

# Biological Sciences, BS

## Pre-Professional Health Careers

### Concentration

## 2026-2027 Catalog

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### Charger Foundations

#### Area I: Freshman Composition

Course Number	Credits	Course Name	Semester Usually Offered
EH 101 and 102	6	College Writing I and II	Fall, Spring, Summer
EH 103	3	Accelerated College Writing	Fall, Spring
EH 105	3	Honors English Seminar	Fall

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#### Area II: Humanities and Fine Arts

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	Fall, Spring, Summer
Varies	3	Humanities/Fine Art/Literature	Fall, Spring, Summer

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## 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	3	Calculus I or Calculus I with Foundations A and B	Fall, Spring, Summer

### Natural Sciences (Lab) 8 credits

Course Number	Credits	Course Name	Semester Usually Offered
PH 101/101L or PH 111/114	4	General Physics I + Lab or General Physics with Calculus I + Lab	Fall Fall, Spring, Summer
PH 102/102L or PH 112/115	4	General Physics I + Lab or General Physics with Calculus II + Lab	Spring Fall, Spring, Summer

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## 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

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## Area V: Pre-Professional

Additional Requirements 4 credits

Course Number	Credits	Course Name	Semester Usually Offered
FYE 101S or HON 101	1	Charger Success - Science or Introduction to Honors Research	Fall
Varies	3	Statistics	Fall, Spring

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## Major Requirements

Biological Sciences Core 18 credits

Course Number	Credits	Course Name	Semester Usually Offered
BYS 119/121	4	Principles of Biology + Lab	Fall, Spring, Summer
BYS 120/122	4	Organismal Biology + Lab	Fall, Spring, Summer
BYS 219/221	2	Genetics and Evolution + Lab	Fall, Spring
BYS 300/300L	3	Cell and Developmental Biology + Lab	Fall, Spring, Summer
BYS 490	2	Senior Capstone	Fall, Spring, Summer

Pre-Professional Health Careers Concentration 22 credits

Choose one Anatomy & Physiology sequence

Course Number	Credits	Course Name	Semester Usually Offered
BYS 215/215L + BYS 216/216L or BYS 313/313L + BYS 314/314L	8	Human Anatomy + Physiology I & II or Anatomy & Physiology I & II	Fall, Spring, Summer Fall, Spring
BYS 321/321L	4	General Microbiology I + Lab	Fall, Spring
CH/BYS 361	3	Genetics and Evolution + Lab	Fall, Spring
Varies	3	300+ level or higher BYS course	Fall, Spring
Varies	3	300+ level or higher BYS course	Fall, Spring

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## Minor Requirements

### Required Chemistry Minor 21 credits

Course Number	Credits	Course Name	Semester Usually Offered
CH 121/125	3/1	General Chemistry I + Lab	Fall, Spring, Summer
CH 123/126	3/1	General Chemistry II + Lab	Fall, Spring, Summer
CH 223/224	3/1	Quantitative Analysis + Lab	Fall, Spring
CH 331/335	3/1	Organic Chemistry I + Lab	Fall, Spring, Summer
CH 332/336	3/1	Organic Chemistry II + Lab	Fall, Spring, Summer
CH/BYS 362	1	General Biochemistry I Lab	Fall, Spring

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## 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	Ancient & Medieval Art (ARH 100) Renaissance to Modern Art (ARH 101)

		<p>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 &amp; 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, &amp; Human Values (PHL 150)  Intro to Women's Studies (WGS 200)  Foreign Language (WLC 101)  International Cinema (WLC 204)</p>
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	<p>General Physics I + Lab (PH 101/101L) and General Physics II + Lab (PH 102/102L)  General Physics with Calculus I + Lab (PH 111/114) and General Physics with Calculus II + Lab (PH 112/115)</p>
History	Choose 1 or 2	<p>World History to 1500 (HY 103)  World History since 1500 (HY 104)  United States to 1877 (HY 221)  United States since 1877 (HY 222)</p>
Social & Behavioral Sciences	Choose 2 or 3	<p>World Geography (AES 105)  Human Geography (AES 110)  Global Systems &amp; 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 &amp; Equity Studies (JES 200)</p>

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

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### Statistics Choices

Statistics	Choose 1	Elements of Statistical Analysis (MA 281) Intro Probability & Statistics (MA 385) Psychological Statistics (PY 300) Statistics for Social Sciences (SOC 303)
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These courses are required for professional school programs such as Medical, Dental, Pharmacy, and other schools:

- Elements of Statistical Analysis (MA 281)
- General Psychology I (PY 101)
- Life-Span Development (PY 201)
- Intro to Sociology (SOC 100)