

## SECONDARY EDUCATION—MATHEMATICS MATHEMATICS AAT: 605

Total Credits: 61  
Catalog Edition: 2017-2018

### 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 achieve a minimum of a 2.75 cumulative GPA and present acceptable scores on a state-approved basic skills test.

### 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 Advising

#### Rockville

- **Dr. Julie Rogers**  
240-567-5205  
[Julie.rogers2@montgomerycollege.edu](mailto:Julie.rogers2@montgomerycollege.edu)

#### Germantown

- **Dr. David Torain**  
240-567-7797  
[David.Torain@montgomerycollege.edu](mailto:David.Torain@montgomerycollege.edu)

#### Takoma Park/Silver Spring

- **Prof. Kimberly Fouche**  
240-567-3994  
[Kimberly.fouche@montgomerycollege.edu](mailto:Kimberly.fouche@montgomerycollege.edu)

For more information, please visit:

<https://cms.montgomerycollege.edu/mathematics/programs/andadvising/>

Additional resources can be found on the School of Education's [website](#), or by contacting:

- **Prof. Debra Poese**  
240-567-7629  
[Debra.Poese@montgomerycollege.edu](mailto:Debra.Poese@montgomerycollege.edu)

# 2017-2018 Program Advising Guide

An Academic Reference Tool for Students

SECONDARY EDUCATION—MATHEMATICS  
MATHEMATICS AAT

# SECONDARY EDUCATION—MATHEMATICS

## MATHEMATICS AAT: 605

### Suggested Course Sequence

All students should review the [Advising Worksheet](#) and consult an advisor.

#### First Semester

- **EDUC101-Foundations of Education**  
*3 semester hours*
- **EDUC 102-Field Experience in Education**  
*1 semester hour*
- **ENGL101-Introduction to College Writing**  
*3 semester hours\**
- **MATH 181-Calculus I**  
*4 semester hours (MATF)*
- **PSYC 102-General Psychology**  
*3 semester hours (BSSD)*

#### Second Semester

- **PHYS 161-General Physics I: Mechanics and Heat** *3 semester hours (NSD)\*\*\*\**
- **EDUC 201-Introduction to Special Education**  
*3 semester hours*
- **EDUC 202-Critical Reading, Writing, and Research** *3 semester hours (ENGF)*
- **MATH 182-Calculus II**  
*4 semester hours*

#### 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*

#### 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**

### Advising Notes

\* ENGL 101 1/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

**TEACHER EDUCATION TRANSFER PROGRAM**  
**TEACHING IN SECONDARY EDUCATION - MATHEMATICS A.A.T.: 605**

Total Credits: 61  
 Catalog Edition 17-18

Name:

Date:

ID #:

*NOTE: To earn the AAT students must achieve a minimum of a 2.75 cumulative GPA and present acceptable scores on one of the following state-approved basic skills tests: SAT, ACT, GRE, Praxis I PPST or Praxis Core Academic Skills Tests.*

*Consult an education advisor about this degree and plan to take your basic skills test if needed no later than completion of 45 credits.*

<b>GENERAL EDUCATION: FOUNDATION COURSES</b>	<b>Course</b>	<b>Hours</b>	<b>Grade</b>
English Foundation	EN 102/ENGL 102	3	
Math Foundation	MA 181/MATH 181	4	
<b>GENERAL EDUCATION: DISTRIBUTION COURSES</b>	<b>Course</b>	<b>Hours</b>	<b>Grade</b>
Arts Distribution (ARTD)	IS 273/ISTD 173	3	
Humanities Distribution (HUMD)	HS 201/HIST 200	3	
Behavioral & Social Sciences Distribution (BSSD)	PY 102/PSYC 102	3	
Behavioral & Social Sciences Distribution (BSSD not PSYC)**/*		3	
Natural Sciences Distribution with Lab (NSLD)			
Natural Sciences Distribution with Lab (NSD)		4	
General Education Institutional Requirement (GEIR)	SP 108/COMM108	3	
ARTD or HUMD*** (GEIR) Choose course from general education ARTD or HUMD. Discuss appropriate course choice with education faculty advisor			
<b>PROGRAM REQUIREMENTS</b>	<b>Course</b>	<b>Hours</b>	<b>Grade</b>
<b>ENGL 101 or ENGL 101A</b> (if needed for ENGL 102 or choose MATH117 or MATH 282)*		3	
	ED 101/EDUC 101	3	
	ED 102/EDUC 102	1	
	ED 140/EDUC 201	3	
	ED 141/EDUC 202	1	
	MA 182/MATH 182	4	
	MA 280/MATH 280	4	
	MA 284/MATH 284	4	
	CS 140/CMSC 140	3	
	PY 227/PSYC 227	3	

**Overall GPA of 2.75 or higher AND passing score on basic skills test are required to graduate with the A.A.T.**

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

**Total Credits:**

**Student has overall GPA of 2.75 or higher and passing score on basic skills test?**  Yes  No

[Education Web Page](#)

Last Modified: July 2017

\*ENGL 101 1/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 (ARTD, HUMD, or BSSD) must meet the Global Course requirement.

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.**

## 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

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

<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: