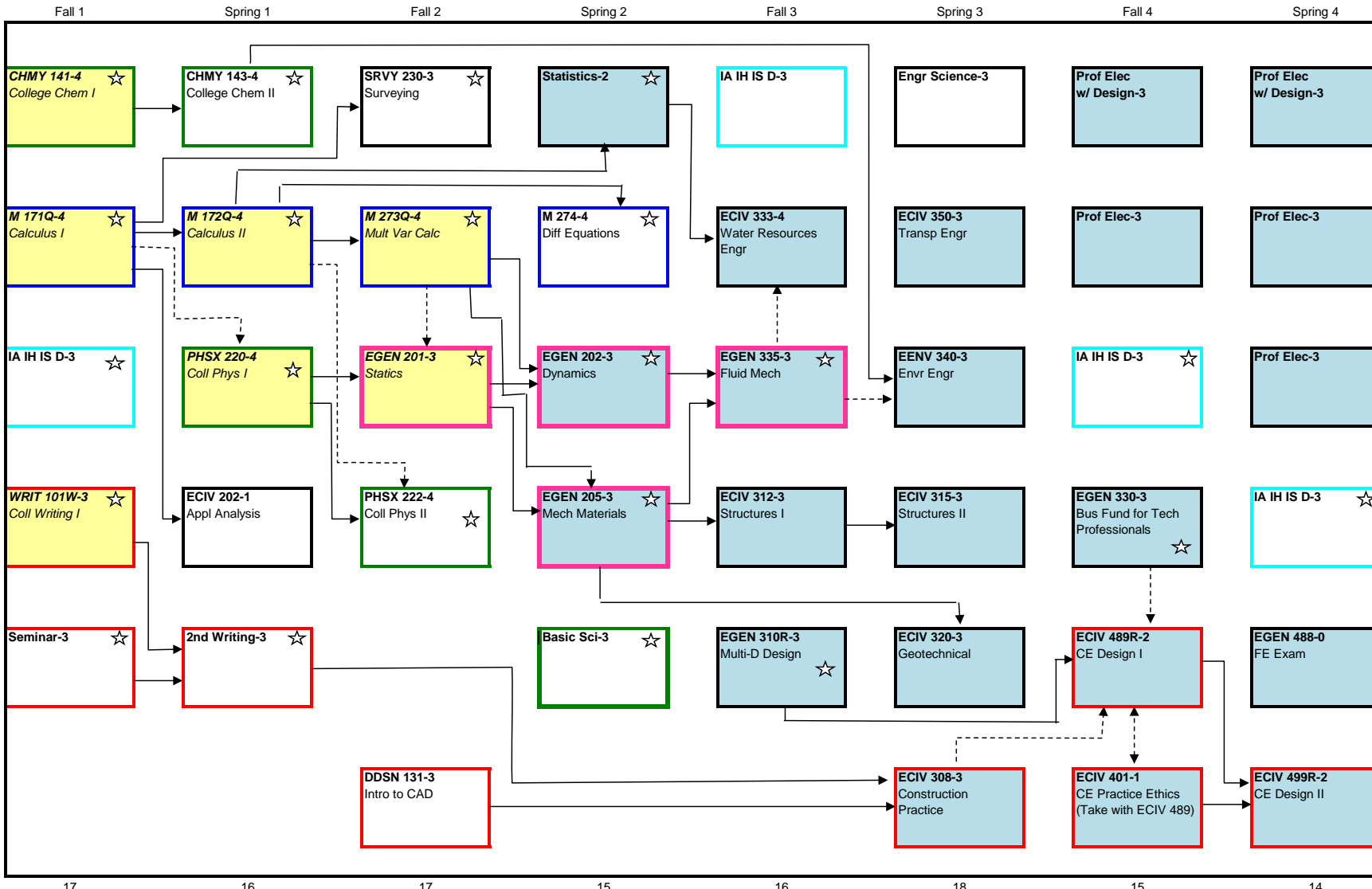


**2018 - 2019 Catalog Degree: Civil Engineering**

Modified: 3/2018



Basic Science Elective: Choose One  
 BIOB 160 (F,S) Princ Liv Sys (4) Pre CHMY 141  
 ENSC 245 (F) Soils (3)  
 EARTH 101 (F,S) Earth System Science(4)  
 GPHY 284 (F,S) Intro to GIS Science and Cartography (3)  
 BIOM 103IN (F,S) Unseen Universe Microbes (3)

Seminar: US 101, CLS 101, COMX 111, HONR 201 (CLS 201US if >30 credits completed, in lieu of 101)  
 2nd Writing: BMGT 205, WRIT 201, WRIT 221, HONR 202  
 Statistics: EGEN 350-2, STAT 332-3  
 ☆ Indicates Summer Offering

