



THE UNIVERSITY OF ARIZONA  
Yuma

# WESTERN CATS

## Applied Computing: Software Development Emphasis

2021—2022

### ARIZONA WESTERN COLLEGE COURSES

Semester One		
Course	Title	Units
MAT 151	College Algebra	4
ENG 101	Freshman English	3
CIS 105	Introduction to Business Infor-	3
CIS 175	Computer Security	3
Total		13

Semester Two		
Course	Title	Units
ENG 102	Freshman English	3
ECN 240 or ECN 250	Intro to Macroeconomics or Intro to Microeconomics	3
CIS 170	Microcomputer Installation and Support	3
CIS 260	Introduction to Operating Systems	3
Physical/Biological Sciences (AGEC) - Ex. CHM 151		4
Total		16

Semester Three		
Course	Title	Units
CIS 270	Networking Fundamentals	3
CSC 127A	Programming I (Java)	4
AGEC Additional Course		3
Arts (AGEC) Ex. MUS 120		3
Humanities (AGEC) - Ex. PHI 101		3
Total		16

### ARIZONA WESTERN COLLEGE COURSES

Semester Four		
Course	Title	Units
CIS 180 or EGR 123	Computer Programming Logic or In- troduction to Structured Programming	3
CIS 271	Network Administration	3
ECN 240 or 250	Intro to Macroeconomics or Intro to Microeconomics	3
Focus Area		3/4
Physical or Biological Science (AGEC) Ex. PHY 111		4
Total		16/17

Semester Five		
Course	Title	Units
CSC 210	Human Computer Interaction	4
CIS 272	Network Routing & Switching	3
AGEC Additional Course		3
Focus Area		3/4
Focus Area		3/4
Total		16/18

Total AGEC Credits	36+	
Total Required Major Credits	32	
INFORMATICS AREAS OF FOCUS CREDITS	9-11	
TOTAL CREDITS	77-79	



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### ARIZONA WESTERN COLLEGE COURSES

FOCUS AREAS COURSES SYSTEMS ADMINISTRATION		
Course	Title	Units
CIS 231	Database Design and Programming	3
CIS 151	Web Design	3
CIS 295	Structured System Analysis & Design	3
Total		9

FOCUS AREAS COURSES CYBER OPERATIONS		
Course	Title	Units
CIS 275	Fundamental of Network Security	3
CSC 127B	Computer Programming 2	4
MAT 227	Discrete Math	3
Total		10

**NOTE:** This is the advised sequence course for the A.A.S. in Informatics. The official degree requirements can be found in AWC's catalog.

### ARIZONA WESTERN COLLEGE COURSES

FOCUS AREAS COURSES DIGITAL DESIGN		
Course	Title	Units
CIS 231	Database Design and Programming	3
GRA 101	Intro to Graphic Communication	4
GRA 104	Digital Imaging I	4
Total		11

FOCUS AREAS COURSES SOFTWARE DEVELOPMENT		
Course	Title	Units
CSC 127B	Computer Programming 2	4
CSC 215	Artificial Intelligence	4
CSC 252	Computer Organization	3
Total		11

Total AGE Credit	36+	
Total Required Major Credits	32	
INFORMATICS AREAS OF FOCUS CREDITS	9-11	
TOTAL CREDITS	77-79	



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# WESTERN CATS

## Applied Computing: Software Development Emphasis 2021-2022

### UNIVERSITY OF ARIZONA COURSES START FALL

Semester One		
Course	Title	Units
ENGV 306	Advanced Composition	3
CYBV 329	Cyber Ethics	3
APCV 320	Computational Thinking and Doing	3
APCV 302	Statistics in the Information Age	3
Total		12

Semester Two		
Course	Title	Units
CYBV 301	Fundamentals of Cyber Security	3
APCV 361	Data Analysis and Visualization	3
APCV 310	Introduction to Computing	3
CSCV 335	Object-Oriented Programming and Design	3
Total		12

**NOTE:** This is the advised sequence course for the B.A.S. in Applied Computing. The official degree requirements can be found in The University of Arizona catalog.

**IMPORTANT:** SIE 295. Introduction to UA, APCV 391. Preceptorship, APCV 393. Internship and APCV 499. Independent Study are highly recommended.

### UNIVERSITY OF ARIZONA COURSES START FALL

Semester Three		
Course	Title	Units
CSCV 381*	Mobile Device Programming	3
CSCV 352	Systems Programming and Unix	3
APCV 361	Data Analysis and Visualization	3
APCV 401	Introduction to Human-Computer Interaction	3
Total		12

Semester Four		
Course	Title	Units
CSCV 337	Web Programming	3
APCV 498	Senior Capstone	3
Total		6

\*Software Development track students can make the following elective substitutions with the following courses: CSCV 460 Database Design, CYBV 473 Violent Python and APCV 496 Special Topics in Informatics.

Second semester proficiency required in a second language for BAS degree. Can be fulfilled with 101 and 102 courses at AWC or CLEP exam.

AGEC A	36+	
AA in Informatics	77-79	
BAS Degree	45+	



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# WESTERN CATS

## Applied Computing: Software Development Emphasis 2021—2022

### UNIVERSITY OF ARIZONA COURSES START SPRING

Semester One		
Course	Title	Units
APCV 310	Introduction to Computing	3
APCV 320	Computational Thinking and Doing	3
ENGV 306	Advanced Composition	3
APCV 302	Statistics in the Information Age	3
Total		12

Semester Two		
Course	Title	Units
CYBV 301	Fundamentals of Cyber Security	3
APCV 361	Data Analysis and Visualization	3
APCV 401	Introduction to Human-Computer Interaction	3
CYBV 329	Cyber Ethics	3
Total		12

**NOTE:** This is the advised sequence course for the B.A.S. in Applied Computing. The official degree requirements can be found in The University of Arizona catalog.

**IMPORTANT:** SIE 295. Introduction to UA, APCV 391. Preceptorship, APCV 393. Internship and APCV 499. Independent Study are highly recommended.

### UNIVERSITY OF ARIZONA COURSES START SPRING

Semester Three		
Course	Title	Units
CSCV 335	Object-Oriented Programming and	3
CSCV 337	Web Programming	3
CYBV 326	Introductory Methods of Network	3
Total		9

Semester Four		
Course	Title	Units
CSCV 352	Systems Programming and Unix	3
APCV 498	Senior Capstone	3
CSCV 381*	Mobile Device Programming	3
Total		9

\*Software Development track students can make the following elective substitutions with the following courses: CSCV 460 Database Design, CYBV 473 Violent Python and APCV 496 Special Topics in Informatics.

Second semester proficiency required in a second language for BAS degree. Can be fulfilled with 101 and 102 courses at AWC or CLEP exam.

AGEC A	36+	
AA in Informatics	77-79	
BAS Degree	45+	