CMSC 215 6382 Intermediate Programming (2238) CMSC-215

Fall 2023   Section 6382   3 Credits   08/16/2023 to 10/10/2023

👤 Faculty Contact

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💻 Course Description

(Formerly CMIS 242). Prerequisite: CMSC 115 (or 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. Students may receive credit for only one of the following courses: CMSC 215 or CMIS 242.

◎ 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.umgc.edu/UgcmBook/BPage.cfm?C=CMSC%20215&S=6382&Sem=2238)

✳ 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:

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 your instructor.
- For questions and concerns related to advising, you can call 800-888-8682 (toll-free), or, write to undergrad.advisor@umgc.edu (if you are an undergraduate student), or grad.advisor@umgc.edu (if you are a graduate student).
- For other questions and concerns about this class, you can contact your program director by writing to infotechnologydept@umgc.edu. 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 (See Class and Assignment Schedule for details):

4 Discussions @ 10pts each	40
8 Quizzes @ 20 pts each	160
4 Programming Projects @ 200 pts each	800
Final Calculated Grade	1,000

Definition of Academic Rigor

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

Late Assignments

The first day that a graded assignment is late there will be a 5% deduction in points. Each additional day there will be a 3% grade deduction. The total grade deduction cannot exceed 20% for the assignment. The one exception is the end of the course. All assignments must be submitted by the end of the course unless there is an approved Grade of Incomplete.

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 INTEGRITY

University of Maryland Global Campus (UMGC) has adopted a [Philosophy of Academic Integrity (https://www.umgc.edu/current-students/learning-resources/academic-integrity/philosophy)](https://www.umgc.edu/current-students/learning-resources/academic-integrity/philosophy) to guide the university's commitment to a culture of academic integrity. Our approach cultivates socially responsible personal and professional behaviors and traits. All members of the University community must maintain the highest level of integrity across the academic experience.

Resources - UMGC provides an [Academic Integrity Tutorial (https://www.umgc.edu/current-students/learning-resources/academic-integrity/tutorial)](https://www.umgc.edu/current-students/learning-resources/academic-integrity/tutorial) and an Integrity & Ethics Badge as learning resources. These resources include information on the fundamentals of academic integrity and how to apply your own personal ethics to coursework as a UMGC student and in other settings. Other Academic Integrity resources and guidelines are found at [https://www.umgc.edu/current-students/learning-resources/academic-integrity (https://www.umgc.edu/current-students/learning-resources/academic-integrity)](https://www.umgc.edu/current-students/learning-resources/academic-integrity).

Role of Instructor - Your instructor is your primary resource for how to uphold the highest ethical standards in the context of the specific requirements for this course.

Student Responsibility – You are responsible for using UMGC-approved resources to understand key academic integrity concepts and to support your own academic success through practices that uphold values of integrity: honesty, trust, fairness, respect, responsibility, and courage.

Turnitin - Turnitin is enabled within the classroom to support the development and assessment of authentic student writing. To learn more about Turnitin, the feedback it provides, how to use that feedback to improve your work, and your options regarding the inclusion of your work in the Turnitin database, visit University guides for Turnitin at [https://libguides.umgc.edu/turnitin-faq (https://libguides.umgc.edu/turnitin-faq)](https://libguides.umgc.edu/turnitin-faq).

CLASSROOM CIVILITY

University of Maryland Global Campus is committed to the success of our global community and values the diverse identities and backgrounds of our students, faculty, and staff. Each one of us has a broader life and set of experiences beyond UMGC that we bring with us to each interaction. Sharing your story with your classmates provides opportunities to learn, relate, and gain inspiration from each other. Engagement often begins with introductions at the beginning of the course. Sharing your preferred name, preferred pronouns, and other details about yourself and your life builds a foundation for connection, understanding, and a richer and more personalized learning experience.

We also recognize that some of life's responsibilities and challenges outside of the classroom, such as childcare, a change in employment status, or illness, have an impact on success in a course. To the extent you are comfortable, we encourage you to communicate with your faculty member or Success Coach about any concerns you have for this course or as a student at UMGC so we can help you navigate potential obstacles and stay on track to achieve your goals.

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 UMGC classrooms: [https://www.umgc.edu/current-students/student-life-and-support/student-handbook/civility-code (https://www.umgc.edu/current-students/student-life-and-support/student-handbook/civility-code)](https://www.umgc.edu/current-students/student-life-and-support/student-handbook/civility-code).

