

Civil Engineering Curriculum Flow Chart

1A 5 Core		CHE 102 Chemistry for Engineers	CIV E 125 Civil Engineering Concepts 1	MATH 115 Linear Algebra for Engineering	MATH116 Calculus 1 for Engineering	PHYS 115 Mechanics				
F										
1B 5 Core 1 CSE		CIV E 121 Digital Computation	CIV E 127 Statics & Solid Mechanics 1	CIV E 153 Earth Engineering	GEN E 123 Electrical Engineering	MATH 118 Calculus 2 for Engineering				CSE 1
W										
2A 4 Core 1 CSE	WKRPT 100	CIVE 204 Statics & Solid Mechanics 2	CIV E 221 Advanced Calculus	CIV E 224 Probability and Statistics	CIV E 265 Structures & Properties of Materials					CIV E 292 Engineering Economics (CSE 2, List B)
F										
2B 4 Core 1 CSE		CIV E 205 Mechanics of Solids 2	CIV E 222 Differential Equations	CIV E 240 Engineering & Sustainable Development	CIV E 280 Fluid Mechanics & Thermal Sci.					CSE 3
	S									
	Work Term Report	Mathematics & General	Structural Engineering Mechanics & Construction		Transportation	Geotechnical Engineering	Water Resources & Environmental Engineering		General	Complementary Studies Elective
3A 5 Core 1 CSE	WKRPT 200	CIV E 331 Advanced Mathematics for CivE	CIV E 303 Structural Analysis 1		CIV E 342 Transport Principles & Applications	CIV E 353 Geotechnical Engineering 1	CIV E 375 Water Quality Engineering			CSE 4
W										
3B CivE 332 3TE, 1CSE	WKRPT 300	CIV E 332 Civil Engineering Systems	CIV E 306 Mechanics of Solids 3	*CIV E 313 Structural Concrete Design 1	CIV E 343 Traffic Engineering	CIV E 354 Geotechnical Engineering 2	CIV E 381 Hydraulics			CSE 5
F										
4A CIV E 400 CIV E 491 3 TE	WKRPT 400	CIV E 400 Civil Engineering Project 1	CIV E 403 Structural Analysis 2	CIV E 512 Rehabilitation of Structures	CIV E 542 Pavement Structural Engineering		CIV E 572 Waste Water Treatment	CIV E 486 Hydrology		CIV E 491 Engineering Law (CSE 6, List D)
			*CIV E 413 Structural Steel Design	CIV E 414 Structural Concrete Design 2	CIV E 444 Urban Transport Planning					
	S									
4B CIV E 401 4 TE		CIV E 401 Civil Engineering Project 2	CIV E 405 Structural Dynamics	CIV E 507 Building Science and Technology	CIV E 440 Transport Systems Analysis	CIV E 354 Geotechnical Engineering 2	CIV E 381 Hydraulics	CIV E 583 Design of Urban Water Systems	CIV E 422 Finite Element Analysis	
	W		CIV E 415 Structural Systems	CIV E 596 Construction Engineering		CIV E 554 Geotechnical Engineering 3	ENV E 573 Contaminant Transport	ENV E 577 Engineering for Solid Waste Treatment	CIV E 460 Engineering Biomechanics	

* One of CIV E 313 and 413 must be taken. Students interested in structural engineering, mechanics, and construction engineering should take both.

Technical Electives may be taken from other departments subject to the approval of the Associate Chair for Undergraduate Studies.

Complementary Studies Elective requirements: Total six courses, of which two are prescribed (CIV E 292 and CIV E 491).

At least one from List A, one from List B (CIV E 292), at least two from List C, one from List D (CIV E 491).

Core Courses	Technical Elective	Complementary Studies Elective
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