

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.

| Required Courses  | Credits | Pre or Co Reqs Rqd                  | Course Availability                 |                                     |                                     |
|---|---------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
|   |         |                                     | Fall                                | Spr                                 | Sum                                 |
| <b>General Education Courses</b>  |         |                                     |                                     |                                     |                                     |
| • Arts / Humanities GT-AH1-AH4  | 3       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| • Arts / Humanities GT-AH1-AH4  | 3       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| • BIO 111 - General College Biology I with Lab: GT-SC1* (5 Cr.)                                     | 5       | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| • CHE 101 - Introduction to Chemistry I with Lab: GT-SC1* (5 Cr.)                                   | 5       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| • COM 115 - Public Speaking* (3 Cr.)  | 3       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| • ENG 121 - English Composition I: GT-CO1*(3 Cr.)   | 3       | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| • ENG 122 - English Composition II: GT-CO2 (3 Cr.)  | 3       | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| • History GT-HI1  | 3       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| • MAT 121 - College Algebra: GT-MA1* (4 Cr.)  | 4       | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| • SOC 101 - Introduction to Sociology I: GT-SS3* (3 Cr.)  | 3       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| • Social / Behavioral Science GT-SS1-SS2  | 3       | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |
| <b>Additional Required Courses</b>  |         |                                     |                                     |                                     |                                     |
| • BIO 208 - General College Microbiology  | 5       | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • CIS 115 - Introduction to Computer Information Systems OR CIS 118 Introduction to PC Applications | 3       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| • Elective (See Notes for specific requirements)  | 1       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| • FER 101 - Craft Beer Brewing* (4 Cr.)   | 4       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |
| • FER 203 - Fermented Foods Sciences*   | 4       | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| • PHY 111 - Physics: Algebra-Based I with Lab: GT-SC1* (5 Cr.)                                      | 5       | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

### Pre-Requisites, Co-Requisites, and Recommendations (grade C or better required)

Where requirements are listed as course categories (e.g. Electives, Arts/Humanities) rather than as specific courses, please note that depending upon course choice, pre-requisites may be required.

BIO 111 - General College Biology I with Lab: GT-SC1\* (5 Cr.)

- Pre-Requisite: CCR 092 (or higher) or equivalent and MAT 050/MAT 055 or equivalent

ENG 121 - English Composition I: GT-CO1\*(3 Cr.)

- Co-Requisite: CCR 094 - Studio 121 (3 Cr.)

ENG 122 - English Composition II: GT-CO2 (3 Cr.)

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

MAT 121 - College Algebra: GT-MA1\* (4 Cr.)

- Co-Requisite: MAT 093 - Algebra Lab\* (1 Cr.) OR MAT 077 - Prep Lab for College Algebra (2 Cr.)
- Pre-Requisite: MAT 055 - Algebraic Literacy (4 Cr.) or appropriate score

PHY 111 - Physics: Algebra-Based I with Lab: GT-SC1\* (5 Cr.)

- Pre-Requisite: MAT 121 - College Algebra or Higher

### Program Outcomes

- Demonstrate aptitude with scientific research methods. As such, they will be able to apply scientific principles to a research project, analyze experimental results, and draw reasonable conclusions from data.
- Synthesize knowledge of key scientific fermentation principles across various applications.
- Identify main biological and chemical inputs and products for diverse fermentation processes.
- Apply knowledge of fermentation biochemistry to analyze new situations.
- Integrate biological and chemical processes to the stability and quality of fermented foods.
- Describe the brewing process and explain key factors influencing beer maturation, quality, and contamination.

### Notes

- \*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.
- Course availability is subject to change.
- 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).
- Follow the Recommended Course Sequence on the following pages of this document.
- 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.
- 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.
- Refer to 21/22 catalog for specific requirements and important information about this degree
- The Colorado Department of Higher Education website has additional information about this statewide agreement.

