

Introduction to Computing with C++

GE-Te 100 Introduction to Computing with C++

Course Overview

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Credit Hours: 3hrs

Course Description

This course is an introduction to computing by way of the C++ programming language. It explores the fundamental principles of computer science, algorithmic problem-solving, and software development. This course is designed to provide you with the skills necessary to construct efficient programs using the data structures offered by C++, the principles of data and procedural abstraction, and the complexities of algorithmic designs.

Learning Outcomes

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

1. Apply various problem-solving strategies in order to design, implement, and test working algorithms in C++.
 2. Implement the basic principles of object-oriented programming (OOP) in the creation of working code.
 3. Utilize basic data structures in C++ to optimize data management and program functionality.
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Instructor Information

Name: Hans Lapp

Contact Information: hlapp@campusedu.com

Bio:

Resources

zyBooks, Programming in C++

Course Outline

MODULE ONE: INTRODUCTION TO C++/VARIABLES			
Title	Type	Duration	Points
Read and Watch	Input	4hrs	--
Discussion Forum	Discussion	3hrs	25
Q & A Session	Discussion	1hr	10
zyBooks Homework	Assignment	7hrs	90
	Totals	15hrs	125

MODULE TWO: VARIABLES/BRANCHES			
Title	Type	Duration	Points
Read and Watch	Input	4hrs	--
Discussion Forum	Discussion	3hrs	25
Q & A Session	Discussion	1hr	10
zyBooks Homework	Assignment	7hrs	90
	Totals	15hrs	125

MODULE THREE: BRANCHES/STRINGS/LOOPS			
Title	Type	Duration	Points
Read and Watch	Input	4hrs	--
Discussion Forum	Discussion	3hrs	25
Q & A Session	Discussion	1hr	10
zyBooks Homework	Assignment	7hrs	90
	Totals	15hrs	125

MODULE FOUR: LOOPS/ARRAYS/VECTORS			
Title	Type	Duration	Points
Read and Watch	Input	4hrs	--
Discussion Forum	Discussion	3hrs	25
Q & A Session	Discussion	1hr	10
zyBooks Homework	Assignment	7hrs	90
	Totals	15hrs	125

MODULE FIVE: ARRAYS/VECTORS/POINTERS			
Title	Type	Duration	Points
Read and Watch	Input	4hrs	--
Discussion Forum	Discussion	3hrs	25
Q & A Session	Discussion	1hr	10
zyBooks Homework	Assignment	7hrs	90
	Totals	15hrs	125

MODULE SIX: FUNCTIONS			
Title	Type	Duration	Points
Read and Watch	Input	4hrs	--
Discussion Forum	Discussion	3hrs	25
Q & A Session	Discussion	1hr	10
zyBooks Homework	Assignment	7hrs	90

	Totals	15hrs	125
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MODULE SEVEN: OBJECTS AND CLASSES			
Title	Type	Duration	Points
Read and Watch	Input	4hrs	--
Discussion Forum	Discussion	3hrs	25
Q & A Session	Discussion	1hr	10
zyBooks Homework	Assignment	7hrs	90
	Totals	15hrs	125

MODULE EIGHT: FILES/STREAMS			
Title	Type	Duration	Points
Read and Watch	Input	4hrs	--
Discussion Forum	Discussion	3hrs	25
Q & A Session	Discussion	1hr	10
zyBooks Homework	Assignment	7hrs	90
	Totals	15hrs	125

Live Sessions

This course has live meetups for Q & A, typically one hour every module. If you cannot attend, you can recoup the points for the session by watching the recording and submitting

a 300-word summary/response. Since these sessions will be audio-visually recorded, those who participate with their camera engaged are agreeing to have their video, image, or voice recorded.

