

**DATA SCIENCE  
CERTIFICATE: 256  
Total Credits: 16  
Catalog Edition: 2018-2019**

## Program Description

This certificate will provide students with experience in the field of data science including such areas as data management, data analysis, data collection, and data visualization. It is suitable for students who wish to begin work in the field, for those who wish to supplement their existing coursework with additional experiences in these data science areas, and for students who have obtained a bachelor's or other degree in any number of analytical and scientific fields and wish to upgrade or update their skills and training.

## Program Outcomes

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

- Assess different analysis and data management techniques and justify the selection of a particular model or technique for a given task.
- Execute analyses of large and disparate datasets and construct models necessary for these analyses.
- Demonstrate competency with programming languages and environments for data analysis.
- Summarize findings of complex analyses in a concise way for a target audience using both graphics and statistical measures.

## Program Advisors

- **Prof. Kathryn Linehan**  
240-567-7764  
[Kathryn.linehan@montgomerycollege.edu](mailto:Kathryn.linehan@montgomerycollege.edu)

For more information please visit:

<https://cms.montgomerycollege.edu/mathematics/programsandadvising/>

# 2018-2019 Program Advising Guide

An Academic Reference Tool for Students

# DATA SCIENCE CERTIFICATE: 256

## Suggested Course Sequence

A suggested course sequence for full-time students follows. All students should review this advising guide and consult an advisor. Visit <https://cms.montgomerycollege.edu/mathematics/programsandadvising/> for more details.

### First Semester

- MATH 117 Elements of Statistics  
*3 semester hours*

OR

- MATH 217 Biostatistics  
*3 semester hours*

OR

- BSAD 210 Statistics for Business and Economics  
*3 semester hours*

### Second Semester

- DATA 101 Introduction to Data Science  
*3 semester hours*
- DATA 110 Writing and Communication in Data Science  
*3 semester hours*

### Third Semester

- DATA 201 Statistical Methods in Data Science\*  
*3 semester hours*
- DATA 205 Capstone Experience in Data Science  
*4 semester hours*

**Total Credit Hours: 16**

### Advising Notes

\*DATA 201, Statistical Methods in Data Science, can be taken as a pre-requisite or corequisite for DATA 205, Capstone Experience in Data Science.

# DATA SCIENCE CERTIFICATE: 256

Total Credits: 16  
Catalog Edition 17-18 through 18-19

Name:

Date:

ID #:

CERTIFICATE REQUIREMENTS	Course	Hours	Grade
	DATA 101	3	
	DATA 110	3	
	DATA 201	3	
	DATA 205	4	
MA 116/ <b>MATH 117</b> or MA 116(A)/ <b>MATH 117(A)</b> or <b>MATH 217</b> or BA 210/ <b>BSAD 210</b>		3	

**Overall GPA of 2.0 is required to graduate**

*This certificate will provide students with experience in the field of data science including such areas as data management, data analysis, data collection, and data visualization. It is suitable for students who wish to begin work in the field, for those who wish to supplement their existing coursework with additional experiences in these data science areas, and for students who have obtained a bachelor's or other degree in any number of analytical and scientific fields and wish to upgrade or update their skills and training.*

Total Credits:

[Data Science Web Page](#)

Last Modified: April 2018

Advising Worksheet Contact: [Anthony Solano](#)

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.**

This certificate is a career program and may not readily transfer to four year colleges/universities (except in special cases.) Visit [transfer planning](#) for more information.

## 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.

## MC Student Clubs and Organizations

<https://cms.montgomerycollege.edu/edu/plain.aspx?id=2439>

## Related Careers

Data science is now transforming industries beyond the technology industry, in areas such as health care, energy, and transportation. With benefits of data becoming more numerous and widespread, demand for data science and analytics talent is projected to grow by 15 percent by 2020 (US Bureau of Labor).

## 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: