CMIS 242 6384 Intermediate Programming (2172) CMIS-242

Spring 2017 Section 6384 3 Credits 01/09/2017 to 03/05/2017

FACULTY CONTACT

Ioan Salomie Ioan.Salomie@faculty.umuc.edu

COURSE DESCRIPTION

Prerequisite: CMIS 141. Further study of the Java programming language. The objective is to design, implement, test, debug, and document Java programs, using appropriate development tools. Topics include object-oriented design, event-driven programming, exceptions, recursion, arrays, and data structures.

COURSE INTRODUCTION

Intermediate Programming in Java will help you use and enhance the skills acquired in the prerequisite *Introductory Programming* course. It will further your understanding of the software development process, emphasizing the analysis, design, development, and testing of Java applications. In these modules, we discuss object-oriented programming, graphical user interface (GUI) programming, exception handling, input and output (I/O), recursion, and data structures and abstraction.

This course consists of the five main topic areas:

- a review of the fundamentals of programming
- object-oriented design and programming
- GUI and event-driven programming
- exception handling, I/O, and recursion
- data structures and Java's collection framework

During this course, you will be required to design, implement, test, and document projects that demonstrate the use of:

- inheritance, method overloading, and method overriding
- interfaces to capture user events
- exception handling and file I/O
- arrays and collections

COURSE OUTCOMES

After completing this course, you should be able to

- write programs that use data structures, including arrays, strings, linked lists, stacks, queues, sets, and maps
- design, implement, test, debug, and document recursive functions
- design, implement, test, debug, and document GUI, event-driven programs
- design, implement, test, debug, and document in object-oriented programming language

COURSE MATERIALS

Click to access your course materials information (http://webapps.umuc.edu/UgcmBook/BPage.cfm?C=CMIS%20242&S=6384&Sem=2172)

CLASS GUIDELINES

Faculty Information

To locate information within your LEO classroom, log in and review your faculty member's information, which is found in the Start Here section of your classroom after clicking on the **Content** link.

Contacting your Faculty Member

You can use the Pager feature within the classroom to send a message to your faculty member. Click the Classroom Walkthrough Videos link below, and then click **The Pager** link, to view a how-to video on how to use the Pager function within the classroom:

Classroom Walkthrough Videos Link (http://www.umuc.edu/students/leo/videos.cfm)

Within the **Content** section of your classroom, view the **Start Here** section or **Additional Course Information** section within the **Syllabus** to learn more about contacting your faculty member.

Contacting Advising or the Department

If you have questions related to the course content or any of the graded deliverables, please contact the instructor. For questions and concerns related to advising, please write to ugadvising@umuc.edu or call 301-985-7000 (toll-free: 800-888-8682).

For other questions and concerns, you can contact your academic director by writing to computing_dept@umuc.edu or by calling (240) 684-2882. Please be sure to mention the course name, course number, and your section number in the "Subject:" field of your email. Your email will be treated confidentially.

GRADING INFORMATION

This course consists of the following graded items:

Online participation	16%
quizzes (4 @6% each)	24%
Project 1	15%
Project 2	15%
Project 3	15%

Project 4	15%
Total	100%

Definition of Academic Rigor

UMUC defines academic rigor as the degree to which students demonstrate content mastery, application of critical thinking skills and adherence to UMUC's code of academic integrity.

This definition implies three components to academic rigor:

1. Content mastery to include the subject matter of the course as well as mastery of those core curriculum goals established for the course (for example, information literacy, effective writing).
2. Application of critical thinking skills to include the degree to which the student can present and defend original thinking on the subject matter, including synthesis and analysis of key concepts.
3. Academic integrity to include the degree to which student demonstrates academic honesty defined in UMUC's code of academic integrity.

Participation

By registering for a Web-based course, you have made a commitment to participate in course conferences as well as other online activities. Participation for this course is defined as proactive discussion in weekly discussion activities. This requires you to actively reflect on weekly readings and to develop original ideas in your responses. You are expected to demonstrate critical thinking and your understanding of the content in the assigned readings as they relate to the issues identified in the conference discussion.

You are expected to respond to the main discussion topic(s) each week and read and respond to other student posts to contribute additional knowledge to the class. Note that your online conference participation counts significantly toward your final grade. Interacting and responding to discussion items earlier in the week as opposed to the end of the week is encouraged and rewarded.

When communicating with others in this class always work to be respectful.

