COSC 1437-101HY

Programming Fundamentals II (Fall 2021), 8/23/2021 – 12/10/2021

Tuesday Lecture: Online with Blackboard Collaborate Ultra : 9:30 am - 10:50 am

Thursday Lab: STEAM classroom 146 on the first floor: 9:30 am - 10:50 am

Instructor Information:

Name: Faith (Fay) Alexander
Email: Email: fbryan@com.edu
Phone: Office phone: 409-933-8334, if no answer, leave a message for a callback
Office Location: STEAM 225.55

Student / Office Hours and Location:

Monday,   9 – 9:30am, 12:30 – 1:30pm, and 3:30 – 4:00 pm, Blackboard Collaborate, office hours
                 virtual classroom

Tuesday,   9 – 9:30am and   1:30 – 3:30pm, Blackboard Collaborate, office hours virtual classroom
Wednesday,   9 – 9:30am and 12:30 – 1:30 pm, STEAM 225.55
Thursday,   9 – 9:30am and 1:30 – 2:30 pm, STEAM 225.55

Other days and times are by appointment.

Required Textbook:

Starting Out with Java: From Control Structures through Data
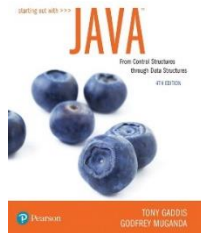Structures, 4th Edition

by Tony Gaddis
Publisher: Pearson
Print ISBN: 9780134787961
eText ISBN: 9780134757223
Edition: 4th
Copyright year: 2019

Course Description:

This course focuses on the object-oriented programming paradigm, emphasizing the definition and use of classes along with fundamentals of object-oriented design. The course includes basic analysis of algorithms, searching and sorting techniques, and an introduction to software engineering processes. Students will apply techniques for testing and debugging software. This course is included in the Associate of Science Degree for Computer Science. It is also included in COM's Programming Certificate. COSC 1436 (or 1336), Programming I, is a prerequisite.

Course Requirements:

COSC 1437/1337 is designed as a lecture/lab course. Lecture will be delivered virtually each Tuesday on Blackboard Collaborate Ultra. Labs are on Thursday in the classroom, STEAM 146. Both are required. If you cannot attend the live virtual session, you must watch the recording before the next lab session. Lecture material will not be repeated in the labs. Lab assignments (for a grade) will be designated and worked on Thursdays.

You must download the Java Development Kit (JDK) and the NetBeans Integrated Development Environment to your own computer in order to do the Java programming assignments. Both are free of charge. Instructions are in Blackboard and will be explained in class.

Computer and Internet access: Regarding problems with your own computer and with Internet access, COM is not responsible for outages, and due dates will not be extended.

Determination of Course Grade/Detailed Grading Formula

The grade is determined by the completion of the programming assignments, tests, and Blackboard Discussion assignments as described in the grading formula below.

COURSE ITEM	% of Total Grade
Chapter review quizzes	10%
Chapter Assignments	20%
Tests	60%
Blackboard Discussion	10%
Total	**100%**

Grading Scale:

Letter Grade	Percent
A	90% - 100%
B	80% - 89%
C	70% - 79%
D	60% - 69%
F	Below 60%

Late Work, Make-Up, and Extra-Credit Policy:

All assignments must be completed according to the deadline date. Late work will not be accepted. Contact the instructor if you miss a test due to an unavoidable circumstance. You must document your reason in writing to the instructor. There is no extra credit in this course.

Attendance Policy:

Attendance in both the virtual sessions and lab sessions is required. Neither is optional. The virtual sessions will be recorded. That information will not be repeated in the lab sessions.

Communicating with your instructor: ALL electronic communication with the instructor must be through your COM email. Due to FERPA restrictions, faculty cannot share any information about performance in the class through other electronic means.

Student Learner Outcome	Maps to Core Objective	Assessed by Assignment(s)
1. Identify and explain a programming development lifecycle, including planning, analysis, design, development, and maintenance.	Critical Thinking	Chapter 1 Assignment
2. Demonstrate a basic understanding of object-oriented programming by using structs and classes in software projects.	Critical Thinking	Chapter 6 Assignment from Programming Challenges

Student Learner Outcome	Maps to Core Objective	Assessed by Assignment(s)
3. Use object-oriented programming techniques to develop executable programs that include elements such as inheritance and polymorphism	Empirical and Quantitative Skills	Chapter 10 Assignment from Programming Challenges
4. Document and format code in a consistent manner.	Communication (written)	Chapter 6 Assignment from Programming Challenges
5. Apply basic searching and sorting algorithms in software design.	Empirical and Quantitative Skills	Chapter 10 Assignment for searching and sorting
6. Apply single- and multi-dimensional arrays in software.	Critical Thinking	Chapter 7 Assignment from Programming Challenges
7. Use a symbolic debugger to find and fix runtime and logical errors in software.	Critical Thinking	Chapter 6 Assignment from Programming Challenges
8. Demonstrate a basic understanding of programming methodologies, including object-oriented, structured, and procedural programming.	Critical Thinking	Chapter 1 Review Questions Quiz
9. Describe the phases of program translation from source code to executable code.	Communication (written)	Chapter 1 Review Questions Quiz

Academic Dishonesty:

Any incident of academic policy will be dealt with in accordance with college policy and the Student Handbook. Academic dishonesty – such as cheating on exams is an extremely serious offense and will result in a <u>grade of zero</u> on that exam and the student will be referred to the Office of Student Conduct for the appropriate disciplinary action.

