



Department of Computer Science & Engineering (CSE)

CISC 2330 – Introduction to OO Programming – MWF 11:00 – 11:50 PM. DAV R 122

Contact Information:

Professor: Dr. Isaac Gang
Office: Davidson 106
Phone: 254-295-5418
E-mail: Igang@umhb.edu
Websites: www.isaacgang.com, <http://mars.umhb.edu/~ikg/index.html>
UMHB MyCampus/Canvas (mycampus.umhb.edu)

Office Hours: MW 08:00 AM – 09:00 AM, TH 1:00 – 5:00 PM
Other times: By appointment

Overview:

This course is designed to introduce object oriented programming techniques.

Course Description:

Introduction to Object-Oriented Programming. 3 hrs. *Important notice:* At least fifteen (15) contact hours, as well as a minimum of thirty (30) hours of student homework is required for each credit hour. Mode of delivery will consist of lectures and lab work. Prerequisite: CISC 2305. This course is designed as a first course in structured programming and data structures. The emphasis is on basic structured programming techniques including program design and data manipulation. Students will use the C++ programming language to facilitate learning.

Course Objectives:

Topics covered in this course include the following:

- History of programming languages
- Hardware & Software components
- Basic elements of programming, input/output
- Control Structures.
- Algorithm formulation
- Loops essentials
- Functions
- Arrays & Strings

Upon completion of the course, the student will be able to:

- Continue to develop proper program construction and documentation methods.
- Learn how to use a structured programming language to develop algorithms.
- Gain confidence in solving a variety of programming problems.
- Learn to perform and utilize C++ as an Object Oriented language.

Course Goals:

- Achieve personal understanding and gain the ability to develop high moral character and principles in the world of business and science.
- Develop computer science skills necessary to pursue excellence and effectiveness within the field of computing.
- Have a proper balance between the theory and practice. This is because a strong theoretical foundation of the hardware and software aspects of computer science, as well as the practical application and knowledge of current practice is imperative.

Computer Science BA/BS Student Learning Outcomes: Note that student learning outcomes (SLOs) related to this course are highlighted in blue

- *Application of Knowledge:* An ability to apply fundamental principles of computing and mathematics as appropriate to the discipline of computer science (B = Core)
- *Problem-Solving Design:* An ability to analyze a problem and to utilize appropriate methodologies to identify and define the computing requirements appropriate to solve a computer science problem (B)
- *Application of Skills and Knowledge:* An ability to design, implement, and evaluate a computer-based system, process, component or program to meet project design goals in order to satisfy a client's needs subject to constraints (B)
- *Data Analysis:* An ability to interpret graphical, numerical, and textual data to use current techniques, skills and tools necessary for computing practice (B)
- *Teamwork:* An ability to function effectively in teams to accomplish a common goal (B)
- *Communication:* An ability to communicate effectively with a wide range of audience
- *Responsibility:* An understanding of ethical, professional, legal, security, and social responsibilities of computer scientists
- *Professional Development:* Recognition of the necessity for, and an ability to engage in, continuing professional development
- *Diversity:* An ability to analyze the local and global impact of computing on individuals, organizations, and diverse cultures and traditions

Course Material/Textbooks/Other Information:

Projects and programming assignments require the use of Dev C++ or similar software development environment. Our computer lab will have the proper software installed for this course if you choose to use the lab. Always have an external storage (flash drive, for example) to save and backup your work.

Textbooks and Readings:

Textbook: C++ Programming from Problem Analysis to Program Design (6th edition) by D.S. Malik.

Academic Honesty:

The UMHB policy (cited below for your convenience) on academic integrity applies in this course: "The University of Mary Hardin-Baylor expects the highest standards of academic integrity among all members of the campus community. All acts of plagiarism or violations of academic honesty are considered serious offenses and may result in failure of the assignment or the course."

Disabled Student Services and Accommodations

"It is the student’s responsibility to request disability accommodations. If you require an accommodation for a disability, contact the UMHB Counseling, Testing & Health Services (temporarily located at 201 W. 11th Avenue) as early as possible in the term. The Course Catalog, Student Handbook and UMHB website provide more details regarding the process by which accommodation requests will be reviewed."

