

60 Credits

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.

	Pre or Co	Pre or Co Course Availabil		ability	
Required Courses	Reqs Rqd	Fall	Spr	Sum	
General Education Courses					
Arts / Humanities GT-AH1-AH4	3		✓	✓	✓
Arts / Humanities GT-AH1-AH4	3		✓	✓	✓
 BIO 111 - General College Biology I with Lab: GT-SC1* 	5		✓	✓	✓
 CHE 111 - General College Chemistry I with Lab: GT-SC1* 	5		✓	✓	✓
 ENG 121 - English Composition I: GT-CO1* 	3		✓	✓	✓
ENG 122 - English Composition II: GT-CO2	3	✓	✓	✓	✓
History GT-HI1	3		✓	✓	✓
MAT 201 - Calculus I: GT-MA1	5	✓	✓	✓	✓
Social / Behavioral Science GT-SS1-SS3	3		✓	✓	✓
Social / Behavioral Science GT-SS1-SS3	3		✓	✓	✓
Additional Required Courses					
 BIO 112 - General College Biology II with Lab: GT-SC1* 	5	✓	✓	✓	
 CHE 112 - General College Chemistry II with Lab: GT-SC1* 	5		✓	✓	✓
Elective (See Notes for specific requirements)	4		✓	✓	✓
 PHY 111 - Physics: Algebra-Based I with Lab: GT-SC1* 	5	✓	✓	✓	
 PHY 112 - Physics: Algebra-Based II with Lab: GT-SC1* 	5	✓	✓	✓	



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Pre-Requisities, 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 112 - General College Biology II with Lab: GT-SC1*

• Pre-Requisite: BIO 111 - General College Biology I with Lab: GT-SC1 OR Score of 75+ on Biology Placement Test

CHE 111 - General College Chemistry I with Lab: GT-SC1*

• Pre-Requisite: MAT 121 - College Algebra: GT-MA1 or equivalent placement scores

CHE 112 - General College Chemistry II with Lab: GT-SC1*

- Pre-Requisite: CHE 111 General College Chemistry I with Lab: GT-SC1
- Pre-Requisite: MAT 121 College Algebra or Higher
- 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
- PHY 111 Physics: Algebra-Based I with Lab: GT-SC1*
- Pre-Requisite: MAT 121 College Algebra or Higher
- PHY 112 Physics: Algebra-Based II with Lab: GT-SC1*
 - Pre-Requisite: MAT 121 College Algebra or Higher
 - Pre-Requisite: PHY 111 Physics: Algebra-Based I with Lab: GT-SC1

Program Outcomes

- Explain and apply the scientific method including designing valid hypotheses and experiments that test them.
- Identify, read, understand and synthesize information presented in primary scientific literature and use proper APA intext and full reference citation format to refer to research in their own writing.
- Demonstrate familiarity with broad biological background concepts including, cellular and molecular structure and function, Mendelian genetics, gene expression, organismal form and function, and evolution.
- Explain and apply proper laboratory safety procedures, correct use of equipment and will demonstrate proper lab experimental technique.

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



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- Students are strongly encouraged to seek academic advising prior to registration regarding the acceptability of online science courses if they anticipate transferring to a 4-year institution or completing graduate work in the sciences or health professions. It should be noted that per Colorado Revised Statute, 23-1-125(1)€, general education courses taken online are guaranteed to satisfy core course (gtPathways) requirements at all Colorado public institutions of higher education.
- 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 meet graduation requirements.
- To graduate, students must apply for graduation (form available at www.arapahoe.edu/graduation) by the deadline and meet all degree requirements.



