12 Exam 2 – Nov 18, 2015
Week 13 Chapter 13 Data Structures
Week 14 Chapter 13 cont., Databases, XML
Week 15 Review and Wrap up
Week 16 Final: Thursday Dec 17th, 2015 8-10 am