The rubric used to grade your online participation is shown below:

Criteria	**Exceeds (5 points)**	**Meets (3-4 points)**	**Does not Meet (0-2 points)**

Completeness of Submission	Responses thoroughly addressed all parts of the discussion question adding depth to the overall conversation. Responses were clear and of the highest quality demonstrating mastery of writing. References were properly cited.	Responses addressed some of the question but additional clarification and details would have strengthened the discussion. Responses were well organized with rare spelling or grammar distractions. References were properly cited.	No responses or responses were incorrect, or missing significant details. No responses or responses were poorly written, disorganized with many spelling and grammatical errors.
Submitted on time	Initial responses submitted at least 3 days before the due date.	Initial responses submitted on or within 2 days before the due date.	No responses or responses submitted after the due date.
Interaction with Others	Responded to student posts providing additional contributions clearly supporting learning and successful accomplishment of assignments and classroom activities.	Responded to student posts providing additional contributions.	No responses to other students or responses to other students do not provide additional insight and are not substantive.

Late Assignments

Late assignments will only be accepted for valid and verifiable reasons and only if a request was made to the instructor at least one full day before the due date of the assignment.
If accepted, late penalties of **10% per day for Quizzes** and **10% per week for Projects** may be applied.
Because late projects are accepted, project solutions will not be provided.

Extra Credit

There are no extra credit opportunities for the class.

PROJECT DESCRIPTIONS

Descriptions and details for all homework and projects are listed in the assignments area found in the Navigation bar under assignments and in the content area.

ACADEMIC POLICIES

Academic Policies and Guidelines

ACADEMIC INTEGRITY

As a member of the University of Maryland University College (UMUC) academic community that honors integrity and respect for others you are expected to maintain a high level of personal integrity in your academic work at all times. Your work should be original and must not be reused in other courses.

CLASSROOM CIVILITY

Students are expected to work together cooperatively, and treat fellow students and faculty with respect, showing professionalism and courtesy in all interactions. Please review the Code of Civility for more guidance on interacting in UMUC classrooms: https://www.umuc.edu/students/support/studentlife/conduct/code.cfm (https://www.umuc.edu/students/support/studentlife/conduct/code.cfm).

POLICIES AND PROCEDURES

UMUC is committed to ensuring that all individuals are treated equally according to Policy 040.30 Affirmative Acti on, Equal Opportunity, and Sexual Harassment (https://www.umuc.edu/policies/adminpolicies/admin04030.cfm).

Students with disabilities who need accommodations in a course are encouraged to contact the Office of Accessibility Services (OAS) at accessibilityservices@umuc.edu (mailto:accessibilityservices@umuc.edu), or call 800-888-UMUC (8682) or 240-684-2287.

The following academic policies and procedures apply to this course and your studies at UMUC.

150.25	Academic Dishonesty and Plagiarism (https://www.umuc.edu/policies/academicpolicies/aa15025.cfm) – UMUC defines academic dishonesty as the failure to maintain academic integrity. All charges of academic dishonesty will be brought in accordance with this Policy. ***Note:*** Your instructor may use **Turnitin.com**, an educational tool that helps identify and prevent plagiarism from Internet resources, by requiring you to submit assignments electronically. To learn more about the tool and options regarding the storage of your assignment in the Turnitin database go to: https://www.umuc.edu/library/libresources/turnitin.cfm (https://www.umuc.edu/library/libresources/turnitin.cfm).
151.00	Code of Student Conduct (https://www.umuc.edu/policies/studentpolicies/stud15100.cfm) The following policies describe the requirements for the award of each degree: Degree Completion Requirements for the Graduate School (https://www.umuc.edu/policies/academicpolicies/aa17040.cfm)
170.40	Degree Completion Requirements for a Bachelor's Degree (https://www.umuc.edu/policies/academicpolicies/aa17041.cfm)
170.41 170.42	Degree Completion Requirements for an Associate's Degree (https://www.umuc.edu/policies/academicpolicies/aa17042.cfm)
170.71	Policy on Grade of Incomplete (https://www.umuc.edu/policies/academicpolicies/aa17071.cfm) - The grade of I is exceptional and only considered for students who have completed 60% of their coursework with a grade of B or better for graduate courses or C or better for undergraduate courses and request an I before the end of the term.
170.72	Course Withdrawal Policy (https://www.umuc.edu/policies/academicpolicies/aa17072.cfm) - Students must follow drop and withdrawal procedures and deadlines available at https://www.umuc.edu/ (https://www.umuc.edu/) under Academic Calendar.

