## BS Hydrology (starting with MATH 115): 68 credits in Major

### Suggested Plan of Study

Department of Atmospheric and Hydrologic Sciences: Phone 320-308-3260, email ahs@stcloudstate.edu

**Hydrology Major Advisor**
Dr. Jean Hoff 320-308-5914 jlhoff@stcloudstate.edu

### First Semester | Second Semester
--- | ---
AHS 230 (4 cr) Introduction to Physical Hydrology | AHS 220 (4 cr) Physical Geology Systems
1 MATH 115 (5 cr) Precalculus | MATH 221 (4 cr) Calculus and Analytic Geometry I
ENGL 191 (4 cr) Intro. to Rhetorical and Analytical Writing (Goal 1) | CMST 192 (3 cr) Intro. to Communication Studies (Goal 1)
2 ENVE 201 (3 cr) Intro. to Environ. Engineer. (Goals 2 &10) | 3 University Elective (3 cr)
**Total semester credits = 16** | **Total semester credits = 14**

### Third Semester | Fourth Semester
--- | ---
AHS 332 (4 cr) Physical Hydrogeology | AHS 334 (4 cr) Surface Hydrology
MATH 222 (4 cr) Calculus and Analytical Geometry II | AHS 260 (4 cr) Introductory Meteorology
PHYS 234 (5 cr) Classical Physics I | CHEM 210 (4 cr) General Chemistry I
3 University Elective (3 cr) | GEOG 316 (3 cr) Geographic Information Systems
**Total semester credits = 16** | **Total semester credits = 15**

### Fifth Semester | Sixth Semester
--- | ---
AHS 338 (4 cr) River Hydraulics | AHS 336 (3 cr) Chemical Hydrogeology
AHS 364 (3 cr) Instrumentation | 2 Major Elective (3 cr)
4 PHYS 237 (1 cr) Classical Physics for Geosciences | 3 University Electives (10 cr)
5 Major Elective (3 cr) | 3 University Electives (6 cr)
3 University Elective (3 cr) | **Total semester credits = 16**
**Total semester credits = 14** | **Total semester credits = 15**

### Seventh Semester | Eighth Semester
--- | ---
AHS 432 (2 cr) Ground-Water Modeling | AHS 438 (3 cr) Water Resources Management
AHS 434 (2 cr) Surface Water Modeling | AHS 492 (2 cr) Senior Thesis II
AHS 491 (2 cr) Senior Thesis I | 3 University Electives (9 cr)
3 University Electives (9 cr) | **Total semester credits = 14**
**Total semester credits = 15** | **Total semester credits = 15**

**Notes:**

1. ENVE 201 is recommended and fulfills Liberal Education Goal Areas 2 and 10.

2. University Electives include Liberal Education Courses needed to meet Goal Areas 5, 6, 7, 8, and 9; courses used to reach 120 total credits; 300-400 level courses used to fulfill the 40 credit requirement.

3. Hydrology majors can substitute PHYS 235 for PHYS 237. If you are considering graduate school PHYS 235 should be chosen.

4. Major Electives are 6 credits, numbered 300 or above, which may include but are not limited to AHS 307, AHS 322, AHS 325, AHS 368, AHS 423, AHS 444, ECON 351, ENVE 302, ETS 438, ETS 463, ETS 465, GEN 380, GEOG 406, GEOG 416, and MME 303 with prior advisor approval.

### Graduation:

1. CHEM 211 is not required, but is strongly recommended for students interested in water.

2. The Liberal Education Program is satisfied with completion of the 10 Goal Areas and 40 credits of LEP-designated courses. Additionally students may require up to three Diversity (DIV) courses. Goal Areas 3 and 4 are fulfilled by coursework within the Hydrology major.

3. The BS Hydrology degree includes 38 credits of course work at the 300-400 level. A minimum of 2 credits of 300-400 coursework is needed to meet the University's 40 credit graduation requirement.

4. Students fulfill the University's Upper Division Writing Requirement by successfully completing AHS 491 and AHS 492.

### Hydrology Course Offering Schedule

<table>
<thead>
<tr>
<th>Fall, Spring</th>
<th>AHS 230, 260; CHEM 210, 491, 492; PHYS 234; GEOG 316</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every Fall</td>
<td>AHS 332, 338, 364, 432, 434; PHYS 237</td>
</tr>
<tr>
<td>Every Spring</td>
<td>AHS 220, 334, 336</td>
</tr>
<tr>
<td>Spring (Odd Years)</td>
<td>AHS 438</td>
</tr>
</tbody>
</table>

Revised September 2019