



M.S.C.E.* (Thesis Option)	M.E.C.E.* (Design Project Option)	M.E.C.E.* (Comprehensive Exam Option)
Required Courses: 6 credit-hours Major Area: 18 credit-hours Out-of-Major Area**: 6 credit-hours Thesis: 6 credit-hours Total: 36 credit-hours	Required courses: 3 credit-hours Major Area: 24 credit-hours Out-of-Major Area**: 6 credit-hours Design Project: 3 credit-hours Total: 36 credit-hours	Required courses: 3 credit-hours Major Area: 27 credit-hours Out-of-Major Area**: 9 credit-hours Comp. Exam: 0 credit-hours Total: 39 credit-hours

Structural Engineering

MSCE Required Courses

CE 6900 – Introduction to Research in Civil Engineering
 CE 6370 – Finite Element Methods in Engineering

MECE Required Courses

CE 6370 – Finite Element Methods in Engineering

Major Area Courses

CE 5108 – Prestressed Concrete Structures Design	CE 6345 – Design of Reinforced Masonry Structures
CE 5114 – Computer Analysis & Design of Structural Systems	CE 6350 – Dynamics of Structures
CE 5116 – Design of Wood Structures	CE 6355 – Advanced Earthquake Engineering
CE 6300 – Structural Engineering Laboratory	CE 6357 – Wind Engineering
CE 6305 – Simulation Engineering Laboratory	CE 6360 – Bridge Inspection, Rehabilitation, Repair, and Management
CE 6315 – Analysis of Plates and Shells	CE 6375 – Advanced Finite Element Methods in Engineering
CE 6320 – Advanced Strength of Materials	CE 6378 – Advanced Reinforced Concrete Design
CE 6323 – Design of Composite Materials	CE 6380 – Nonlinear Behavior of Concrete Structures
CE 6325 – Principles of Structural Stability	CE 6385 – Advanced Steel Design
CE 6330 – Advanced Topics in Structural Engineering	CE 6390 – Lateral Load Distribution in Multistory Buildings
CE 6335 – Advanced Foundations	CE 6395 – Nonlinear Analysis of Soil-Structure Interaction
CE 6340 – Advanced Bridge Design	

Out-of-Major Area Courses

The student may select 6 credits (Thesis or Project options) or 9 credits (Comprehensive Exam option) as Out-of-Major Area elective from any other CE graduate or advanced undergraduate courses.

Thesis Courses

CE 6901
 CE 6902

Design Project

CE 6905
 CE 6906

Comprehensive Exam

CE 6910

*Note: A maximum of 6 credit-hours in advanced undergraduate courses (Level 5000) can be taken.

