



WACO, TEXAS

**COURSE SYLLABUS
AND
INSTRUCTOR PLAN**

Programming Fundamentals III

COSC 2336 B001

Christopher Morris

This is a 16 Week course.

This is a Hybrid/Blended course.

AN EQUAL OPPORTUNITY INSTITUTION

FALL, 2023

Course Description:

Presents further application of programming techniques, introducing the fundamental concepts of data structures and algorithms. Topics include recursion, fundamental data structures (including stacks, queues, linked lists, hash tables, trees, and graphs), and algorithmic analysis. Prerequisite: COSC 1337. Semester Hours 3.

Prerequisites and/or Corequisites:

COSC 1337

Course Notes and Instructor Recommendations:

Students should use their MCC email to avoid having the email caught in the MCC filter. **The student is responsible for checking their MCC email and Brightspace every day..**

Instructor Information:

Instructor Name: Christopher Morris

MCC Email: crmorris@mclennan.edu

Office Phone Number: (254) 299-8270

Office Location: Business Technology Building (BTB) 106

Office/Teacher Conference Hours: See Brightspace

Required Text & Materials:

Title: Introduction to Programming with C++, 6th Edition

Author: Liang, Y. Daniel

Edition: 5th

Publisher: Pearson

ISBN: 9780137454181

USB Flash drive (4 GB or more) if desired.

MCC Bookstore Website: <http://www.mclennan.edu/bookstore/>

Methods of Teaching and Learning:

A. Lab Assignments: These assignments are designed to provide students with hands-on experience and the opportunity to apply the skills they are acquiring through the course. Specific guidelines and

expectations for each lab are detailed in the weekly lab assignments, which can be found in the Assignment link.

B. Lecture and Tests: The lectures in this course serve as a platform to explain and discuss fundamental programming concepts. To assess understanding and retention of this material, students will take tests throughout the semester. The specific dates for each test are posted in the Course Schedule on Brightspace.

Course Objectives and/or Competencies:

During this course, students will:

- Define and articulate key concepts in data structures and algorithm analysis and design.
- Develop, compile, link, run, and debug C++ programs within a C++ development environment.
- Recognize and employ various programming data types and structures, including user-defined simple data types, namespaces, and enumerated constants.
- Master the use of single and multi-dimensional arrays and vectors in programming.
- Apply advanced object-oriented design principles, encompassing classes, data abstraction, inheritance, and operator overloading.
- Comprehend and implement recursive functions and algorithms.
- Select and apply appropriate sorting and search techniques in various contexts.
- Understand pointers and effectively manage dynamic memory allocation in C++.
- Implement and manipulate advanced data structures, including linked lists, stacks, queues, binary trees, general trees, graphs, and networks.

Course Outline or Schedule:

****Subject to Change****

COSC 2336 - Programming Fundamentals III
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Week	Date	Wednesday
1	8/23/2022	Orientation, Syllabus, Number Systems, Review OOP
2	8/30/2022	Lab 1 Simple Library System
3	9/6/2022	Exam 1 Number Systems, OOP
4	9/13/2022	Pointers, Dynamic memory allocation
5	9/20/2022	Lab 2 Pointers, Dynamic memory allocation
6	9/27/2022	Templates, Vectors & Stacks
7	10/4/2022	Templates, Vectors & Stacks
8	10/11/2022	Lab 3 Template-based Stack Implementation
9	10/18/2022	Exam Review, Exam 2
10	10/25/2022	Recursion
11	11/1/2022	Recursion
12	11/8/2022	Sorting
13	11/15/2022	Sorting
14	11/22/2022	Read Chapter on Link Lists, Queues, and Priority Queues Thanksgiving Holiday
15	11/29/2022	Exam 3, Lab 3 – Due 12/5 at 11:00 p.m.
16	12/1/2022	No Final

Course Grading Information:

****Final Grades are not rounded; you receive what you earn****

Grade Category	
Exams	40%
Lab Assignments	40%
Exam 3	10%
Lab 4	10%

Grading Scale	
90-100	A
80-89.9	B
70-79.9	C
60-69.9	D
0-59.9	F

Late Work, Attendance, and Make Up Work Policies:

The instructor will use a method of their choice for routine recording of student attendance. The official record for student attendance is Brightspace.

