CSC 122: COMPUTER SCIENCE II - SPRING 2016 SYLLABUS (4 CREDITS)

Class: TR 8-9:15 A.M., Hamann-Ray Science Center 310
Lab: M 6-7:15 P.M., Hamann-Ray Science Center 314

Instructor

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Text

C++ Programming: Program Design Including Data Structures, 7th ed. by Malik**.**

Prerequisite

CSC 121, Computer Science I (or equivalent)

Course Objectives

This course is the second in a two-semester sequence designed to introduce the student to computer science and computer programming. A student successfully completing this course will be able to:

- Implement exception handling.
- Implement a recursive function.
- Implement and use a linked list, a stack, and a queue.
- Implement a linear search algorithm and a binary search algorithm.
- Implement a selection sort, an insertion sort and a quick sort on array-based lists.
- Implement a merge sort on a linked-list based list.
- Implement a binary tree.
- Write graphics applications.

Grades

Grades will be based on the following activities:

1. **Four comprehensive exams** worth 100 points each. Each exam covers material from the beginning of the semester up to the most recent material covered. The first three exams will be given during regular class time and the fourth exam will be given during the normal final exam period.

2. **Ten laboratory assignments** worth 10 points each. Lab assignments are due at the end of the lab period.

3. **Ten homework assignments** worth 10 points each. Homework assignments are due at the beginning of the class.

Letter grades are assigned on the basis of the number of points earned.

Grade	Points
A	558-600
A-	540-557
B+	522-539
B	498-521
B-	480-497
C+	462-479
C	438-461
C-	420-437
D	360-419
F	000-359

Attendance Policy

I will take class attendance. Ten points will be deducted from your total points for each unexcused absence after three unexcused absences. Make-up tests will be given only if the student arranges it AHEAD of time or if the absence is officially excused.

Academic Integrity

You are welcome to exchange ideas with your classmates, but the work submitted by a student is expected to be the product of the student alone. Cheating, in any form, will result in a grade of zero for the work involved (or more severe penalty for a repeat offender). Students who give assistance to other students will suffer the same penalty. Multiple occurrences will be dealt with under the policies established by the University. See below for details.

Academic integrity, the embodiment of the moral and spiritual principles to which we adhere, is the essential basis of the Asbury University academic community. Integrity, as partially defined by the Student or Program Handbook on Community Life Expectations, is "both knowing the right thing to do and doing it regardless of the circumstances." This definition may be applied to all of the scholastic interactions of the academic community. Every member of the community shares responsibility for maintaining mutual trust, respect, and integrity. Violations of such trust and specific acts of academic dishonesty will be subject to disciplinary action.

Definitions

Academic dishonesty can be defined as any type of cheating relative to a formal academic requirement. Academic dishonesty is typically thought of first as plagiarism. Plagiarism, whether intentionally or unintentionally, occurs when credit is taken for what someone else worked hard to discover and record if there is no clarification from where or from whom information is taken. Plagiarism is the use of another's ideas, words, thoughts, or organization without appropriate credit and documentation when used for a project, paper, presentation, or exam. More examples of academic dishonesty include, but are not limited to: unauthorized collaborations, fabrications of data, unauthorized access to sources on an exam, excessive revision by someone other than the student, re-use of previous work without permission, and other situations described by faculty for specific purposes.

Determination of Academic Dishonesty and Consequences

Faculty will address suspected occurrences of academic dishonesty as follows:

The faculty member will meet with the student individually to discuss the incident. At the faculty member's discretion, the department chair will either be notified of the meeting or be asked to be present for it. The student will be informed of the department chair's involvement.

At the faculty member's discretion the student will receive a lowered grade, an F or 0% on the assignment in question.

The faculty member will report the incident in writing to the Registrar who will maintain a record of academic integrity violations.

If the incident is the student's second offense of academic dishonesty as verified by the Registrar, the student will meet with the Dean of the college or school where the most recent incident occurred. At the Dean's discretion, the student will receive an F in the course.

If the incident is the student's third offense, the student will be suspended from Asbury University.

Appeals Process

Students desiring to appeal a determination of academic dishonesty will follow the 'Academic Appeals Procedure' found in the Probation, Suspension, and Appeals section of the Asbury University Bulletin, specifically item 1. A.

COURSE SCHEDULE

Jan	11	Course Syllabus
	12	Exception Handling
	14	Exception Handling (HW 1&2 assigned)
	18	MLK Day (no lab)
	19	Recursion
	21	Recursion (HW 1&2 due)
	25	Lab 1
	26	Linked List (HW 3 assigned)
	28	Linked List
Feb	1	Lab 2
	2	Linked List (HW 3 due)
	4	Review for Exam 1
	8	Lab 3
	9	**Exam 1 on Tuesday**
	11	Stacks and Queues (HW 4 assigned)
	15	Lab 4
	16	Stacks and Queues
	18	Searching and Sorting Algorithms (HW 4 due)
	22	Lab 5
	23	Searching and Sorting Algorithms (HW 5 assigned)
	25	Binary Trees
	29	Lab 6
Mar	1	Binary Trees (HW 5 due & HW 6 assigned)
	3	Review for Exam 2
	7	No Lab
	8	**Exam 2 on Tuesday (HW 6 due)**
	10	Introduction to Graphics & World Coordinates (HW 7 assigned)
	14	Spring Break – no class
	15	Spring Break – no class
	17	Spring Break – no class

	21	Lab 7
	22	World Coordinates (HW 7 due & HW 8 assigned)
	24	Graphs of Parametric Equations
	28	Easter Holiday (no class)
	29	Graphs of Parametric Equations
	31	Review for Exam 3 (HW 8 due)
Apr	4	Lab 8
	5	**Exam 3 on Tuesday**
	7	Simulation
	11	Lab 9
	12	Image Processing (HW 9 assigned)
	14	Command Line Interpreter
	18	Lab 10
	19	Reading Image Files (HW 9 due & HW 10 assigned)
	21	Displaying an Image
	25	No Lab
	26	3D Image Models (HW 10 due)
	28	Review for Final Exam
May	**4**	**Final Exam/Exam 4 at 8:00 A.M. on Wednesday in HR 310**