** Students are allowed to replace Out-of-Major courses with Major Area courses.

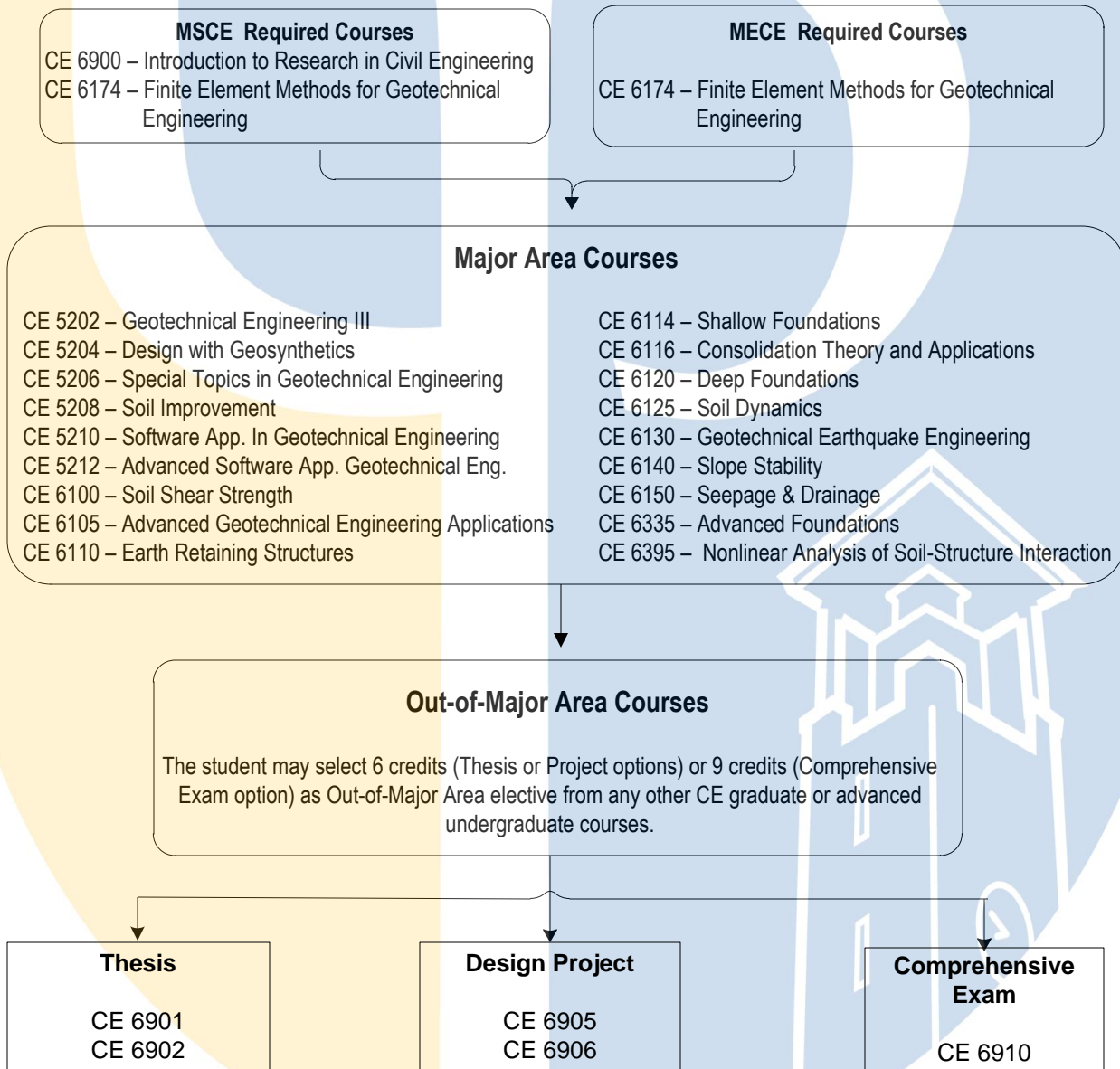


Polytechnic University of Puerto Rico
 Graduate School
 Master Program in Civil Engineering



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Geotechnical Engineering



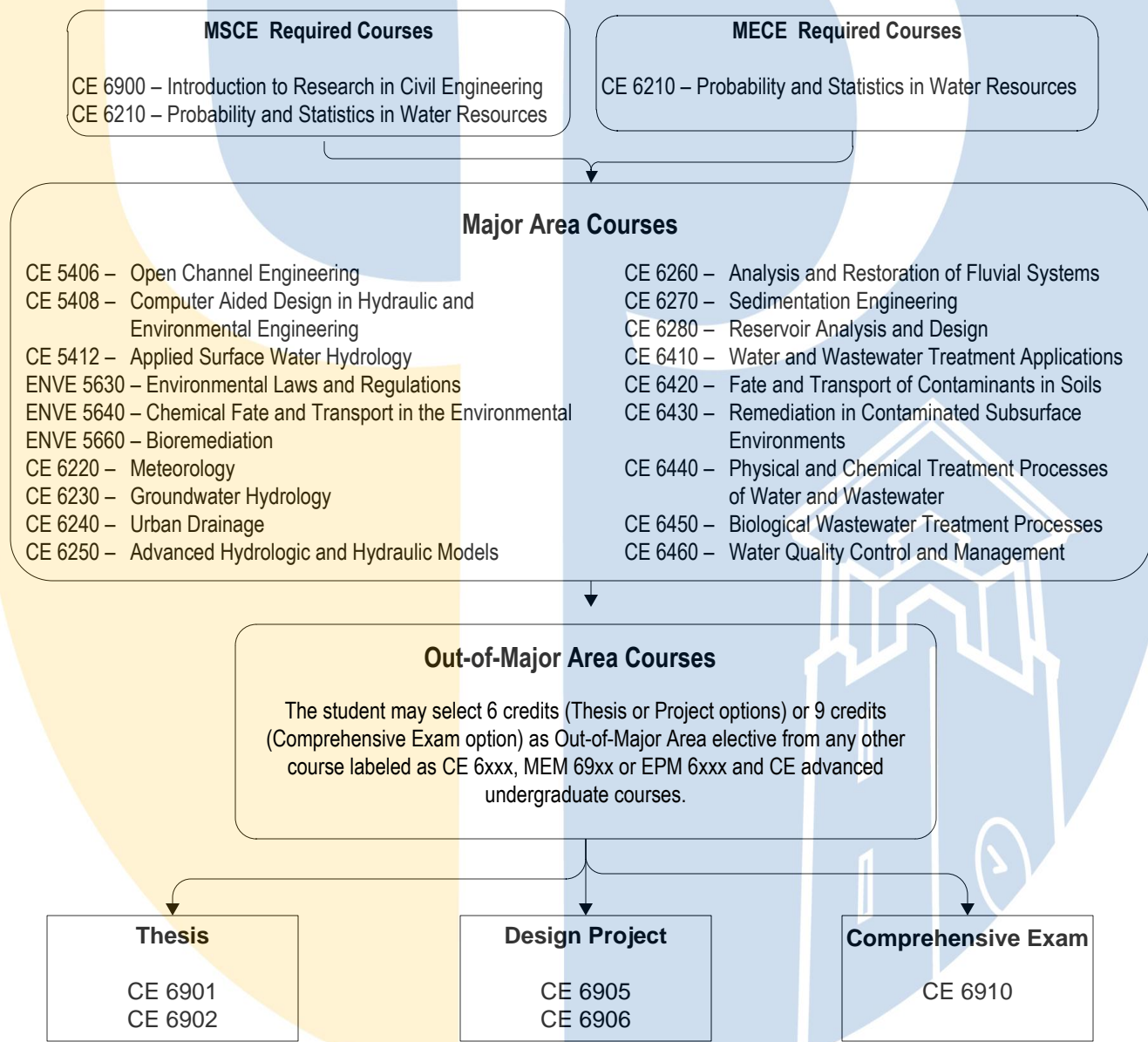
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Water Resources and Water Treatment



