

Secondary Education–Physics Associate of Arts in Teaching (AAT): 603 Total Credits: 65

Program Description

This curriculum prepares students to transfer to a secondary education physics program at a four-year college or university in the state of Maryland. The AAT articulates with all Maryland transfer programs in secondary physics education. The program enables students to fulfill their General Education requirements, participate in fieldwork experiences, and complete a core of professional education coursework required 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 required scores on a state-approved basic skills test

Program Outcomes

- 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 physics to include mechanics, electricity, wave theory, and modern physics.

Program Advising

Rockville

- **Dr. Glenda Hernandez Baca**
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- **Prof. Deb Poese**
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- **Prof. Sonja Fisher**
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Takoma Park/Silver Spring

- **Dr. Glenda Hernandez Baca**
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For more information, please visit:

<http://www.montgomerycollege.edu/education>

2017-2018 Program Advising Guide

An Academic Reference Tool for Students

603

Secondary Education–Physics AAT
ASSOCIATE OF ARTS IN TEACHING: 603

Secondary Education--Physics AAT

Associate of Arts in Teaching: 603

Suggested Course Sequence

This section is available on the catalog website at

<http://catalog.montgomerycollege.edu/content.php?catoid=8&navoid=1322>

First Semester

- **BIOL 150 - Principles of Biology I** 4 semester hours
- **OR**
- **CHEM 131 - Principles of Chemistry I** 4 semester hours
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- **EDUC 101 - Foundations of Education** 3 semester hours *
- **EDUC 102 - Field Experience in Education** 1 semester hour
- **ENGL 101 - Introduction to College Writing** 3 semester hours *
- **MATH 181 - Calculus I** 4 semester hours (MATF)

Second Semester

- **EDUC 201 - Introduction to Special Education** 3 semester hours
- **EDUC 202 - Field Experience in Special Education** 1 semester hour
- **ENGL 102 - Critical Reading, Writing, and Research** 3 semester hours (ENGF)
- **MATH 182 - Calculus II** 4 semester hours
- **PHYS 161 - General Physics I: Mechanics and Heat** 3 semester hours (NSND)
- **PSYC 102 - General Psychology** 3 semester hours (BSSD) **

Third Semester

- **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
- **PHYS 262 - General Physics II: Electricity and Magnetism** 4 semester hours
- **PSYC 216 - Adolescent Psychology** 3 semester hours

Fourth Semester

- **COMM 108 - Foundations of Human Communication** 3 semester hours (GEIR)
- **PHYS 263 - General Physics III: Waves, Optics, and Modern Physics** 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: 65

Advising Notes

* ENGL 101/101A if needed for ENGL 102. or elective

** Not PSYC course.

NOTE: Either HUMD/ARTD or BSSD must meet the Montgomery College multicultural requirement

Physics AAT Degree (603)
Secondary Teacher Education Transfer Program Outline

Consult an education advisor to plan for completing this degree. In order to graduate, in addition to this program of study, students must **earn a 2.75 GPA**, pass an approved **basic skills test** (SAT/ACT/Praxis), and **complete an application for graduation**.

COURSE REQUIREMENTS	COURSE NUMBER	SEMESTER HOURS	
		Credits	<input checked="" type="checkbox"/>
Foundation Courses			
Critical Reading, Writing , & Research	ENGL 102	3	
Calculus I	MATH 181	4	
Distribution Courses			
Integrated Arts	ISTD 173	3	
History of the United States, A Survey Course: from the Colonial Times to 1865	HIST 200	3	
General Psychology	PSYC 102	3	
Behavioral/Social Sciences Distribution**		3	
General Physics I: Mechanics and Heat	PHYS 161	3	
General Physics II: Electricity and Magnetism	PHYS 262	4	
General Education Institutional Requirements			
Foundations of Human Communication	COMM 108	3	
Arts or Humanities Distribution		3	
Program Requirements			
Foundations of Education	EDUC 101	3	
Field Experience in Education	EDUC 102	1	
Introduction to Special Education	EDUC 201	3	
Field Experience in Special Education	EDUC 202	1	
Introduction to College Writing*	ENGL 101	3	
Calculus II	MATH 182	4	
Multivariable Calculus	MATH 280	4	
Principles of Biology I OR Principles of Chemistry I	BIOL 150 <i>or</i> CHEM 131	4	
General Physics III: Waves, Optics, and Modern Physics	PHYS 263	4	
Adolescent Psychology	PSYC 216	3	
Educational Psychology	PSYC 227	3	

Total credit hours 65

* ENGL 101/101A, if needed for ENGL 102, or elective

** Not PSYC course

Note: Either HUMD/ARTD or BSSD must meet the Montgomery College multicultural requirement

This outline valid Fall 2017 forward

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

Most require a Bachelor's degree. High school physics teacher, data analyst, applications engineer, aerospace and defense, physicist, engineer, science and telecommunications

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: