Academic Plan - Associate of Science Math

# Catalog Year: 2020/2021

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.

# Total Credits: 61-62

# A - 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-SS3, available fall spring summer

3 Credits, Social / Behavioral Science GT-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

# B - Additional Required Courses

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

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

4 Credits, CSC 160 - Computer Science I\*, 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\*

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

ENG 121 - English Composition I: GT-CO1\*

Co-Requisite: CCR 094 - Studio 121

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

# Notes

Electives: Select any Guaranteed Transfer course or any of the following (excluding Special Topics, Independent Study, Capstone, and Internships): AAA 101, AAA 109, AST (100 or higher), BIO (100 or higher), CHE (100 or higher), CIS 118, CSC 119, CSC 126, CSC 160, CSC 161, CSC 165, CSC 200, CSC 225, CSC 233, CSC 236, CSC 240, EGG (100 or higher), any Foreign Language courses (including ASL) numbered 111 or higher, HNR 100, HNR 289, HWE 100, HWE 111, HWE 125, MAT 121 (or higher, except 155 / 156), 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 20/21 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.

In order to meet program requirements, students registered for ENG 121 or ENG 131 must also register for CCR 094 unless they can demonstrate otherwise meeting the CCR 094 standard through assessment testing, prior college coursework, or recent High School coursework. See an Advisor for details.

# Graduation Requirements

All courses required for this degree must be completed with a "C" or better to be considered for transfer to another Colorado institution. Transferability of courses to colleges or universities outside of Colorado is determined by the receiving institution.

To graduate, students must apply for graduation [here](http://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

* ~Recommended Arts / Humanities Course(s)~
  + ART 110 - Art Appreciation GT-AH1\*
  + LIT 115 - Introduction to Literature I: GT-AH2\*
  + MUS 120 - Music Appreciation: GT-AH1\*
  + PHI 111 - Introduction to Philosophy: GT-AH3\*
  + PHI 113 - Logic: GT-AH3\*
  + SPA 211 - Spanish Language III: GT-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-SS3

* ~Recommended Social / Behavioral Science Course(s)~
  + ANT 101 - Cultural Anthropology: GT-SS3\*
  + ECO 202 - Principles of Microeconomics: GT-SS1\*
  + GEO 105 - World Regional Geography: GT-SS2\*
  + POS 111 - American Government: GT-SS1\*
  + PSY 101 - General Psychology I: GT-SS3\*
  + SOC 101 - Introduction to Sociology I: GT-SS3\*

## Year 1: Spring

3 Credits, Arts / Humanities GT-AH1-AH4

* ~Recommended Arts / Humanities Course(s)~
  + ART 111 - Art History Ancient to Medieval: GT-AH1\*
  + HUM 115 - World Mythology: GT-AH2\*
  + HUM 123 - Humanities: Modern World: GT-AH2\*
  + LIT 115 - Introduction to Literature I: GT-AH2\*
  + MUS 125 - History of Jazz: GT-AH1\*
  + PHI 111 - Introduction to Philosophy: GT-AH3\*
  + PHI 218 - Environmental Ethics: GT-AH3\*

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

3 Credits, History GT-HI1

* ~Recommended History Course(s)~
  + HIS 101 - Western Civilization: Antiquity-1650: GT-HI1\*
  + HIS 102 - Western Civilization: 1650-Present: GT-HI1\*
  + HIS 111 - The World: Antiquity-1500: GT-HI1\*
  + HIS 112 - The World: 1500-Present: GT-HI1\*
  + HIS 121 - U.S. History to Reconstruction\*
  + HIS 122 - United States History Since the Civil War\*

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

3 Credits, Social / Behavioral Science GT-SS3

* ECO 201 - Principles of Macroeconomics: GT-SS1\*
* PSY 102 - General Psychology II: GT-SS3\*
* PSY 235 - Human Growth and Development: GT-SS3\*
* PSY 249 - Abnormal Psychology: GT-SS3\*
* SOC 102 - Introduction to Sociology II: GT-SS3\*
* SOC 220 - Sociology of Religion: GT-SS3\*
* SOC 231 - The Sociology of Deviant Behavior: GT-SS3\*

## Year 2: Fall

3 Credits, Elective

* ~Recommended Elective(s)~
  + CSC 119 - Introduction to Programming
  + MAT 255 - Linear Algebra
  + MAT 261 - Differential Equations with Engineering Applications: GT-MA1
  + MAT 265 - Differential Equations: GT-MA1

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

* ~Recommended Arts / Humanities Course(s)~
  + ART 112 - Art History Renaissance to Modern: GT-AH1\*
  + HUM 115 - World Mythology: GT-AH2\*
  + HUM 123 - Humanities: Modern World: GT-AH2\*
  + LIT 115 - Introduction to Literature I: GT-AH2\*
  + MUS 125 - History of Jazz: GT-AH1\*
  + PHI 111 - Introduction to Philosophy: GT-AH3\*
  + PHI 218 - Environmental Ethics: GT-AH3\*

