

# SECONDARY EDUCATION--MATHEMATICS AAT

Total Credits: 61

Catalog Edition: 2023-2024

## Program Description

This curriculum prepares students to transfer to any secondary education mathematics program at a four-year college or university in the state of Maryland. The AAT articulates with all Maryland transfer programs in mathematics education. The program enables students to fulfill their General Education requirements, participate in fieldwork experiences, and complete a core of professional education coursework appropriate for the first two years of teacher preparation. To earn the AAT students must either achieve a minimum of a 3.0 cumulative GPA or achieve a 2.75 - 2.99 cumulative GPA along with presenting acceptable scores on one of the following state-approved basic skills tests: SAT, ACT, Praxis I PPST, or Praxis Core academic skills tests.

## Program Outcomes

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

- Identify major historical events in education and analyze the impact of those events with current educational trends.
- Identify the psychological, cognitive, emotional, and physical characteristics of typically developing children and adolescents, with specific consideration to disabilities and cultural and linguistic diversity.
- Analyze and critique current scientifically-based research and culturally responsive instructional practices for the purpose of understanding the educational needs of students and families.
- Identify the current and inclusive philosophies for differentiating instruction to analyze, improve, and facilitate instruction for diverse learners.
- Demonstrate and utilize technology as a teaching/reinforcement tool.
- Develop excellent written, verbal, critical thinking, and problem solving skills, which will allow him or her to effectively make connections between prior knowledge/experience and new learning.
- Demonstrate proficiency in the application of mathematics through the level of multivariable calculus.

## Program Advisors

### Germantown

- Prof. Zine Boudhraa, 240-567-5192,  
[zine.Boudhraa@montgomerycollege.edu](mailto:zine.Boudhraa@montgomerycollege.edu)

### Rockville

- Prof. Zine Boudhraa, 240-567-5192,  
[zine.Boudhraa@montgomerycollege.edu](mailto:zine.Boudhraa@montgomerycollege.edu)

### Takoma Park/Silver Spring

- Prof. Zine Boudhraa, 240-567-5192,  
[zine.Boudhraa@montgomerycollege.edu](mailto:zine.Boudhraa@montgomerycollege.edu)

For more information, please visit <https://www.montgomerycollege.edu/academics/programs/education/secondary-education-mathematics-aat-degree.html>

Additional resources can be found on the School of Education's website at <https://www.montgomerycollege.edu/education> .

To view the Advising Worksheet, please visit <https://www.montgomerycollege.edu/documents/counseling-and-advising/advising-worksheets/current-catalog/605.pdf>

2023-2024

# Program Advising Guide

An Academic Reference Tool for Students

# SECONDARY EDUCATION--MATHEMATICS AAT

## Suggested Course Sequence

A suggested course sequence for full-time students follows. All students should review this advising guide and consult an advisor.

### First Semester

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

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

EDUC 101 - Foundations of Education *3 semester hours*

EDUC 102 - Field Experience in Education *1 semester hour*

PSYC 100 - General Psychology *3 semester hours* (BSSD)

### Third Semester

CHEM 132 - Principles of Chemistry II *4 semester hours* (NSLD)

OR

PHYS 262 - General Physics II: Electricity and Magnetism *4 semester hours* (NSLD)

CMSC 140 - Introduction to Programming *3 semester hours*

HIST 200 - History of the United States, a Survey Course: from Colonial Times to 1865 *3 semester hours* (HUMD)

ISTD 173 - Integrated Arts *3 semester hours* (ARTD)

MATH 280 - Multivariable Calculus *4 semester hours*

### Second Semester

ENGL 102 - Critical Reading, Writing, and Research *3 semester hours* (ENGF)

PHYS 161 - General Physics I: Mechanics and Heat *3 semester hours* (NSD) \*\*\*\*

EDUC 201 - Introduction to Special Education *3 semester hours*

EDUC 202 - Field Experience in Special Education *1 semester hour*

MATH 182 - Calculus II *4 semester hours*

### Fourth Semester

COMM 108 - Foundations of Human Communication *3 semester hours* (GEIR)

MATH 284 - Linear Algebra *4 semester hours*

PSYC 227 - Educational Psychology *3 semester hours*

Arts Distribution(ARTD) or Humanities Distribution (HUMD) *3 semester hours* (GEIR)

Behavioral and Social Sciences Distribution *3 semester hours* (BSSD) \*\*/\*\*

## Total Credit Hours: 61

\* ENGL 101/ENGL 101A, if needed for ENGL 102, or choose one of MATH 117 or MATH 282.

\*\* Students must select BSSD elective from a different discipline than PSYC.

\*\*\*One of these courses must meet the Global Course requirement.

\*\*\*\* CHEM 131 Principles of Chemistry I or PHYS 161 Mechanics & Heat

## Transfer Opportunities

Montgomery College has partnerships with multiple four-year institutions and the tools to help you transfer. To learn more, please visit <https://www.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://www.montgomerycollege.edu/life-at-mc/student-life/>

## Related Careers

Most require a Bachelor's degree.

Middle and High School Math Teacher, Data Analyst, Applications Engineer, Aerospace and Defense, Physicist, Engineer, Science and Telecommunications.

According to thebalance.com, it is a teacher's job to help their students learn concepts in a variety of subjects. Secondary school teachers work in middle and high schools, usually specializing in a single subject area such as mathematics. In addition to earning a degree in education, you probably need an additional degree in the subject area in which you want to specialize.

## Career Services

Montgomery College offers a range of services to students and alumni to support the career planning process. To learn more, please visit <https://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. For more information, please visit <https://montgomerycollege.emsicc.com>

## Notes: