Civil and environmental engineering offers practitioners a diverse, fulfilling, and rapidly expanding range of career opportunities. Correspondingly, the field is attracting an increasingly diverse population of students and professionals. Meet a few of the University of Washington's Faces of CEE:

Jon Magnusson (’75 BSCE)
Jon Magnusson is senior principal of Magnusson Klemencic Associates (MKA), a 190-person international award-winning structural and civil engineering firm in Seattle. He received the College of Engineering’s 2013 Diamond Award for Distinguished Achievement in Industry.

Rebecca Neumann
Rebecca Neumann, assistant professor, received the U.S. Department of Energy Office of Science’s 2013 Early Career Research Program award for her research on methane gas in the soil zone surrounding roots of wetland plants and the physical, chemical, and biological drivers and environmental impacts of climate change.

Michael Dodd
Michael Dodd, assistant professor, won the 2013 Faculty Early Career Development (CAREER) award from the National Science Foundation. His NSF-funded research will provide the first systematic investigation into the use of disinfectant and antiseptic agents in water treatment and healthcare practice.

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DEGREE PROGRAMS

Bachelor of Science (BSC) – prepares students for diverse careers in engineering, industry, or graduate work.
Master of Science in Civil Engineering (MSCE) – offers students the opportunity to choose between two Master’s degree tracks: a research-intensive track and a coursework-only track.
Online Master’s Degree Programs - three programs are offered online: Supply Chain Transportation and Logistics, Sustainable Transportation and Construction Engineering.
Doctor of Philosophy (PhD) – intensive research prepares students for advanced-level professional careers in academia and industry.

Study Abroad
- Engineering Jordan
- Engineering Rome
- Valle Scandinavian Exchange Program

UNDERGRADUATE LEARNING

Program Features
- Core fundamentals – Prepares students with a broad-based educational experience that enables them to address complex civil engineering issues.
- Knowledge integration and application – Lab courses with hands-on fieldwork, combined with rigorous training results in a 90-91% passing rate on the Fundamentals of Engineering test for the EIT (Engineer in Training) certificate, much higher than state and peer university rates.
- Real-world experience – Senior capstone project provides students with hands-on exposure to practical design and engineering at the project level.

Student Demographics
- 97 BSCes awarded in 2013-2014
- 316 current undergraduates: 31% women, 8% underrepresented minorities, 7% international

Excellence
- 2013 Student Innovator: Teaching
- 2013 Student Innovator: Dear’s Award
- 2013 Engineering Science Best Dissertation Award
- MWH/ASCEP Master’s Thesis Award
- Region X Michael Kyte Student of the Year Award
- ITE Western District Student Paper Award
- North American Lake Management Society Best Student

GRADUATE LEARNING

Program Features
- Required courses and electives in the student’s area of special focus
- Thesis or dissertation research – opportunities for leading-edge, interdisciplinary work
- On-campus and online professional programs with broad coverage of civil and environmental engineering disciplines

Student Demographics
- 110 Master’s, 12 PhDs awarded in 2013-2014
- 334 current graduate students: 37% women, 8% underrepresented minorities, 25% international, 33% online

Excellence
- 2013 T.Y. Lin Award
- 2014 PSEC Academic Engineer of the Year
- 2014 AISC Educator’s Lifetime Achievement Award
- 2 WA State Academy of Science Members
- 1 NAE Member
- 11 postdoctoral research associates
- 43 affiliate faculty representing industry and outside science departments
- 19 faculty joint or adjunct with other UW engineering and science departments
- (equivalent of 42 full-time faculty)

Faculty
- 46 tenured and tenure-track, and research faculty
- 19 faculty joint or adjunct with other UW engineering and science departments
- 43 affiliate faculty representing industry and outside research and educational institutions
- 11 postdoctoral research associates
- 1 NAE Member
- 2 WA State Academy of Science Members
- 2014 Fulbright Scholar
- 2014 AISC Educator’s Lifetime Achievement Award
- 2014 PSEC Academic Engineer of the Year
- 2014 T.Y. Lin Award

Research and Innovation

AREAS OF DEPARTMENTAL EXPLORATION

Environmental Engineering
- Biogeochemistry and remediation of contaminated groundwater
- Occurrence and fate of contaminants in environmental systems
- Removal of contaminants from drinking water and wastewater
- Development and design of sustainable water/wastewater treatment systems
- Effects of pollutants on the functioning of natural water systems
- Microbial ecology, evolution and systematics
- Ambient air quality modeling and measurement

Hydrology and Hydrodynamics
- Climate/environmental change impacts on hydrologic systems
- Observation and prediction of western U.S. snowpack dynamics
- Sustainable development and management of water resources
- Drought prediction and mitigation
- Remote sensing applications to hydrology
- Coastal and estuarine processes

Structural Engineering & Mechanics
- Earthquake engineering
- Bridge engineering
- Numerical simulation
- Design for rapid construction
- Structural monitoring
- Design for sustainability

Transportation
- Intelligent transportation and emerging technologies
- Traffic sensing and transportation big data
- Freight transportation, supply chain, and logistics
- Transportation planning and travel behavior analysis
- Human factors and transportation safety
- Resilience of infrastructure systems
- Transportation sustainability

Construction
- Roadway and building sustainability
- Engineering with developing communities
- Energy infrastructure
- Building energy
- Pavement materials, design, and management
- Commercial implementation

Geotechnical
- Geotechnical earthquake engineering
- Soil-structure interaction
- Constitutive modeling and numerical analysis
- Landslides and geohazards
- Seismic hazard analysis

CIVIL & ENVIRONMENTAL ENGINEERING RESEARCH EXPENDITURES FY 2014

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<thead>
<tr>
<th>Source</th>
<th>Amount</th>
<th>Percent</th>
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<tbody>
<tr>
<td>US Dept. of Transportation</td>
<td>2,755,046</td>
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<tr>
<td>National Science Foundation</td>
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<td>Department of Energy</td>
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<td>NASA</td>
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<td>Department of Defense</td>
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<tr>
<td>Washington State Department of Transportation</td>
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<td>Diverse - non-federal</td>
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<td>Industry</td>
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<td>Other federal government</td>
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<td>Local government</td>
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<td>NOAA</td>
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<td>National Institute of Health</td>
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<tr>
<td>Department of the Interior</td>
<td>144,609</td>
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</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>11,541,340</strong></td>
<td><strong>100%</strong></td>
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