If a student fails to appear for face-to-face sessions in the period prior to the census date, the instructor will drop the student for failure to attend even if they complete accessible assignments in Brightspace. Past census date (**09/06/2023**), for a student to remain in a face-to-face course, they must regularly attend class. If a student misses more than 25% of class meetings prior to the 60% point of the term, the instructor will withdraw the student from the course. If a student misses more than 25% of class meetings and the class is past the 60% point for the term, the instructor will NOT withdraw the student. The student is assigned the grade earned for the course.

If a student attends class meetings but does not complete assignments, they remain in the course and are awarded the grade earned at the end of the term.

Absences are excused in accordance with MCC policy which includes (1) authorized participation in official College functions, (2) personal illness, (3) an illness or a death in the immediate family, (4) Pregnant or Parenting Protections under Title IX and/or Texas State Education Code Chapter 51, Subchapter Z, Section 51.982 or (5) any excused absences as outlined in Section IV of this policy..

<https://www.mclennan.edu/employees/policy-manual/docs/B-II.pdf>

Students are required to file a written or electronic request with each instructor for an excused absence in a timely manner.

Students will be permitted to make up class work and assignments missed due to absences caused by (1) authorized participation in official College functions, (2) personal illness, or (3) an illness or a death in the immediate family. It is the instructor's prerogative whether a student may make up work missed due to absences for other reasons. It is the student's responsibility to inform the instructor of the reason for an absence and to do so in a timely fashion. Moreover, it is the student's responsibility to keep up with missed material. Finally, due dates will not be modified by absences.

Late Work Policy:

1. **Grace Period:** Students have a 48-hour grace period after the assignment due date to submit work with no penalty.

2. **Penalty After Grace Period:** After this grace period, late assignments will incur a 10% reduction in grade for each day they are late.
3. **Maximum Late Submission Time:** Assignments won't be accepted after 7 days past the original due date, unless under exceptional circumstances (see "Exceptions").
4. **Notification:** Students must notify the instructor before the assignment due date if they anticipate a delay in submission.

Make-up Work Policy:

1. **Absentee Policy:** When absent, students must catch up on missed assignments. They have the number of days they were absent plus one to turn in their make-up work.
2. **Planned Absences:** For planned absences, students should inform the instructor at least one week in advance and agree on an assignment completion plan.
3. **Late Penalties for Make-up Work:** Same as the late work policy above.

Exceptions:

1. **Exceptional Circumstances:** Severe illness, family emergencies, or other exceptional circumstances may warrant an extension without penalty, at the instructor's discretion. Documentation may be required.

Procedure for Requesting an Exception or Extension:

1. Students must email the instructor or speak with them in person as soon as possible before the assignment is due, clearly stating the reason for the delay and providing supporting documentation if possible.
2. The instructor will respond within 48 hours, granting or denying the extension and outlining any revised expectations if applicable.

Instructor's Responsibilities:

1. The instructor will provide a clear assignment schedule at the start of the term and regularly remind students of upcoming due dates.

Student's Responsibilities:

1. Students must manage their time effectively to meet deadlines and are responsible for understanding this policy.

Student Behavioral Expectations or Conduct Policy:

Students are expected to maintain classroom decorum that includes respect for other students and the instructor, prompt and regular attendance, and an attitude that seeks to take full advantage of the education opportunity. You are encouraged and expected to ask questions and to interact with the

instructor regarding relevant issues. However, personal conversations and “chatter” not related to the course will not be tolerated as this practice is very distracting and rude to your fellow students as well as to the instructor.

