

**McLennan**  
C O M M U N I T Y  
**COLLEGE**

WACO, TEXAS

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**COURSE SYLLABUS**  
**AND**  
**INSTRUCTOR PLAN**

**COSC 2336 H1**  
**PROGRAMMING FUNDAMENTALS III**

**DEBBIE LAMPRECHT**

**NOTE: This is a 16-week course.**

**NOTE: This is a Hybrid/Blended course.**

**COVID 19 Notice:**

McLennan Community College is committed to providing you with every resource you need to reach your academic goals including your safety. We will continue to monitor the evolving situation with COVID 19 and adjust our safety guidelines to make sure we offer a safe environment for you and our faculty. Please make sure to consult your faculty and the MCC website at <https://www.mclennan.edu/crisis-management/coronavirus-updates/index.html> on any changes to these guidelines.

## PROGRAMMING FUNDAMENTALS III

COSC 2336 H1

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### **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: Debbie Lamprecht

MCC E-mail [dlamprecht@mclennan.edu](mailto:dlamprecht@mclennan.edu)

Office Phone Number: (254) 299-8281

Office Location: BTB 108

Office/Teacher Conference Hours: Hours will be posted outside my office after the beginning of the semester and posted in Brightspace. Other times are available by appointment.

### **Required Text & Materials:**

Title: Introduction to Programming with C++, 6<sup>th</sup> Edition

Author: Liang, Y. Daniel

Edition: 4th

Publisher: Pearson

ISBN: **9780137454181**

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

Because the publisher has discontinued the book we used in the Spring, you will need to purchase this book. We are not using the REVEL portion, just the textbook or e-text.

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

**Methods of Teaching and Learning:**

- A. Lab Assignments (50% of the course grade): These assignments give students an opportunity to apply the skills they will learn in the course. Lab specifications are explained in the weekly lab assignments listed in the Assignment link.
- B. Lecture and tests (50% of the course grade): Lectures are used to explain the programming concepts. The specific date for each test is posted in the Course Schedule on Brightspace.

**Course Objectives and/or Competencies:**

**COURSE OBJECTIVES:**

Application of programming techniques, introducing the fundamental data structures (including stacks, queues, linked lists, hash tables, trees and graphs) and algorithmic analysis.

**COURSE COMPETENCIES:**

- Define and explain data structure terminology and concepts to include algorithm analysis and design.
- Use C++ developmental environment to enter, compile, link, run and debug C++ programs.
- Identify and use various programming data types and structures to include user defined simple data types, namespaces, and enumerated constants.
- Understand and use arrays and vectors, both single and multi-directional arrays.
- Understand and use advanced object oriented design principles to include classes and data abstraction, inheritance, and overloading
- Understand and use recursion.
- Understand and utilize various sorting and search techniques.
- Understand the use of pointers and dynamic memory allocation.
- Understand and utilize Advanced Data structures to include linked lists, stack and queues, binary and general trees, graphs and networks.

## PROGRAMMING FUNDAMENTALS III

### COSC 2336 H1

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#### **Course Outline or Schedule:**

**NOTE!!! This schedule is tentative and subject to changes under extenuating circumstances.**

**You will be notified of any change to the schedule via email or an announcement on Brightspace.**

COSC 2336 - Programming Fundamentals III		
Week	Date	Wednesday
1	8/24/2022	Orientation, Syllabus, Number Systems, Review OOP
2	8/31/2022	Number Systems
3	9/7/2022	Number Systems
4	9/14/2022	Pointers, Dynamic memory allocation
5	9/21/2022	Templates, Vectors & Stacks, Review for Exam
6	9/28/2022	Vectors & Stacks, Review for Exam
7	10/5/2022	Exam 1
8	10/12/2022	Recursion
9	10/19/2022	Sorting
10	10/26/2022	Sorting
11	11/2/2022	Linked lists, Queues and Priority Queues
12	11/9/2022	Exam 2
13	11/16/2022	Assign Final Project
14	11/23/2022	Work on Project Thanksgiving Holiday
15	11/30/2022	Work on Project – Due 12/2 at 11:00 p.m.
16	12/5/2022	No Final

#### **Course Grading Information:**

Lab Assignments                      50%

Tests                                      50%

#### **Late Work, Attendance, and Make Up Work Policies:**

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.

