

# Academic Plan Associate of Applied Science

### Computer Information Systems - Programming

61 Credits Catalog Year: 2020/2021

The Computer Information System (CIS) degree is a two-year Associate of Applied Science degree that prepares students with a solid set of skills and knowledge in the Computer Information System field. The degree allows students to further their knowledge by pursuing an area of emphasis towards industry certification, computer programming or transferring to a 4-year university. \*

Major courses are carefully selected in areas of Information Systems, Computer Networking, and Computer Programming to provide students with an exceptional foundation in the field.

Job opportunities exist in entry-level positions as a computer support professional or technician, systems analyst or computer programmer.

		Pre or Co	Course Availability		
Required Courses	Credits	Reqs Rqd	Fall	Spr	Sum
General Education Courses					
COM 115 - Public Speaking* OR COM 125 - Interpersonal Communication	3		<b>✓</b>	<b>✓</b>	<b>✓</b>
<ul> <li>ENG 121 - English Composition GT-CO1 OR ENG 131 - Technical Writing GT-CO1*</li> </ul>	3	✓	<b>✓</b>	✓	✓
General Education Elective (See Notes for specific requirements)	3		<b>✓</b>	<b>✓</b>	<b>✓</b>
General Education Elective (See Notes for specific requirements)	3		<b>✓</b>	<b>✓</b>	•
General Education Elective (See Notes for specific requirements)	3		<b>✓</b>	<b>✓</b>	<b>✓</b>
General Education Elective (See Notes for specific requirements)	3		<b>✓</b>	<b>✓</b>	<b>✓</b>
MAT 121 - College Algebra: GT-MA1 or Higher*	4		<b>✓</b>	<b>✓</b>	<b>✓</b>
Major Courses					
CIS 118 - Intro to PC Applications	3	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>
CIS 220 - Fundamentals of Unix	3		<b>✓</b>	<b>✓</b>	<b>✓</b>
CIS 240 - Database Design and Development	3		<b>✓</b>	<b>✓</b>	
CIS 243 - Introduction to Structured Query Language (SQL)	3		<b>✓</b>	<b>✓</b>	
CIS 267 - Management of Information Systems	3			<b>✓</b>	
CNG 121 - Computer Technician I: A+	4		<b>✓</b>	<b>✓</b>	<b>✓</b>
CNG 124 - Networking I: Network +	3		<b>✓</b>	<b>✓</b>	<b>✓</b>
CSC 119 - Introduction to Programming	3		<b>✓</b>	<b>✓</b>	<b>✓</b>
Concentration Courses					
CSC 160 - Computer Science I*	4	<b>✓</b>	<b>✓</b>	<b>✓</b>	
CSC 161 - Computer Science II	4	<b>✓</b>	<b>✓</b>		
CSC 233 - Object-Oriented Prog.: (Java)	3	<b>✓</b>	<b>✓</b>	•	
Select One Elective Course: CIS 202, CIS 232, CSC 200, CSC 236, or CSC 246	3		<b>✓</b>	✓	✓



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### 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.

#### CIS 118 - Intro to PC Applications

• Requirement: Students must have Windows file management skills to create file folders, rename files, delete files, copy and move files

#### CSC 160 - Computer Science I\*

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

#### CSC 161 - Computer Science II

• Pre-Requisite: CSC 160 - Computer Science I: Java

#### CSC 233 - Object-Oriented Prog.: (Java)

• Pre-Requisite: CSC 160 - Computer Science I: Java

ENG 121 - English Composition GT-CO1 OR ENG 131 - Technical Writing GT-CO1\*

• Co-Requisite: CCR 094 - Studio 121

#### **Program Outcomes**

- Apply PC applications.
- Understand the syntax of a computer language.
- Apply object oriented concepts.
- Understand networking principles.

#### **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.
- General Education Electives: Select four (4) courses from the following: BUS 115, ECO 201, ECO 202, ENG 122, HIS 121, PHI 111, POS 105, POS 111, PSY 101, SOC 101.
- 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 20/21 catalog for specific requirements and important information about this degree.
- Students transferring to MSU-Denver must take MAT 121.

#### **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.



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### RECOMMENDED COURSE SEQUENCE FULL-TIME TRACK

Year 1: Fall	Credits	Course
	3	CIS 118 - Intro to PC Applications
	3	CSC 119 - Introduction to Programming
	3	ENG 121 - English Composition GT-CO1 OR ENG 131 - Technical Writing GT-CO1
		~Recommended Course(s)~
		ENG 121 - English Composition I: GT-CO1*
	3	General Education Elective
		~Recommended Course(s)~
		BUS 115 - Introduction to Business
		ECO 201 - Principles of Macroeconomics: GT-SS1*
		ECO 202 - Principles of Microeconomics: GT-SS1* ENG 122 - English Composition II: GT-CO2
		HIS 121 - U.S. History to Reconstruction*
		PHI 111 - Introduction to Philosophy: GT-AH3*
		POS 105 - Introduction to Political Science: GT-SS1*
	4	MAT 121 - College Algebra: GT-MA1 or Higher
Year 1: Spring	Credits	Course
	4	CNG 121 - Computer Technician I: A+
	3	CNG 124 - Networking I: Network +
	3	COM 115 - Public Speaking OR COM 125 - Interpersonal Communication
		~Recommended Communication Course(s)~
		COM 125 - Interpersonal Communication
	4	CSC 160 - Computer Science I
Year 2: Fall	Credits	Course
	3	CIS 220 - Fundamentals of Unix
	3	CIS 240 - Database Design and Development
	4	CSC 161 - Computer Science II
	3	General Education Elective
		~Recommended Course(s)~
		BUS 115 - Introduction to Business
		ECO 201 - Principles of Macroeconomics: GT-SS1* PHI 111 - Introduction to Philosophy: GT-AH3*
		POS 105 - Introduction to Political Science: GT-SS1*
		POS 111 - American Government: GT-SS1*
		PSY 101 - General Psychology I: GT-SS3*
		SOC 101 - Introduction to Sociology I: GT-SS3*



