

C/C++ Programmer Certificate

Introduction

This course is intended for students who have a basic level of knowledge in C and wishes to learn advanced problem solving skills in C and get an introduction to the flavour of C++. Graduates from disciplines other than Computer Science can take this course as well if they are acquainted with the basic C Language .In this course, you will learn the advanced C and acquire problem solving skills in this language. This course covers everything from the different variables types, strings to arrays. Then it goes on to more advanced topics, such as pointers and functions, which provide the framework needed to be a good C++ programmer. The course ends with concepts of Object Oriented Programming and in C++.

Pedagogy

Online Course

Minimum Recommended Duration (90 hours)

40 hours of course work and assignments + 20 hours of guided practice + 30 hours of open practice

Difficulty

Beginner to Practitioner

Assessment

Online Assessment

Related SMU Subjects

BCA 1st Sem: Programming in C
 BCA 2nd Sem: OOP with C++
 MCA 1st Sem: Programming in C
 MCA 2nd Sem: OOP with C++
 BScIT 1st Sem: C Programming
 MScIT 1st Sem: OOP

Certified By

MaGE

Who Should Attend

Graduates of IT/CS who want hands on knowledge of C/C++, advanced concepts in C and intro to Objective Oriented Programming (OOP)

Working executives working C Language and want to get certification cum advanced knowledge in C / C++ and OOP

Program Structure

- Basic Knowledge Of C
- Variables And Data-types
- Operators
- Program Flow Control
- Functions In C
- Arrays
- Files
- Dynamic Memory Allocation
- Structures And Unions
- Object Oriented Programming
- Classes In C++

Learning Outcome

- Analyze and compile C/C++ programs;
- Declare variables and data types;
- Perform mathematical functions in C/C++;
- Input and output data;
- Create loops, conditional statements, arrays, and functions using C/C++ syntax;
- Demonstrate understanding of pointers;
- Declare and manipulate strings;
- Create structures in C/C++;
- Read and write files recursively



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Specialization

Software Development
(Basics of Programming)

Major Recruitment Sector

IT, IT Enabled Services, KPOs

Avg. No. of opening in leading Job Portals

50000 Jobs for 0 to 3 years of experience

Large Employers

HP, IBM, TCS, Infosys, Wipro, Cognizant, HCL, TechM, MSAT

Avg. Salary / Annum

Fresher: Rs. 1.2 – 1.5 Lac

Exp (1-3 Yrs): Rs.2.0 – 3.0 Lac

Exp (3 Yrs+): Rs. 3 Lac+

Placement Opportunity

C / C++ are the base of all programming languages and all software development openings require a basic to advance knowledge of these languages, depending on the specific technology. Even if the target technology is new and the employer intends to train the developer, a strong knowledge of C / C++ proves software development competence and helps the candidate in securing the job. This program takes the students through various examples of multiple difficulty level and prepares them for the kind of practical questions that are asked during interviews. Hence this is a skill enhancement course and combined with an over-all degree program and in-depth knowledge of C & C++, it increases the student's placement chances and takes up salary component by 30%.

MaGE Online Model USP

	Face to Face Model	MaGE Online Model
Faculty	Instruction Led Training	Tech / Subject Matter Support Via eMail & Call
Content	Books	Online Reading Material, Downloadable PDFs
Assessment	Single Assessment	Multiple Quizzes for all Units, Self-Assessment coding with Instant Evaluation and Feedback
Practice Problems	Limited basic pre-defined problems	Multiple Practice Problems with varying levels of Difficulty
Practice Time & Scope	Limited Lab Timing and Software / Compilers required to practice at home	Unlimited Practice on the Open Lab with scope of Student coding creatively without any constraints. Cloud Platform Enables the student to Practice using just a Browser and Internet Connection



Comparison of Delivery Models

Face to Face Model	MaGE Online Model
70 – 75 hours	90 hours
<ul style="list-style-type: none">✓ 40 hours of self-learning from Books✓ 30 hours of instructor led training on doubt clarification of basic concept and lab session✓ Additionally a student can book lab (depending on availability) to practice on his own, generally faculty assistance are not available✓ Single assessment at the end	<ul style="list-style-type: none">✓ 40 hours of self-learning in multiple modes - e-books, PPTs, videos✓ <u>Minimum</u> 20 hours of guided practice and 30 hours of open practice✓ Continuous self-assessment and final proctored assessment