

University of Maryland University College
The Undergraduate School
CMSC 330
Advanced Programming Languages

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](#)

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 your 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.

Course Introduction

CMSC 330: Advanced Programming Languages examines a variety of programming languages and language paradigms. The primary languages studied include C++, Ada 95, Java, LISP, and Prolog. Occasional references will be made to other languages that have unique features. Language categories studied will include imperative, structured, object-oriented, concurrent, event-driven, and declarative.

This course is designed to enhance your programming skills by requiring you to write programs in a variety of different languages. The projects will also help you understand language translation techniques such as recursive descent parsing to help you prepare for more advanced courses in language translation.

Note: This course is identified as a prerequisite for another course at UMUC. Successful completion of this course is required to advance to the next course in a sequence. A grade of Withdrawal (W), Failure for non-attendance (FN), Failure (F) or Incomplete (I) will not meet a prerequisite requirement. You may be barred from enrolling in or may be removed from courses for which you do not have the necessary prerequisites. Keep track of your progress in this course. If you are uncertain about your standing, consult with your instructor. You should also work with an academic advisor to be sure you are aware of your options and are meeting all necessary program requirements when planning your schedule.

Course Description

Prerequisite: CMSC 230 or CMSC 350. A comparative study of programming languages. The aim is to write safe and secure computer programs. Topics include the syntax and semantics of programming languages and run-time support required for various programming languages. Programming projects using selected languages are required.

Course Outcomes

After completing this course, you should be able to

- use formal semantics and syntax to analyze and compare programming languages
- compare and contrast declarative and imperative programming language paradigms
- write safe and secure computer programs in a variety of languages
- select appropriate programming languages by evaluating language features and constructs
- discuss and analyze the compiler implementation of programming language features

Course Materials

Students can access their required and recommended course materials by accessing their class information, found within the Interactive Schedule of Classes on the UMUC website:

[Course Materials Link](#)

Grading Information and Criteria

This course consists of the following graded items:

Online participation	15%
Homework (6 @5% each)	30%

Project 1	25%
Project 2	30%
Total	100%

The grading scale, based on 100 points, is as follows:

A	90-100
B	80-89
C	70-79
D	60-69
F	0-59

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.

Grade Descriptions

Grade	Description
A	Outstanding - Performance excels far above established standards for university-level performance
B	Superior - Performance above established standards
C	Good - Performance meets established standards

D	Substandard - Performance is below established standards
F	Failure - Performance does not meet minimum requirements

Participation

By registering for a Web-based course, you have made a commitment to participate in course conferences as well as other online activities. Plan to participate regularly. Participation for this course is defined as proactive discussion in weekly conferences and discussion questions. 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.

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

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

Attribute	Exceeds	Meets	Does not Meet
Responses to Participation Topics	<p>Up to 5 points</p> <p>All participation topics were answered clearly and correctly</p> <p>References were included where appropriate</p> <p>Additional and related details, analysis or significant contributions beyond what was expected were included most of the time</p> <p>Postings were provided in a timely manner (early in the week) so students had time to learn from your contributions</p>	<p>Up to 4 points</p> <p>Most participation topics were answered clearly and correctly</p> <p>References were included where appropriate</p> <p>Additional and related details, analysis or significant contributions beyond what was expected were included some of the time</p>	<p>Up to 2 points</p> <p>Some or all of the participation topics were answered vaguely, poorly written or missing significant details</p>

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

University policy information is available in the classroom **Content > Syllabus > Academic Policies** section of the classroom. For a video demonstration on how to load the **Content** portion of your classroom, follow the link below, and then click on Course Content:

[Classroom Walkthrough Videos Link](#)

For more information about student services and other general information, visit UMUC's website at <http://www.umuc.edu/>

Course Schedule

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](#)

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

Note:

*Your faculty member will provide additional specific information about your class within the syllabus in the **Additional Course Information** section. Please refer to this information to ensure you have all class requirements (**Content > Syllabus > Additional Course Information**).*