Curriculum

☐ **Undergraduate Course**

Classification	Subject No.	Subject Name	Lecture:Lab.: Credit (assignment)	Semester	Remark
Mandatory Major	CE201	Mechanics of Materials	3:0:3(15)	Spring	
	CE208	IT in Construction Engineering	3:0:3	Fall	
	CE230	Soil Mechanics & Laboratory Ⅰ	2:3:3(5)	Spring	
	CE350	Introduction to Transportation Systems Engineering	3:0:3	Spring	
	CE371	Environmental Science and Engineering	3:1:3(8)	Spring	
Elective Major	CE202	Structural Mechanics I	3:0:3(6)	Fall	
	CE203	Fluid Mechanics & Hydraulics	3:0:3(8)	Spring	
	CE206	Introduction to Sustainable Engineering	3:0:3	Spring	
	CE207	Elementary Structural Engineering and Laboratory	2:3:3(14)	Fall	
	CE210	Evolution of Space & Structures	3:0:3	Spring	
	CE219	Signals and systems for Construction IT	3:0:3	Spring	
	CE231	Soil Mechanics and Laboratory Ⅱ	2:3:3(5)	Fall	
	CE241	Design Representation Techniques	3:0:3	Fall	
	CE273	Environmental Microbiology	3:2:3	Fall	
	CE291	Introduction to Geomatics Engineering	3:2:3(10)	Fall	
	CE303	Vibration Engineering	3:1:3(12)	Spring	
	CE312	Structural Mechanics Ⅱ	3:0:3(5)	Spring	
	CE314	Design of Reinforced Concrete Structures	3:0:3(6)	Fall	
	CE315	Reinforced Concrete and Laboratory	2:3:3(5)	Spring	
	CE331	Rock Mechanics	3:0:3(4)	Fall	
	CE332	Foundation Engineering.	3:0:3(7)	Spring	
	CE333	Soil Dynamics	3:1:3(7)	Fall	
	CE351	Civil and Environmental Engineering Data Analysis	2:3:3	Spring	
	CE355	Introduction to Smart Transportation Systems	3:0:3	Fall	
	CE372	Water and Wastewater Engineering	3:0:3(8)	Fall	
	CE373	Hydrology	3:0:3(15)	Fall	
	CE376	Solid Waste Management & Soil Remediation	3:1:3(6)	Fall	
	CE393	Construction Management	3:0:3	Fall	
	CE410	Making of Ubiquitous Space	3:0:3	Fall	**
	CE412	Design of Steel Structures	3:0:3	Fall	**
	CE413	Prestressed Concrete	3:1:3(4)	Fall	**
	CE417	Structural Design of Building	3:1:3(5)	Fall	**
	CE419	Experimental Vibration Engineering	1:6:3	Fall	**
	CE435	Geotechnical Engineering Design Ⅰ	3:0:3(6)	Spring	**
	CE436	Geotechnical Engineering Design Ⅱ	3:0:3(6)	Fall	**
	CE440	Urban Planning	3:0:3	Spring	**
	CE443	Building environment	3:0:3	Spring	
	CE445	Sustainable Architectural Design	3:0:3	Spring	**
	CE471	Water Resources and Groundwater Engineering	3:1:3(5)	Spring	**
	CE472	Remediation System Design and Engineering	3:1:3(6)	Spring	**
	CE474	U-Eco Policy & Management Engineering	3:1:3(8)	Spring	**

Classification	Subject No.	Subject Name	Lecture:Lab.: Credit (assignment)	Semester	Remark
	CE481	Special Topics in Civil and Environmental Engineering	3:0:3	Spring	**
	CE482	Short course in Civil and Environmental Engineering I	1:0:1		
	CE483	Short course in Civil and Environmental Engineering II	2:0:2		
Research	CE490	B.S. Thesis Research	0:6:3		
	CE495	Individual Study	0:6:1		

