

Below is the **TENTATIVE** two-year course offering plan

Course Code	Course Title	2026 Fall	2027 Spring	2027 Fall	2028 Spring
CIVL 1100	Discovering Civil and Environmental Engineering	✓ (Fall) ✓ (Summer)		✓ (Fall) ✓ (Summer)	
CIVL 1121	Introduction to Computation for Civil Engineers		✓		✓
CIVL 1140	Environment and Society: Sustainable Development Goals and Carbon Neutrality	✓		✓	
CIVL 1141	Sustainable Environmental System		✓		✓
CIVL 1161	Building the Future: Civil Engineering Challenges & Solutions		✓		✓
CIVL 1180	Monitoring Changing Climate from Space	✓		✓	
CIVL 1190	Climate Change, Big History and Sustainability	✓		✓	
CIVL 1210	Fundamental of Green Buildings		✓ (Spring) ✓ (Summer)		✓ (Spring) ✓ (Summer)
CIVL 1230	AI in Smart City and Environment		✓		✓
CIVL 2020	Industrial and BIM Training		✓		
CIVL 2021	Industrial Training: BIM, Drawing, Surveying, and Sustainability		✓		✓
CIVL 2035	Mathematical Methods for Civil Engineers	✓		✓	
CIVL 2110	Statics	✓	✓	✓	✓
CIVL 2120	Mechanics of Materials		✓ (Spring) ✓ (Summer)		✓ (Spring) ✓ (Summer)
CIVL 2160	Modeling Systems with Uncertainties	✓		✓	
CIVL 2170	Infrastructure Systems Engineering and Management		✓		✓
CIVL 2410	Environmental Assessment and Management		✓		✓
CIVL 2510	Fluid Mechanics		✓		✓
CIVL 2810	Construction Materials	✓		✓	
CIVL 3210	Introduction to Construction Management		✓		✓
CIVL 3310	Structural Analysis	✓		✓	
CIVL 3320	Reinforced Concrete Design		✓		✓
CIVL 3420	Water and Wastewater Engineering		✓		✓
CIVL 3510	Hydrosystems Engineering	✓		✓	
CIVL 3610	Traffic and Transportation Engineering		✓		✓
CIVL 3730	Fundamentals of Geotechnics	✓		✓	
CIVL 3740	Geotechnical Analysis and Design		✓		✓
CIVL 4100M	Design of Timber Structures				✓
CIVL 4100P	Resource Recovery from Bioresources		✓		
CIVL 4100V	Green Technology for Sustainable Development	✓			
CIVL 4210	Advanced Construction with AI and Robotics	✓		✓	
CIVL 4310	Energy System Modelling for Buildings and Cities	✓		✓	
CIVL 4320	Structural Steel Design	✓		✓	
CIVL 4330	Introduction to Structural Dynamics		✓	✓	
CIVL 4340	Prestressed Concrete Design		✓		✓
CIVL 4370	Computer Methods of Structural Analysis	✓		✓	
CIVL 4380	Introduction to Wind Effects on Buildings and Structures	✓			
CIVL 4430	Environmental Impact Assessment		✓		✓
CIVL 4450	Carbon Footprint Analysis and Reduction		✓		✓
CIVL 4460	Process Design of Environmental Engineering Facilities	✓		✓	
CIVL 4470	Air Quality Control and Management	✓		✓	
CIVL 4480	Climate Modeling and Risk Assessment		✓		
CIVL 4530	Applications of Artificial Intelligence in Remote Sensing		✓		
CIVL 4610	Introduction to Data Analytics for Smart Transportation Systems	✓		✓	
CIVL 4620	Transportation System Operations	✓		✓	
CIVL 4640	Introduction to Smart City Economics		✓		✓
CIVL 4660	Geographic Information System for Smart City	✓		✓	
CIVL 4700	Engineering Geology			✓	
CIVL 4710	Soil Slope Engineering		✓		✓
CIVL 4750	Numerical Solutions to Geotechnical Problems	✓		✓	
CIVL 4760	Introduction to Rock Mechanics	✓			
CIVL 4810	Construction Materials Technology	✓		✓	
CIVL 4950	Civil Engineering Capstone Design Project	✓		✓	
CIVL 5110	Engineering Risk, Reliability and Decision		✓		
CIVL 5210	Principles of Project Finance				✓
CIVL 5220	BIM and Digital Construction	✓		✓	
CIVL 5230	Finance and Operations in Civil Engineering		✓		
CIVL 5321	Structural Sensing and Health Monitoring	✓			
CIVL 5350	Bridge Engineering			✓	
CIVL 5390	Finite Element Methods	✓			
CIVL 5410	Physical-Chemical Water/Wastewater Treatment			✓	
CIVL 5430	Aquatic Chemistry		✓		✓
CIVL 5450	Hazardous Waste Treatment and Site Remediation	✓			
CIVL 5460	Landfill Engineering and Design		✓		✓
CIVL 5510	Hydroclimate Data Analysis and Modelling				✓
CIVL 5530	Turbulence Processes in Hydrosystems				✓
CIVL 5550	Modeling Fluid Systems		✓		
CIVL 5610	Urban Transportation Networks Analysis	✓		✓	
CIVL 5620	Travel Demand Analysis	✓			
CIVL 5640	Discrete Choice Experiments and Data Analysis		✓		
CIVL 5710	Advanced Soil Mechanics	✓			✓
CIVL 5720	Advanced Foundation Design				✓
CIVL 5730	Theoretical and Computational Soil Mechanics	✓			
CIVL 5750	Geotechnical Earthquake Engineering and Soil Dynamics	✓			
CIVL 5760	Geotechnical Site Characterization	✓		✓	
CIVL 5770	Unsaturated Soil Mechanics and Engineering			✓	
CIVL 5830	Advanced Mechanics of Materials				✓
CIVL 5840	Advanced Concrete Technology		✓		✓
CIVL 6100R	Climate Change and Climate Modeling				✓
CIVL 6100S	Introduction to Uncertainty Quantification		✓		✓
CIVL 6100U	Biological Waste Treatment and Resource Recovery	✓		✓	
CIVL 6100V	Membrane Science & Technology	✓			