POLICIES AND GUIDELINES

UMGC is committed to creating a climate in which everyone can thrive. UMGC's [Non-Discrimination and Anti-Harassment Policy (https://www.umgc.edu/administration/policies-and-reporting/policies/administration-policies/non-discrimination-and-anti-harassment)](https://www.umgc.edu/administration/policies-and-reporting/policies/administration-policies/non-discrimination-and-anti-harassment) (Policy VI-1.00) and [Sexual Misconduct Policy (https://www.umgc.edu/administration/policies-and-reporting/policies/administration-policies/sexual-misconduct)](https://www.umgc.edu/administration/policies-and-reporting/policies/administration-policies/sexual-misconduct) (Policy 041.00) protect students, faculty, and staff.

Here you will find UMGC's [Non-Discrimination Statement (https://www.umgc.edu/terms-conditions/nondiscrimination-statement)](https://www.umgc.edu/terms-conditions/nondiscrimination-statement).

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

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

150.25	[Academic Integrity Policy (https://www.umgc.edu/administration/policies-and-reporting/policies/academic-affairs/academic-integrity)](https://www.umgc.edu/administration/policies-and-reporting/policies/academic-affairs/academic-integrity) The University expects all members of the university community—students, faculty, and staff—to use guidelines to work with and promote integrity. If you are aware of any academic misconduct, please contact integrity@umgc.edu. All cases of academic misconduct will be addressed in accordance with [Policy 150.25 (https://www.umgc.edu/administration/policies-and-reporting/policies/academic-affairs/academic-integrity)](https://www.umgc.edu/administration/policies-and-reporting/policies/academic-affairs/academic-integrity) and associated procedures. You are expected to engage in new learning that furthers your development of knowledge, skills, and abilities in each course. According to this policy, you may not submit a substantial portion of any coursework that you have submitted to any course previously without express written approval through assignment guidelines or other forms of communication. You must use UMGC course materials responsibly. Uploading course materials to any website outside of UMGC's online classroom is prohibited by this policy.
V-1.03	[Code of Student Conduct (https://www.umgc.edu/administration/policies-and-reporting/policies/student-affairs/code-of-student-conduct)](https://www.umgc.edu/administration/policies-and-reporting/policies/student-affairs/code-of-student-conduct)

170.40 170.41 170.42	The following policies describe the requirements for the award of each degree: Degree Completion Requirements for Graduate Students (https://www.umgc.edu/administration/policies-and-reporting/policies/academic-affairs/graduate-school-degree-completion-requirements) Degree Completion Requirements for a Bachelor's Degree (https://www.umgc.edu/administration/policies-and-reporting/policies/academic-affairs/bachelors-degree-completion-requirements) Degree Completion Requirements for an Associate's Degree (https://www.umgc.edu/administration/policies-and-reporting/policies/academic-affairs/associates-degree-completion-requirements)
V-1.30	Student Reasonable Accommodation Policy (https://www.umgc.edu/administration/policies-and-reporting/policies/student-affairs/reasonable-accommodations-students) - Students are responsible for self-identifying with Accessibility Services to inform the university about medical conditions and request academic accommodations.
170.71	Policy on Grade of Incomplete (https://www.umgc.edu/administration/policies-and-reporting/policies/academic-affairs/grade-of-incomplete-policy) - Additionally, the mark of I depends on the following two criteria: 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 students who request an I before the end of the term. The mark of I is not available for noncredit courses.
170.72	Course Withdrawal Policy (https://www.umgc.edu/administration/policies-and-reporting/policies/academic-affairs/course-withdrawal) - Students must follow drop and withdrawal procedures and deadlines available at https://www.umgc.edu/admission/academic-calendar (https://www.umgc.edu/admission/academic-calendar) under Academic Calendar.
130.80	Procedures for Review of Alleged Arbitrary and Capricious Grading (https://www.umgc.edu/administration/policies-and-reporting/policies/academic-affairs/capricious-grading-review) – Appeals may be made on final course grades as described herein.
IV-3.20	Intellectual Property (https://www.umgc.edu/administration/policies-and-reporting/policies/research/intellectual-property) - All university faculty, staff, and students must comply with University guidelines on the use of copyrighted material. Uploading UMGC or faculty copyrighted material without authorization degrades and corrupts the integrity of the teaching and learning experience and is a potential violation of UMGC policy and copyright law. You must obtain permission to post UMGC or other's copyrighted material to third-party websites, including social learning network sites. UMGC reserves the right to take appropriate action to remove copyrighted material uploaded without authorization.
205.06	Calculation Of Grade-Point Average (GPA) for Inclusion on Transcripts and Transcript Requests (https://www.umgc.edu/administration/policies-and-reporting/policies/academic-affairs/grade-point-average-calculation-for-inclusion-on-transcripts-and-transcript-requests) - Note: Undergraduate and graduate courses have different Grading Policies. See the Grading Policies section of the Course Syllabus.
X-1.12	Acceptable Use (https://www.umgc.edu/administration/policies-and-reporting/policies/info-governance-security-technology/acceptable-use) - The security of the online classroom is critical to ensuring a strong culture of academic integrity and authentic education at the University. It is a violation of the University's policies for anyone to share logon, password, and any other secure information about a UMGC online account, including credentials required to access the online learning environment.

