

Cyber Operations Technology, BS

2026-2027 Catalog

Charger Foundations

Area I: Freshman Composition 6 credits

Course Number	Credits	Course Name	Semester Usually Offered
EH 101 and 102	6	College Writing I and II	Fall, Spring, Summer

Area II: Humanities and Fine Arts 12 credits

Course Number	Credits	Course Name	Semester Usually Offered
Varies	3	Fine Art	Fall, Spring, Summer
Varies	3	Literature	Fall, Spring, Summer
Varies	3	Non-Literature Humanity - Filled by CYB Ethics Requirements	Fall, Spring, Summer
Varies	3	Humanities/Fine Art/Literature	Fall, Spring, Summer

Area III: Mathematics and Sciences 12-14 credits

Mathematics 4-6 credits

Course Number	Credits	Course Name	Semester Usually Offered
MA 171 or MA 171S or MA 150 & 151	4-6	Calculus I or Calculus I with Foundations A & B	Fall, Spring, Summer

Natural Sciences (Lab) 8 credits

Course Number	Credits	Course Name	Semester Usually Offered
AES 103/103L & AES 104/104L	4 4	Environmental Earth Science + Lab & Weather and Climate Change + Lab	Fall, Spring, Summer
AST 106/106L & AST 107/107L	4 4	Exploring the Cosmos I + Lab & Exploring the Cosmos II + Lab	Fall Spring
BYS 119/121 & BYS 120/122	3/1 3/1	Principles of Biology + Lab & Organismal Biology + Lab	Fall, Spring, Summer
CH 121/125 & CH 123/126	3/1 3/1	General Chemistry I + Lab & General Chemistry II + Lab	Fall, Spring, Summer
PH 101/101L & PH 102/102L	4 4	General Physics I + Lab & General Physics II + Lab	Fall Spring
PH 111/114 & PH 112/115	3/1 3/1	General Physics with Calculus I + Lab & General Physics with Calculus II + Lab	Fall, Spring, Summer

Area IV: History and Social and Behavioral Sciences 12 credits

Course Number	Credits	Course Name	Semester Usually Offered
Varies	3	History	Fall, Spring, Summer
Varies	3	Social & Behavioral Science	Fall, Spring
Varies	3	Social & Behavioral Science	Fall, Spring
Varies	3	History/Social and Behavioral Science	Fall, Spring, Summer

Area V: Pre-Professional

Additional Requirements 10 credits

Course Number	Credits	Course Name	Semester Usually Offered
FYE 101S	1	Charger Success - Science	Fall
Varies	3	Ethics Requirement	Fall, Spring, Summer
EH 301	3	Technical Writing	Fall, Spring, Summer

Community College Major Requirements

Computer Information Systems Core 30 credits

Course Number	Credits	Course Name	Semester Usually Offered
CIS 134/IS 146	3	Introductory Computing Course	
CIS 171/CS 390	3	Unix/Linux Course	
CIS 202/CS 104	3	Python Programming	
CIS 251/CS121	3	C++ Programming	
CIS 270/ IS 301	3	Cicso CCNA I or Networking Sequence 1	
CIS 271/IS 460/CS 370	3	Cicso CCNA II or Networking Sequence 2	
CIS 272/IS3xx	3	Cicso CCNA III or Networking Sequence 3	
CIS 280/IS 477	3	Network Security (CompTIA Security+)	
CIS 282/IS 463	3	Digital Forensics	
CIS 267/CIS 276/IS 401	3	Enterprise Virtualization or Server Administration	

UAH Major Requirements

Cyber Operations Technology Core 24 credits

Course Number	Credits	Course Name	Semester Usually Offered
CYB 201	3	C++ Data Structures	Fall, Spring, Summer
CYB 305	3	Discrete Math and Algorithms	Fall, Spring, Summer
CYB 311	3	Basic HW and Assembly Language	Fall, Spring

CYB 409	3	Basic Operating Systems	Fall, Spring
CYB 411	3	Database Systems	Spring
CYB 415	3	Basic Cybersecurity	Fall, Spring
CYB 416	3	Network Based Security	Fall, Spring
CYB 452	3	Web Security & Cloud	Fall

Cyber Operations Technology Elective Requirements 6 credits

Choose one sequence from the CYB courses below:

Course Number	Credits	Course Name	Semester Usually Offered
CYB 461 & CYB 462	6	Cellular and Mobile Technologies/Advanced Digital Forensics	Fall, Spring
CYB 471 & CYB 472	6	Malware Analysis I & II	Fall, Spring

General Electives

Elective courses can be taken from any department and do not have to be taken in your major or minor. Only 4 HPE credits can apply.