**Student Behavioral Expectations or Conduct Policy:**

To be successful in this class it is **crucial** that you as the student carry through with your responsibilities of learning and applying the material. Key to this is:

- A. reading, understanding and abiding by the Syllabus;
- B. checking MCC student email and the discussion forums daily;
- C. keeping up with the readings, complete the assigned tutorials, and taking the chapter reviews on time;
- D. studying appropriately;
- E. devoting the right amount of time to this class to be successful;
- F. being conscientious, responsible and accountable;
- G. contacting instructor with any issues; and
- H. being professional, courteous and respectful to the instructor and to each other.

We will be meeting one day a week. It is important for you to be present on that day.

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

**(<https://www.mclennan.edu/highlander-guide/policies.html>)**

Click on the link above for the college policies on attendance and absences. Your instructor may have guidelines specific to this course.

Last day to drop with a W is 10/25/22. **If a student wants to drop the class for any reason and at any point in semester, it is his or her responsibility to contact the instructor in order to do so. The student must bring a drop slip to the instructor so that the instructor can process a drop for the registrar.** IF YOU DO NOT CONTACT INSTRUCTOR YOU WILL NOT BE DROPPED AND WILL RECEIVE THE GRADE YOU EARNED AT END OF SEMESTER.



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## 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](http://www.mclennan.edu/disability).

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

[disabilities@mclennan.edu](mailto:disabilities@mclennan.edu)

254-299-8122

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 Title IX Coordinator at [titleix@mclennan.edu](mailto:titleix@mclennan.edu) or by calling Dr. Drew Canham (Chief of Staff for Diversity, Equity & Inclusion/Title IX) at (254) 299-8645. Individuals also may contact the MCC Police Department at 299-8911 or the MCC Student Counseling Center at MCC 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/](http://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/>

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 a Success Coach by calling (254) 299-8226 or emailing [SuccessCoach@mclennan.edu](mailto:SuccessCoach@mclennan.edu). Students may visit the Completion Center Monday-Friday from 8 a.m.-5 p.m. to schedule a meeting with a Success Coach and receive additional resources and support to help reach academic and personal goals. Paulanne's Pantry (MCC's food pantry) provides free food by appointment to students, faculty and staff based on household size. Text (254) 870-7573 to schedule a pantry appointment. The Completion Center and 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](https://www.mclennan.edu/foundation/docs/Emergency_Grant_Application.pdf).

**MCC Academic Integrity Statement:**

Go to [www.mclennan.edu/academic-integrity](http://www.mclennan.edu/academic-integrity) for information about academic integrity, dishonesty, and cheating.

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

Go to <https://www.mclennan.edu/center-for-teaching-and-learning/Faculty-and-Staff-Commons/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/student-email](http://www.mclennan.edu/student-email).

**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](mailto: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](https://support.microsoft.com/en-us/office/set-up-an-outlook-account-in-the-ios-mail-app-b2de2161-cc1d-49ef-9ef9-81acd1c8e234?ui=en-us&rs=en-us&ad=us) (<https://support.microsoft.com/en-us/office/set-up-an-outlook-account-in-the-ios-mail-app-b2de2161-cc1d-49ef-9ef9-81acd1c8e234?ui=en-us&rs=en-us&ad=us>)
- [Email Setup for Androids](https://support.microsoft.com/en-us/office/set-up-email-in-android-email-app-71147974-7aca-491b-978a-ab15e360434c?ui=en-us&rs=en-us&ad=us) (<https://support.microsoft.com/en-us/office/set-up-email-in-android-email-app-71147974-7aca-491b-978a-ab15e360434c?ui=en-us&rs=en-us&ad=us>)

**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](mailto: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.