

## 3290.7 Certificate in Water Sciences (15-18)

A strong demand exists in the public sector and private industry for understanding of aquatic systems. The undergraduate certificate in water sciences is designed to provide students with a working knowledge of both the quality and quantity of water in the environment, and modern techniques to assess, model, and remediate aquatic environmental problems, and understand the social context and implications of water resources.

The certificate program consists of five courses with a total of 15-18 credit hours, and is an excellent complement to undergraduates pursuing careers in natural resources or environmental fields.

1. Group I. Required courses (6-7):

*Projected semester offerings are herein added.*

- [GEOG 4646](#) Water Resources (3) *Spr*
- [GEOG 4650](#) Surface Water Hydrology (3) or [GEOL 4007](#) Hydrogeology (4) *Fall*

2. Group II. Select two courses from the following options (6-8):

- [BIOL 4451](#) Aquatic Pollution and Toxicology (4) *Spr*
- [GEOG 4650](#) Surface Water Hydrology (3) (if not taken in Group I) *Fall*
- [GEOL 4007](#) Hydrogeology (4) (if not taken in Group I) *Fall*
- [GEOL 4003](#) Aqueous Geochemistry (3) *Spr*
- [GEOG 4642](#) Advanced Weather and Climate (3) *Spr – Odd Yrs*
- [GEOG 4784](#) Global Climate Change (3) *Fall*

3. Group III. Select one course below or an additional course from Group I or Group II (3-4)

- [GEOG 4640](#) Geomorphology (3) *Spr – Odd Yrs*
- [GEOL 4017](#) Environmental Geology (3) *Spr*
- [GEOG 4530](#) Introduction to Remote Sensing (4) *Fall*
- [GEOL 4042](#) Environmental Instrumentations (4) *Fall – Odd Yrs*

Students interested in this certificate should contact the Undergraduate Director in Geosciences to enroll in the program. Courses that apply to a degree program in Geosciences also may be used in support of the certificate; however, only one course can be applied to two different certificates.