Graduation Requirements

- Minimum of 120 credits required for graduation
 - At least 36 credits must be completed at the 300 level or higher
 - All prerequisite courses must be completed with a grade of C- or higher
 - The UAH Catalog is the final authority for all degree requirements
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Charger Foundations Choices

Freshman Composition	Choose 1	College Writing I & II (EH 101 + 102) Accelerated College Writing (EH 103; equivalent to EH 101 & EH 102) Honors English Seminar (EH 105; equivalent to EH 101 & EH 102)
Fine Arts	Choose 1	Ancient & Medieval Art (ARH 100) Renaissance to Modern Art (ARH 101) World Art (ARH 103) Drawing: Foundations (ARS 160) Intro to Film Studies (FMA 1230) Intro to Music Literature (MU 100) Theatre Appreciation (TH 122)
Literature	Choose 1 or 2	Readings in Literature & Culture I (EH 207) Readings in Literature & Culture II (EH 208) Literature without Borders (EH 241) Mythology (EH 242) Protest Literature (EH 243) Heroes &/or Monsters (EH 244) Love &/or Romance (EH 245) Speculative Realities (EH 246)
Humanities (Non-Literature)	Choose 1 or 2 One must satisfy the ethics requirement	Ancient & Medieval Art (ARH 100) Renaissance to Modern Art (ARH 101) World Art (ARH 103) Drawing: Foundations (ARS 160) Intro to Film Studies (FMA 123) Intro to Music Literature (MU 100) Theatre Appreciation (TH 122) Ancient & Medieval Worlds (AMS 229) Public Speaking (CM 113) Intro to Philosophy (PHL 101) Intro to Ethics (PHL 102) Intro to Logic (PHL 103) Tech, Science, & Human Values (PHL 150) Intro to Women's Studies (WGS 200) Foreign Language (WLC 101) International Cinema (WLC 204)
Mathematics	Choose 1	Calculus I with Foundations A & B (MA 150 & MA 151) or Calculus I (MA 171 or MA 171S)
Natural Sciences (Lab) Sequence	Choose 1 sequence	Environmental Earth Science (AES 103/103L) + Weather & Climate Change

		(AES 104/104L) Exploring the Cosmos I (AST 106/106L) + Exploring the Cosmos II (AST 107/107L) Principles of Biology (BYS 119/121) + Organismal Biology (BYS 120/122) General Chemistry I (CH 121/125) + General Chemistry II (CH 123/126) General Physics I (PH 101/101L) and General Physics II (PH 102/102L) General Physics with Calculus I (PH 111/114) and General Physics with Calculus II (PH 112/115)
History	Choose 1 or 2	World History to 1500 (HY 103) World History since 1500 (HY 104) United States to 1877 (HY 221) United States since 1877 (HY 222)
Social & Behavioral Sciences	Choose 2 or 3	World Geography (AES 105) Human Geography (AES 110) Global Systems & Cultures (GS 200) Macroeconomics (ECN 142) Microeconomics (ECN 143) Intro to American Government (PSC 101) Intro to Comparative Politics (PSC 102) Intro to International Relations (PSC 260) General Psychology I (PY 101) Life-Span Development (PY 201) Intro to Sociology (SOC 100) Intro to Criminology (SOC 103) Intro Justice & Equity Studies (JES 200)

Students must take one literature and one history course.
Students must also take either a second literature or history course to complete a sequence.

Statistics Choices

Choose 1:

- Business Statistics (BUS 271 at Community College)
- Elements of Statistical Analysis (MA 281)