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	3	General Education Elective	
		~Recommended Course(s)~	
		ECO 202 - Principles of Microeconomics: GT-SS1*	
		ENG 122 - English Composition II: GT-CO2	
		HIS 121 - U.S. History to Reconstruction*	
		PHI 111 - Introduction to Philosophy: GT-AH3*	
		POS 111 - American Government: GT-SS1*	
		PSY 101 - General Psychology I: GT-SS3*	
		SOC 101 - Introduction to Sociology I: GT-SS3*	
Year 2: Spring	Credits	Course	
	3	CIS 243 - Introduction to Structured Query Language (SQL)	
	3	CIS 267 - Management of Information Systems	
	3	Concentration Elective	
		~Choose One Course~	
		CIS 202 - Automated Project Management: MS Project	
		CIS 232 - Unix Shell Programming	
		CSC 200 - Game Programming I	
		CSC 236 - C# Programming	
		CSC 246 - Mobile App Development	
	3	CSC 233 - Object-Oriented Prog.: (Java)	
	3	General Education Elective	
		~Recommended Course(s)~	
		BUS 115 - Introduction to Business	
		ECO 201 - Principles of Macroeconomics: GT-SS1*	
		HIS 121 - U.S. History to Reconstruction*	
		PHI 111 - Introduction to Philosophy: GT-AH3*	
		POS 105 - Introduction to Political Science: GT-SS1*	
		POS 111 - American Government: GT-SS1*	

**61 Credits** 



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### RECOMMENDED COURSE SEQUENCE PART-TIME TRACK

Year 1: Fall	Cradita	Course
Year 1: Fall	Credits	Course
	3	CIS 118 - Intro to PC Applications
	3	ENG 121 - English Composition GT-CO1 OR ENG 131 - Technical Writing GT-CO1
		~Recommended Course(s)~
		ENG 121 - English Composition I: GT-CO1*
	4	MAT 121 - College Algebra: GT-MA1 or Higher
Year 1: Spring	Credits	Course
	4	CNG 121 - Computer Technician I: A+
	3	COM 115 - Public Speaking OR COM 125 - Interpersonal Communication
		~Recommended Communication Course(s)~
		COM 125 - Interpersonal Communication
	3	CSC 119 - Introduction to Programming
Year 1: Summer	Credits	Course
	4	CSC 160 - Computer Science I
	3	General Education Elective
		~Recommended Course(s)~
		BUS 115 - Introduction to Business
		ECO 201 - Principles of Macroeconomics: GT-SS1*
		ECO 202 - Principles of Microeconomics: GT-SS1*
		ENG 122 - English Composition II: GT-CO2
		HIS 121 - U.S. History to Reconstruction* PHI 111 - Introduction to Philosophy: GT-AH3*
		POS 105 - Introduction to Political Science: GT-SS1*
Year 2: Fall	Credits	Course
	3	CIS 220 - Fundamentals of Unix
	3	CIS 240 - Database Design and Development
	4	CSC 161 - Computer Science II
Year 2: Spring	Credits	Course
real 2. Spring	_	
	3	CIS 243 - Introduction to Structured Query Language (SQL)
	3	CIS 267 - Management of Information Systems
	3	CSC 233 - Object-Oriented Prog.: (Java)
Year 2: Summer	Credits	Course
	3	General Education Elective
		~Recommended Course(s)~
		BUS 115 - Introduction to Business
		ECO 201 - Principles of Macroeconomics: GT-SS1*
		PHI 111 - Introduction to Philosophy: GT-AH3*
		POS 105 - Introduction to Political Science: GT-SS1*  POS 111 - American Government: GT-SS1*
		PSY 101 - General Psychology I: GT-SS3*
		SOC 101 - Introduction to Sociology I: GT-SS3*



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100	лиоюду ганжаў	61 Credits	Catalog Year: 2020/2021
	3	General Education Elective	
		~Recommended Course(s)~	
		ECO 202 - Principles of Microeconomics: GT-SS1*	
		ENG 122 - English Composition II: GT-CO2	
		HIS 121 - U.S. History to Reconstruction*	
		PHI 111 - Introduction to Philosophy: GT-AH3*	
		POS 111 - American Government: GT-SS1*	
		PSY 101 - General Psychology I: GT-SS3*	
		SOC 101 - Introduction to Sociology I: GT-SS3*	
Year 3: Fall	Credits	Course	
	3	CNG 124 - Networking I: Network +	
	3	Concentration Elective	
		~Choose One Course~	
		CIS 202 - Automated Project Management: MS Project	
		CIS 232 - Unix Shell Programming	
		CSC 200 - Game Programming I	
		CSC 236 - C# Programming	

CSC 246 - Mobile App Development

ECO 201 - Principles of Macroeconomics: GT-SS1\*

HIS 121 - U.S. History to Reconstruction\*
PHI 111 - Introduction to Philosophy: GT-AH3\*
POS 105 - Introduction to Political Science: GT-SS1\*
POS 111 - American Government: GT-SS1\*

General Education Elective

~Recommended Course(s)~

BUS 115 - Introduction to Business