Academic Plan Associate of Science Biology Catalog Year: 2019/2020

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RECOMMENDED COURSE SEQUENCE FULL-TIME TRACK

 Arts / Humanities GT-AH1-AH4	
ART 111 - Art History Ancient to Medieval: GT-AH1* HUM 115 - World Mythology: GT-AH2* HUM 122 - Humanities: Medieval Modern: GT-AH2* MUS 120 - Music Appreciation: GT-AH1* PHI 113 - Logic: GT-AH3* PHI 218 - Environmental Ethics: GT-AH3* SPA 212 - Spanish Language IV: GT-AH4 5 BIO 111 - General College Biology I with Lab: GT-SC1 4 Elective ~Recommended Elective(s)~	
HUM 115 - World Mythology: GT-AH2* HUM 122 - Humanities: Medieval Modern: GT-AH2* MUS 120 - Music Appreciation: GT-AH1* PHI 113 - Logic: GT-AH3* PHI 218 - Environmental Ethics: GT-AH3* SPA 212 - Spanish Language IV: GT-AH4 5 BIO 111 - General College Biology I with Lab: GT-SC1 4 Elective ~Recommended Elective(s)~	
HUM 122 - Humanities: Medieval Modern: GT-AH2* MUS 120 - Music Appreciation: GT-AH1* PHI 113 - Logic: GT-AH3* PHI 218 - Environmental Ethics: GT-AH3* SPA 212 - Spanish Language IV: GT-AH4 5 BIO 111 - General College Biology I with Lab: GT-SC1 4 Elective ~Recommended Elective(s)~	
MUS 120 - Music Appreciation: GT-AH1* PHI 113 - Logic: GT-AH3* PHI 218 - Environmental Ethics: GT-AH3* SPA 212 - Spanish Language IV: GT-AH4 5 BIO 111 - General College Biology I with Lab: GT-SC1 4 Elective ~Recommended Elective(s)~	
 PHI 113 - Logic: GT-AH3* PHI 218 - Environmental Ethics: GT-AH3* SPA 212 - Spanish Language IV: GT-AH4 5 BIO 111 - General College Biology I with Lab: GT-SC1 4 Elective ~Recommended Elective(s)~ 	
 PHI 218 - Environmental Ethics: GT-AH3* SPA 212 - Spanish Language IV: GT-AH4 BIO 111 - General College Biology I with Lab: GT-SC1 Elective Recommended Elective(s)~ 	
SPA 212 - Spanish Language IV: GT-AH4 5 BIO 111 - General College Biology I with Lab: GT-SC1 4 Elective ~Recommended Elective(s)~	
 5 BIO 111 - General College Biology I with Lab: GT-SC1 4 Elective ~Recommended Elective(s)~ 	
4 Elective ~Recommended Elective(s)~	
~Recommended Elective(s)~	
bio 105 Trinicipies of Animal biology. GT 562	
BIO 116 - Introduction to Human Disease: GT-SC2*	
BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1*	
BIO 204 - Microbiology with Lab: GT-SC1*	
MAT 121 - College Algebra: GT-MA1*	
MAT 122 - College Trigonometry: GT-MA1	
MAT 166 - Pre-Calculus: GT-MA1	
3 ENG 121 - English Composition I: GT-CO1	
Year 1: Spring Credits Course	
5 BIO 112 - General College Biology II with Lab: GT-SC1	
5 CHE 111 - General College Chemistry I with Lab: GT-SC1	
3 ENG 122 - English Composition II: GT-CO2	
3 Social / Behavioral Science GT-SS1-SS3	
~Recommended Social / Behavioral Science Course(s)~	
ANT 101 - Cultural Anthropology: GT-SS3*	
ECO 201 - Principles of Macroeconomics: GT-SS1*	
PSY 101 - General Psychology I: GT-SS3*	
PSY 226 - Social Psychology: GT-SS3* PSY 238 - Child Development: GT-SS3*	
PSY 249 - Abnormal Psychology: GT-SS3*	
SOC 101 - Introduction to Sociology I: GT-SS3*	
Year 2: Fall Credits Course	
5 CHE 112 - General College Chemistry II with Lab: GT-SC1	
5 PHY 111 - Physics: Algebra-Based I with Lab: GT-SC1	
3 Social / Behavioral Science GT-SS1-SS3	
~Recommended Social / Behavioral Science Course(s)~	
PSY 101 - General Psychology I: GT-SS3*	
PSY 102 - General Psychology II: GT-SS3*	
PSY 217 - Human Sexuality: GT-SS3*	
PSY 235 - Human Growth and Development: GT-SS3*	
PSY 237 - Child and Adolescent Psychology	
SOC 102 - Introduction to Sociology II: GT-SS3*	
SOC 207 - Environmental Sociology: GT-SS3*	