When meeting via Zoom, participation is greatly encouraged, and clothing is required. Please keep your video on to create more of a presence in the meetings. However, be mindful that you can be seen. If needed, please feel free to stop your video and rejoin with video when you are able. We also ask that you observe Zoom etiquette when in class by turning your mute on when you are not active in the conversation to reduce background noise.

Students are expected to have read assignments completely before class or lab.

Turn off cell phones, pagers, or other mobile communication devices when class or lab starts.

[Click Here for the MCC Attendance/Absences Policy](https://www.mclennan.edu/highlander-guide/policies.html)

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Click on the link above for the college policies on attendance and absences.

Students are expected to be punctual and attend all scheduled class or lab sessions.

Students are responsible for all class or lab work, assignment due dates, and other information given during any regularly scheduled class or lab periods. Students are also responsible for obtaining assignments, instructions, class notes and any other material that was missed due to tardiness or absence, from other student.

Students who are absent from class or lab for a college excused event may make-up exams, quizzes, and other assignments within one week of the excused absence or as scheduled with the instructor.

Students are expected to arrive to class and/or lab on time and to remain in the classroom for the duration of the class or lab. Leaving and re-entering the room after class or lab has started is distracting both to the students and to the instructor.

Students who have missed 25% of the cumulative scheduled classes for the semester or have been absent for two (2) consecutive weeks, will be dropped from the course. Attendance is determined for online classes by completing an “academic event”, which is defined as submitting an assignment, completing a quiz, or logging into the course management system to read course related material.

Updated 07/18/2023



ACADEMIC RESOURCES/POLICIES

Accommodations/ADA Statement:

Any student who is a qualified individual with a disability may request reasonable accommodations to assist with providing equal access to educational opportunities. Students should contact the Accommodations Coordinator as soon as possible to provide documentation and make necessary arrangements. Once that process is completed, appropriate verification will be provided to the student and instructor. Please note that instructors are not required to provide classroom accommodations to students until appropriate verification has been provided by the Accommodations Coordinator. For additional information, please visit www.mclennan.edu/disability.

Students with questions or who require assistance with disabilities involving physical, classroom, or testing accommodations should contact:

disabilities@mclennan.edu 2542998122 Room
319, Student Services Center

Title IX:

We care about your safety, and value an environment where students and instructors can successfully teach and learn together. If you or someone you know experiences unwelcomed behavior, we are here to help. Individuals who would like to report an incident of sexual misconduct are encouraged to immediately contact the acting Title IX Coordinator at titleix@mclennan.edu or by calling, Dr. Claudette Jackson, (Accommodations/Title IX) at (254) 299-8465. MCC employees are mandatory reporters and must report incidents immediately to the Title IX Coordinator. Individuals may also contact the MCC Police Department at (254) 299-8911 or the MCC Student Counseling Center at (254) 299-8210. The MCC Student Counseling Center is a

confidential resource for students. Any student or employee may report sexual harassment anonymously by visiting <http://www.lighthouse-services.com/mclennan/>. Go to McLennan's Title IX webpage at www.mclennan.edu/titleix/. It contains more information about definitions, reporting, confidentiality, resources, and what to do if you or someone you know is a victim of sexual misconduct, gender-based violence or the crimes of rape, acquaintance rape, sexual assault, sexual harassment, stalking, dating violence, or domestic violence.

Student Support/Resources:

MCC provides a variety of services to support student success in the classroom and in your academic pursuits to include counseling, tutors, technology help desk, advising, financial aid, etc. A listing of these and the many other services available to our students is available at <http://www.mclennan.edu/campus-resource-guide/>

Academic Support and Tutoring is here to help students with all their course-related needs. Specializing in one-on-one tutoring, developing study skills, and effectively writing essays. Academic Support and Tutoring can be found in the Library and main floor of the Learning Commons. This service is available to students in person or through Zoom. You can contact the Academic Support and Tutoring team via Zoom or email (ast@mclennan.edu) by going to our website (<https://www.mclennan.edu/academic-support-and-tutoring/>).

