Curriculum

☐ **Undergraduate Course**

Classification	Subject No.	Code	Subject Name	Lecture:Lab.:Credit (assignment)	Semester	Remark
Mandatory Major	CE201	37.201	Mechanics of Materials	3:0:3(15)	Spring	
	CE206	37.206	Introduction to Sustainable Engineering	3:0:3	Spring	
	CE208	37.208	IT in Construction Engineering	3:0:3	Fall	
Elective Major	CE202	37.202	Structural Mechanics	3:0:3(6)	Fall	
	CE203	37.203	Fluid Mechanics & Hydraulics	3:0:3(8)	Spring	
	CE207	37.207	Elementary Structural Engineering and Laboratory	2:3:3(14)	Fall	
	CE210	37.210	Evolution of Space & Structures	3:0:3	Spring	
	CE219	37.219	Signals and systems for Construction IT	3:0:3	Spring	
	CE230	37.230	Soil Mechanics and Laboratory Ⅰ	2:3:3(5)	Spring	
	CE231	37.231	Soil Mechanics and Laboratory Ⅱ	2:3:3(5)	Fall	
	CE241	37.241	Design Representation Techniques	3:0:3	Fall	
	CE273	37.273	Environmental Microbiology	3:2:3	Fall	
	CE291	37.291	Introduction to Geomatics Engineering	3:2:3(10)	Fall	
	CE303	37.303	Vibration Engineering	3:1:3(12)	Spring	
	CE312	37.312	Structural Mechanics Ⅱ	3:0:3(5)	Spring	
	CE314	37.314	Design of Reinforced Concrete Structures	3:0:3(6)	Fall	
	CE315	37.315	Reinforced Concrete and Laboratory	2:3:3(5)	Spring	
	CE331	37.331	Rock Mechanics	3:0:3(4)	Fall	
	CE332	37.332	Foundation Engineering.	3:0:3(7)	Spring	
	CE333	37.333	Soil Dynamics	3:1:3(7)	Fall	
	CE350	37.350	Introduction to Transportation Systems Engineering	3:0:3	Spring	
	CE355	37.355	Introduction to Smart Transportation Systems	3:0:3	Fall	
	CE371	37.371	Environmental Chemistry	3:1:3(8)	Spring	
	CE372	37.372	Water and Wastewater Engineering	3:0:3(8)	Fall	
	CE373	37.373	Hydrology	3:0:3(15)	Fall	
	CE376	37.376	Solid Waste Management & Soil Remediation	3:1:3(6)	Fall	
	CE393	37.393	Construction Management	3:0:3	Fall	

Classification	Subject No.	Code	Subject Name	Lecture:Lab.: Credit (Homework)	Semester	Remark
Elective	CE410	37.410	Making of Ubiquitous Space	3:0:3	Fall	**
Major	CE412	37.412	Design of Steel Structures	3:0:3	Fall	**
	CE413	37.413	Prestressed Concrete	3:1:3(4)	Fall	**
	CE417	37.417	Structural Design of Building	3:1:3(5)	Fall	**
	CE419	37.419	Experimental Vibration Engineering	1:6:3	Fall	**
	CE435	37.435	Geotechnical Engineering Design Ⅰ	3:0:3(6)	Spring	**
	CE436	37.436	Geotechnical Engineering Design Ⅱ	3:0:3(6)	Fall	**
	CE440	37.440	Urban Planning	3:0:3	Spring	**
	CE443	37.443	Building environment	3:0:3	Spring	
	CE445	37.445	Sustainable Architectural Design	3:0:3	Spring	
	CE471	37.471	Water Resources and Groundwater Engineering	3:1:3(5)	Spring	**
	CE472	37.472	Remediation System Design and Engineering	3:1:3(6)	Spring	**
	CE474	37.474	U-Eco Policy & Management Engineering	3:1:3(8)	Spring	**
	CE481	37.481	Special Topics in Civil and Environmental Engineering	3:0:3	Spring	
	CE482	37.482	Short course in Civil and Environmental Engineering Ⅰ	1:0:1		
	CE483	37.483	Short course in Civil and Environmental Engineering Ⅱ	2:0:2		
Research	CE490	37.490	B.S. Thesis Research	0:6:3		
	CE495	37.495	Individual Study	0:6:1		
	CE498	37.498	Venture Internship	0:4M:4		
	CE499	37.499	Venture Internship	0:2M:2		