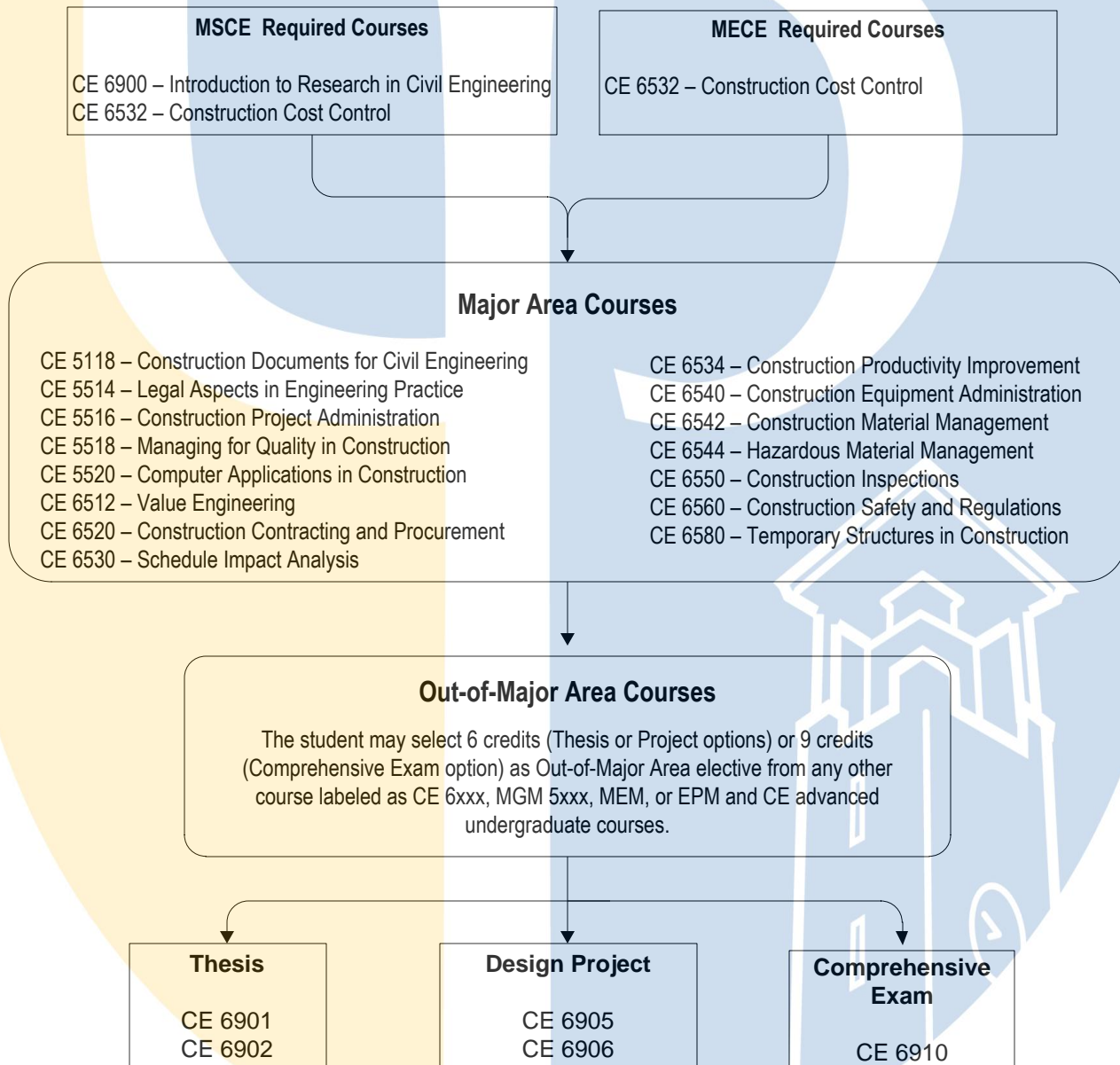
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Construction Engineering



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