

Department: Environmental Engineering
Program: MS in Environmental Engineering

Skill Set	Professional Application	Delivery of Skill Set Courses, extracurricular activities, etc. in which the skill set is introduced (I), reinforced (R), or mastered (M)
Knowledge-based skills	<ul style="list-style-type: none"> • Abilities in designing, optimizing, predicting or better managing air, land and water resources systems using in-depth knowledge, advanced technologies, discovery and innovation for professional practice in environmental engineering • Ability to integrate environmental regulations and policies into advanced engineering applications and decision-making 	<ul style="list-style-type: none"> • EVEN 6308 (R/M) • EVEN 6319 (R/M) • EVEN 6325 (R/M) • EVEN 6309 (R/M) • EVEN 6316 (R/M) • EVEN 6329 (R/M) • EVEN 6354 (R/M) • EVEN 6318 (R/M) • EVEN 6102 (I) • EVEN 5306 (M) • M.S. research project /thesis (M)
Problem-solving skills	<ul style="list-style-type: none"> • Analytical skills to comprehend, define and analyze complex environmental problems and propose engineering solutions incorporating large scale system level perspectives; • Creativity to identify alternate solutions with broader impacts and envisioning possible unanticipated consequences of the solutions. • Ability to apply advanced technologies, in-depth knowledge, methods, data science engineering, and best project management practice in solving environmental engineering problems particularly related to resiliency, sustainability, and global climate change. 	<ul style="list-style-type: none"> • EVEN 6308 (R) • EVEN 6319 (R) • EVEN 6325 (R) • EVEN 6309 (R) • EVEN 6316 (R) • EVEN 6329 (R) • EVEN 6354 (R) • EVEN 6318 (R) • EVEN 6102 (R) • EVEN 5306 (M) • M.S. research project /thesis (M)

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Professional skills	<ul style="list-style-type: none"> • Strong communication skills • Effective project managements and successful engagement to other engineers, stakeholders, community leaders and citizens with diverse backgrounds • Leadership and team building skills.. 	<ul style="list-style-type: none"> • EVEN 6329 (R) • M.S. research project/thesis (R) • Presentations in conferences or professional meetings (R) • Conference proceedings and journal publications (R)