※ ** courses credits can be counted as master courses credits

❑ Graduate Course

Classification	Subject No.	Code	Subject Name	Lecture:Lab.: Credit (Homework)	Semester	Remark
Mandatory Basic Courses	CC010	11.010	Special Lecture on Leadership	1:0:0	Fall	
	CC020	11.020	Ethics and Safety I	1AU	Spring · Fall	
	CC510	11.510	Introduction to Computer Application	2:3:3	Spring · Fall	
	CC511	11.511	Probability and Statistics	2:3:3	Spring · Fall	
	CC512	11.512	Introduction to Materials and Engineering	3:0:3	Spring · Fall	
Elective Major	CE501	37.501	Advanced Mechanics of Solids	3:0:3(5)	Spring	**
	CE502	37.502	Advanced Soil Mechanics	3:1:3(4)	Spring	**
	CE504	37.504	Advanced Environmental Chemistry	3:1:3(12)	Spring	**
	CE505	37.505	Applied Mathematics	3:0:3	Spring	**
	CE514	37.514	Structural Dynamics	3:1:3(12)	Spring	**
	CE515	37.515	Mechanics of Composite Materials	3:1:3(12)	Spring	
	CE516	37.516	Finite Element Analysis	3:1:3(6)	Spring	
	CE518	37.518	Reliability Analysis of Structures	3:0:3(8)	Fall	**
	CE519	37.519	Bridge Engineering	3:1:3(6)	Fall	**
	CE520	37.520	Introduction to Smart Structure Technology	2:3:3(5)	Fall	**
	CE531	37.531	Geotechnical Experiments	1:6:3(6)	Summer	**
	CE532	37.532	Rock Engineering	3:1:3(4)	Fall	**
	CE533	37.533	Site Investigation and Monitoring	3:1:3(6)	Spring	**
	CE534	37.534	Theoretical Soil Mechanics	3:0:3(4)	Fall	
	CE536	37.536	Underground Structures	3:1:3(4)	Spring	
	CE539	37.539	Earth Retaining Structures for U-space	3:0:3(4)	Fall	**
	CE547	37.547	Transportation System analysis and Operations	3:0:3	Spring	**
	CE548	37.548	Transportation Policy and Legislation	3:0:3	Fall	**
	CE551	37.551	Soft Computing Techniques for Engineering Design	3:0:3	Spring	**
	CE553	37.553	IT for U-Space	3:0:3	Fall	**
	CE554	37.554	Mechanical Design of Civil Robot	3:0:3	Fall	**
	CE556	37.556	Intelligent Control forConstruction IT	3:0:3	Spring	**
	CE558	37.558	Introduction to Civil Robotics	3:0:3	Fall	**
	CE560	37.560	Environmental Design for U-Eco Spaces	3:0:3	Spring	**
	CE561	37.561	SOC(Social Overhead Capital) Policy	3:0:3	Fall	**
	CE562	37.562	Ubiquitous & Biomimetic Building Engineering	3:0:3	Spring	**
	CE563	37.563	Intelligent U-Space Transportation Systems	3:0:3	Fall	**
	CE569	37.569	Human thermal environments)	3:0:3	Spring	**
	CE571	37.571	Environmental Engineering Laboratory	1:6:3(10)	Summer	**
	CE572	37.572	Advanced Environmental Microbiology for U-space	3:0:3	Fall	**
	CE573	37.573	Advanced Wastewater Treatment	3:1:3(6)	Spring	
	CE574	37.574	Environmental Nanotechnology	3:0:3	Spring	

Classification	Subject No.	Code	Subject Name	Lecture:Lab.: Credit (Homework)	Semester	Remark
Elective	CE577	37.577	Integrated Water Resources Management	3:1:3(5)	Fall	**
	CE579	37.579	Hazardous and Industrial Waste Treatment	3:1:3(8)	Fall	
	CE580	37.580	Structural Pattern Recognition for Statistical Health Monitoring	2:3:3	Fall	**
	CE590	37.590	Design of Unique, Complex Systems: Theory and Application	3:1:3	Spring	**
	CE592	37.592	Theory Methodology and Philosophy in Engineering Design	3:1:3	Fall	**
	CE596	37.596	Special Topics in Structural Engineering Design for U-Space	2:3:3	Spring	
	CE597	37.597	Special Topics in Geotechnical Engineering Design for U-Space)	3:1:3(4)	Spring	
	CE598	37.598	Special Topics in Environmental Engineering Design for U-Space	3:1:3(4)	Spring	
	CE599	37.599	Special Topics in U-Space Construction IT Design	3:0:3	Fall	**
	CE611	37.611	Inelastic Analysis of Reinforced Concrete Structures	3:1:3(6)	Fall	
	CE614	37.614	Stability of Structures for U-Space	3:1:3(6)	Spring	
	CE617	37.617	Earthquake Engineering	3:1:3(8)	Spring	
	CE619	37.619	Vibration Control of Structures	3:1:3(12)	Fall	
	CE631	37.631	Advanced Numerical Soil Mechanics	2:3:3(6)	Fall	
	CE633	37.633	Advanced Soil Dynamics	3:1:3(6)	Spring	
	CE634	37.634	Signal Processing for Civil Engineering	3:0:3(4)	Spring	
	CE636	37.636	Geotechnical Earthquake Engineering	3:0:3(4)	Fall	
	CE637	37.637	Theory of Geophysics	3:0:3(4)	Fall	
	CE672	37.672	Advanced Environmental Unit Processes	3:1:3(5)	Fall	
	CE673	37.673	Advanced Environmental Remediation Engineering	3:1:3(8)	Fall	
Research	CE960	37.960	M.S. Thesis			
	CE966	37.966	M.S. Seminar	1:0:1		
	CE980	37.980	Ph.D. Thesis			
	CE986	37.986	Ph.D. Seminar	1:0:1		

※ ** courses can be counted as either Bachelor or Master courses credits.