# Master's of Science in Civil Engineering Program Plan

## Student Information

<table>
<thead>
<tr>
<th>Name</th>
<th>[ ] Construction, Energy &amp; Sustainable Infrastructure</th>
<th>[ ] Hydrology &amp; Hydrodynamics (select subarea)</th>
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<tr>
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<td>[ ] Environmental Engineering (select subarea)</td>
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<td>[ ] Geotechnical Engineering</td>
<td>[ ] Transportation Engineering</td>
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<tr>
<td>Program</td>
<td>[ ] Thesis [ ] Non-Thesis</td>
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## Area of Study (select one)

- [ ] Construction, Energy & Sustainable Infrastructure
- [ ] Hydrology & Hydrodynamics (select subarea)
- [ ] Environmental Engineering (select subarea)
- [ ] Structural Engineering
- [ ] Geotechnical Engineering
- [ ] Transportation Engineering

### Faculty Adviser Signature

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### Course Schedule

<table>
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<tr>
<th>Quarter Year</th>
<th>Course #</th>
<th>Title</th>
<th>Credits</th>
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Submit your approved Program Plan to the Graduate Advisers in More 201 by the end of your first quarter and an updated plan in your final quarter. Failure to do so may delay graduation.
# Master's of Science in Civil Engineering Program Plan
## Hydrology & Hydrodynamics - Thesis Option

**General Degree Requirements (42 total credits)**

- 9 credits CEE 700 - Thesis
- 2.7 minimum grade for a course to count
- 18 credits minimum 500 level coursework
- 3.0 Minimum cumulative GPA
- 499 credits do not count towards a graduate degree
- 6 credits maximum of approved transfer credits
- All CEWA coursework (except seminars) taken for numeric grade
- No more than 2 credits of seminar to count towards degree
- 6 year max to complete degree (including official On Leave status)
- 18 credits minimum graded credits at the 400/500 level

**Core Courses (21 credits)**

- CEE 475 Analysis Tech for Groundwater Flow (3)*
  *ESS 454 (Hydrogeology) will substitute for CEE 475 in 2018-19
- CEWA 565 (prev. CEE 599) Data Analysis in Water Sciences (4)
- CEWA 578 (prev. CEE 599) Water Res Sys Manage & Ops (3)
- CEWA 596 (prev. CEE 599) Fate & Transport of Chem in the Enviro (3)
- CEWA 574 (prev. CEE 599) Hydraulics of Sediment Transport (4)
- CEWA 576 (prev. CEE 599) Physical Hydrology (4)
- CEWA 579 (prev. CEE 599) Quantitative Water Management (3)

**Common Areas of Focus and Recommended Coursework**

**Hydrology**
- CEE 424 GIS for Civil Engineers (3)
- CEWA 566 (prev. CEE 599) Sat Remote Sensing for Water Res (3)
- CEE 481 Hydraulic Design for Env Engrs (3)
- CEWA 568 (prev. CEE 573) Snow Hydrology (3)
- CEWA 564 (prev. CEE 574) Advanced Hydrology (3)
- CEWA 577 (prev. CEE 599) Open Channel Engineering (4)
- CEWA 599 Advanced Surveying (3)
- ESS 421 Introduction to Geological Remote Sensing (4)
- ESS 426 Fluvial Geomorphology (5)
- SEFS 507 Soils & Land Use Problems (4)
- SEFS 520 GIS in Forest Resources (5)
- URBDP 526 Floodplain Management and Planning for Coastal and River Communities (3)

**Hydrodynamics**
- CEWA 570 (prev. CEE 570) Hydrodynamics (4)
- CEWA 572 Numerical Modeling of Hydrodynamics (3)
- CEWA 573 (prev. CEE 572) Water Wave Mech for Coastal Eng (4)
- CEWA 577 (prev. CEE 599) Open Channel Engineering (4)
- AA 543 Computational Fluid Dynamics (3)
- ME 543 Fluid Turbulence (3)
- OCEAN 511 Fluid Dynamics (4)
- OCEAN 512 Geophysical Fluid Dynamics (4)

**Fate & Transport**
- CEE 462 Applied Limnology and Pollutant Effects on Freshwater (3)
- CEE 483 Drinking Water Treatment (3)
- CEWA 540 (prev. CEE 540) Microbiological Process Fundamentals (3)
- CEWA 543 (prev. CEE 543) Aquatic Chemistry (4)
- CEWA 545 (prev. CEE 545) Environmental Organic Chemistry (3)
- CEWA 549 (prev. CEE 549) Adv Topics in Enviro Eng, Chem, and Bio (3)
- CEWA 550 (prev. CEE 550) Environmental Chemical Modeling (3)
- CEWA 580 (prev. CEE 577) Water-Quality Management (3)
- SEFS 507 Soils & Land Use Problems (4)