Student Concerns:

If you have any questions or concerns about any aspect of this course, please contact me using the contact information previously provided. If, after discussing your concern with me, you continue to have questions, please contact Mr. Leslie Richardson, Math and Computer Science Department Chair, at 409-933-8329, email lrichardson@com.edu.

Course Outline:

Week	Date	Topic
1	8/24-8/26	Chapter 1, Introduction to Computers and Java, NetBeans setup, Algorithm Workbench, **Quiz (Review Questions page 21-22: closes 8/30/21 at 11:59 pm)**
2	8/31-9/2	Chapter 2, Java Fundamentals, Programming Challenge , **Quiz (Review Questions page 100 – 102: closes 9/6 at 11:59 pm)**

Week	Date	Topic
3	9/7 - 9/9	Chapter 3 (Decision Structures), Programming Challenge, **Quiz (Review Questions page 175 – 177: closes 9/13 at 11:59 pm)**
4	9/14-9/16	Chapter 4, Loops and Files, Programming Challenge, **Quiz (Review Questions page 256-258: closes 9/20 at 11:59 pm)**
5	9/21-9/23	**Test on Chapters 1-4**
6	9/28-9/30	Chapter 5, Programming Challenge, **Quiz (Review Questions page 306 – 308: closes on 10/4 at 11:59 pm)**
7	10/5-10/7	Chapter 6, A First Look at Classes, Programming Challenge, **Quiz (Review Questions page 389 – 391, closes on 10/11 at 11:59 pm)**
8	10/12-10/14	Chapter 6 Classes
9	10/19-10/21	Chapter 7, Arrays and ArrayList Class
10	10/26-10/28	Chapter 7, Arrays and ArrayList Class, Programming Challenge, **Quiz (Review Questions page 481 - 486): closes on 11/1 at 11:59 pm)**
11	11/2-11/4	Chapter 8, A Second Look at Classes and Objects, Programming Challenge,
12	11/9-11/11	Chapter 8, A Second Look at Classes and Objects, Programming Challenge,
13	11/16-11/18	**Quiz (Review Questions page 547 – 549: closes on 11/15 at 11:59 pm)** **Test 2, Chapters 5-8** in the classroom on 11/18
14	11/23 - Thanksgiving Holiday	Chapter 9, Text Processing and Wrapper Classes, Programming Challenge, **Quiz (Review Questions page 601 – 603: closes on 11/29 at 11:59 pm)**
15	11/30-12/2	Chapter 10, Inheritance
16	12/7 12/9 (no class)	Chapter 10 (continued), Programming Challenge, * **Quiz (Review Questions pages 690 – 693, closes 12/6 at 11:59 pm)**

Institutional Policies and Guidelines

Grade Appeal Process: Concerns about the accuracy of grades should first be discussed with the instructor. A request for a change of grade is a formal request and must be made within six months of the grade assignment. Directions for filing an appeal can be found in the student handbook.<https://build.com.edu/uploads/sitecontent/files/student-services/Student_Handbook_2019-2020v5.pdf. *An appeal will not be considered because of general dissatisfaction with a grade, penalty, or outcome of a course. Disagreement with the instructor's professional judgment of the quality of the student's work and performance is also not an admissible basis for a grade appeal.*

Academic Success & Support Services: College of the Mainland is committed to providing students the necessary support and tools for success in their college career. Support is offered through our Tutoring Services, Library, Counseling, and through Student Services. Please discuss any concerns with your faculty or an advisor.

ADA Statement: Any student with a documented disability needing academic accommodations is requested to contact Holly Bankston at 409-933-8520 or hbankston@com.edu. The Office of Services for Students with Disabilities is located in the Student Success Center.

Counseling Statement:

Any student that is needing counseling services is requested to please contact Holly Bankston in the Student Success Center at 409-933-8520 or hbankston@com.edu. Counseling services are available in the student center for free. Appointments are strongly encouraged. However, some concerns may be addressed on a walk-in basis.

Textbook Purchasing Statement:

A student attending College of the Mainland is not under any obligation to purchase a textbook from the college-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

Withdrawal Policy:

Students may withdraw from this course for any reason prior to the last eligible day for a "W" grade. Before withdrawing students should speak with the instructor and consult an advisor. Students are only permitted to withdraw six times during their college career by State law. The last day to withdraw for the Fall 16-week session is November 19, 2020**.**

FN Grading: The FN grade is issued in cases of *failure due to a lack of attendance*, as determined by the instructor. The FN grade may be issued for cases in which the student ceases or fails to attend class, submit assignments, or participate in required activities, and for which the student has failed to withdraw. The issuing of the FN grade is at the discretion of the instructor.

Early Alert Program :

The Counseling Center at College of the Mainland has implemented an Early Alert Program. I have been asked to refer students to the program throughout the semester if they are having difficulty completing assignments or have poor attendance. If you are referred to the Early Alert Program you will be contacted by someone in the Counseling Department who will schedule a meeting with you to see what assistance they can offer in order for you to meet your academic goals.

COVID-19 Statement: All students, faculty and staff are expected to familiarize themselves with materials and information contained on the College of the Mainland's Coronavirus Information site at www.com.edu/coronavirus. Students are required to watch a training video, complete the self-screening, and acknowledge the safety guidance at: www.com.edu/selfscreen. In addition, students, faculty, and staff must perform a self-screening prior to each campus visit. Finally, students, faculty, or staff which have had symptoms of COVID-19, received a positive test for COVID-19, or have had close contact with an individual infected with COVID-19 must complete the self-report tool.

Changes to this Syllabus
The instructor reserves the right to make changes to this syllabus. All changes will be communicated to the students both in the virtual classroom and on a Blackboard announcement in a timely manner.