COMPUTER SCIENCE, COMPUTER SCIENCE AND TECHNOLOGIES AA: 107

Total Credits: 60
Catalog Edition: 2017-2018

Program Description

This degree is designed for students who plan to transfer to a four-year degree program in computer science, or for students in mathematics, science, or technical areas who wish to acquire skills in computer software development for scientific and technical applications. The courses in the program provide an academic core of the theoretical concepts of computer science combined with the fundamentals of structured design and development techniques for computer programming.

Because of the academic level of this track, students are expected to demonstrate college-level skills in English, mathematics, and elementary programming.

Not all CMSC courses transfer to all institutions. Please consult an advisor or the transfer institution before selecting elective courses.

Program Outcomes

Upon completion of this program a student will be able to:

- Apply logical skills and mathematical concepts to analyze, design and implement computer algorithms and programs.
- Demonstrate proficiency in a high level programming language.
- Demonstrate proficiency in current design techniques, I.e. Object Oriented Design

Program Advising

Rockville
- **Dr. Alla Webb**
  240-567-7934
  Alla.Webb@montgomerycollege.edu

Germantown
- **Prof. Margaret Tseng**
  240-567-7737
  Margaret.Tseng@montgomerycollege.edu

Takoma Park/Silver Spring
- **Dr. Qingmin Zhou**
  240-567-1606
  Qingmin.Zhou@montgomerycollege.edu

For more information please visit:
http://www.montgomerycollege.edu/computerscience

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2017-2018
Program Advising Guide
An Academic Reference Tool for Students

COMPUTER SCIENCE,
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Suggested Course Sequence

A suggested course sequence for full-time students follows. All students should review this advising guide and consult an advisor. Visit http://www.montgomerycollege.edu/computerscience for more information.

First Semester

- CMSC 140 - Introduction to Programming
  3 semester hours

- ENGL 101 - Introduction to College Writing
  *3 semester hours ***

- MATH 181 - Calculus I
  4 semester hours (MATF)

- Arts distribution
  3 semester hours (ARTD)

- Behavioral and social sciences distribution
  *3 semester hours (BSSD) ****

Second Semester

- CMSC 203 - Computer Science I
  4 semester hours

- MATH 182 - Calculus II
  4 semester hours

- English foundation
  3 semester hours (ENGF)

- Arts or humanities distribution
  3 semester hours (GEIR) † †

Third Semester

- CMSC 204 - Computer Science II
  4 semester hours

- Humanities distribution
  3 semester hours (HUMD)

- Natural sciences distribution with lab
  4 semester hours (NSLD)

- Elective
  3 semester hours †

Fourth Semester

- COMM 108 - Introduction to Human Communication *3 semester hours (GEIR)*
  OR
- COMM 112 - Business and Professional Speech Communication *3 semester hours (GEIR)*

- CMSC 207 - Introduction to Discrete Structures
  4 semester hours

- Behavioral and social sciences distribution
  *3 semester hours (BSSD)***

- Natural sciences distribution
  3 semester hours (NSND)

- Elective *3 semester hours †*

Total Credit Hours: 60

Advising Notes

- * ENGL 101/ENGL 101A , if needed for ENGL 102/ENGL 103, or otherwise any program elective (CMSC Courses) or MATH 282 or MATH 284. Please consult an advisor or transfer institution for assistance with course selection.
- ** Behavioral and Social Science Distribution (BSSD) courses must come from different disciplines.
- † Program elective courses are any CMSC courses or MATH 282 or MATH 284. See department adviser for elective or equivalent course substitution if appropriate. Not all CMSC courses transfer to all institutions. Please consult an advisor or the transfer institution before selecting program elective courses.
- † † Please consult an advisor or the transfer institution before selecting general education institutional requirements (GEIR).

COMPUTER SCIENCE A.A.: 107

Total Credits: 60
Catalog Editions 16-17 through 17-18

Name: **Date:**   **ID #:**

GENERAL EDUCATION: FOUNDATION COURSES	Course	Hours	Grade
English Foundation (EN 102/ENGL 102 or EN 109/ENGL 103)		3	
Math Foundation	MA 181/**MATH 181**	4	

GENERAL EDUCATION: DISTRIBUTION COURSES	Course	Hours	Grade
Arts Distribution (ARTD)			
Humanities Distribution (HUMD)			
Behavioral & Social Sciences Distribution (BSSD) **		3	
Behavioral & Social Sciences Distribution (BSSD) **		3	
Natural Sciences Distribution with Lab (NSLD)		4	
Natural Sciences Distribution without Lab (NSND) or **Natural Sciences Distribution with Lab** (NSLD)			
General Education Institutional Requirement (GEIR)		3	
Arts (ARTD) or Humanities (HUMD) Distribution†† (GEIR) GENERAL EDUCATION INSTITUTIONAL REQUIREMENT			

PROGRAM REQUIREMENTS	Course	Hours	Grade
EN 101/**ENGL 101 or 101A** (if needed for ENGL102/103 or program elective if not) *			
	MA 182/**MATH 182**	4	
	CS 140/**CMSC 140**	3	
	CS 103/**CMSC 203**	4	
	CS 204/**CMSC 204**	4	
	CS 256/**CMSC207**	4	
PROGRAM ELECTIVE †			
PROGRAM ELECTIVE †			

Has student completed the Global Perspectives requirement? ☐ Yes ☐ No

Overall GPA of 2.0 is required to graduate

Total Credits: _____

Global Perspectives Course: _____

Engineering and Computer Science Advising Web Page

* *ENGL 101/ENGL 101A if needed, for EN 102/ENGL 102 or EN 109/ENGL103 or otherwise any program elective (CMSC courses) or MA 282/ MATH 282 or MA 284/MATH 284. Please consult an advisor or transfer institution for assistance with course selection.*

Last Modified: July 2017

** *Behavioral and Social Science Distribution (BSSD) courses must come from different disciplines.*

† *Program elective courses are any CMSC courses or MATH 282 or MATH 284. See department adviser for elective or equivalent course substitution if appropriate. Not all CMSC courses transfer to all institutions. Please consult an advisor or the transfer institution before selecting program elective courses.*

Advising Worksheet Contact: Anthony Solano

†† *Please consult an advisor or the transfer institution before selecting general education institutional requirements (GEIR).*

See an advisor to submit an Application for Graduation the semester BEFORE you intend to graduate.

This UNOFFICIAL document is for planning purposes ONLY and completion does not guarantee graduation.

Transfer Opportunities

Montgomery College has partnerships with multiple four-year institutions and the tools to help you transfer. To learn more please visit: http://cms.montgomerycollege.edu/transfer/ or http://artsys.usmd.edu/

Get Involved at MC!

Employers and Transfer Institutions are looking for experience outside the classroom.

Computer Science and Technologies Student Professional Groups

www.montgomerycollege.edu/computerscience

Related Careers

Some require a Bachelor's degree.
Computer Science Teacher, Computer Systems Engineer/Architect, Computer/Information Research Scientist, Web Administrator, Mobile Developer, Game Programmer

Career Services

http://www.montgomerycollege.edu/career

Career Coach

A valuable online search tool that will give you the opportunity to explore hundreds of potential careers or job possibilities in Maryland and the Washington D.C. metropolitan area.

Get started today on your road to a new future and give it a try. Visit the website listed below: https://montgomerycollege.emsicareercoach.com

Notes:

MONTGOMERY COLLEGE
MAKE YOUR MOVE