The objective of this class is to provide students the opportunity of becoming proficient in the following programming languages: C, C++.

### Administrative

**Instructor:** Trish Duce | ducepa@mso.umt.edu | Social Science 412 | 406-370-9432

**Class:** Tuesday, Thursday 1:30pm-2:50pm, LA305

**Office hours:** Tuesday & Thursday 10am-11am; or by appt

**Prerequisites:** CSCI 135

**Required Online Learning Subscription:** (A subscription is $88. Subscriptions will last until Jan 04, 2020.)

- Sign in or create an account at https://learn.zybooks.com
- Enter zyBook code: UMTCSCI205DuceFall2019
- Subscribe

**Required Software:**

- GCC Compiler and an environment to run it.

**Website:** Moodle (http://umonline.umt.edu)

### Learning Outcomes

Upon successful completion of this class, students will be able to:

1. Become proficient in the following programming languages: C, C++.
2. Understand the concepts and principles of programming languages and object-oriented programming.
3. Understand the principles and implementation of memory allocation and deallocation, type checking, scope, polymorphism, inheritance.
4. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.
5. Design, implement, and evaluate a computing based solution to meet a given set of computing requirements in the context of the program’s discipline.
Class Format

We will be using an online custom textbook that covers C and C++ (there is a bit of overlap). This text is an online resource called zyBooks.

Every class you will be expected to have a certain set of “participation and challenge activities” completed before class starts (from zyBooks). It is automatically graded and I will transfer that grade to my gradebook in Moodle.

During class you will have a chance to get help on any material previously assigned in zyBooks. I will also assign a set of problems to be completed in class. They may be a zyLab (that comes with your zyBook) or it may be something I have created.

Finally there will be several (approximately 5-7) larger coding projects that go with each language we cover.

Grading

zyBooks: (20%)  
zyBooks material is due before class starts.

Attendance: (10%)  
Attendance is mandatory however I realize there are times when you must be absent. Please give me advance notice of any absences, and I will provide you with the same courtesy.

Homework: (30%)  
May include quizzes.

Projects: (40%)  
May include a project that must be completed in class.

Grading Scale

- 100-90 A, A-
- 89-80 B+, B, B-
- 79-70 C+, C, C-
- 69-60 D+, D, D-
- 59-and beyond F

P/NP – pass/no pass, 70 or greater is passing determined by Computer Science Department policy, which is a C or better.

Late Work Policy

Late work will NOT be accepted.
Academic Dishonesty

All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University. All students need to be familiar with the Student Conduct Code. The Code is available for review online at http://www.umt.edu/student-affairs/community-standards/default.php

Additional class policies and information:

- If you miss a class, you and you alone are responsible for the material covered. This includes handouts, schedule changes, and lecture notes.
- For important dates and deadlines related to classes, visit: http://catalog.umt.edu/academics/policies-procedures
- Also in the University catalog, review the policy on incompletes. In particular, note that incompletes can only be assigned when the student has “been in attendance and doing passing work up to three weeks before the end of the semester.” Incompletes will not be issued simply to prevent a failing grade.
- Students with disabilities will receive reasonable modifications in this course. Your responsibilities are to request them from me with sufficient advance notice, and to be prepared to provide verification of disability and its impact from Disability Services for Students. Please speak with me after class or during my office hours to discuss the details. For more information, visit the Disability Services for Students website at http://www.umt.edu/disability.