4 Credits, CSC 160 - Computer Science I

3 Credits, Elective

* ~Recommended Elective(s)~
  + CSC 119 - Introduction to Programming
  + MAT 122 - College Trigonometry: GT-MA1
  + MAT 166 - Pre-Calculus: GT-MA1
  + MAT 255 - Linear Algebra
  + MAT 261 - Differential Equations with Engineering Applications: GT-MA1
  + MAT 265 - Differential Equations: GT-MA1

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-SS3

* ~Recommended Social / Behavioral Science Course(s)~
  + ANT 101 - Cultural Anthropology: GT-SS3\*
  + ECO 202 - Principles of Microeconomics: GT-SS1\*
  + GEO 105 - World Regional Geography: GT-SS2\*
  + POS 111 - American Government: GT-SS1\*
  + PSY 101 - General Psychology I: GT-SS3\*
  + SOC 101 - Introduction to Sociology I: GT-SS3\*

## Year 1: Summer

3 Credits, Arts / Humanities GT-AH1-AH4

* ~Recommended Arts / Humanities Course(s)~
  + ART 110 - Art Appreciation GT-AH1\*
  + LIT 115 - Introduction to Literature I: GT-AH2\*
  + MUS 120 - Music Appreciation: GT-AH1\*
  + PHI 111 - Introduction to Philosophy: GT-AH3\*
  + PHI 113 - Logic: GT-AH3\*
  + SPA 211 - Spanish Language III: GT-AH4

## Year 2: Fall

4 Credits, CSC 160 - Computer Science I

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

## Year 2: Spring

3 Credits, Arts / Humanities GT-AH1-AH4

* ~Recommended Arts / Humanities Course(s)~
  + ART 111 - Art History Ancient to Medieval: GT-AH1\*
  + HUM 115 - World Mythology: GT-AH2\*
  + HUM 123 - Humanities: Modern World: GT-AH2\*
  + LIT 115 - Introduction to Literature I: GT-AH2\*
  + MUS 125 - History of Jazz: GT-AH1\*
  + PHI 111 - Introduction to Philosophy: GT-AH3\*
  + PHI 218 - Environmental Ethics: GT-AH3\*

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

* ~Recommended Arts / Humanities Course(s)~
  + ART 112 - Art History Renaissance to Modern: GT-AH1\*
  + HUM 115 - World Mythology: GT-AH2\*
  + HUM 123 - Humanities: Modern World: GT-AH2\*
  + LIT 115 - Introduction to Literature I: GT-AH2\*
  + MUS 125 - History of Jazz: GT-AH1\*
  + PHI 111 - Introduction to Philosophy: GT-AH3\*
  + PHI 218 - Environmental Ethics: GT-AH3\*

3 Credits, Social / Behavioral Science GT-SS3

* ECO 201 - Principles of Macroeconomics: GT-SS1\*
* PSY 102 - General Psychology II: GT-SS3\*
* PSY 235 - Human Growth and Development: GT-SS3\*
* PSY 249 - Abnormal Psychology: GT-SS3\*
* SOC 102 - Introduction to Sociology II: GT-SS3\*
* SOC 220 - Sociology of Religion: GT-SS3\*
* SOC 231 - The Sociology of Deviant Behavior: GT-SS3\*

## Year 3: Fall

3 Credits, Elective

* ~Recommended Elective(s)~
  + CSC 119 - Introduction to Programming
  + MAT 122 - College Trigonometry: GT-MA1
  + MAT 166 - Pre-Calculus: GT-MA1
  + MAT 255 - Linear Algebra
  + MAT 261 - Differential Equations with Engineering Applications: GT-MA1
  + MAT 265 - Differential Equations: GT-MA1

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

## Year 3: Spring

3 Credits, Elective

* ~Recommended Elective(s)~
  + CSC 119 - Introduction to Programming
  + MAT 255 - Linear Algebra
  + MAT 261 - Differential Equations with Engineering Applications: GT-MA1
  + MAT 265 - Differential Equations: GT-MA1

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

## Year 3: Summer

3 Credits, History GT-HI1

* ~Recommended History Course(s)~
  + HIS 101 - Western Civilization: Antiquity-1650: GT-HI1\*
  + HIS 102 - Western Civilization: 1650-Present: GT-HI1\*
  + HIS 111 - The World: Antiquity-1500: GT-HI1\*
  + HIS 112 - The World: 1500-Present: GT-HI1\*
  + HIS 121 - U.S. History to Reconstruction\*
  + HIS 122 - United States History Since the Civil War\*