# Does a Computer Science Degree Require A Lot of Math Courses?

If you have ever thought about obtaining a computer science degree in order to pursue a career in technology, an important question has probably crossed your mind: Does a computer science degree require a lot of math courses? By reviewing the information to be found below, you can obtain an answer to this question and several others that pertain to the field of computer science.

# Computer Science-The Basics

Although broadly defined, computer science is basically the practical and scientific approach to computation as well as its applications. More specifically, computer science is the study of the structure, mechanization, and expression of the processes used to store, communicate, and process information encoded within bits in computer memory. An individual who works as a computer scientist will typically specialize in both computation theory as well as computational systems design. As Dawn Rosenberg McKay points out in her important article [“Computer Science Major,”](http://careerplanning.about.com/od/College-Majors/fl/Computer-Science-Major.htm) the job outlook for this sector is high with the U.S. Bureau of Labor Statistics predicting faster than average growth through 2020 for careers within the field.

# Computer Science Degree Requirements-Math

Individuals who want to know whether obtaining a computer science degree will necessitate the completion of a lot of math courses should know that the answer is generally yes. Thus while each educational program will have its own unique requirements, students can typically expect to take a plethora of math courses throughout their undergraduate career. Some of the math courses required will typically include:

* General Education Requirements (Prerequisites to Major)
  + Calculus With Analytic Geometry I
  + Calculus with Analytic Geometry II
  + Matrices
* Core Requirements
  + Statistical Analysis I
  + Elementary Probability
  + Elementary Probability
* Electives
  + Introduction to Analysis I
  + Ordinary Differential Equations
  + Fourier Series and Partial Differential Equations
  + Introduction to Operations Research
  + Linear Algebra and Discrete Models I
  + Linear Algebra and Discrete Models II
  + Basic Abstract Algebra

Yet another reality prospective computer science students should recognize is that some of the computer science courses that they will be required to take will include mathematical components. For example, some of the required computer science courses a student might take include:

* + Discrete Mathematics for Computer Science
  + Design and Analysis of Algorithms
  + Formal Languages with Applications