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Questions about whether a specific class meets the requirements for a Technical Elective? Please email your Academic Advisor.

Courses offered through OSU Ecampus do not meet the requirements for Technical Electives in the CE major (except for CCE 422/522).

Students using Federal Financial Aid will receive an email from Financial Aid about any graduate courses they register for. Forward to your Academic Advisor.

Note: Undergraduate students taking graduate courses (500-level) are charged graduate tuition for that course/those courses.

Courses in land surveying and mapping - minimum 16 credits of PLS classes to sit for initial Land Surveying licensing exam, inc a course in survey law.

Civil Engineering 2019 - 2020 Technical Elective Class List

Course	Title	Pre-requisite or *Co-requisite Class(es)	Credits	Su2019	F2019	W2020	S2020
CCE 422/522	Green Building Materials	CCE 321	3			Ideker	
CCE 520 (Cement Chemistry)	Selected Topics: Cement Chemistry	Graduate Standing or Instructor Consent	3				Isgor
CCE 520 (Adv. Concrete Construction)	Special Topics: Advanced Concrete Constr	Graduate Standing or Instructor Consent	4			Trejo	
CCE 520/CCE 499 (Concrete Fundamentals)	Special Topics: Concrete Fundamentals	Graduate Standing or Instructor Consent	4		TBD		
CCE 524	Asphalt Fundamentals		4				Coleri
CCE 525	Construction Site Systems Engineering	Graduate Standing or Instructor Consent	3				Gambatese
CCE 526	Design for Safety	Graduate Standing or Instructor Consent	3		Gambatese		
CEM 341	Construction Estimating I	CE 102 & CCE 201, in Phase II of Registration with Instructor Consent	4				Fradella
CEM 441	Heavy Civil Construction Management	FE 315 or CE 372, in Phase II of Registration with Instructor Consent	4			Louis	Pestana
CEM 442	Building Construction Management	Phase II of Registration with Instructor Consent	4		Pestana		Turkan
CEM 471	Electrical Facilities	Phase II of Registration with Instructor Consent	4		Fradella		
CEM 472	Mechanical Facilities	Phase II of Registration with Instructor Consent	3			Fradella	
CE 365	Highway Location & Design	CE 361	3			C. Simpson	Olsen
CE 413/513	GIS in Water Resources	Senior Standing & CE 202 or other GIS course	3	Arras		Arras	
CE 417/517	Hydraulic Engineering Design	CE 313 with C or better	4				Yeh
CE 424/524	Contracts and Specifications	Phase II of Registration with Instructor Consent	4			Pestana	Pestana
CE 427/527	Temporary Construction Structures	CE 383, CE 372, & CCE 321, in Phase II of Registration with Instructor Consent	4			Gambatese	Martin
CE 460/560	Advanced GIS		3			Arras	
CE 461/561	Photogrammetry	CE 361 or CEM 263 or FE 308 (PLS class)	3			Parrish	
CE 463/563	Control Surveying	CE 361 or CEM 263 or FE 308 (PLS class)	4		C. Simpson		
CE 465/565	Oregon Land Survey Law	CE 361 or CEM 263 or FE 308 (PLS class)	3			C. Simpson	
CE 469/569	Property Surveys	CE 361 or CEM 263 or FE 308 (PLS class)	3				C. Simpson
CE 471	Foundations for Structures	CE 373 or FE 316	3		Evans		
CE 480	Seismic Design		3				Miller
CE 482/582	Masonry Design	CE 481 or equivalent	3			TBD	
CE 484/584	Wood Design	CE 383 or CE 481 & senior standing	4			Martin	
CE 486/586	Prestressed Concrete	CE 481	3				
CE 492/592	Pavement Structures	CE 392	3				Coleri
CE 532	Finite Element Analysis	CE 585 or ME 520	4			Yim	
CE 533	CE 383	CE 383 & Instructor Consent	3				Miller
CE 534	Structural Dynamics	CE 382 & Instructor Consent	4		Simpson		
CE 536	Matrix Structural Analysis	CE 382	4		Scott		
CE 540 Stochastic Hydrology	Selected Topics: Stochastic Hydrology	Graduate Standing or Instructor Consent	4		TBD		
CE 540 (Storm Water Design & Mgmt)	Selected Topics: Storm Water Design & Mgmt	Graduate Standing or Instructor Consent	4			TBD	TBD
CE 544 (Open Channel Flow)	Open Channel Flow	Graduate Standing or Instructor Consent	4			Hill	
CE 547	Water Resources Engrg I: Principles of Fluid Mechanics	Graduate Standing or Instructor Consent & CE 392	4		Istok		
CE 553	Railroad Engineering	Graduate Standing or Instructor Consent	3				Hunter-Zaworski
CE 554	Driving Simulation	CE 595 recommended but not required	3				
CE 560 (Adv. Virtual Design & Constr)	ST: Adv. Virtual Design & Construction	Graduate Standing or Instructor Consent	3				Turkan
CE 560 (Hydrographic Surveying)	Hydrographic Surveying	Graduate Standing or Instructor Consent	4				Parrish
CE 562	Digital Terrain Modeling	Graduate Standing or Instructor Consent	4			Olsen	
CE 564	Global Navigation Satellite System	Graduate Standing or Instructor Consent	4		Park		
CE 566 (3D Laser)	3D Laser Scanning & Imaging	Graduate Standing or Instructor Consent	4		Olsen		
CE 589	Seismic Design	CE 383 or CE 481, and Instructor Consent	4			Miller	
CE 590 (Statistics in Transportation)	Statistics in Transportation	Graduate Standing or Instructor Consent	3		Hernandez		
CE 590 (Engineering Education)	Engineering Education	Graduate Standing or Instructor Consent	3			Brown	
CE 590 (Advanced Traffic Flow Theory)	Advanced Traffic Flow Theory	Graduate Standing or Instructor Consent	3			Wang	
CE 591	Transportation System Analysis, Planning, & Policy	Graduate Standing or Instructor Consent	3				Hernandez
CE 594	Transportation Facility Design	CE 392	4			Hunter-Zaworski	
CE 595	Traffic Operations & Design	Graduate Standing or Instructor Consent. CE 491					
CE 596	Pavement Evaluation & Management	CE 492	3				Coleri
CE 597	Public Transportation	CE 392	4				Hunter-Zaworski
CE 598	Airport Planning	Graduate Standing or Instructor Consent	3		Hunter-Zaworski		
WSE 425	Timber Tectonics Digital Age	N/A - field trip included in course	4				Riggio
WSE 592	Advanced Wood Design		4				Sinha (only offered in even years)

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*****Cannot take ENGR 350 or ENGR 390 as a tech elective*****