GRADING

According to UMGC'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 graduate courses. 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.
** UMGC does not award the grade of D in graduate courses.

GRADE ROUNDING

Scores to individual assignments are calculated based on rubrics in the class and are not rounded to the whole point. The final grade for the course is determined by weighted average and will be rounded to the nearest whole point using mathematical rule (grades with .5 and above to be rounded to the next whole point).

EXTRA CREDIT

Assignments are designed to enable students to achieve course objectives and succeed in the program. In the interest of equity and fairness, there will be no extra credit opportunities. All assignments are identified in the syllabus.

COURSE EVALUATION SURVEY

UMGC 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://libguides.umgc.edu/home (https://libguides.umgc.edu/home) to support you in your studies. The UMGC 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.

EXTERNAL LINK DISCLAIMER

This course may contain links to external sites neither owned nor maintained by UMGC. UMGC bears no responsibility for the accuracy, legality, or content of external sites or for that of subsequent links. In addition, the terms of use, security policies, and privacy policies may differ from those of UMGC. Contact the external site for answers to questions regarding its content, terms of use, and policies.

LEARNING MANAGEMENT SYSTEM SUPPORT

Those requiring technical assistance can access Help@UMGC 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.umgc.edu/help (https://www.umgc.edu/help) or by phone toll-free at 888-360-8682.

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
<u>Week 1</u> 8/16/2023 - 8/22/2023	• Chapter 10: Object Oriented Thinking	• Week 1 Discussion • Quiz 1 Due 8/22/2023, Tuesday, 11:59 PM EST
<u>Week 2</u> 8/23/2023 - 8/29/2023	• Chapter 11: inheritance and Polymorphism	• Programming Project 1 • Quiz 2 Due 8/29/2023, Tuesday, 11:59 PM EST
<u>Week 3</u> 8/30/2023 - 9/5/2023	• Chapter 12: Exception Handling and Text I/O	• Week 3 Discussion • Quiz 3 Due 9/5/2023, Tuesday, 11:59 PM EST

Week 4 9/6/2023 - 9/12/2023	• Chapter 13: Abstract Classes and Interfaces	• Programming Project 2 • Quiz 4 **Due 9/12/2023, Tuesday, 11:59 PM EST**
Week 5 9/13/2023 - 9/19/2023	• Chapter 14: JavaFX Basics • Chapter 15: Event Driven Programming and animations	• Week 5 Discussion • Quiz 5 **Due 9/19/2023, Tuesday, 11:59 PM EST**
Week 6 9/20/2023 - 9/26/2023	• Chapter 15: Event Driven Programming and animations • Chapter 16: JavaFX UI Control and Multimedia	• Programming Project 3 • Quiz 6 **Due 9/26/2023, Tuesday, 11:59 PM EST**
Week 7 9/27/2023 - 10/3/2023	• Chapter 18: Recursion	• Week 7 Discussion • Quiz 7 **Due 10/3/203, Tuesday, 11:59 PM EST**
Week 8 10/4/2023 - 10/10/2023	• Chapter 19: Generics	• Programming Project 4 • Quiz 8 **Due 10/10/2023, Tuesday, 11:59 PM EST**

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 (https://www.umgc.edu/current-students/learning-resources/leo)

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