Academic Plan Associate of Science Biology Catalog Year: 2019/2020

Year 2: Spring	Credits	Course
	3	Arts / Humanities GT-AH1-AH4
		~Recommended Arts / Humanities Course(s)~
		ART 110 - Art Appreciation GT-AH1*
		HUM 121 - Humanities: Early Civilization : GT-AH2*
		HUM 123 - Humanities: Modern World: GT-AH2*
		LIT 115 - Introduction to Literature I: GT-AH2*
		PHI 111 - Introduction to Philosophy: GT-AH3*
		PHI 112 - Ethics: GT-AH3*
		SPA 211 - Spanish Language III: GT-AH4
	3	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 225 - Colorado History: GT-HI1*
		HIS 247 - 20th Century World History: GT-HI1*
	5	MAT 201 - Calculus I: GT-MA1
	5	PHY 112 - Physics: Algebra-Based II with Lab: GT-SC1

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RECOMMENDED COURSE SEQUENCE PART-TIME TRACK

60 Credits

Year 1: Fall	Credits	Course
	4	Elective
		~Recommended Elective(s)~
		BIO 103 - Principles of Animal Biology: GT-SC2*
		BIO 116 - Introduction to Human Disease: GT-SC2*
		BIO 201 - Human Anatomy and Physiology I with Lab: GT-SC1*
		BIO 204 - Microbiology with Lab: GT-SC1*
		MAT 121 - College Algebra: GT-MA1* MAT 122 - College Trigonometry: GT-MA1
		MAT 166 - Pre-Calculus: GT-MA1
	3	ENG 121 - English Composition I: GT-CO1
	3	Social / Behavioral Science GT-SS1-SS3
	Ū.	~Recommended Social / Behavioral Science Course(s)~
		ANT 101 - Cultural Anthropology: GT-SS3*
		ECO 201 - Principles of Macroeconomics: GT-SS1*
		PSY 101 - General Psychology I: GT-SS3*
		PSY 226 - Social Psychology: GT-SS3*
		PSY 238 - Child Development: GT-SS3*
		PSY 249 - Abnormal Psychology: GT-SS3*
Veer 1. Certing	Cradita	SOC 101 - Introduction to Sociology I: GT-SS3*
Year 1: Spring	Credits	Course
	5	BIO 111 - General College Biology I with Lab: GT-SC1
-	3	ENG 122 - English Composition II: GT-CO2
Year 1: Summer	Credits	Course
	3	Social / Behavioral Science GT-SS1-SS3
	3	~Recommended Social / Behavioral Science Course(s)~
	3	~Recommended Social / Behavioral Science Course(s)~ PSY 101 - General Psychology I: GT-SS3*
	3	~Recommended Social / Behavioral Science Course(s)~ PSY 101 - General Psychology I: GT-SS3* PSY 102 - General Psychology II: GT-SS3*
	3	~Recommended Social / Behavioral Science Course(s)~ PSY 101 - General Psychology I: GT-SS3* PSY 102 - General Psychology II: GT-SS3* PSY 217 - Human Sexuality: GT-SS3*
	3	~Recommended Social / Behavioral Science Course(s)~ PSY 101 - General Psychology I: GT-SS3* PSY 102 - General Psychology II: GT-SS3*
	3	 ~Recommended Social / Behavioral Science Course(s)~ PSY 101 - General Psychology I: GT-SS3* PSY 102 - General Psychology II: GT-SS3* PSY 217 - Human Sexuality: GT-SS3* PSY 235 - Human Growth and Development: GT-SS3* PSY 237 - Child and Adolescent Psychology SOC 102 - Introduction to Sociology II: GT-SS3*
	-	 ~Recommended Social / Behavioral Science Course(s)~ PSY 101 - General Psychology I: GT-SS3* PSY 102 - General Psychology II: GT-SS3* PSY 217 - Human Sexuality: GT-SS3* PSY 235 - Human Growth and Development: GT-SS3* PSY 237 - Child and Adolescent Psychology SOC 102 - Introduction to Sociology II: GT-SS3* SOC 207 - Environmental Sociology: GT-SS3*
Year 2: Fall	3 Credits	 ~Recommended Social / Behavioral Science Course(s)~ PSY 101 - General Psychology I: GT-SS3* PSY 102 - General Psychology II: GT-SS3* PSY 217 - Human Sexuality: GT-SS3* PSY 235 - Human Growth and Development: GT-SS3* PSY 237 - Child and Adolescent Psychology SOC 102 - Introduction to Sociology II: GT-SS3* SOC 207 - Environmental Sociology: GT-SS3*