130.80 Procedures for Review of Alleged Arbitrary and Capricious Grading (https://www.umuc.edu/policies/academicpolicies/aa13080.cfm) – appeals may be made on final course grades as described herein.

205.06 Calculation Of Grade-Point Average (GPA) for Inclusion on Transcripts and Transcript Requests (https://www.umuc.edu/policies/academicpolicies/aa20506.cfm) – Note: Undergraduate and Graduate Schools have different Grading Policies (i.e. The Graduate School does not award the grade of D). See Course Syllabus for Grading Policies.

GRADING

According to UMUC's grading policy, the following marks are used:

	Undergraduate	**Graduate**
A	90-100	90-100
B	80-89	80-89
C	70-79	70-79*
D	60-69	N/A**
F	59 or below	69 or below
FN	Failure-Non attendance	Failure-Non attendance
G	Grade Pending	Grade Pending
P	Passing	Passing
S	Satisfactory	Satisfactory
U	Unsatisfactory	Unsatisfactory
I	Incomplete	Incomplete
AU	Audit	Audit
W	Withdrew	Withdrew

* The grade of "B" represents the benchmark for The Graduate School. Students must maintain a Grade Point Average (GPA) of 3.0 or higher. Classes where final grade of C or F places a student on Academic Probation must be repeated.
** The Graduate School does not award the grade of D.

COURSE EVALUATION SURVEY

UMUC values its students' feedback. You will be asked to complete an online evaluation toward the end of the term. The primary purpose of this evaluation process is to assess the effectiveness of classroom instruction in order to provide the best learning experience possible and make continuous improvements to every class. Responses are kept confidential. Please take full advantage of this opportunity to provide your feedback.

LIBRARY SUPPORT

Extensive library resources and services are available online, 24 hours a day, seven days a week at https://www.umuc.edu/library/index.cfm (https://www.umuc.edu/library/index.cfm) to support you in your studies. The UMUC Library provides research assistance in creating search strategies, selecting relevant databases, and evaluating and citing resources in a variety of formats via its Ask a Librarian service at https://www.umuc.edu/library/libask/index.cfm (https://www.umuc.edu/library/libask/index.cfm).

LEARNING MANAGEMENT SYSTEM SUPPORT

To successfully navigate the online classroom new students are encouraged to view the Classroom Walkthrough under Help in the upper right menu of the LEO classroom. Those requiring technical assistance can access Help@UMUC Support directly in LEO under the Help menu. Additional technical support is available 24 hours a day, seven days a week via self-help and live chat at https://www.umuc.edu/help (https://www.umuc.edu/help) or by phone toll-free at 888-360-UMUC (8682).

SYLLABUS CHANGES

All items on this syllabus are subject to change at the discretion of the Instructor and the Office of Academic Affairs.

CLASS & ASSIGNMENT SCHEDULE

SESSION	TOPICS	ASSIGNMENTS
Week 1	• Introductions • Objects • Classes	• Week 1 discussions • Quiz 1 • Due Jan 15 before 11:59 PM
Week 2	• Inheritance • Polymorphism	• Week 2 discussions • Project 1 • Due Jan 22 before 11:59 PM
Week 3	• Exceptions • Interfaces • Abstract Classes	• Week 3 discussions • Quiz 2 • Due Jan 29 before 11:59 PM
Week 4	• GUI Components	• Week 4 discussions • Project 2 • Due Feb 5 before 11:59 PM
Week 5	• Event Listeners • More GUI Components	• Week 5 discussions • Quiz 3 • Due Feb 12 before 11:59 PM
Week 6	• Recursion	• Week 6 discussions • Project 3 • Due Feb 19 before 11:59 PM

Week 7	• Generics • Data Structures Introduction • Iterators	• Week 7 discussions • Quiz 4 • Due Feb 26 before 11:59 PM
Week 8	• Sets • Maps • Stacks • Queues • Trees	• Week 8 discussions • Project 4 • Due Mar 5 before 11:59 PM

Students can access their complete list of assignments and their corresponding due dates within the **Assignments** section of the classroom by navigating to the **Assignments** section of the class from the main navigation bar. Follow the link below, and then click **Assignments**, for a video demonstration on how to utilize this feature.

Classroom Walkthrough Videos Link (http://www.umuc.edu/students/leo/videos.cfm)

Students also have access to a calendar tool on the course homepage within the classroom.