Academic Plan - Associate of Science Math

**Catalog Year: 2019/2020**

**Total Credits:60**

The purpose of a statewide articulation agreement is to identify the courses a student at a Colorado public community college must complete as part of an AA/AS degree to be guaranteed to be able to complete the designated baccalaureate degree program at any public four-year college and university (hereafter referred to as receiving institutions) that offers that program within the minimum number of credits designated by the Colorado Commission on Higher Education.

# General Education Courses

3 Credits, Arts / Humanities GT-AH1-AH4, available fall spring summer

3 Credits, Arts / Humanities GT-AH1-AH4, available fall spring summer

3 Credits, Arts / Humanities GT-AH1-AH4, available fall spring summer

3 Credits, ENG 121 - English Composition I: GT-CO1\*, available fall spring summer

3 Credits, ENG 122 - English Composition II: GT-CO2, available fall spring summer

3 Credits, History GT-HI1, available fall spring summer

3 Credits, Social / Behavioral Science GT-SS1-SS3, available fall spring summer

3 Credits, Social / Behavioral Science GT-SS1-SS3, available fall spring summer

5 Credits, MAT 201 - Calculus I: GT-MA1, available fall spring summer

5 Credits, PHY 211 - Physics: Calculus-Based I with Lab: GT-SC1\*, available fall spring summer

5 Credits, PHY 212 - Physics: Calculus-Based II with Lab: GT-SC1\*, available fall spring

# Additional Required Courses

1-2 Credits, Elective (See Notes for specific requirements), available fall spring summer

3 Credits, COM 115 - Public Speaking\* OR COM 125 - Interpersonal Communication, available fall spring summer

3 Credits, Elective (See Notes for specific requirements), available fall spring summer

4 Credits, CSC 160 - Computer Science I: Java\*, available fall spring

4-5 Credits, MAT 203 - Calculus III OR MAT 204 - Calculus III w/Engineering Applications, available fall spring summer

5 Credits, MAT 202 - Calculus II: GT-MA1, available fall spring summer

# Pre-Requisites, Co-Requisites, and Recommendations

CSC 160 - Computer Science I: Java\*

Pre-Requisite: CSC 119 - Introduction to Programming: Java

ENG 122 - English Composition II: GT-CO2

Pre-Requisite: ENG 121 - English Composition I OR ENG 131 - Technical Writing I

MAT 201 - Calculus I: GT-MA1

Pre-Requisite: MAT 122 - College Trigonometry: GT-MA1 OR MAT 166 - Pre-Calculus: GT-MA1

MAT 202 - Calculus II: GT-MA1

Pre-Requisite: MAT 201 - Calculus I: GT-MA1

PHY 211 - Physics: Calculus-Based I with Lab: GT-SC1\*

Pre-Requisite: MAT 201 - Calculus I: GT-MA1

PHY 212 - Physics: Calculus-Based II with Lab: GT-SC1\*

Pre-Requisite: MAT 201 - Calculus I: GT-MA1

Pre-Requisite: PHY 211 - Physics: Calculus-Based I with Lab: GT-SC1

MAT 203 - Calculus III OR MAT 204 - Calculus III w/Engineering Applications

Pre-Requisite: MAT 202 - Calculus II: GT-MA1

# Program Outcomes

Communicate mathematics with understanding using symbolic graphical, numerical, and written representations of Use critical thinking and mathematical reasoning to solve a variety of problems including real-world situations.

Use technology, when appropriate, to enhance mathematical understanding, critical thinking, and problem-solving

skills.

# Notes

Electives: Select from any of the following (excluding Special Topics, Independent Study, Capstone, and Internships): AAA 101, AAA 109, AST (any), BIO (100 or higher), CHE (any), CIS 118, CSC 119, CSC 126, CSC 160, CSC 161, CSC 165, CSC 200, CSC 225, CSC 233, CSC 236, CSC 240, ECO 201, ECO 202, ECO 245, EGG (any), ENV 101, ENV 110, any Foreign Language courses (including ASL) numbered 111 or higher, GEO 111, GEO 112, GEY 111, GEY 112, GEY 135, HNR 100, HNR 289, MAT 121 (or higher, except 155 / 156), MET 150, or PHY 111 (or higher).