### 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/universities outside of Colorado is determined by the receiving institution.
- To graduate, students must apply for graduation (form available at [www.arapahoe.edu/departments-and-programs/graduation](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   | Credits | Course   |
|----------------|---------|--|
|                | 5       | BIO 111 - General College Biology I with Lab: GT-SC1* (5 Cr.)  |
|                | 3       | COM 115 - Public Speaking (3 Cr.)  |
|                | 3       | ENG 121 - English Composition I: GT-CO1 (3 Cr.)  |
|                | 4       | FER 101 - Craft Beer Brewing (4 Cr.)   |
| Year 1: Spring | Credits | Course   |
|                | 3       | CIS 115 or CIS 118<br>~Recommended Course(s)~<br>CIS 118 - Intro to PC Applications (3 Cr.)  |
|                | 1       | Elective<br>~Recommended Elective(s)~<br>AAA 101 - College 101: The Student Experience (1 Cr.)<br>BUS 121 - Basic Workplace Skills (1 Cr.)<br>MAN 117 - Time Management (1 Cr.)  |
|                | 3       | ENG 122 - English Composition II: GT-CO2 (3 Cr.)   |
|                | 3       | History GT-HI1<br>~Recommended History Course(s)~<br>HIS 101 - Western Civilization: Antiquity-1650: GT-HI1* (3 Cr.)<br>HIS 102 - Western Civilization: 1650-Present: GT-HI1* (3 Cr.)<br>HIS 111 - The World: Antiquity-1500: GT-HI1* (3 Cr.)<br>HIS 112 - The World: 1500-Present: GT-HI1* (3 Cr.)<br>HIS 121 - U.S. History to Reconstruction: GT-HI1* (3 Cr.)<br>HIS 225 - Colorado History: GT-HI1* (3 Cr.)<br>HIS 247 - 20th Century World History: GT-HI1* (3 Cr.) |
|                | 4       | MAT 121 - College Algebra: GT-MA1 (4 Cr.)  |
| Year 2: Fall   | Credits | Course   |
|                | 3       | Arts / Humanities GT-AH1-AH4<br>~Recommended Arts / Humanities Course(s)~<br>ART 110 - Art Appreciation GT-AH1* (3 Cr.)<br>HUM 115 - World Mythology: GT-AH2* (3 Cr.)<br>HUM 121 - Humanities: Early Civilization: GT-AH2* (3 Cr.)<br>LIT 115 - Introduction to Literature I: GT-AH2* (3 Cr.)<br>MUS 120 - Music Appreciation: GT-AH1* (3 Cr.)<br>PHI 111 - Introduction to Philosophy: GT-AH3* (3 Cr.)<br>SPA 211 - Spanish Language III: GT-AH4 (3 Cr.)                |
|                | 5       | CHE 101 - Introduction to Chemistry I with Lab: GT-SC1 (5 Cr.)   |
|                | 5       | PHY 111 - Physics: Algebra-Based I with Lab: GT-SC1 (5 Cr.)  |
|                | 3       | SOC 101 - Introduction to Sociology I: GT-SS3 (3 Cr.)  |

| Year 2: Spring | Credits | Course   |
|----------------|---------|--|
|                | 3       | Arts / Humanities GT-AH1-AH4<br>~Recommended Arts / Humanities Course(s)~<br>ART 112 - Art History Renaissance to Modern: GT-AH1* (3 Cr.)<br>HUM 122 - Humanities: Medieval-- Modern: GT-AH2* (3 Cr.)<br>HUM 123 - Humanities: Modern World: GT-AH2* (3 Cr.)<br>MUS 125 - History of Jazz: GT-AH1* (3 Cr.)<br>PHI 112 - Ethics: GT-AH3* (3 Cr.)<br>PHI 113 - Logic: GT-AH3* (3 Cr.)<br>PHI 218 - Environmental Ethics: GT-AH3* (3 Cr.)   |
|                | 5       | BIO 208 - General College Microbiology   |
|                | 4       | FER 203 - Fermented Foods Sciences   |
|                | 3       | Social / Behavioral Science GT-SS1-SS2<br>~Recommended Social / Behavioral Science Course(s)~<br>COM 220 - Intercultural Communication: GT-SS3* (3 Cr.)<br>ECO 201 - Principles of Macroeconomics: GT-SS1* (3 Cr.)<br>ECO 245 - Environmental Economics<br>GEO 105 - World Regional Geography: GT-SS2* (3 Cr.)<br>JOU 105 - Introduction to Mass Media: GT-SS3* (3 Cr.)<br>PSY 101 - General Psychology I: GT-SS3* (3 Cr.)<br>SOC 231 - The Sociology of Deviant Behavior: GT-SS3* (3 Cr.) |

