

| Completed | Course Number | Credits | Course Name | Prerequisites, Corequisites and/or Prerequisites with Concurrency* | Semester Usually Offered |
|--|---------------|---------|-------------------------------------|--|--------------------------|
| Charger Foundations | | | | | |
| Area I: Freshman Composition 6 credits – see attached for more options | | | | | |
| <input type="checkbox"/> | EH 101 | 3 | College Writing I | Placement* | FA/SP/SU |
| <input type="checkbox"/> | EH 102 | 3 | College Writing II | EH 101 or EH 101S | FA/SP/SU |
| <input type="checkbox"/> | EH 103 | 3 | Accelerated College Writing | Placement* | SP |
| <input type="checkbox"/> | EH 105 | 3 | Honors English Seminar | Honors | FA |
| Area II: Fine Art and Humanities 12 credits | | | | | |
| <input type="checkbox"/> | | 3 | Fine Art | See attached for choices | |
| <input type="checkbox"/> | | 3 | Literature | Completion of Area I | |
| <input type="checkbox"/> | CM 113 | 3 | Public Speaking | REQUIRED (use as Non-Literature Humanity) | FA/SP/SU |
| <input type="checkbox"/> | * | 3 | Humanities/Fine Arts/Literature | See attached for choices | |
| Area III: Math and Natural Science 12 credits | | | | | |
| Math 4 credits | | | | | |
| <input type="checkbox"/> | MA 171 | 4 | Calculus A | MA 113, MA 115 or Level 3 Placement | FA/SP/SU |
| Lab Science 8 credits | | | | | |
| <input type="checkbox"/> | PH 111/114 | 3/1 | Physics w/ Calculus I + Lab | MA 171 | FA/SP/SU |
| <input type="checkbox"/> | PH 112/115 | 3/1 | Physics w/ Calculus II + Lab | PH 111/114, MA 172 | FA/SP/SU |
| Area IV: History and Social & Behavioral Science 12 credits | | | | | |
| <input type="checkbox"/> | | 3 | History | See attached for choices | |
| <input type="checkbox"/> | ESS 105 | 3 | World Geography | Strongly Recommended, see attached for choices | SP |
| <input type="checkbox"/> | ESS 110 | 3 | Human Geography | Strongly Recommended, see attached for choices | FA |
| <input type="checkbox"/> | * | 3 | History/Social & Behavioral Science | See attached for choices | |
| Area V: College of Science Requirements 25 Credits | | | | | |
| <input type="checkbox"/> | FYE 101S | 1 | Charger Success – Science | REQUIRED | FA/SP |
| <input type="checkbox"/> | | 3 | Intro to Computer Science | *See attached for choices | |
| <input type="checkbox"/> | EH 301 | 3 | Technical Writing | EH 101, EH 102 | FA/SP/SU |
| <input type="checkbox"/> | CH 121/125 | 3/1 | General Chemistry I + Lab | MA 112 OR MA 113, 115, 120, 171 w/Conc | FA/SP/SU |
| <input type="checkbox"/> | MA 172 | 4 | Calculus B | MA 171 | FA/SP/SU |
| <input type="checkbox"/> | MA 201 | 4 | Calculus C | MA 172 | FA/SP/SU |
| <input type="checkbox"/> | MA 238 | 3 | Applied Differential Equations | MA 172, Prereq w. Conc MA 201 | FA/SP/SU |
| <input type="checkbox"/> | MA 385 | 3 | Intro to Probability and Statistics | MA 201 | FA/SP/SU |
| Earth System Science Major Requirements 50 credits | | | | | |
| Earth System Science Core 20 credits | | | | | |
| <input type="checkbox"/> | ESS 103/103L | 4 | Environmental Earth Science + Lab | | FA/SP |
| <input type="checkbox"/> | ESS 104/ 104L | 4 | Weather & Climate Change + Lab | | FA/SP |
| <input type="checkbox"/> | ESS 209 | 2 | Data Analysis Tools | ESS 103, ESS 104, CS 102+ w/Conc | FA/SP |
| <input type="checkbox"/> | ESS 301 | 3 | Intro to Earth & Atmos Physics | ESS 103, ESS 104, PH 101 or 111, MA 120 or 171 | FA/SP |
| <input type="checkbox"/> | ESS 303 | 3 | Class/Physical Causes Climate | ESS 103, ESS 104, PH 101 or 111, MA 120 or 171 | SP |
