The 12-15 credit hour Hydrogeology Certificate will provide students with a competitive advantage in beginning a career in the hydrogeological fields or pursuing entrance into a graduate degree program in fields related to hydrogeology. The certificate is designed to enhance both critical thinking and the technical skills for practicing hydrogeology.

One groundwater course (4 credits):
- EARTHSC 5651: Hydrogeology (4)

One surface water course (3 credits):
- EARTHSC 5665: Land surface hydrology (3)
- ENR 4285: Watershed hydrology (3)
- CIVILEN 5130: Applied Hydrology (3)

Electives (at least 5 credit hours):
- EARTHSC 5751: Quantitative Reservoir Modeling (4)
- EARTHSC 4450: Water, Ice and Energy in the Earth System (3)
- EARTHSC 5203: Geo-environment and Human Health (3)
- EARTHSC 5621: Introduction to Geochemistry (3)
- EARTHSC 5687: Borehole Geophysics (4)
- EARTHSC 5550: Geomorphology (4)
- ENR 5268: Soils and Climate Change (2)
- ENR 5261: Environmental Soil Physics (3)
- ENR 5273: Environmental Fate and Impact of Contaminants in Soil and Water (3)
- CIVILEN 5220: Open Chanel Hydraulics (3)
- AGSYSMT 4575: Applied Agricultural Water Management (2)
- GEOG 5210: Fundamentals of GIS (3)

### Hydrogeology Certificate program guidelines

**Credit hours required:** 12-15 credit hours.

**Overlap with courses in a degree**
- The certificate must be in a different subject than the major.
- Max 50% overlap with degree program (i.e. major, minor, other certificate, GE, or graduate program)

**X193 credits:** Not permitted.

**Certificate Completion:** If the certificate is not complete on the DAR, the student must consult with the Coordinating Advisor.

**Consult with Coordinating Advisor**
- For filing deadlines.
- For changes or exceptions to a certificate plan.

**Undergraduate certificate program:**
**Coordinating Advisor:** Professor Ashley Griffith, 381 Mendenhall Labs, Columbus, OH 43210; griffith.233@osu.edu
- Minimum C- for a course to be listed on the certificate.
- Minimum 2.00 cumulative point-hour ratio required for the certificate.

**Graduate certificate program:**
**Coordinating Advisor:** Professor Steve Lower, 084 Orton Hall, lower.9@osu.edu; 614-292-1571
- Course selections must be numbered 4000+ outside the student’s home unit and 5000+ within the home unit.
- Minimum C- for a course to be listed on the certificate.
- Minimum 3.00 cumulative point-hour ratio required for the certificate.

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