RECOMMENDED COURSE SEQUENCE PART-TIME TRACK

| Year 1: Fall   | Credits | Course   |
|----------------|---------|--|
|                | 3       | ENG 121 - English Composition I: GT-CO1 (3 Cr.)  |
|                | 4       | MAT 121 - College Algebra: GT-MA1 (4 Cr.)  |
| Year 1: Spring | Credits | Course   |
|                | 5       | CHE 101 - Introduction to Chemistry I with Lab: GT-SC1 (5 Cr.)   |
|                | 3       | ENG 122 - English Composition II: GT-CO2 (3 Cr.)   |
| Year 1: Summer | Credits | Course   |
|                | 5       | BIO 111 - General College Biology I with Lab: GT-SC1* (5 Cr.)  |
|                | 3       | COM 115 - Public Speaking (3 Cr.)  |
| Year 2: Fall   | Credits | Course   |
|                | 4       | FER 101 - Craft Beer Brewing (4 Cr.)   |
|                | 3       | SOC 101 - Introduction to Sociology I: GT-SS3 (3 Cr.)  |
| Year 2: Spring | Credits | Course   |
|                | 3       | Arts / Humanities GT-AH1-AH4<br>~Recommended Arts / Humanities Course(s)~<br>ART 110 - Art Appreciation GT-AH1* (3 Cr.)<br>HUM 115 - World Mythology: GT-AH2* (3 Cr.)<br>HUM 121 - Humanities: Early Civilization: GT-AH2* (3 Cr.)<br>LIT 115 - Introduction to Literature I: GT-AH2* (3 Cr.)<br>MUS 120 - Music Appreciation: GT-AH1* (3 Cr.)<br>PHI 111 - Introduction to Philosophy: GT-AH3* (3 Cr.)<br>SPA 211 - Spanish Language III: GT-AH4 (3 Cr.)                                  |
|                | 5       | BIO 208 - General College Microbiology   |
| Year 2: Summer | Credits | Course   |
|                | 3       | History GT-HI1<br>~Recommended History Course(s)~<br>HIS 101 - Western Civilization: Antiquity-1650: GT-HI1* (3 Cr.)<br>HIS 102 - Western Civilization: 1650-Present: GT-HI1* (3 Cr.)<br>HIS 111 - The World: Antiquity-1500: GT-HI1* (3 Cr.)<br>HIS 112 - The World: 1500-Present: GT-HI1* (3 Cr.)<br>HIS 121 - U.S. History to Reconstruction: GT-HI1* (3 Cr.)<br>HIS 225 - Colorado History: GT-HI1* (3 Cr.)<br>HIS 247 - 20th Century World History: GT-HI1* (3 Cr.)                   |
|                | 3       | Social / Behavioral Science GT-SS1-SS2<br>~Recommended Social / Behavioral Science Course(s)~<br>COM 220 - Intercultural Communication: GT-SS3* (3 Cr.)<br>ECO 201 - Principles of Macroeconomics: GT-SS1* (3 Cr.)<br>ECO 245 - Environmental Economics<br>GEO 105 - World Regional Geography: GT-SS2* (3 Cr.)<br>JOU 105 - Introduction to Mass Media: GT-SS3* (3 Cr.)<br>PSY 101 - General Psychology I: GT-SS3* (3 Cr.)<br>SOC 231 - The Sociology of Deviant Behavior: GT-SS3* (3 Cr.) |

| Year 3: Fall   | Credits | Course   |
|----------------|---------|--|
|                | 3       | Arts / Humanities GT-AH1-AH4<br>~Recommended Arts / Humanities Course(s)~<br>ART 112 - Art History Renaissance to Modern: GT-AH1* (3 Cr.)<br>HUM 122 - Humanities: Medieval-- Modern: GT-AH2* (3 Cr.)<br>HUM 123 - Humanities: Modern World: GT-AH2* (3 Cr.)<br>MUS 125 - History of Jazz: GT-AH1* (3 Cr.)<br>PHI 112 - Ethics: GT-AH3* (3 Cr.)<br>PHI 113 - Logic: GT-AH3* (3 Cr.)<br>PHI 218 - Environmental Ethics: GT-AH3* (3 Cr.) |
|                | 5       | PHY 111 - Physics: Algebra-Based I with Lab: GT-SC1 (5 Cr.)  |
| Year 3: Spring | Credits | Course   |
|                | 3       | CIS 115 or CIS 118<br>~Recommended Course(s)~<br>CIS 118 - Intro to PC Applications (3 Cr.)  |
|                | 1       | Elective<br>~Recommended Elective(s)~<br>AAA 101 - College 101: The Student Experience (1 Cr.)<br>BUS 121 - Basic Workplace Skills (1 Cr.)<br>MAN 117 - Time Management (1 Cr.)  |
|                | 4       | FER 203 - Fermented Foods Sciences   |