

Course offerings subject to change. Check the OSU Online Schedule of Classes each term when registering.

Courses with all grey boxes may not be offered that year. Check the OSU Catalog. <http://catalog.oregonstate.edu/Default.aspx>

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
CCE 422/522	Green Building Materials	CCE 321	3			Ideker
CCE 520 (Cement Chemistry)	Selected Topics: Cement Chemistry	Graduate Standing or Instructor Consent	3			
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			
CCE 525	Construction Site Systems Engineering	Graduate Standing or Instructor Consent	3			
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			
CEM 441	Heavy Civil Construction Management	FE 315 or CE 372, in Phase II of Registration with Instructor Consent	4			Louis
CEM 442	Building Construction Management	Phase II of Registration with Instructor Consent	4		Pestana	
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
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			
CE 424/524	Contracts and Specifications	Phase II of Registration with Instructor Consent	4			Pestana
CE 427/527	Temporary Construction Structures	CE 383, CE 372, & CCE 321, in Phase II of Registration with Instructor Consent	4			Gambatese
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			
CE 471	Foundations for Structures	CE 373 or FE 316	3		Evans	
CE 480	Seismic Design		3			
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			
CE 533	CE 383	CE 383 & Instructor Consent	3			
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
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			
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			
CE 560 (Hydrographic Surveying)	Hydrographic Surveying	Graduate Standing or Instructor Consent	4			
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			
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			
CE 597	Public Transportation	CE 392	4			
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			
WSE 592	Advanced Wood Design		4			

Courses offerings subject to change. Check the OSU Online Schedule of Classes each term when registering.

Courses with all grey boxes may not be offered that year. Check the OSU Catalog. <http://catalog.oregonstate.edu/Default.aspx>

Questions about whether a specific class meets the requirements for a Technical Elective? Please email ccc.advising@oregonstate.edu

Courses offered through OSU Ecampus do not meet the requirements for Technical Electives in the CE major.

Students using Federal Financial Aid will receive an email from Financial Aid about any graduate courses they register for. Forward to ccc.advising@oregonstate.edu

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.

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