

Course	Instructor Preferences	GTA Expectations (related to OPA)	OPA Certification Level
CIVILEN 2050 (Probabilistic Applications and Data Interpretation in Civil and Environmental Engineering)	Experience with statistics and probability theory, with preference to someone with previous coursework in statistics.	teach a recitation or run a lab session unsupervised	4+
CIVILEN 2060 (Numerical Analysis Methods for Civil and Environmental Engineering Applications)	Previous coursework and research experience with numerical methods. Coding experience, including Matlab and C++.	teach a recitation or run a lab session	4+
CIVILEN 2410 (Introduction to Geomatics/Surveying - Lecture & Lab)	Prior experience in Surveying.	teach a recitation or run a lab session	4+
CIVILEN 2810 (Construction Engineering Management)	Previous coursework in construction engineering management and previous experience on a construction site preferred.	teach a recitation or run a lab session	4+
CIVILEN 3080 (Economic Evaluation and Optimization in Civil and Environmental Engineering)	Prior coursework or experience in engineering economic analysis and experience with Excel's engineering economic functions and the Analysis toolkit.	teach a recitation or run a lab session unsupervised	4+
CIVILEN 3130 (Fluid Mechanics)	Prior coursework in statics, dynamics and fluid mechanics.	teach a recitation or	4+
CIVILEN 3160 (Water Resources Engineering)	Prior research experience in hydrology, fluids, hydraulics, or some other form of water resources.	teach a recitation or run a lab session	4+
CIVILEN 3310 (Structural Engineering Principles)	Advanced knowledge of Structural Analysis and familiarity with structural analysis software such as SAP2000.	assist in a lab or supervised recitation --	3+
CIVILEN 3510 (Civil Engineering Materials - Lab)	Previous coursework, preferably graduate, in metals and concrete. Prior experience in an experimental structures/materials lab using machinery and conducting testing. Experience performing fresh and hardened concrete and aggregate testing. Position requires some manual labor (moving materials and equipment around, typically 25-50 lbs). Will need to manage setup with a team of UG students, so experience leading a team is preferred.	teach a recitation or run a lab session unsupervised	4+
CIVILEN 3541 (Geotechnical Engineering Lab)	In CE3541 students perform 20+ different soil tests, hence: a.Candidates that have taken (or audited) CE3541, are considered qualified since they have performed all the tests b.Candidates that have not taken (or audited) CE3541 before, should provide documentation (e.g., syllabus, lab reports, web link, or similar) showing which tests they have performed at their prior institution	teach a recitation or run a lab session unsupervised	4+
CIVILEN 3700 (Transportation Engineering and Analysis)	Background in transportation and at least one undergraduate transportation engineering course that includes basics of geometric design, intersection control, queuing, and traffic flow theory. Familiarity with transit systems preferred. Excel and Matlab skills.	assist in a lab or supervised recitation -- will NOT be unsupervised	3+
CIVILEN 4001/4002 (AU and SP Capstone)	Professional engineering experience preferred.	teach a recitation or run a lab session unsupervised	4+
CIVILEN 4320 (Steel Design)	Previous coursework in steel design.	assist in a lab or supervised recitation -- will NOT be unsupervised	3+
CIVILEN 4350 (Reinforced Concrete Design)	Prior experience (required): Reinforced Concrete Design, Structural engineering graduate student, pass the OPA English exam. Prior experience (highly preferred): Experience teaching, a second course in concrete, MathCAD or MATLAB skills.	assist in a lab or supervised recitation -- will NOT be unsupervised	3+
AU21: ENVENG 4200 (Unit Operations Lab) / SP22: ENVENG 2100 (Environmental Engineering Analytical Methods Lab)	Experience with wet chemical methods in the laboratory, including titration measurements, pH calibration, experimental set up and testing experience. Student will need to explain techniques and answer questions both in the laboratory and during office hours so needs good communication skills. Water chemistry and environmental engineering unit operations coursework is highly desired.	teach a recitation or run a lab session unsupervised	4+
ENVENG 3200 (Fundamentals of Environmental Engineering)	Coursework in Intro to Environmental Engineering, with preference to someone with an undergraduate degree in Environmental Engineering.	teach a recitation or run a lab session unsupervised	4+