Grading

Asynchronous Discussions: 200 points

Live Q&A Sessions: 80 points

Assignments: 720 points

Course Grading Scale

95-100 A (Excellent)	75-78 C (Satisfactory)
92-94 A-	72-74 C-
89-91 B+	69-71 D+
85-88 B (Good)	65-68 D (Passing)
82-84 B-	62-64 D-
79-81 C+	Below 62 F (Below Min. Standards)

Policy/Procedures

ACADEMIC DISHONESTY STATEMENT

Campus courses maintain a strict policy concerning academic dishonesty, which includes cheating, plagiarism, assisting on an examination or paper when expressly forbidden by the instructor, and any other practices that demonstrate a lack of academic integrity. Cheating occurs whenever a student uses deception to avoid fulfilling the specific requirements of an assignment or course and/or to receive a higher grade than they might otherwise receive. Using artificial intelligence software (such as ChatGPT) to generate writing and pass it off as one's own is also considered cheating. Plagiarism occurs when a student appropriates passages or ideas from someone else's writing into their own without providing proper documentation and/or without using quotation marks to indicate when they are directly quoting a source. It is the student's responsibility to know and adhere to principles of academic honesty. A student found guilty of academic dishonesty will be subject to academic sanctions ranging from failure on the assignment to failure in the course to, in cases of repeated or flagrant violation, suspension, or dismissal from participation in Campus courses. There may also be repercussions with the university transcribing your credit. Consult the Student Handbook of that college or university.

DROP PERIOD AND WITHDRAWAL

The Drop period for Campus courses is five days after the student has enrolled and their designated term has begun. No refund will be available after this point.

Although many Campus classes are technically self-paced, students will be provided with a pacing guide (when relevant) to assist them in knowing how best to complete their courses on time. **Failure to log in during the first week after their course commences will result in automatic removal from the course.**

If a student is significantly behind pace two-thirds of the way through their term, they are encouraged to withdraw from the course with a W or equivalent appearing on their transcript. Beyond that point, they will no longer be eligible for a W on their transcript and thus are in danger of receiving a failing grade. Campus will report persistent failure to participate to the transcribing college or university. After the two-thirds point, a student will receive a letter grade for the course, including the possibility of a failing grade.

INCOMPLETE GRADE

A temporary neutral mark "I" is given at the discretion of an instructor when, for a legitimate reason, a student cannot complete course requirements in a given semester. Apart from catastrophic circumstances, a student is not eligible for an incomplete if they have not completed at least 60% of their coursework for the semester. Typical instances might be an extended illness or an inability to complete the coursework because of extenuating circumstances. A contract between the instructor and the student will accompany this grade to indicate the nature of the work to be completed. An Incomplete Grade (I) should not be used as an alternative to a grade of F. An Incomplete Grade must be made up before the seventh week of the next term whether or not the student is subsequently enrolled with Campus or the university. If the grade is not made up by the deadline, it will be changed to the appropriate grade earned in the course at that point.

DISABILITY STATEMENT

Campus-affiliated institutions comply with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. Students with disabilities who need accommodations must self-identify and submit acceptable documentation to the Office of Disability Services. Additional information is available from the transcribing college or university.

LIBRARY RESOURCES

Library information for the transcribing college or university will be made available.

CREDIT HOUR POLICY - EXPECTATION OF WORK

In compliance with federal regulations (34CFR 600.2), Campus requires its courses to require a total workload of at least 2250 minutes per credit hour for the typical student. This workload may be comprised of time allocated to direct faculty-student interaction, assigned readings,

independent or group assignments, expected study time, or other course-related activities as appropriate to the specific course and determined by the faculty of record.

GRADE APPEALS

In the case of a grade appeal, the student shall be considered to have an authentic grievance when he/she can demonstrate his/her grade for a course has been adversely affected due to certain actions by a faculty member. A grade appeal shall be initiated within ten (10) working days after receipt of the grade or after the beginning of the next academic semester. This period may be extended by the chief academic officer of the transcribing college or university on petition from the student(s) involved. More information concerning this policy and the steps for resolution may be found in the Student Handbook of the transcribing college or university.

CAMPUS EDU PRIVACY POLICY

<https://www.campusedu.com/privacy-policy>