| <input type="checkbox"/> | ESS 370 | 3 | Intro to Remote Sensing | ESS 103, ESS 111, ESS 209, PH 111, MA 172, CS 102+ | FA/SP |
| <input type="checkbox"/> | ESS 498 | 1 | Research & Prof Dev Capstone | Junior Standing - 61 credits | FA/SP |
| Atmospheric Science/Meteorology Concentration 19 credits | | | | | |
| <input type="checkbox"/> | ESS 212/212L | 4 | Severe Weather Analysis | ESS 104 | SP |
| <input type="checkbox"/> | ESS 305 | 3 | Hydrology | ESS 103, ES 104, PH 101 or 11, MA 120 or 171 | SP |
| <input type="checkbox"/> | ESS 321 | 3 | Pollution Problems | ESS 103, ES 104, PH 101 or 11, MA 120 or 171, | FA |
| <input type="checkbox"/> | ESS 341 | 3 | Thermodynamic Meteorology | ESS 301, CS 102+, Prereqs w/Conc : MA 201, PH 112/115 | FA |
| <input type="checkbox"/> | ESS 351 | 3 | Dynamic Meteorology | PH 111, ESS 209, ESS 301, CS 102+, MA 201 w/Conc | FA |
| <input type="checkbox"/> | ***ESS 408 | 3 | Python for GIS | ESS 203, ESS 313 | SP |
| Atmospheric Science/Meteorology Concentration Electives Choose 11 credits | | | | | |
| <input type="checkbox"/> | ***ESS 313 | 3 | Geographic Information Systems | ESS 103, ESS 209, CS 102+ | FA/SP |
| <input type="checkbox"/> | **ESS 352 | 3 | Synoptic Meteorology | ESS 212, ESS 341, ESS 351 | SP |
| <input type="checkbox"/> | ***ESS 408 | 3 | Python for GIS | ESS 203, ESS 313 | SP |
| <input type="checkbox"/> | **ESS 410 | 3 | Operational Weather Forecasting | ESS 341, ESS 351, ESS 352 | FA |
| <input type="checkbox"/> | ***ESS 414 | 3 | Geospatial Applications | ESS 313 | FA |
| <input type="checkbox"/> | ESS 420 | 3 | Intro Atmos Chem & Air Pollution | ESS 301, ESS 321, PH 112/115, CH 121 | SP |
| <input type="checkbox"/> | ESS 441 | 3 | Atmos Thermo & Cloud Physics | ESS 351, MA 238, PH 112/115 | FA |
| <input type="checkbox"/> | ESS 451 | 3 | Atmospheric Fluid Dynamics I | ESS 351, MA 238, PH 112/115 | FA |
| <input type="checkbox"/> | **ESS 454 | 3 | Forecasting Mesoscale Process | ESS 352 | SP |
| <input type="checkbox"/> | ESS 461 | 3 | Atmospheric Radiation I | ESS 301, MA 238, PH 112/115 | SP |
| <input type="checkbox"/> | ESS 471 | 3 | Intro to Radar Meteorology | ESS 341, ESS 409 | SP |
| <input type="checkbox"/> | ESS 472 | 3 | Satellite Meteorology | ESS 212, ESS 310, ESS 408 or 409 w/Conc | FA |
| <input type="checkbox"/> | ****ESS 495 | 3 | Directed Studies | Dept Approval | FA/SP/SU |
| <input type="checkbox"/> | ****ESS 497 | 3 | Atmos & Earth Science Internship | Dept Approval | FA/SP/SU |
| <input type="checkbox"/> | ****ESS 499 | 2-4 | UG Research | Dept Approval | FA/SP/SU |
| **ESS 410, ESS 352, ESS 454. Choose at least two of these elective courses to complete the Nat'l Weather Service GS-1340 Federal Civil Service Requirements. | | | | | |
| ***ESS 313, ESS 408, and ESS 414. Students may choose 2 of these 3 GIS tools courses to count in the 'choose 11 credits' section. | | | | | |
| ****ESS495 or ESS 497 or ESS 499. Students may choose one of these courses to count as an Atmospheric Science/Meteorology concentration elective. | | | | | |
| Elective Courses 11 credits | | | | | |
| Elective courses can be taken from any department and do not have to be taken in your major or minor | | | | | |
| <input type="checkbox"/> | | | | | |
| <input type="checkbox"/> | | | | | |
| <input type="checkbox"/> | | | | | |
| Total = 128 credits to graduate | | | | | |
| 39 of the 128 credits must be taken @ 300 level or higher | | | | | |