CSU-Ft.Collins requires a different computer science course than the community college course. Students should seek advising at CSU-FC for information on the appropriate computer science course to take.

CSC 160 has a prerequisite of CSC 119. CSC 119 can be taken as an elective course.

Course availability is subject to change.

Refer to 19/20 catalog for specific requirements and important information about this degree.

The Colorado Department of Higher Education website has additional information about this statewide agreement.

Follow the Recommended Course Sequence on the following pages of this document.

Recommended courses may be listed above for certain electives; consult with the Academic Advising Office (advising@arapahoe.edu or 303.797.5664) for additional elective recommendations.

\*This course requires college level readiness as measured by Accuplacer, ACT, or SAT scores; approved high school course work that is less than five years old; or successful completion of appropriate college-readiness course.

AAA 101 – College 101: Student Experience is required for all new college students seeking degrees or transfer.

# Graduation Requirements

All courses required for this degree must be completed with a "C" or better to meet graduation requirements.

To graduate, students must apply for graduation (form available at www.arapahoe.edu/departments-and-programs/graduation) by the deadline and meet all degree requirements.

# RECOMMENDED COURSE SEQUENCE FULL-TIME TRACK

## Year 1: Fall

3 Credits, Arts / Humanities GT-AH1-AH4

3 Credits, COM 115 - Public Speaking OR COM 125 - Interpersonal Communication

3 Credits, ENG 121 - English Composition I: GT-CO1

5 Credits, MAT 201 - Calculus I: GT-MA1

3 Credits, Social / Behavioral Science GT-SS1-SS3

## Year 1: Spring

3 Credits, Arts / Humanities GT-AH1-AH4

3 Credits, ENG 122 - English Composition II: GT-CO2

3 Credits, History GT-HI1

5 Credits, MAT 202 - Calculus II: GT-MA1

3 Credits, Social / Behavioral Science GT-SS1-SS3

## Year 2: Fall

3 Credits, Elective

4-5 Credits, MAT 203 - Calculus III OR MAT 204 - Calculus III w/Engineering Applications

5 Credits, PHY 211 - Physics: Calculus-Based I with Lab: GT-SC1

## Year 2: Spring

3 Credits, Arts / Humanities GT-AH1-AH4

4 Credits, CSC 160 - Computer Science I: Java

1-2 Credits, Elective

5 Credits, PHY 212 - Physics: Calculus-Based II with Lab: GT-SC1

# RECOMMENDED COURSE SEQUENCE PART-TIME TRACK

## Year 1: Fall

3 Credits, COM 115 - Public Speaking OR COM 125 - Interpersonal Communication

3 Credits, ENG 121 - English Composition I: GT-CO1

## Year 1: Spring

5 Credits, MAT 201 - Calculus I: GT-MA1

3 Credits, Social / Behavioral Science GT-SS1-SS3

## Year 1: Summer

3 Credits, Arts / Humanities GT-AH1-AH4

## Year 2: Fall

4 Credits, CSC 160 - Computer Science I: Java

5 Credits, MAT 202 - Calculus II: GT-MA1

## Year 2: Spring

3 Credits, Arts / Humanities GT-AH1-AH4

3 Credits, ENG 122 - English Composition II: GT-CO2

4-5 Credits, MAT 203 - Calculus III OR MAT 204 - Calculus III w/Engineering Applications

## Year 2: Summer

3 Credits, Arts / Humanities GT-AH1-AH4

3 Credits, Social / Behavioral Science GT-SS1-SS3

## Year 3: Fall

1-2 Credits, Elective

5 Credits, PHY 211 - Physics: Calculus-Based I with Lab: GT-SC1

## Year 3: Spring

3 Credits, Elective

5 Credits, PHY 212 - Physics: Calculus-Based II with Lab: GT-SC1

## Year 3: Summer

3 Credits, History GT-HI1