



**CS151 - 002: Introduction to Computing**  
**Department of Physics and Computer Science**  
**COURSE SYLLABUS**

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Instructor:	Jonathan Skeete	Term:	Spring 2025
Office:	AB1 – 512 (upon request)	Class Meeting Days:	Fridays
Phone:	TBA	Class Meeting Hours:	1:00pm – 4:40pm
E-Mail:	Jonathan.skeete@mec.science	Class Location:	AB1 – C09
Website:	TBA	Lab Location:	AB1 – C09
Office Hours:	Fri. 11:30 am – 12:30 pm		

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**I. Welcome!**

Welcome to Introduction to Computing.

**II. University Course Catalog Description**

This course introduces the fundamental concepts of the discipline of computing, emphasizing elementary facts concerning computer architecture, programming languages, software methodology, and algorithms. Students learn how to solve problems using an appropriate block-structure high-level programming language. Programming topics include: basic data structures, control structures, data and procedure abstractions, functions and function parameters, recursion, and pointers.

**III. Course Overview**

This is a course in fundamental computing principles for students with little to no computing background. Students learn how to solve problems using a high-level programming language.

**IV. Course Objectives / Student Learning Outcomes (SLOs)**

By the end of this course, students will be able to:

1. Write computer programs using the three structured programming constructs (sequence, selection, and repetition) and the basic syntax and semantics of the C++ programming language to solve simple problems.
2. Write computer programs that use both one-dimensional and multi-dimensional arrays.
3. Write computer programs where they demonstrate fluency in the use of selection/conditional statements such as if, if-else and switch.
4. Write computer programs where they demonstrate fluency in the use of repetition statements such as while loops and for loops.
5. Identify functions for program modularization, and identify and classify the parameters for the functions.
6. Write programs using functions with parameters passed by value and by reference.

**V. Course Prerequisites**

MTH 151

**VI. Course Credits**

3 credits; 3 class hours.

**VII. Required Texts and Materials**

Starting Out with C++ from Control Structures to Objects, Gaddis Tony, 9<sup>th</sup> Edition, Pearson, ISBN 10: 9780134498379.

**VIII. Basis for Final Grade**

The final grade will be determined based on exams, assignments, quizzes, and a final project, as follows:

Assessment	Percent of Final Grade
Assignments	30%
Presentation	5%
Quizzes	20%
Midterm	20%
Final Exam	25%
	100%

The final grade will be a letter based on the following table:

Grading Scale (%)	
97 - 100	A+
93 - 96.9	A
90 - 92.9	A-
87.1 - 89.9	B+
83 - 87	B
80 - 82.9	B-
77 - 77.9	C+
70 - 76.9	C
67.1 - 69.9	D+
63 - 67	D
60 - 62.9	D-
0 - 59.9	F

**IX. Grade Dissemination**

Grades for all exams, quizzes and assignments will be posted on Brightspace.

**X. Course Policies: Grades**

**Late Work Policy:** There are no make-ups for missed assignments, quizzes, or exams. Late work submissions will be assessed a penalty for each day after the deadline.

**Grades of Incomplete (INC):** INC grades are at the discretion of the instructor and only given in very specific circumstances. An “INC” grade is given when the student the student is doing passing work during a semester and who for some justifiable reason has not been able to complete a particular assignment or misses a final exam. Check the College catalog for further information regarding INC grades.

**XI. Course Policies: Technology and Media**

Computers and other electronic devices can only be used to access lecture materials. Students are not to work on other materials in class.

Students are required to check email and Brightspace with regularity to check for class information and announcements.

## **XII. Course Policies: Student Expectations**

**Attendance Policy:** All students have the responsibility to arrive on time, attend class regularly, and to participate fully in the work of the course. Students who miss class are responsible to find out what was discussed and learn the material that was covered on the missed day(s). The instructor is not responsible for teaching missed material under any circumstances.

Assigned readings, problems and programs should be completed before class. Several computer programs/projects will be assigned to reinforce the concepts presented in class. Unless you own or have access to equivalent hardware and software, plan on spending a lot of time on campus

**Honor Code and Plagiarism (Cheating):** Students are required to sign and adhere to the departmental honor pledge. Check with the department for a copy of the pledge.

### *LAB ASSIGNMENTS*

Lab assignments can be done in groups and discussed amongst peers. However, completed lab assignments are to be submitted individually to Brightspace.

### *EXAMS AND QUIZZES*

Cell phones or any other electronic devices cannot be used during exams and quizzes. Any form of cheating during an exam or quiz will cause immediate removal from the exam and a grade of zero.

### *HOMEWORK ASSIGNMENTS*

Unless otherwise specified, homework assignments are to be completed individually. Discussions with other people about how to solve the problem, strategies, or problems that might arise, are permitted. However, each person should write his/her own programs independently.

Do not, under any circumstances, copy another person's code. Incorporating someone else's code into your program in any form will be considered plagiarism and therefore a violation of academic regulations. You must be prepared to explain any program code you submit. When a student is unable to explain the working of a piece of code that he/she submitted, no credit will be given for the homework. At the discretion of the professor, the action might be reported to the Department and the Office of Student Affairs.

**Disability Access:** Any student who may require accommodations due to a disability must be registered with the Office of Services for the Differently-Abled and notify the instructor at the start of the semester.

## **XIII. Important Dates to Remember**

Check the official academic calendar from the Office of the Registrar for special dates such as last day to add/drop classes, withdrawal deadline, closings, breaks, and examinations. Notice that the exam dates can be changed at the discretion of the professor.

**Week 09 (3/21/2025): MIDTERM EXAM**

**Week 12 (4/18/2025): NO CLASS SCHEDULED**

**Week 16 (5/16/2025): FINAL EXAM**

#### XIV. Schedule

The schedule, together with assignments, is subject to change in the progress of the course. Some topics might take longer than expected. Announcements made in the class and on the website/Brightspace/email override the schedule in case of conflicts.

Week	Topic	Reading
1: Welcome	<u>Introduction to Computers and Programming</u> <ul style="list-style-type: none"><li>- Hardware and Software</li><li>- Programs and Programming Languages</li><li>- How a Program Works</li><li>- <i>Visual Studio Code</i></li><li>- Simple C++ Program.</li></ul>	Chapter 1
2: QUIZ, LAB 3: QUIZ	<u>Variables</u> <ul style="list-style-type: none"><li>- <i>cout</i> Object</li><li>- Data Types and Literals</li><li>- Assignment Statements and Variable Initialization</li><li>- Arithmetic Operators</li><li>- Constants</li></ul>	Chapter 2
4: QUIZ, LAB 5: QUIZ	<u>Expressions and Interactivity</u> <ul style="list-style-type: none"><li>- <i>cin</i> Object</li><li>- Mathematical Expressions</li><li>- Type Conversions and Type Casting</li><li>- Multiple and Combined Assignments</li><li>- Formatted Input and Output</li><li>- Mathematical Library Functions</li><li>- Hand Tracing</li></ul>	Chapter 3
6: QUIZ, LAB 7: QUIZ	<u>Control Structures</u> <ul style="list-style-type: none"><li>- Relational Operators</li><li>- Logical Operators</li><li>- <i>if/if-else</i> Statements</li><li>- Nested <i>if</i> Statements</li><li>- <i>switch</i> Statements</li></ul>	Chapter 4
8: Exam	<u>Midterm</u>	Chapters 1-4
9: LAB 10: QUIZ, LAB	<u>Repetition Structures</u> <ul style="list-style-type: none"><li>- Increment and Decrement Operators</li><li>- <i>while/do..while</i> Loops</li><li>- <i>for</i> Loops</li><li>- Reading and writing to a file</li><li>- <i>break</i> and <i>continue</i></li></ul>	Chapter 5
11: LAB 12: No Class 13: LAB	<u>Functions</u> <ul style="list-style-type: none"><li>- Defining and Calling Functions</li><li>- Function Prototypes</li><li>- <i>void</i> Functions</li><li>- Scope (Local and Global Variables)</li><li>- Function arguments and parameters.</li></ul>	Chapter 6
14: QUIZ, LAB	<u>Arrays</u> <ul style="list-style-type: none"><li>- Declaring Arrays</li><li>- Array Initialization</li><li>- Processing Arrays</li><li>- Sorting Arrays</li><li>- Two-Dimensional Arrays</li></ul>	Chapter 7
15: Review	<u>Presentations/Final Review</u>	Chapters 1-7
16: Exam	<u>Final</u>	Chapters 1-7