Nate Williams, MA, LPC
Director of Counseling, Testing & Health Services
Accommodation & Student Assistance Program
Mabee Student Center, Suite 310
900 College Street
UMHB Station Box 8437
Belton, TX 76513-2599
Office: (254) 295-4696
Fax: (254) 295-4196
Email: nwilliams@umhb.edu

Assignments and Grading:

Grades will be calculated based on two tests, in-class quizzes and participation, programming assignments/projects and a final exam. Your final grade will be the sum of the percentages you earned in each category as shown below:

Quizzes/participation -----10%
Tests (2) -----30%
Projects/Programming assignments-----40%
Final exam -----20%

Grading scales:

| | |
|---|----------|
| A | 91-100 |
| B | 81-89 |
| C | 71-79 |
| D | 61-69 |
| F | Below 61 |

Projects/Programming Assignments:

All projects/programming assignments will be available on the class webpage or Mycampus.

- Point value will vary depending on the level of difficulty.

- All assignments/projects must be “submitted” *no later than the cutoff time* (cutoff time online or beginning of the class on the due date). Late assignments and **programs that don’t compile** receive **NO** (zero) credit. Please be aware of the due date/time and submit ALL assignments in a timely manner.
- All submitted assignments should be “backed up” in both soft copy (electronic version) on your PC’s hard drive or other media such as a USB flash drive (*labeled with your name and class period*) and hard copy (printout). This backup will be requested in the event errors occur during the “submit” process.

Homework: homework will be given regularly, although some of it may not be for a grade, and all programming assignments are considered as homework, and out-of-class preparation and successful completion of these will determine how well you do in the course.

Quizzes:

Quizzes can be given on any day and at my discretion (usually when the attendance is very low – this is to encourage attendance) or be made available online during a given window and cannot be accessed once that window closes. No makeup on quizzes regardless of the circumstances.

Tests and Final Exam:

Each test will cover lectures notes, assignments and other material up to that point. No cheating on tests and quizzes (see cheating below) will be tolerated. Final exam will be comprehensive. It is my expectation that you will comply with the UMHB Academic Honesty policy, as listed in the UMHB Undergraduate Bulletin.

Test Makeup: I will give **NO** makeup tests/quizzes. However, if you have a valid reason for missing a test (validity is determine by me) given before the test, I will replace the missed test with your final exam (i.e. your final exam will count both as a test and final exam). This is one time deal, meaning you will not be able to apply it to more than one test.

Student Decorum:

Cheating: Don’t do it! I will not tolerate neither cheating nor plagiarism. I am a very nice guy, but I have a very short temper when it comes to these. Copying assignments, sending your friends or classmates’ assignments as your own, wandering eyes on tests or quizzes are just a few examples. The consequences for these kinds of activities could be severe with lower limit being an “F” for the course and the upper limit being a referral to the Dean of students for a possible dismissal from UMHB.

Attendance: It is highly recommended. Remember that participation in the class discussion is important in grasping the material (you cannot participate if you are not here). If you miss more than 4 class meetings without a valid excuse, then I will hand down the necessary punishment (to be determined).

Mycampus for communication: We will extensively utilize this Learning Management System (LMS) known as mycampus (mycampus.umhb.edu) for a lot of class related activities, and especially for communication. So check your e-mail often (preferably twice a day).

Use of electronic device during class: Use of any electronic device (not sanctioned by me) is prohibited. Those who are caught doing this will be asked to leave the class

Tentative course schedule and important Dates:

Drop Deadline: Friday September 19, 2014. After this date, you cannot drop this course with a “W”. November 14 is the drop deadline for WP/WQ*

Labor Day: Monday September 1, 2014 – classes do not meet

Thanksgiving Holidays: Wednesday November 26 – Friday November 28, 2014 – classes do not meet

Final Exam: Tuesday December 9, 2014 (time: 10:30 AM – 12:30 PM)

Week of August 25

Monday – Review Class Policy, Syllabus, etc. Reading assignment, ch1.

