

CS 160 -- Orientation to Computer Science

Fall 2020, CRN 25368

Instructor: Norah Wang

Email: wangn@linnbenton.edu (please allow 24-hour replying time)

Office: Zoom Room [link](#)

Office Hours: Tue 12 PM - 2 PM & Thu 2 PM – 3 PM by appointment.

To see and sign up for appointment slots, please click [here](#).

Course Description:

Introduces the field of computer science and programming for students who are interested in careers in related fields. Covers binary encoding of data, logic, computer organization, operating systems, algorithms, and programming languages. Computing's impact on culture and society is a recurring theme throughout this course.

Prerequisites: -MTH 60 Intro to Algebra with a grade of "C" or better.
-Recommended concurrent enrollment in MTH 65 & CS120.

Textbook: Provided reading materials on Moodle.

Required Materials: Computer & Internet access.

Course Objectives:

Upon completion of this course, students will be able to:

1. Understand the representation of numbers and perform conversions between the binary, decimal and hexadecimal number systems.
2. Write and interpret short machine code expressions.
3. Understand the science and role of algorithms in the field of computer science.
4. Write algorithms in pseudo-code and a programming language to solve given problems.
5. Summarize the duties and functions of an operating system.
6. Describe basic variable types and data structures.
7. Demonstrate an understanding of the concept of abstraction and describe the difference between syntax and semantics.

Grades: Final grades will be assigned based on the percentages of the weighted total points.

TYPE	WEIGHT
Assignments & Labs	25%
Quizzes	25%
Discussions	10%
Project I	20%
Project II	20%

SCORE	GRADE
90 - 100%	A
80 - 89%	B
70 - 79%	C
60 - 69%	D
< 60%	F

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Assignments:

- i. All assignments must be uploaded to Moodle by midnight on the assignment's due date.
- ii. All assignments must be typed, spell-checked and grammar-checked, and saved in .doc/.docx/PDF format.
- iii. Assignments will lose 10% for each day being late and **will not be accepted** more than one week after the due date.

Quizzes:

- i. Quizzes will be given every week except for week 1, 10 & 11.
- ii. Missed quizzes cannot be made-up without instructor's approval PRIOR to the due date.
- iii. The lowest quiz score may be dropped.

Discussion:

There will be discussion topics in week 1, 3, 5, 7 & 9. Topics may cover technology, computer ethics, history of computer, etc. Methods of discussion includes posting on Moodle forum OR meeting via Discord on the Thursday of week 1, 3, 5, 7 & 9, at noon, and present (LBCC Virtual Learning Center server: <https://discord.gg/geMqSqV>). We have a reserved "room" called "*CS160 Discussion Room (Reserved)*" under the *Student Voice & Chat* channel.

Projects:

There will be **no midterm or final exams**. Instead, students will complete two programming projects. Further details and guidelines for these projects will be given later in the course.

Academic Honesty:

All students are highly encouraged to discuss assignments and course materials in general terms with other students. However, each student is expected to work independently on all assignments. The work you turn in to be graded **must be your own work**. You must be capable of explaining your work verbally to the instructor if asked.

The penalty for turning in work appears to be directly copied from others will range from a zero grade on the assignment to a failing grade in the course.

Tutors:

Tutors are generally available for this and other computer science classes. Check out the Learning Center Tutoring [webpage](#) and utilize this free resource.

LBCC Center of Accessibility Resources (CFAR):

Students who may need accommodations due to documented disabilities, or who have medical information which the instructor should know, or who need special arrangements in emergency, should speak with the instructor during the first week of class. If you believe you may need accommodations but not yet registered with CFAR, please visit the CFAR [website](#) for steps on how to apply for service or call (541) 917-4789.

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LBCC Comprehensive Statement of Nondiscrimination:

LBCC prohibits unlawful discrimination based on race, color, religion, ethnicity, use of native language, national origin, sex, sexual orientation, marital status, disability, veteran status, age, or any other status protected under applicable federal, state, or local laws.

LBCC Statement of Inclusion:

The LBCC community is enriched by diversity. Each individual has worth and makes contributions to create that diversity at the college. Everyone has the right to think, learn, and work together in an environment of respect, tolerance, and goodwill (related to Board Policy #1015).

Basic Needs Statement:

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: “Email resources@linnbenton.edu , or visit us on the web www.linnbenton.edu/RRC under Student Support for Current Students. 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.”