2017 - 2018 Major Map

Applied Computing, BS

School/College: New College of Interdisciplinary Arts and Sciences
ASACOBS

Term 1 0 - 16 Credit Hours Critical course signified by ⚠	Hours	Minimum Grade	Notes
⚠ ACO 101: Introduction to Computer Science (CS)	3	C	• An SAT, ACT, Accuplacer, IELTS, or TOEFL score determines placement into first-year composition courses.
ENG 101 or ENG 102: First-Year Composition OR ENG 105: Advanced First-Year Composition OR ENG 107 or ENG 108: First-Year Composition	3	C	• ASU Mathematics Placement Test score determines placement in mathematics course. Student may elect to take an MA course if needed to prepare for MAT 210 in term 2.
NEW 101: The ASU New College Experience	1		• ASU 101 or college-specific equivalent First-Year Seminar required of all freshman students. NEW 101 satisfies this requirement.
Historical Awareness (H)	3		
Mathematics (MA) OR Elective	3		• IAS 300 (3 credit hours) is required for all transfer students in place of NEW 101.
Elective	3		• Select your career interest area and play me3@ASU.
⚠ Maintain 2.00 GPA in Critical Tracking Courses.			
Term hours subtotal:	16		

Term 2 16 - 32 Credit Hours Critical course signified by ⚠	Hours	Minimum Grade	Notes
⚠ ACO 102: Object-Oriented Programming (CS)	3	C	
⚠ MAT 210: Brief Calculus (MA)	3	C	
ENG 101 or ENG 102: First-Year Composition OR ENG 105: Advanced First-Year Composition OR ENG 107 or ENG 108: First-Year Composition	3	C	
Global Awareness (G)	3		
Natural Science - Quantitative (SQ)	4		
⚠ Complete ENG 101 OR ENG 105 OR ENG 107 course(s).			
⚠ Maintain 2.00 GPA in Critical Tracking Courses.			
Term hours subtotal:	16		

Term 3 32 - 47 Credit Hours Critical course signified by ⚠	Hours	Minimum Grade	Notes
⚠ ACO 201: Data Structures and Algorithms (CS)	3	C	• Develop your research skills.
⚠ MAT 243: Discrete Mathematical Structures	3	C	
Cultural Diversity in the U.S. (C)	3		
Humanities, Arts and Design (HU)	3		
Social-Behavioral Sciences (SB)	3		
⚠ Complete First-Year Composition requirement.			
⚠ Complete Mathematics (MA) requirement.			
⚠ Maintain 2.00 GPA in Critical Tracking Courses.			

| | Term hours subtotal: | 15 | | |

Term 4 47 - 62 Credit Hours Critical course signified by ⚠️	Hours	Minimum Grade	Notes
⚠️ ACO 240: Introduction to Programming Languages	3	C	• Explore an internship
⚠️ STP 226: Elements of Statistics (CS)	3	C	
Humanities, Arts and Design (HU)	3		
Literacy and Critical Inquiry (L)	3		
Social-Behavioral Sciences (SB)	3		
⚠️ Maintain 2.00 GPA in Critical Tracking Courses.			
Term hours subtotal:	15		

Term 5 62 - 75 Credit Hours Necessary course signified by ⭐	Hours	Minimum Grade	Notes
⭐ ACO 320: Database Systems and Transaction Processing	3	C	• IAS 300 (3 credit hours) is required for all transfer students.
⭐ ACO 330: Computer Networks	3	C	• Develop your professional online presence.
Natural Science - Quantitative (SQ) OR Natural Science - General (SG)	4		
Upper Division Literacy and Critical Inquiry (L) OR IAS 300: Adult Career Development (L or SB)	3		
Term hours subtotal:	13		