※ Note: ** stands for courses open to both undergraduate and graduate students

❏ Graduate Course

Classification	Subject No.	Subject Name	Lecture:Lab.: Credit (Homework)	Semester	Remark
Mandatory General	CC010	Special Lecture on Leadership	1:0:0	Fall	
	CC020	Ethics and Safety I	1AU	Spring · Fall	
	CC510	Introduction to Computer Application	2:3:3	Spring · Fall	
	CC511	Probability and Statistics	2:3:3	Spring · Fall	
	CC512	Introduction to Materials and Engineering	3:0:3	Spring · Fall	
Elective	CE501	Advanced Mechanics of Solids	3:0:3(5)	Spring	**
	CE502	Advanced Soil Mechanics	3:1:3(4)	Spring	**
	CE504	Advanced Environmental Chemistry	3:1:3(12)	Fall	**
	CE505	Applied Mathematics	3:0:3	Spring	**
	CE514	Structural Dynamics	3:1:3(12)	Spring	**
	CE515	Mechanics of Composite Materials	3:1:3(12)	Spring	
	CE516	Finite Element Analysis	3:1:3(6)	Spring	
	CE518	Reliability Analysis of Structures	3:0:3(8)	Fall	**
	CE519	Bridge Engineering & Design	3:1:3(6)	Fall	**
	CE520	Introduction to Smart Structure Technology	2:3:3(5)	Fall	**
	CE531	Geotechnical Experiments	1:6:3(6)	Summer	**
	CE532	Rock Engineering with IT	3:1:3(4)	Fall	**
	CE533	Site Investigation and IT based Monitoring	3:1:3(6)	Fall	**
	CE534	Analysis of Soil Behavior by IT	3:0:3(4)	Fall	
	CE536	Design of Underground Structures	3:1:3(4)	Spring	
	CE539	Earth Retaining Structures for U-Space	3:0:3(4)	Fall	**
	CE541	Sustainable Infrastructure Systems Engineering	3:0:3	Spring	**
	CE545	Data, Decision and System Analysis	3:0:3	Spring	
	CE547	Transportation System analysis and Operations	3:0:3	Spring	**
	CE548	Transportation Policy and Legislation	3:0:3	Fall	**
	CE551	Soft Computing Techniques for Engineering Design	3:0:3	Spring	**
	CE553	IT for U-Space	3:0:3	Spring	**
	CE554	Mechanical Design of Civil Robot	3:0:3	Fall	**
	CE556	Intelligent Control for Construction IT	3:0:3	Spring	**
	CE558	Introduction to Civil Robotics	3:0:3	Spring	**
	CE560	Environmental Design for U-Eco Spaces	3:0:3	Spring	**
	CE561	SOC(Social Overhead Capital) Policy	3:0:3	Fall	**
	CE562	Ubiquitous & Biomimetic Building Engineering	3:0:3	Spring	**
	CE563	Intelligent U-Space Transportation Systems	3:0:3	Fall	**
	CE569	Human thermal environments	3:0:3	Spring	**
	CE571	Environmental Engineering Laboratory	1:6:3(10)	Summer	**
	CE572	U-Space System Environmental Biotechnology and Bioenergy	3:0:3	Fall	**
	CE573	Advanced Wastewater Treatment	3:1:3(6)	Spring	**
	CE574	U-Space Environmental Nanotechnology	3:0:3	Fall	
	CE577	Integrated Water Resources Management	3:1:3(5)	Fall	**
	CE579	Hazardous and Industrial Waste Treatment	3:1:3(8)	Fall	
	CE580	Structural Pattern Recognition for Statistical Health Monitoring	2:3:3	Fall	**

Classification	Subject No.	Subject Name	Lecture:Lab.: Credit (Homework)	Semester	Remark
	CE590	Design of Unique, Complex Systems: Theory and Application	3:1:3	Spring	**
	CE592	Theory Methodology and Philosophy in Engineering Design	3:1:3	Fall	**
	CE596	Special Topics in Structural Engineering Design for U-Space	2:3:3	Fall	
	CE597	Special Topics in Geotechnical Engineering Design for U-Space	3:1:3(4)	Spring	
	CE598	Special Topics in Environmental Engineering Design for U-Space	3:1:3(4)	Spring	
	CE599	Special Topics in U-Space Construction IT Design	3:0:3	Fall	**
	CE611	Inelastic Analysis of Reinforced Concrete Structures	3:1:3(6)	Fall	
	CE614	Stability of Structures for U-Space	3:1:3(6)	Spring	
	CE617	Earthquake Engineering	3:1:3(8)	Spring	
	CE619	Vibration Control of Structures	3:1:3(12)	Fall	
	CE631	Advanced Numerical Soil Mechanics	2:3:3(6)	Fall	
	CE633	Advanced Soil Dynamics	3:1:3(6)	Spring	
	CE634	Signal Processing for Civil Engineering	3:0:3(4)	Spring	
	CE636	Geotechnical Earthquake Engineering & Design	3:0:3(4)	Spring	
	CE637	Theory of Geophysics	3:0:3(4)	Fall	
	CE672	U-Space Advanced Environmental Unit Processes	3:1:3(5)	Fall	
	CE673	Advanced Environmental Remediation Engineering	3:1:3(8)	Spring	**
Research	CE960	M.S. Thesis			
	CE966	M.S. Seminar	1:0:1		
	CE980	Ph.D. Thesis			
	CE986	Ph.D. Seminar	1:0:1		

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