Year 2: Fall	-	 ~Recommended Social / Behavioral Science Course(s)~ PSY 101 - General Psychology I: GT-SS3* PSY 102 - General Psychology II: GT-SS3* PSY 217 - Human Sexuality: GT-SS3* PSY 235 - Human Growth and Development: GT-SS3* PSY 237 - Child and Adolescent Psychology SOC 102 - Introduction to Sociology II: GT-SS3* SOC 207 - Environmental Sociology: GT-SS3*
Year 2: Fall	Credits	 ~Recommended Social / Behavioral Science Course(s)~ PSY 101 - General Psychology I: GT-SS3* PSY 102 - General Psychology II: GT-SS3* PSY 217 - Human Sexuality: GT-SS3* PSY 235 - Human Growth and Development: GT-SS3* PSY 237 - Child and Adolescent Psychology SOC 102 - Introduction to Sociology II: GT-SS3* SOC 207 - Environmental Sociology: GT-SS3*
Year 2: Fall Year 2: Spring	Credits 5	 Recommended Social / Behavioral Science Course(s)~ PSY 101 - General Psychology I: GT-SS3* PSY 102 - General Psychology II: GT-SS3* PSY 217 - Human Sexuality: GT-SS3* PSY 235 - Human Growth and Development: GT-SS3* PSY 237 - Child and Adolescent Psychology SOC 102 - Introduction to Sociology II: GT-SS3* SOC 207 - Environmental Sociology: GT-SS3* BIO 112 - General College Biology II with Lab: GT-SC1
	Credits 5 5	Recommended Social / Behavioral Science Course(s)~ PSY 101 - General Psychology I: GT-SS3* PSY 102 - General Psychology II: GT-SS3* PSY 217 - Human Sexuality: GT-SS3* PSY 235 - Human Growth and Development: GT-SS3* PSY 237 - Child and Adolescent Psychology SOC 102 - Introduction to Sociology II: GT-SS3* SOC 207 - Environmental Sociology: GT-SS3* BIO 112 - General College Biology II with Lab: GT-SC1 MAT 201 - Calculus I: GT-MA1
	Credits 5 5 Credits	Recommended Social / Behavioral Science Course(s)~ PSY 101 - General Psychology I: GT-SS3* PSY 102 - General Psychology II: GT-SS3* PSY 217 - Human Sexuality: GT-SS3* PSY 235 - Human Growth and Development: GT-SS3* PSY 237 - Child and Adolescent Psychology SOC 102 - Introduction to Sociology II: GT-SS3* SOC 207 - Environmental Sociology: GT-SS3* BIO 112 - General College Biology II with Lab: GT-SC1 MAT 201 - Calculus I: GT-MA1
	Credits 5 5 Credits 5	*Recommended Social / Behavioral Science Course(s)* PSY 101 - General Psychology I: GT-SS3* PSY 102 - General Psychology II: GT-SS3* PSY 217 - Human Sexuality: GT-SS3* PSY 235 - Human Growth and Development: GT-SS3* PSY 237 - Child and Adolescent Psychology SOC 102 - Introduction to Sociology II: GT-SS3* SOC 207 - Environmental Sociology: GT-SS3* SOC 207 - Environmental Sociology: GT-SS3* BIO 112 - General College Biology II with Lab: GT-SC1 MAT 201 - Calculus I: GT-MA1 Cher Substrained College Chemistry I with Lab: GT-SC1
	Credits 5 5 Credits 5	*Recommended Social / Behavioral Science Course(s)* PSY 101 - General Psychology I: GT-SS3* PSY 102 - General Psychology II: GT-SS3* PSY 217 - Human Sexuality: GT-SS3* PSY 235 - Human Growth and Development: GT-SS3* PSY 237 - Child and Adolescent Psychology SOC 102 - Introduction to Sociology II: GT-SS3* SOC 207 - Environmental Sociology: GT-SS3* SOC 207 - Environmental Sociology: GT-SS3* BIO 112 - General College Biology II with Lab: GT-SC1 MAT 201 - Calculus I: GT-MA1 Cher Substrained College Chemistry I with Lab: GT-SC1
