

Pre-requisite Coursework for Non-Engineers:

For students who wish to become PE eligible, the student must complete 32 credits of Math and Science and 48 credits of Engineering Science and Design. This includes courses taken for the Master’s degree. Many students complete pre-requisites prior to arriving at USF, or they complete these courses as non-degree seeking students. The student needs to obtain a ‘C’ or better in all of the courses. Finally, the student must complete the required courses specific to the Master’s degree. The required pre-requisites are listed in the tables below.

Basic Math and Sciences: 32 credits required	
MAC 2281 Calculus I	4
MAC 2282 Calculus II	4
MAP 2302 Differential Equations	3
Statistics Course	3
PHY 2048 General Physics I	3
CHM 2045 General Chemistry I	3
CHM 2046 General Chemistry II OR PHY 2049 General Physics II	3
Biological or Earth Science Course	3
Additional Science and Math and demonstration of laboratory experience.	6

Engineering Science and Design: 48 credits required			
Civil Engineering Students		Environmental Engineering Students	
EGN 3311 Statics	3	EGN 3311 Statics	3
EGN 3343 Thermodynamics I	3	EGN 3343 Thermodynamics I	3
EGN 3353 Fluid Mechanics	3	EGN 3353 Fluid Mechanics	3
EGN 3615 Engineering Economy	3	EGN 3615 Engineering Economy	3
EGN 3321 Dynamics	3	ENV 4001 Environmental Engineering	3
EGN 3331 Mechanics of Materials	3	EWR 4202 Hydraulics	3
EGN 3365 Materials Engineering I	3	CWR 4812 Capstone Water Resources/ Environmental OR CGN 4933 International Capstone Design	3/6
EGN 3373 Electrical Systems	3	CGN 4122 Professional & Ethical Issues	3
Engineering course outside major discipline			3
Additional undergraduate and graduate level Engineering Science and Design courses			
Total Engineering Science and Design			48

Water, Health, and Sustainability Certificate

You also have the opportunity to incorporate the new USF certificate in Water, Health, and Sustainability. Intended for public health professionals, humanitarian

aid providers, engineers and other planners, the associated courses investigate the critical shortages and health problems associated with inadequate and unsanitary water throughout the world. Please see the link for details regarding certificate requirements. http://health.usf.edu/publichealth/gradcert_waterhealth.html