Engineering Science Elective: Choose One  
 EMAT 251 (F,S) Matr Struc & Prop (3) Pre CHMY 141, Co M 171  
 EELE 250 (F,S) Circuits (4) Pre M 172  
 EGEN 324 (F,S) Applied Thermodynamics (3) Pre PHSX 220, Co M 172

Student \_\_\_\_\_  
 ID - \_\_\_\_\_  
 Prerequisite → Corequisite - - - - -

**2018-19 Civil Engineering Professional Electives (Total of 15 cr-hrs required)**

	Rubric	Number	Cr Hrs	Title	Offered	Prerequisite
At least two of these.	ECIV	414	3	Steel Design	F odd	ECIV 315 Structures II
	ECIV	415	3	Design of Masonry Structures	S even	ECIV 315 Structures II
	ECIV	416	3	Design of Wood and Timber Structures	S odd	ECIV 315 Structures II
	ECIV	484	3	Reinforced Concrete Design	F even	ECIV 315 Structures II
	ECIV	420	3	Earth and Foundation Engineering	S	ECIV 320 Geotechnical Engineering
	ECIV	425	3	Geotechnical Structures	F	ECIV 320 Geotechnical Engineering
	ECIV	431	3	Open Channel Hydraulics	F	ECIV 333 Water Resources Engineering
	ECIV	435	3	Closed Conduit Hydraulics	S	ECIV 333 Water Resources Engineering
	ECIV	451	3	Highway Pavements	S even	ECIV 350, ECIV 320
	ECIV	452	3	Traffic Engineering and ITS	F odd	ECIV 350, EGEN 350
	ECIV	454	3	Transportation Planning	S odd	ECIV 350, EGEN 350
	ECIV	456	3	Highway Geometric Design	F	ECIV 350, SRVY 230
	ECIV	461	3	Cold Regions Infrastructure Engineering	S	ECIV 320 & EGEN 335 Co-Req: ECIV 308
	EENV	432	3	Advanced Engineering Hydrology	S	ECIV 333 Water Resources Engineering
	EENV	434	3	Groundwater Supply and Remediation	S	EGEN 335 Fluid Mechanics
	EENV	441	3	Natural Treatment Systems	F	EENV 340 Introduction to Environmental Engineering
	EENV	443	3	Air Pollution Control	F even	EENV 340 Introduction to Environmental Engineering
	EENV	445	3	Hazardous Waste Treatment	F odd	EENV 340 Introduction to Environmental Engineering
	EENV	447	3	Hazardous Waste Management	S	EGEN 335 Fluid Mechanics
	SRVY	474	3	Project Design in Surveying	S odd	SRVY 230 Surveying
ECIV	307	3	Constr Estimating and Bidding	F,S	ECIV 202, ECIV 308	
ECIV	309	3	Building Information Modeling in Construction	F,S	ECIV 308 Constr Practice (Co-Req)	
ECIV	311	2	Construction Project Documentation	F,S	ECIV 308	
ECIV	404	3	Heavy Const Equip and Methods	F,S	See Catalog	
ECIV	405	3	Const Proj Planning Scheduling	F,S	ECIV 307	
ECIV	406	3	Sustainability in Construction	S	ECIV 308	
ECIV	455	3	Data Acquisition & Analysis	S even	Knowledge of linear algebra, calculus & statistics	
EENV	440	3	Water Chemistry for Environmental Engineers	F	EENV 340 Introduction to Environmental Engineering	
EGEN	435	3	Fluid Dynamics	S	EGEN 335 Fluid Mechanics	
EGEN	415	3	Advanced Mechanics of Solids	F	EGEN 205 Mechanics of Materials	
SRVY	355	3	Surveying Calculations	S even	SRVY 230 Surveying	
SRVY	361	3	Intro to Legal Principles in Surveying	F even	SRVY 230 Surveying	
SRVY	362	3	Public Land Survey Systems	F odd	SRVY 230 Surveying	
SRVY	375	3	Analyt Photo/Remote Sensing	F odd	M 171 Calculus	
DDSN	245	3	Civil Drafting	F	DDSN 131 or DDSN 101	
ECIV	490	1-4	Undergraduate Research	F,S,Su		
ECIV	492	1-4	Independent Study	F,S,Su		
Max 3 cr total.	ECIV	498	1-3	Career Internship (3 cr max)	Su	
						A petitioned course.
						A course from a completed minor.
						A course from a prior/concurrent BS/BA degree.
						A course from a completed Honors program.