1. Basic Course Information

1.1 Objectives:
This course covers intermediate-level C++ programming and the software development issues that arise in practical programming projects. Topics include C++ syntax and semantics, principles of design, and basic software engineering skills. A heavy emphasis is placed on the development of abstract data types as the basic modules or building blocks of a well-designed program.

1.2 Instructor
Dr. Ayman Elmesalami  
Office: Dragas, room 1100B  
Email: aelmesal@odu.edu

TAs & Graders (TBA)  
Office hours (will be posted on Blackboard under “Teaching Staff”)

1.3 General Organization of the Course
The course is divided into several topics. Each topic is addressed by lectures and textbook readings and accompanied by a variety of activities including:

- **Labs** - ungraded activities that introduce or practice techniques that you will use in the assignment
- **Assignments** - graded activities, most of which involve programming
- **Exams** - there will be a midterm exam and final exam.
- **Final Project** - there will also be a semester "term" project in which you will apply the techniques of design, coding, testing, and debugging to a larger problem than is tackled in the assignments.

1.4 Required Text:

- This book is frequently sold with accompanying CDs. We won’t use them, so don’t worry about it. If you can get a used copy that is missing the CDs, or if you can get a better price on a new one without the CDs, go for it!
- Note, the 7th edition of the textbook is also good for this class. The instructor and TAs will use the 8th edition.

2. Course Pre- and Co-requisites
The prerequisites for this course are:

- CS 150, Problem Solving and Programming I
- Math 162

or equivalents.
The co-requisite for this course is:

- CS 252, Introduction to Unix for Programmers
  (A co-requisite is a course that must be taken before or during the same semester as this course.)

3. Assignments

Assignments for this course will include "weekly" assignments and a term project. Both will involve programming in C++

3.1 C++ compiler

The “official” compiler for this course is the Free Software Foundation’s g++ (also known as gcc or GNU CC), version 4.8.1 or higher. This is the compiler that the instructor and/or grader will use in evaluating and grading projects. If you have access to other compilers, you may use them, but you are responsible for making sure that their projects can be compiled by the instructor and/or the course’s grader using the official compiler.

You may want to develop your programs on the most convenient compiler and then port it over to the official environment. Please don’t underestimate the amount of time that may be involved in coping with subtle differences among compilers.

You can do all work in this course using g++ on the CS Dept Unix servers via ssh/X or via the CS Dept’s Virtual PC Lab. If you like, however, you can obtain the g++ compiler for free from a variety sources.

3.2 Computer Access:

Students will need an account on the CS Dept. Unix network to participate in this class. This account is unrelated to any University-wide account you may have from the ODU’s computing services (OCCS). If you have had a CS Unix account in the recent past, you should find it still active with your login name, password, and files unchanged. If you have had an account and it has not been restored, contact the CS Dept systems staff in the lab in Dragas Hall, Room 1111K or email root@cs.odu.edu requesting that it be restored. If you do not yet have such an account, follow the directions provided in the pdf file (Account Setup) to get set up.

*Please note that, new account creation for students enrolled in a future semester becomes available about one week before the start of that semester.*

4. Exams:

- **Midterm** will be available on Blackboard from Oct 26th to Oct 30th. Students will be proctored by ProctorU during that week. Further information about ProctorU will be provided before the exam time.

- **Final exam** will be available on Blackboard during the final examination week. Further information about ProctorU will be provided before the exam time. Please note that the final exam is cumulative

5. Course Policies:

5.1 Assignments and Grading

Assignments will be turned in through the Blackboard. Late submissions of assignments or of the portions of the semester project and make-up exams will not normally be permitted.
Exceptions will be made only in situations of unusual and unforeseeable circumstances beyond the student’s control, and such arrangements must be made prior to the due date in any situations where the conflict is foreseeable.

“I’ve fallen behind and can’t catch up”, “I’m having a busier semester than I expected”, or “I registered for too many classes this semester” are not grounds for an extension. Extensions to due dates will not be granted simply to allow “porting” from one system to another. "But I had it working on my home PC!" is not an acceptable excuse also.

5.2 Re-grading Policy

Grades will be posted online on BlackBoard. It is the student’s responsibility to verify that the posted grade corresponds to the grade actually received and to notify the grader and instructor of any error ASAP. Re-grading request should be submitted to the Grader within 7 days after the marks are posted on blackboard and during Grader’s office hours. All assignments have hard deadline - no late submission will be accepted for marking. For unforeseen events (family emergency, sickness), contact the class instructor before the due date. Prove is required, i.e., a doctor note.

Notes:

- The grader might not be the same person who is teaching your lab/recitation. You need to know your Grader, lab instructor, and your recitation instructor.
- TAs can answer questions about labs, assignments, projects, and exams. You can meet with any of the CS250 TAs for that reason. If you want to discuss your grades, you must meet with your grader (the person who marks your assignment/project). Only the person who marks your assignment and project can answer questions about your grades. The office hours of the Instructor, TAs, and graders will be posted on Blackboard under “Teaching Staff”. The list of graders will be posted on Blackboard under “Assignments and Projects”. You will find a pdf file including three columns (Student name, Grader name, and Grader email).

5.3 Academic Honesty

Everything turned in for grading in this course must be your own work. The instructor reserves the right to question a student orally or in writing and to use his evaluation of the student’s understanding of the assignment and of the submitted solution as evidence of cheating. Violations will be reported to the Office of Student Conduct & Academic Integrity for consideration for possible punitive action. Students who contribute to violations by sharing their code/designs with others may be subject to the same penalties.

This policy is not intended to prevent students from providing legitimate assistance to one another. Students are encouraged to seek/provide one another aid in learning to use the operating system, in issues pertaining to the programming language, or to general issues relating to the course subject matter.