| Charger Foundations Requirement Choices | | |
|--|-----------------|---|
| College Writing I & II | <i>Choose 1</i> | College Writing I & II (EH 101 + 102) Intensive Writing & Studio & Freshman Comp II (EH 101S + 101L & EH 102) Honors English Seminar (EH 105; equivalent to EH 101 & EH 102) Accelerated College Writing (EH 103; equivalent to EH 101 & EH 102) |
| Fine Arts | <i>Choose 1</i> | Ancient to Medieval Art (ARH 100) Renaissance to Modern Art (ARH 101) Non-Western Art (ARH 103) Theatre Appreciation (TH 122) Introduction to Drawing (ARS 160) Intro to Music Literature (MU 100) |
| Literature | <i>Choose 1</i> | Readings Literature/Culture I (EH 207) Readings Literature/Culture II (EH 208) Mythology (EH 242) Honors Literature I (EH 209) Honors Literature II (EH 210) |
| Humanities Non-Literature | <i>Required</i> | Public Speaking (CM 113) Required course for Science Majors – use as the Non-Literature Humanities |
| Humanities/ Fine Art/ 2nd Literature | <i>Choose 1</i> | Ancient & Medieval Worlds (AMS 229) Intro to Philosophy (PHL 101) Intro to Ethics (PHL 102) Science, Tech & Human Values (PHL 150) Intro to Logic (PHL 201) Intro to Film Studies (FMA 123) Foreign Language (WLC 101) International Cinema (WLC 204) Intro to Women's Studies (WS 200) * see above for Lit & Fine Art Courses |
| Mathematics | → | Calculus A (MA 171 or MA 171S) |
| Natural Lab Science Sequence | → | Physics w/ Calculus I & II (PH 111/114 + PH 112/115) |
| History | <i>Choose 1</i> | World History I (HY 103) World History II (HY 104) |
| Social & Behavioral Sciences | <i>Choose 2</i> | Macroeconomics (ECN 142) Microeconomics (ECN 143) American Govt (PSC 101) Politics & Foreign Govt (PSC 102) International Relations (PSC 260) World Geography (ESS 105)* Human Geography (ESS 110)* Global systems & cultures (GS 200) Intro to Sociology (SOC 100) Analysis of Social Problems (SOC 102) Intro to Criminology (SOC 103) Sociological Perspective on Tech and Science (SOC 150) General Psychology (PY 101) Life Span Development (PY 201) *Strongly recommended |
| History or Social & Behavioral Sciences | <i>Choose 1</i> | Take either 2 nd History Course OR 3 rd Social & Behavioral Science |
| History or Literature Sequence | <i>Required</i> | History: (HY 103 + HY 104) or (HY 221 + HY 222) OR Literature: Any Part I (EH 207, 242, or Honors EH 209) + Any Part II (EH 208 or honors EH 210) |
| College of Science Requirement Choices | | |
| Computer Science | <i>Choose 1</i> | Intro to Computers & Programming (CS 100) Intro to C Programming (CS 102) Intro to Programming Using JAVA (CS 103) Intro to CS Using Python (CS 104)* - Strongly recommended |
| Technical Writing | → | Technical Writing (EH 301) Required course for Science Majors |

All prerequisite classes must be completed with a "C-" or higher grade.

The Catalog is the final authority for all degree requirements.

*Placement Requirements: <https://www.uah.edu/admissions/undergraduate/admitted-students/academic-placement>