

CS160 Orientation to Computer Science

Instructor Information

Joe Paris

parisj@linnbenton.edu

Office: MKH-116

Office Hours: by appointment

Course Information

Section Number: 01

CRN: 20938

Number of credits: 4

Scheduled time/days: M/W 10:00-11:50

Classroom: MKH-101

Course Description

Introduces the field of computer science and programming for students interested in careers in related fields. Covers digital logic, binary and hexadecimal encoding of data, computer organization, operating systems, algorithms, control structures, and an overview of programming languages and pseudo-code. Computing's impact on culture and society is a recurring theme throughout this course.

Prerequisites

MTH 075 Variables and Linear Equations with a grade of "C" or better.

Student Learning Outcomes

- Demonstrate an understanding of the differences between data types.
- Perform conversions from decimal to two's complement and floating-point notations.
- Write and interpret short machine code instructions to perform simple arithmetic computations.
- Describe algorithms in pseudo-code and implement an algorithm in a programming language.
- Demonstrate an understanding of the concept of abstraction
- Describe the difference between syntax and semantics.
- Summarize the duties and functions of an operating system.
- Demonstrate an awareness of social issues associated with the increased use of computing technology in modern society.

Course Materials

Required:

• Computer Science: An Overview, Brookshear and Brylow; digital access. You will receive an email detailing how to access the text via Moodle.

- Will be using Moodle in this course. You are not required to visit your Moodle shell before our first class, but please make sure that you are able to log in to identity.linnbenton.edu. Before logging in for the first time, you will have to claim your account, also at identity.linnbenton.edu. If you have any problems claiming your account or logging into Moodle, please let the Student Help Desk know (541-917-4630, student.helpdesk@linnbenton.edu).
- A USB thumb drive with a minimum capacity of 4GB.
- Internet access.

Class Policies

Behavior and Expectations

You are held accountable to the <u>Student Code of Conduct</u>, which outlines expectations pertaining to academic honesty (including cheating and plagiarism), classroom conduct, and general conduct.

A "normal" class generally asks you to read pages from your textbook(s), then attend a lecture where your instructor covers that same material before giving you an assignment that you are expected to complete on your own time. This class will be different, utilizing a *flipped classroom* approach to learning. Instead of the traditional model above you will still be given reading assignments to do outside of class, however class time will largely be devoted to working on various projects to reinforce what you have learned.

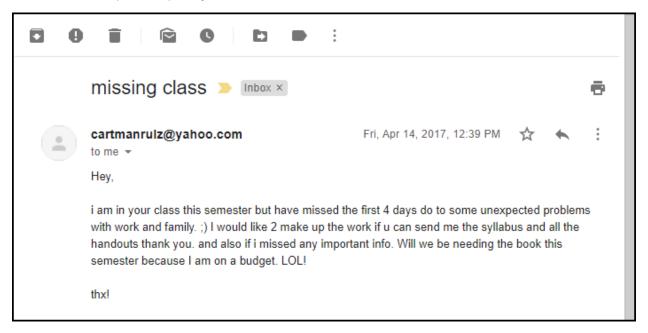
Instead of hours of lecture your instructor will facilitate your work as you do it in class. Further discussion or demonstration will be given for any material that needs it followed by an assignment which you will begin working on, in class, while you have access to both your instructor and your peers. Some of these assignments will be individual, some will be small group, all will be collaborative.

Because of the nature of the course you will get the most from it only if you attend every day. Class discussions will likely diverge into material not found in the assigned reading or viewing. Additionally, a lot of your learning will involve class discussion which can only happen if you are present.

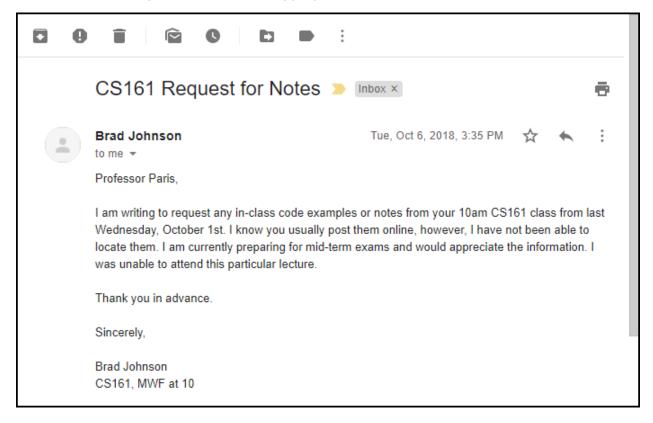
Guidelines for Communication

The *best* way to reach your instructor is by email. I check my email regularly throughout the day and your message will receive a prompt reply. While they need not be strictly formal your emails should be concise, list necessary details, and written in a manner that would be appropriate for communicating with your boss.

Here is an example of a poorly written email:



And here is an example of a much more appropriate email:



The wikiHow page <u>How to Email a Professor</u> has many excellent tips on writing these kinds of emails and you are strongly encouraged to read it.

