

Casper College Course Syllabus
COSC 1010 — Introduction to Computer Science
Fall 2015

Lecture hours: 3

Class time: 10–10:50 a.m.

Instructor's name: Kevin Lenth

Office hours: M 1–2,
T 11–12 & 1–2,
W/Th/F 11–12

Lab hours: 2

Days: MTWThF

Office: PS 335

Office phone: 268-2519

Credit hours: 4

Room: PS 325

E-mail: lenthk@caspercollege.edu

Course Description

Introduction to problem solving and programming using structured program development techniques applied to a high-level programming language. Students will participate in software experimentation in a closed laboratory setting. Additional programming exercises will be assigned for students to complete in open laboratories or on their own equipment.

Prerequisites

Typing skills

Goal

This course provides an introduction to the concepts and techniques of Computer Science. By the end of the course, the successful student will be familiar with the basic terminology of computers and programs, the software development process, and fundamental structures of programming including variables and data types, expressions, selection and repetition structures, methods, and arrays.

Outcomes

General education

This course meets the following Casper College general education outcomes:

3. Solve problems using critical thinking and creativity
8. Use quantitative analytical skills to evaluate and process numerical data

Casper College may collect samples of student work demonstrating achievement of the above outcomes. Any personally identifying information will be removed from student work.

Course objectives

Upon successfully completing this course, students will be able to

- * define terms relevant to programming and binary data;
- * use specified fundamental structures of programming in writing code to solve a given problem;
- * design a cohesive user interface for a program;
- * write programs to read and write structured data to and from files.

Methodology

This course is presented as a lecture supplemented with laboratory work and hands-on experimentation.

Evaluation Criteria

The grade breakdown is as follows.

<i>Assignments</i>	45%
<i>Tests</i>	3 × 15%
<i>Attendance</i>	10%

Final grades will follow the usual 60/70/80/90 scale (90% or higher is an A, etc.) with the following exceptions:

- * Students shall not receive a passing grade unless they earn a passing grade (60% or higher) within the assignments and tests categories individually. For instance, a student who has 70% overall but only 40% on assignments will receive an F.
- * Students who demonstrate dedication to the course (i.e., good attendance, much class participation, frequent office hour visits) may have their final grade bumped upward in borderline cases at the instructor's discretion.

Assignments will be given to allow students to master each section of course material and may take the form of either written work or a program. In the case of programming assignments, the grade breakdown is summarized below.

<i>Weight</i>	<i>Requirements</i>
70%	The submission correctly and completely implements the required behavior
10%	The submission is structured in a reasonable fashion and makes use of appropriate language constructs
10%	The submission is adequately commented and easy to read
10%	A sufficient narrative document is supplied

Each programming assignment submission must be accompanied by a *narrative document*, a brief description of the purpose of the program along with a discussion of the process of writing the program (challenges, mistakes found, additional resources used, etc.).

Paper *tests* will be administered upon three occasions in class. The goal of these tests is to assess general *knowledge* of the material, as opposed to *capability* which is measured by programming assignments. Tests are not cumulative (beyond

the inherently cumulative nature of the subject); students are not permitted use of the book, notes, a calculator, the Internet, or other resources while taking a test.

Class quizzes will be given frequently throughout the semester to check understanding of the day's reading assignment.

The class quiz grade replaces the lowest test grade when final grades are computed at the end of the semester.

Required Text, Readings, and Materials

The required textbook is *Starting Out with Visual C# 2012* (third edition) by Tony Gaddis (ISBN-13: 978-0-13-312945-8). The student may obtain a traditional physical copy of the book or an electronic edition (available at coursesmart.com among other sites) at his or her option. The included disc and student access codes are *not* required for the course.

The course Moodle shell (accessible from <https://moodle4me.caspercollege.edu/>) will be used extensively: daily readings, homework assignments, and announcements will be posted thereon.

Class Policies

Last Date to Audit or Withdraw: November 12th

Attendance. Every student is expected to attend every class meeting with punctuality. Every unexcused absence beyond five will result in a 20% penalty to the attendance grade. **If your attendance grade reaches 0% (i.e. you have ten or more unexcused absences) your final class grade cannot exceed a D.** Absences can be excused in advance with instructor consent, or after the fact upon presentation of a doctor's note or other documentation.

Class participation. All students are expected to participate actively in class; this entails asking questions and being receptive to questions asked by the instructor. Students are also expected to use the classroom computers for purposes related to class, i.e. taking notes and following along in examples. Excessive or disruptive use of the computers for non-class-related activities will result in ejection from the class.

Late assignments. Assignments will be accepted up to five days after their due date with a penalty of 10% credit for each day.

Syllabus emendation. The instructor reserves the right to amend this course syllabus at any time. If this occurs, an announcement will be made and the modified syllabus will be made available to the class.

Student Rights and Responsibilities

Please refer to the Casper College Student Conduct and Judicial Code for information concerning your rights and responsibilities as a Casper College student.

Chain of Command

If you have any problems with this class, you should first contact the instructor to attempt to solve the problem. If you are not satisfied with the solution offered by the instructor, you should then take the matter through the appropriate chain of command starting with the Department Head, the Dean, and lastly the Vice President for Academic Affairs.

Academic Dishonesty

Casper College demands intellectual honesty. Proven plagiarism or any form of dishonesty associated with the academic process can result in the offender failing the course in which the offense was committed or expulsion from school. See the Casper College Student Code of Conduct for more information on this topic.

Official Means of Communication

Casper College faculty and staff will employ the student's assigned Casper College e-mail account as a primary method of communication. **Students are responsible for checking their account regularly.**

The instructor's e-mail address is lenthk@caspercollege.edu (*not* klenth@caspercollege.edu); e-mail is the best method of contacting the instructor outside of class or office hours. Class announcements will be made via the course's Moodle shell.

ADA Accommodations Policy

If you need academic accommodations because of a disability, please inform the instructor as soon as possible. See him privately after class or during his office hours. To request academic accommodations, students must first consult with the college's Disability Services Counselor located in the Gateway Building, room 344, (307) 268-2557, bheuer@caspercollege.edu. The Disability Services Counselor is responsible for reviewing documentation provided by students requesting accommodations, determining eligibility for accommodations, and helping students request and use appropriate accommodations.

Course Calendar

<i>Week(s)</i>	<i>Topic</i>
1	Chapter 1 — Computers and programming
2	Chapter 2 — Introduction to Visual C#
3–4	Chapter 3 — Variables, data types, and expressions
	Test 1
5–6	Chapter 4 — Selection structures
7–9	Chapter 5 — Repetition structures; I/O
	Test 2
10–12	Chapter 6 — Methods and modularization
13–15	Chapter 7 — Arrays and lists
	Test 3