Term 6 75 - 90 Credit Hours Necessary course signified by ⭐	Hours	Minimum Grade	Notes
⭐ ACO 350: Systems Programming (CS)	3	C	• Research employment opportunities
⭐ Upper Division Applied Computing Elective	3	C	
Liberal Arts Elective	3	C	
Upper Division Humanities, Arts and Design (HU) OR Upper Division Social-Behavioral Sciences (SB)	3		
Elective	3		
⭐ Complete ACO 320 AND ACO 330 course(s).			
Term hours subtotal:	15		

Term 7 90 - 105 Credit Hours Necessary course signified by ⭐	Hours	Minimum Grade	Notes
⭐ ACO 484: Internship OR ACO 499: Individualized Instruction	3	C	• Completion of ACO 320 and ACO 330 with a C or better is required to enroll in ACO 484 and ACO 499. ACO 484 and ACO 499 may not be taken concurrently, and is limited to a maximum of 3 hours per semester (six hours total in the major). Subject of study must include databases, networks or cyber-security; faculty approval required.
⭐ Upper Division Applied Computing Elective	3	C	
COM 457: New Media OR IAP 464: Media and Diversity (HU & G) OR IAS 406: Moral Dilemmas (L or HU) or PHI 406: Moral Dilemmas (L or HU)	3	C	
Liberal Arts Elective	3	C	
Upper Division Liberal Arts Elective	3	C	
Term hours subtotal:	15		

Term 8 105 - 120 Credit Hours Necessary course signified by ⭐	Hours	Minimum Grade	Notes
⭐ ACO 484: Internship OR ACO 499: Individualized Instruction	3	C	• Completion of ACO 320 and ACO 330 with a C or better is required to enroll in ACO 484 and ACO 499. ACO 484 and ACO 499 may not be taken concurrently, and is limited to a maximum of 3 hours per semester (six hours total in the major). Subject of study must include databases, networks or cyber-security; faculty approval required.
⭐ Upper Division Applied Computing Elective	3	C	
Upper Division Liberal Arts Elective	3	C	
Complete 2 courses: Upper Division Elective	6		
Term hours subtotal:	15		

Hide Course List(s)/Track Group(s)

Liberal Arts Electives	Applied Computing Electives
AMS Elective	ACO 321: Database Development & Applications
ARS Elective	ACO 331: Network Design
ASB Elective	ACO 394: Special Topics
COM Elective	ACO 420: Large-scale Data Management
ECN Elective	ACO 421: Data Mining and Warehousing
ENG Elective	ACO 422: XML and Databases
ETH Elective	ACO 430: Wireless Networks
HRC Elective	ACO 431: Network Security
HST Elective	ACO 432: Distributed Systems
IAP Elective	ACO 494: Special Topics
IAS Elective	
JHR Elective	
LAS Elective	
NEW Elective	
PAX Elective	
PHI Elective	
POS Elective	
PSY Elective	
REL Elective	
SBS Elective	
SOC Elective	
SPA Elective	
WST Elective	

Total Hours: 120
Upper Division Hours: 45 minimum
Major GPA: 2.00 minimum
Cumulative GPA: 2.00 minimum
Total hrs at ASU: 30 minimum
Hrs Resident Credit for
Academic Recognition: 56 minimum
Total Community College Hrs: 64 maximum
Total College Residency Hrs: 12 minimum

General University Requirements Legend

General Studies Core Requirements:

- Literacy and Critical Inquiry (L)
- Mathematical Studies (MA)

- Computer/Statistics/Quantitative Applications (CS)
- Humanities, Arts and Design (HU)
- Social-Behavioral Sciences (SB)
- Natural Science - Quantitative (SQ)
- Natural Science - General (SG)

General Studies Awareness Requirements:

- Cultural Diversity in the U.S. (C)
- Global Awareness (G)
- Historical Awareness (H)

First-Year Composition

General Studies designations listed next to courses on the major map were valid for the 2017 - 2018 academic year. Please refer to the course catalog for current General Studies designations at time of class registration. General Studies credit is applied according to the designation the course carries at the time the class is taken.