Students should avoid, however, explicit discussion of approaches to solving a particular programming assignment, and under no circumstances should students show one another their code for an ongoing assignment, nor discuss such code in detail.

5.4 Grading:

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<thead>
<tr>
<th>Assignment</th>
<th>Percentage</th>
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<tr>
<td>Assignments</td>
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<tr>
<td>Semester Project</td>
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<tr>
<td>Midterm Exam</td>
<td>15%</td>
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<tr>
<td>Final Exam</td>
<td>25%</td>
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Total: 100%
Letter Grade:

<table>
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<tr>
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<tr>
<td>&lt;60</td>
<td>F</td>
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</tbody>
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Important note: the weekly programming homework will be graded as follow:

- Assignment #0 50 marks
- Assignment #1 100 marks
- Assignment #2 100 marks
- Assignment #3 100 marks
- Assignment #4 100 marks
- Assignment #5 100 marks
- Assignment #6 100 marks
- Assignment #7 100 marks
- Assignment #8 100 marks
- Assignment #9 (graded lab#1) 30 marks
- Assignment #10 (graded lab#2) 30 marks
- Assignment #11 (graded lab#3) 30 marks
- Assignment #12 (graded lab#4) 10 marks

Important note about the weekly Labs & recitations:

- The first ten labs are not graded
- The last few labs will be graded and we will provide further instructions during the semester about these graded-labs to make it convenient to all students especially the online (DL) students.
- Lab attendance is not mandatory, however it is highly recommended to attend the labs. Many labs will help you understand and complete the weekly programming-homework-assignments.
- If you are not able to attend the labs, please make sure to do and complete the labs at your convenience time. It is your own responsibility to complete the labs. Even if the lab is not graded, you should do the lab to learn. The main objective is to learn and to apply our programming knowledge to solve problems.
- Students will always start working on the lab during the lab time. If students are not able to finish the lab work during the lab time, they can continue working on the lab during the recitation time of the same week.

Please always check the announcements on Blackboard for further instructions and updates.
5.5 Attendance:

Students are responsible for all the material that is presented in the class, therefore students should attend lectures, labs and recitations regularly. Important lecture information and announcements are usually given during class time, so failure to attend class may negatively affect your grade.

5.6 About Emails:

- Please ask your questions during the office hours or on the discussion forum on Blackboard
- The instructor, TAs, and graders offer office hours
- TAs & Graders office hours will be posted on BlackBoard under the “teaching staff” section
- Communications by email is possible - when needed
- Please read the rules about emails

Rules of emails:

- Email to aelmesal@odu.edu
- Use your university or CS Dept. e-mail account – I will never reply to emails from different accounts other than your ODU or CS Dept. e-mail account
- Please make sure to include the class name “CS-250” in the subject of your email, otherwise I will not be able know which class you are talking about.
- Indicate in the subject if you are a distance education (DE) student. If you do not, the assumption will be you are face-to-face student
- Identify yourself - sign with
  - your full name
  - CRN number
  - meeting time
- Address the instructor properly (Either Dr. Elmesalami, Sir, or Professor is fine)
  - At least say hello!
  - Typically replied within 48 hours

6. Accessibility information:

Students are encouraged to self-disclose disabilities that have been verified by the Office of Educational Accessibility by providing Accommodation Letters to the instructor early in the semester in order to start receiving accommodations. Accommodations will not be made until the Accommodation Letters are provided to instructor each semester. The accessibility information can be found at: https://www.odu.edu/educationalaccessibility

7. COVID-19 Instructions:

Course Instructions for Hybrid and Online Learning

This course may have to modify its in-person instruction based on guidance from ODU and the Virginia Department of Health. It may entail moving to an online format if COVID-19 infections require such a move. Students should pay close attention to class announcements on Blackboard for changes to course delivery.
Face Coverings

Students are required to wear face coverings in accordance with the provisions set forth in ODU Policy 1006: COVID-19 (Interim Policy), especially in those instances when at least six (6) feet of physical separation cannot be maintained. Some on-campus labs, clinical/practicum courses, and field courses may require somewhat closer interaction, but personal protective equipment (PPE) will be required and tailored to the nature of the activity and the proximity anticipated. The face covering must cover the mouth and nose and must be worn at all times in the building before, during, and after class. Students who have medical reasons that prevent wearing a face covering must meet with the University’s Office of Educational Accessibility for alternative course delivery solutions. Students who are disruptive in class about face coverings or physical social distancing may not remain in class and will be referred to the Office of Student Conduct & Academic Integrity.

COVID-19 Response

If you are experiencing any symptoms of a possible COVID-19 infection or have come into contact with someone with COVID-19, please do not come to class. In addition, you must report your symptoms using the COVID-19 daily check-in text app. If you show symptoms, immediately self-isolate and follow appropriate guidance on when and where to seek medical care. Take every precaution to mitigate potential spread to fellow students, ODU faculty, staff, and others in the community.

If you need to quarantine or isolate, please inform your instructor so that he or she can adjust assignments and provide the level of support necessary to help you succeed in class. Your professor will make accommodations to help you learn the course material and succeed in the class if you are unable to attend due to Covid-19. If necessary, your instructor will suspend in-person classes for a 14-day period to reduce the possibility of community spread. If the instructor shows signs of COVID-19 infection and needs to quarantine or isolate, class will be immediately moved online for a minimum of 14 days. Instruction will continue online until the quarantine/isolation period has ended and/or conditions warrant a return to in-person instruction.

Your best action, as a Monarch, is to protect your peers! If in doubt, immediately isolate and report symptoms of COVID-19.