College personnel recognize that food, housing, and transportation are essential for student success. If you are having trouble securing these resources or want to explore strategies for balancing life and school, we encourage you to contact either MCC CREW – Campus Resources Education Web by calling (254) 299-8561 or by emailing crew@mclennan.edu or a Success Coach by calling (254) 299-8226 or emailing SuccessCoach@mclennan.edu. Both are located in the Completion Center located on the second floor of the Student Services Center (SSC) which is open Monday-Friday from 8 a.m.-5 p.m.

Paulanne's Pantry (MCC's food pantry) provides free food by appointment to students, faculty and staff. To schedule an appointment, go to https://mclennan.co1.qualtrics.com/jfe/form/SV_07byXd7eB8iTqJg. Both the Completion Center and Paulanne's Pantry are located on the second floor of the Student Services Center (SSC).

MCC Foundation Emergency Grant Fund:

Unanticipated expenses, such as car repairs, medical bills, housing, or job loss can affect us all. Should an unexpected expense arise, the MCC Foundation has an emergency grant fund that may be able to assist you. Please go to

<https://www.mclennan.edu/foundation/scholarships-and-resources/emergencygrant.html>

to find out more about the emergency grant. The application can be found at

https://www.mclennan.edu/foundation/docs/Emergency_Grant_Application.pdf.

MCC Academic Integrity Statement:

Go to www.mclennan.edu/academic-integrity for information about academic integrity, dishonesty, and cheating. The unauthorized use of artificial intelligence (AI) for classwork can be a violation of the College's General Conduct Policy. Whether AI is authorized in a course and the parameters in which AI can be used in a course will be outlined by each instructor.

Minimum System Requirements to Utilize MCC's D2L|Brightspace:

Go to <https://www.mclennan.edu/center-for-teachingandlearning/FacultyandStaffCommons/requirements.html> for information on the minimum system requirements needed to reliably access your courses in MCC's D2L|Brightspace learning management system.

Minimum Technical Skills:

Students should have basic computer skills, knowledge of word processing software, and a basic understanding of how to use search engines and common web browsers.

Backup Plan for Technology:

In the event MCC's technology systems are down, you will be notified via your MCC student email address. Please note that all assignments and activities will be due on the date specified in the Instructor Plan, unless otherwise noted by the instructor.

Email Policy:

McLennan Community College would like to remind you of the policy (<http://www.mclennan.edu/employees/policy-manual/docs/E-XXXI-B.pdf>) regarding college email. All students, faculty, and staff are encouraged to use their McLennan email addresses when conducting college business.

A student's McLennan email address is the preferred email address that college employees should use for official college information or business. Students are

expected to read and, if needed, respond in a timely manner to college emails. For more information about your student email account, go to www.mclennan.edu/studentemail.

Instructional Uses of Email:

Faculty members can determine classroom use of email or electronic communications. Faculty should expect and encourage students to check the college email on a regular basis. Faculty should inform students in the course syllabus if another communication method is to be used and of any special or unusual expectations for electronic communications.

If a faculty member prefers not to communicate by email with their students, it should be reflected in the course syllabus and information should be provided for the preferred form of communication.

Email on Mobile Devices:

The College recommends that you set up your mobile device to receive McLennan emails. If you need assistance with set-up, you may email Helpdesk@mclennan.edu for help.

You can find help on the McLennan website about connecting your McLennan email account to your mobile device:

- [Email Setup for iPhones and iPads](#)
- [Email Setup for Androids](#)

Forwarding Emails:

You may forward emails that come to your McLennan address to alternate email addresses; however, the College will not be held responsible for emails forwarded to an alternate address that may be lost or placed in junk or spam filters.

For more helpful information about technology at MCC, go to [MCC's Tech Support Cheat Sheet](#) or email helpdesk@mclennan.edu.

Disclaimer:

The resources and policies listed above are merely for informational purposes and are subject to change without notice or obligation. The College reserves the right to change policies and other requirements in compliance with State and Federal laws. The provisions of this document do not constitute a contract.