CS 1400: Fundamentals of Programming

Fall 2016 Syllabus

Introductory course for students in Computer Science and Computer and Information Technologies programs or having general interest in computer programming. This course will instruct students in structured programming techniques and teach the syntax of a suitable high level programming language. Students will be required to complete programming projects of increasing difficulty.

Prerequisites: None

Course fee: $25, used to assist in maintaining CIT infrastructure.

Sections:

- CS 1400-01: MWF 8:00–8:50 am in Smith 116 – Final exam: Wed Dec 14 at 8:30 am
- CS 1400-02: MWF 9:00–9:50 am in Smith 117 – Final exam: Fri Dec 16 at 9:30 am
- CS 1400-03: TR 9:00–10:15 am in Smith 117 – Final exam: Thu Dec 15 at 9:30 am
- CS 1400-04: TR 10:30–11:45 am in Smith 117 – Final exam: Tue Dec 13 at 10:30 am
- CS 1400-05: MWF 11:00–11:50 am in Smith 117 – Final exam: Wed Dec 14 at 11:00 am
- CS 1400-V: High School – Final exam: see instructor

Professor: Dr. Bob Nielson
Professor: Dr. Joe Francom
Professor: Bart Stander
Instructor: Carol Stander
Instructor: DJ Holt
Instructor: Zach Alvey

Objectives

At the end of the course, students will be able to:

- read and write small computer programs
- use variables and expressions
- use conditional statements
- use iterative structures
- use list structures
- decompose small problems

Resources

Texts

There is one text recommended for this course.


Computer Resources

You may use the computers in the Smith Building. There will be lab assistants available to help you. Check the lab schedule for times. You may also use any other computer you wish. These computers require a valid CIT username and password. If you have not activated your CIT login, visit http://cit.dixie.edu/facilities/passwd/passwd.php to activate it, or ask a lab assistant to help you sign up for one.

Course Website

This course has an accompanying website. You are responsible for announcements, the schedule, and other resources posted on the website.
Assignments and Exams

Reading

There is an optional textbook for this class. Reading this text will help you better understand the material taught. Use of this book is recommended. There are several other suggested reading materials on the course website.

Assignments

Most weeks will require a homework assignment to be completed. These will be programs that you create outside of class. You will either pass these off with a lab assistant or your instructor. This programs will be graded on correct functionality. Incorrect programs will not receive credit.

It is important that you start early and get each of your assignments done before its due date. Many problems will take much longer to solve in a single sitting than in many shorter sessions. Give yourself time to think; sleep on difficult problems. Finish early so you can go back and refine your initial approach.

Assignments are due on the date listed in the schedule, and must be passed off to the instructor or a lab assistant for the course. This means that you must reserve time to pass it off at a suitable time before the end of the day it is due.

Drills

A set of drills will be required to be completed every week. These will be small programs that accomplish simple tasks. We will be using the Code Grinder system to complete these tasks. Most drills are quick, but each set will have many drills, so start early and complete them all. The Code Grinder system will automatically grade your drills and enter the score into Canvas.

Class Participations

You will be required to actively participate in class lectures and discussions. Your instructor will explain how to be an active participant.

Quizzes

In-class quizzes will be given most weeks on the last class day of the week. Each quiz will have a few questions that require the student to explain a program, or write a program. These quizzes are completed on paper, not in a computer. The time will be limited.

Exams

There will be a midterm exam and a comprehensive final exam. The exams will consist of questions similar to the quizzes.

Grading

Your course point total will be calculated using Drills (15%), Assignments (15%), Participation (3%), Quizzes (5%), Midterm (25%), Final (37%).

Here is the grading scale:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>&gt;= 94</td>
<td>A</td>
</tr>
<tr>
<td>&gt;= 90</td>
<td>A-</td>
</tr>
<tr>
<td>&gt;= 87</td>
<td>B+</td>
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<td>&gt;= 84</td>
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<td>&gt;= 60</td>
<td>D-</td>
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<td>&lt; 60</td>
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Course Policies
Absences

Students are responsible for material covered and announcements made in class. School-related absences may be made up only if prior arrangements are made. The class schedule presented is approximate. The instructor reserves the right to modify the schedule according to class needs. Changes will be announced in class and posted to the website. Exams and quizzes cannot be made up unless arrangements are made prior to the scheduled time.

Time

Courses should require about 3 hours of work per credit hour of class. This class will require about 135 hours of work on the part of the student to achieve a passing grade, which is approximately 9 hours per week. If you do not have the time to spend on this course, you should probably rethink your schedule.

Late work

Assignments and drills are due on the date specified in the schedule.

Late work will be subject to penalties as determined by the instructor. This may include receiving zero credit.

Quizzes can only be made up if arrangements are made in advance.

Cheating and Collaboration

Limited collaboration with other students in the course is permitted. Students may seek help learning concepts and developing programming skills from whatever sources they have available, and are encouraged to do so. Collaboration on assignments, however, must be confined to course instructors, lab assistants, and other students in the course. Students are free to discuss strategies for solving programming assignments with each other, but this must not extend to the level of programming code. Each student must code his/her own solution to each assignment. See the section on cheating.

Cheating will not be tolerated, and will result in a failing grade for the students involved as well as possible disciplinary action from the college. Cheating includes, but is not limited to, turning in homework assignments that are not the student’s own work. It is okay to seek help from others and from reference materials, but only if you learn the material. As a general rule, if you cannot delete your assignment, start over, and re-create it successfully without further help, then your homework is not considered your own work. See the section on cheating.

You are encouraged to work in groups while studying for tests, discussing class lectures, discussing algorithms for homework solutions, and helping each other identify errors in your homework solutions. If you are unsure if collaboration is appropriate, contact the instructor. Also, note exactly what you did. If your actions are determined to be inappropriate, the response will be much more favorable if you are honest and complete in your disclosure.

Where collaboration is permitted, each student must still create and type in his/her own solution. Any kind of copying and pasting is not okay. If you need help understanding concepts, get it from the instructor or fellow classmates, but never copy another’s code or written work, either electronically or visually. The line between collaborating and cheating is generally one of language: talking about solutions in English or other natural languages is usually okay, while discussions that take place in programming languages are usually not okay. It is a good idea to wait at least 30 minutes after any discussion to start your independent write-up. This will help you commit what you have learned to long-term memory as well as help to avoid crossing the line to cheating.

College Policies

Additional college policies, calendars, and statements are available online at http://academics.dixie.edu/syllabus/.

Disability

If you suspect or are aware that you have a disability that may affect your success in the course you are strongly encouraged to contact the Disability Resource Center (DRC) located at the North Plaza Building. The disability will be evaluated and eligible students will receive assistance in obtaining reasonable accommodations. Phone # 435-652-7516

Title IX

DSU seeks to provide an environment that is free of bias, discrimination, and harassment. If you have been the victim of sexual harassment/misconduct/assault we encourage you to report this to the college’s Title IX
Director, Cindy Cole, (435) 652-7731, cindy.cole@dixie.edu. If you report to a faculty member, she or he must notify the Title IX Director about the basic facts of the incident.