Computer Sciences

1119 A.V. Williams Building
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http://undergrad.cs.umd.edu/

College of Computer, Mathematical, & Natural Sciences

Key Features of a Computer Science Major

- Receive a common grounding in the fundamentals of computer science yet have the freedom and guidance to pursue individual interests and specializations.
- Work with instructors who are actively engaged in the field advancing various aspects of computer science and technology.
- Integrate course content and learn problem solving skills through the completion of an elective individual research project.
- Join a close community of fellow students and instructors while also having access to cutting-edge technology and a worldwide network of alumni.

Career Options and Salaries with a Computer Science Major

Computer scientists are the designers, creators, and inventors of new technology. By creating new technology or finding alternative uses for existing resources they solve complex business, scientific, and general computing problems. Some computer scientists work on multidisciplinary projects collaborating with electrical engineers, mechanical engineers, and other specialists. Computer scientists conduct research on a wide array of topics. Scientists who research hardware architecture discover new ways for computers to process and transmit information. They design computer chips and processors using new materials and techniques to make them work faster and give them more computing power. When working with virtual reality scientists use technology to create life-like situations. Computer scientists working with robotics try to create machines that can perform tasks on their own—without people controlling them. Computer science researchers employed by academic institutions have more flexibility to focus on pure theory. Some researchers in non-academic settings, however, have considerable latitude in determining the direction of their research.

In May 2015, the median annual salary for computer and information technology occupations ranged from $51,740 to $110,620, depending on the specific occupation.

Career and salary information taken from Occupational Outlook Handbook, 2016-17 ed.
http://www.bls.gov/ooh/computer-and-information-technology/home.htm

Advising

If you are considering a major in Computer Science, please visit their website at http://undergrad.cs.umd.edu/prospective-cs-students for all information about the major, including a four year plan and a list of the degree requirements. If you have further questions not answered on the website, you may contact the Computer Science Undergraduate Office via email at ugrad@cs.umd.edu.

General questions regarding all CMNS majors may be sent to cmnsque@umd.edu. You can also use walk-in advising hours at the Student Services Office in 1300 Symons Hall, Mondays – Fridays, 10:00 a.m. – 12:00 p.m. and 2 p.m. to 4 p.m. Walk-in advising will end in mid-October. You may also call for an appointment at (301) 405-2080.

Declaring a Computer Science Major

Computer Science is not a Limited Enrollment Program (LEP). If you are interested in a Computer Science major, you can declare immediately!

Students interested in declaring a CS major or minor are required to attend a major/minor workshop. These workshops are held throughout the spring and fall semesters, and three times over the summer. To RSVP for a workshop, please visit the website: https://webapps.cs.umd.edu/ugrad/events. There are no walk-in hours or advising appointments for non-majors.

Before signing up for a change of major workshop please review the requirements for the major and prerequisites.

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Four-Year Plan GenEd

First Year:

MATH 140 (AR)	4	MATH 141	4
CMSC 131	4	CMSC 132	4
ENGL 101 (AW)	3	GenEd NL	4
CMSC100	1	GenEd HS	3
GenEd OC	3		15 credits
	15 credits		

Second Year:

CMSC 216	4	CMSC 330	3
CMSC 250	4	CMSC351	3
GenEd HS	3	MATH2xx	4
GenEd SP	3	GenEd NS	3
	14 credits	GenEd HU	3
			16 credits

Third Year:

CMSC 4xx	3	CMSC 4xx	3
CMSC 4xx	3	CMSC 4xx	3
STAT400	3	ENGL393 (PW)	3
GenEd HU	3	UL Concentration	3
GenEd SP	3	UL Concentration	3
	15 credits		15 credits

Fourth Year:

CMSC 4xx	3	CMSC 4xx	3
CMSC 4xx	3	UL Concentration	3
UL Concentration	3	Elective	3
Elective	3	Elective	3
Elective	3	Elective	3
	15 credits		15 credits

TOTAL = 120 credits

Four-Year Plan CORE

First Year:

MATH 140	4	MATH 141	4
CMSC 131	4	CMSC 132	4
ENGL 101	3	CORE-PL/LL	4
CMSC100	1	CORE-HL	3
SB	3		15 credits
	15 credits		

Second Year:

CMSC 216	4	CMSC 330	3
CMSC 250	4	CMSC351	3
CORE HA	3	Math 2xx	4
CORE SH	3	CORE-PS/LS	3
	14 credits	CORE-SB	3
			16 credits

Third Year:

CMSC 4xx	3	CMSC 4xx	3
ENGL393	3	CMSC 4xx	3
STAT 400	3	UL Concen	3
CORE-HO	3	Elective	3
UL Concen	3	Elective	3
	15 credits		15 credits

Fourth Year:

CMSC 4xx	3	CMSC 4xx	3
CMSC 4xx	3	CMNS 4xx	3
UL Concentration	3	UL Concentration	3
Elective	3	Elective	3
Elective	3	Elective	3
	15 credits		15 credits

TOTAL = 120 credits

Q & A

How do I get permission to take a Computer Science class?
Letters and Sciences students should contact their office email ugrad@cs.umd.edu. If you meet the prerequisite/co-requisite for a CS class, and there are open seats, they may be able to give you permission before the first day of classes.

I'm just looking for a little introduction to CS, to satisfy my curiosity or a one-course requirement of my major. What options are available?
The regular intro course CMSC 131 is available to CMSC majors only, but CMSC also has other offerings of courses to serve non-majors. How about one of the following?

- **CMSC 106: "Introduction to C programming"** Design and analysis of programs in C. An introduction to computing using structured programming concepts. For further information contact the Computer Science Undergraduate Office. (This is a common choice for math majors seeking to satisfy the department's programming requirement.)
- **CMSC 122: "Introduction to programming via the web"** This class provides an introduction to programming in the context of developing full featured dynamic web sites. Uses a problem solving approach to teach basics of program design and implementation using JavaScript; relates these skills to creation of dynamic web sites; then explores both the potential and limits of web-based information sources for use in research. Intended to help relate a student's major to these emerging technologies. (This is a very popular course with growing demand. A good choice if you want to get a start on programming with some useful skills to bring back to your major!)

Is there a minor in Computer Science?
The Computer Science Department offers a minor for non-majors. Students seeking the minor in CS should visit http://undergrad.cs.umd.edu/prospective-cs-students to see the list of requirements for the minor and sign up for a minor addition workshop. Once the minor is declared students may then receive approval for CMSC classes.