	Credits 5 5 Credits 5	Recommended Social / Behavioral Science Course(s)~ PSY 101 - General Psychology I: GT-SS3* PSY 102 - General Psychology II: GT-SS3* PSY 217 - Human Sexuality: GT-SS3* PSY 235 - Human Growth and Development: GT-SS3* PSY 237 - Child and Adolescent Psychology SOC 102 - Introduction to Sociology II: GT-SS3* SOC 207 - Environmental Sociology: GT-SS3* SOC 207 - Environmental Sociology: GT-SS3* BIO 112 - General College Biology II with Lab: GT-SC1 MAT 201 - Calculus I: GT-MA1 Churse CHE 111 - General College Chemistry I with Lab: GT-SC1
	Credits 5 5 Credits 5	*Recommended Social / Behavioral Science Course(s)* PSY 101 - General Psychology I: GT-SS3* PSY 102 - General Psychology II: GT-SS3* PSY 217 - Human Sexuality: GT-SS3* PSY 235 - Human Growth and Development: GT-SS3* PSY 237 - Child and Adolescent Psychology SOC 102 - Introduction to Sociology II: GT-SS3* SOC 207 - Environmental Sociology: GT-SS3* SOC 207 - Environmental Sociology: GT-SS3* BIO 112 - General College Biology II with Lab: GT-SC1 MAT 201 - Calculus I: GT-MA1 Cher Substrained College Chemistry I with Lab: GT-SC1
	Credits 5 5 Credits 5	*Recommended Social / Behavioral Science Course(s)* PSY 101 - General Psychology I: GT-SS3* PSY 102 - General Psychology II: GT-SS3* PSY 217 - Human Sexuality: GT-SS3* PSY 235 - Human Growth and Development: GT-SS3* PSY 237 - Child and Adolescent Psychology SOC 102 - Introduction to Sociology II: GT-SS3* SOC 207 - Environmental Sociology: GT-SS3* SOC 207 - Environmental Sociology: GT-SS3* BIO 112 - General College Biology II with Lab: GT-SC1 MAT 201 - Calculus I: GT-MA1 Cher Summer Course CHE 111 - General College Chemistry I with Lab: GT-SC1
	Credits 5 5 Credits 5	*Recommended Social / Behavioral Science Course(s)* PSY 101 - General Psychology I: GT-SS3* PSY 102 - General Psychology II: GT-SS3* PSY 217 - Human Sexuality: GT-SS3* PSY 235 - Human Growth and Development: GT-SS3* PSY 237 - Child and Adolescent Psychology SOC 102 - Introduction to Sociology II: GT-SS3* SOC 207 - Environmental Sociology: GT-SS3* SOC 207 - Environmental Sociology: GT-SS3* BIO 112 - General College Biology II with Lab: GT-SC1 MAT 201 - Calculus I: GT-MA1 Cher Summer Course CHE 111 - General College Chemistry I with Lab: GT-SC1



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Year 2: Summer	Credits	Course	
	3	Arts / Humanities GT-AH1-AH4	
		~Recommended Arts / Humanities Course(s)~	
		ART 110 - Art Appreciation GT-AH1*	
		HUM 121 - Humanities: Early Civilization : GT-AH2*	
		HUM 123 - Humanities: Modern World: GT-AH2*	
		LIT 115 - Introduction to Literature I: GT-AH2*	
		PHI 111 - Introduction to Philosophy: GT-AH3*	
		PHI 112 - Ethics: GT-AH3*	
		SPA 211 - Spanish Language III: GT-AH4	
	3	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 122 - Humanities: Medieval Modern: GT-AH2*	
		MUS 120 - Music Appreciation: GT-AH1*	
		PHI 113 - Logic: GT-AH3*	
		PHI 218 - Environmental Ethics: GT-AH3*	
		SPA 212 - Spanish Language IV: GT-AH4	
	3	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 225 - Colorado History: GT-HI1*	
		HIS 247 - 20th Century World History: GT-HI1*	
Year 3: Fall	Credits	Course	
	5	CHE 112 - General College Chemistry II with Lab: GT-SC1	
	5	PHY 112 - Physics: Algebra-Based II with Lab: GT-SC1	

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