The *worst* way to reach your instructor is by phone. Please, don't call me.

Students come from many different backgrounds and have unique life experiences which can enhance class discussions. For this reason, it is crucial for students to share their thoughts and insights on course-related topics. In this class we are all expected to show respect for each other at all times.

Use of Cell Phones

While in class, please set your cell phone to vibrate. If you need to take a call, please step out of the room to do so.

Attendance/Tardiness Policy

As stated above, it is in your best interest that you attend every class. Accordingly, class participation will constitute a portion of your grade. Attendance will be taken daily. Any student arriving more than five minutes late will be counted absent.

Course Work

All work, unless specifically stated otherwise, is to be submitted electronically. Details of how to do this will be covered in class.

All written assignments must be word processed and both spell- and grammar-checked.

All assignments are to be submitted by midnight on the due date.

Assignments may not be submitted via email.

Late assignments will not be accepted. No exceptions.

Missed Work

In case of absence from class, students are responsible for announcements made and materials covered.

Collaborative Work

As students, you are encouraged to discuss assignments and course materials with your peers. However, you are responsible for making sure you understand the work you turn in; i.e. you should be capable of explaining it verbally to the instructor if asked.

Work that appears to be directly copied from another student will not be given credit.

Testing

No midterm or final exams will be given. Instead, students will complete the two projects below.

Programming & Robotics Project

Further details and guidelines for these assignments will be given later in the course.

Grading

Туре	Weight
Written Assignments	25%
Participation	25%
Python Project	25%
Robotics Project	25%

Letter Grade	Percentage	Performance
Α	90%–100%	Excellent Work
В	80%-89.9%	Good Work
С	70%-79.9%	Average Work
D	60%-69.9%	Poor Work
F	0%-59.9%	Failing Work

Campus Resources

Learning Center

Tutors are generally available for this and other computer science classes. Check with the instructor and/or the Learning Center if you feel you need further assistance with this course.

Library

Computers and printing available.

Basic Needs

Any student who has difficulty affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to live, and believes this may affect their performance in the course, is urged to contact the Roadrunner Resource Center for support via email at resources@linnbenton.edu or visit us on the web at www.linnbenton.edu/RRC. Our office can help students get connected to resources to help. Furthermore, please notify the professor if you are comfortable in doing so. This will enable them to provide any resources that they may possess.

College Policies

LBCC Email and Course Communications

You are responsible for all communications sent via Moodle and to your LBCC email account. You are required to use your LBCC provided email account for all email communications at the College. You may access your LBCC student email account through student email and your Moodle account through Moodle.

Disability and Access Statement

You should meet with your instructor during the first week of class if:

- 1. You have a documented disability and need accommodations.
- 2. Your instructor needs to know medical information about you.
- 3. You need special arrangements in the event of an emergency.

If you have documented your disability, remember that you must make your request for accommodations through the Center for Accessibility Resources (CFAR) <u>Online Services</u> <u>webpage</u> every term in order to receive accommodations. If you believe you may need accommodations but are not yet registered with CFAR, please visit the <u>CFAR Website</u> for steps on how to apply for services or call (541) 917-4789.

Important Board Policies and Administrative Rules

- BP7030 Student Conduct and Discipline
- AR7030-01 Student Rights, Responsibilities, and Conduct Code
- AR7030-02 Academic Integrity and Honesty

Statement of Inclusion

To promote academic excellence and learning environments that encourage multiple perspectives and the free exchange of ideas, all courses at LBCC will provide students the opportunity to interact with values, opinions, and/or beliefs different than their own in safe, positive and nurturing learning environments. LBCC is committed to producing culturally literate individuals capable of interacting, collaborating and problem-solving in an ever-changing community and diverse workforce.

Title IX Reporting Policy

If you or another student are the victim of any form of sexual misconduct (including dating/domestic violence, stalking, sexual harassment), or any form of gender discrimination, LBCC can assist you. You can report a violation of our sexual misconduct policy directly to our Title IX Coordinator. You may also report the issue to a faculty member, who is required to notify the Coordinator, or you may make an appointment to speak confidentially to our Advising and Career Center by calling 541-917-4780.

Public Safety/Campus Security/Emergency Resources

Linn-Benton Community College Safety & Loss Prevention Office web page.

Public Safety is also responsible for lost and found.

In an emergency, call 911. Also, call LBCC Campus Security/Public Safety at $\underline{541-926-6855}$ and $\underline{541-917-4440}$.

From any LBCC phone, you may alternatively dial extension 411 or 4440. LBCC has a <u>public safety</u> <u>app</u> available for free. We encourage people to download it to their cell phones. Public Safety also is the home for LBCC's Lost & Found. They provide escorts for safety when needed. Visit them to learn more.

Changes to the Syllabus

I reserve the right to change the contents of this syllabus due to unforeseen circumstances. You will be given notice of relevant changes in class, through a Moodle Announcement, or through LBCC email.