Wednesday – lecture; assignment 1 (but class will not meet due to convocation).

Friday – Lab

Week of September 1

Monday – No class (read lecture; work on assignment 1)

Wednesday – lecture; discuss assignment 1;

Friday – Lab

Week of September 8

Monday – assignment 1 due; assignment 2, Reading assignment, ch2.

Wednesday – lecture; discuss assignment 2

Friday – Lab

Week of September 15

Monday – lecture; assignment 2 due; assignment 3, Reading assignment, ch2.

Wednesday – lecture; discuss assignment 3

Friday – Lab

Week of September 29

Monday – lecture; assignment 3 due; assignment 4

Wednesday – lecture; discuss assignment 4

Friday – Lab

Week of October 6

Monday – lecture; assignment 4 due; assignment 5, Reading assignment, ch3.

Wednesday – lecture; discuss assignment 5

Friday – Lab

Week of October 13

Monday – lecture; assignment 5 due; assignment 6

Wednesday – lecture; discuss assignment 6

Friday – Lab

Week of October 20

Monday – lecture; assignment 6 due; assignment 7, Reading assignment, ch4.

Wednesday – lecture; discuss assignment 7

Friday – Lab

Week of October 27

Monday – lecture; assignment 7 due; assignment 8

Wednesday – lecture; discuss assignment 8

Friday – Lab

Week of November 3

Monday – lecture; assignment 8 due; assignment 9, Reading assignment, ch5.

Wednesday – lecture; discuss assignment 9

Friday – Lab

Week of November 10

Monday – lecture; assignment 9 due; assignment 10

Wednesday – lecture; discuss assignment 10, Reading assignment, ch6

Friday – Lab

Week of November 17

Monday – lecture; assignment 10 due; assignment 11, Reading assignment, TBA.

Wednesday – lecture; discuss assignment 11, Reading assignment, ch7

Friday – Lab

Week of November 24

Monday – lecture; assignment 11 due; assignment 12

Wednesday – No class (read lecture; work on assignment 12), Reading assignment, ch7 & 8

Friday – No class (read Lab)

Week of December 1

Monday – lecture; assignment 12 due, Reading assignment, TBA.

Wednesday – Final exam review

Friday – Lab, and finish Final exam review

Week of December 8

Final exams and Commencement

Definition of a credit hour for this course:

At least fifteen (15) contact hours, as well as a minimum of thirty (30) hours of student homework is required for each credit hour

Other definitions:

Laboratory courses, with little outside work, require a minimum of forty-five (45) contact hours. If moderate outside work is required, thirty (30) contact hours are required.

Art courses follow the recommendations for awarding credit as recommended by The National Association of Schools of Art and Design (NASAD) and the Texas Association of Schools of Art (TASA). In lecture courses, like art history, normally one hour of credit represents one 50-minute session each week of the term. For our studio classes, normally a ratio of one hour of credit = two hours of contact time and one hour of outside work per week, for example a 3-credit hour course would require six faculty contact hours per week. Note: Faculty contact must be sufficient to ensure the development of knowledge and skills required by each course. Normally, faculty contact is greater at the foundation or introductory level than at the advanced studio level.

Music courses follow the recommendations for awarding credit as required by The National Association of Schools of Music (NASM). Normally, a semester hour of credit represents at least three hours of work each week for a period of fifteen or sixteen weeks. In lecture classes, such as

music history, normally one hour of credit is given for one 50-minute session plus two hours of homework each week of the term. For ensembles, like laboratory classes, normally one hour of credit is given for two to four 50-minute rehearsal sessions per week, this depends on the ensemble. For applied lessons, normally we give one hour of credit for each three hours of practice, plus the necessary individual 30-minute lesson per week with the instructor. For example, a two credit hour applied lesson would meet for two 30-minute lessons per week.

Internships, clinical and field experiences require a minimum of forty-five (45) clock hours for each credit hour.

For online, hybrid and other nontraditional modes of delivery, credit hours are assigned based on learning outcomes that are equivalent to those in a traditional course setting; forty-five (45) hours of work by a typical student for each hour of credit.

*Note: the syllabus is subject to change