

Civil Engineering										
	Course Number and Title		AU	Math+ NS	Math	Natural Science	Comp. Studies	Eng'g Science	Eng'g Design	ES+ED
1A	CHE102	Chemistry for Engineers	48.0	48.0	0.0	48.0	0.0	0.0	0.0	0.0
	CIVE100	Civil Engineering Concepts 1	60.0	0.0	0.0	0.0	20.0	20.0	20.0	40.0
	CIVE104	Mechanics 1	24.0	18.0	0.0	18.0	0.0	6.0	0.0	6.0
	CIVE115	Linear Algebra	24.0	24.0	24.0	0.0	0.0	0.0	0.0	0.0
	MATH116	Calculus 1 for Engineering	48.0	48.0	48.0	0.0	0.0	0.0	0.0	0.0
1B	CIVE105	Mechanics 2	60.0	15.0	0.0	15.0	0.0	45.0	0.0	45.0
	CIVE121	Computational Methods	48.0	12.0	12.0	0.0	0.0	36.0	0.0	36.0
	CIVE153	Earth Engineering	54.0	21.6	0.0	21.6	0.0	21.6	10.8	32.4
	GENE123	Electrical Circuits & Instrumentation	51.0	12.8	0.0	12.8	0.0	38.3	0.0	38.3
	MATH118	Calculus 2 For Engineering	48.0	48.0	48.0	0.0	0.0	0.0	0.0	0.0
2A	CIVE204	Solid Mechanics 1	48.0	0.0	0.0	0.0	0.0	36.0	12.0	48.0
	CIVE221	Advanced Calculus	42.0	31.5	31.5	0.0	0.0	10.5	0.0	10.5
	CIVE224	Probability and Statistics	42.0	21.0	21.0	0.0	0.0	21.0	0.0	21.0
	CIVE241	Transport Principles & Applications	42.0	0.0	0.0	0.0	0.0	21.0	21.0	42.0
	CIVE265	Structure and Properties of Materials	48.0	14.4	0.0	14.4	0.0	33.6	0.0	33.6
2B	CIVE205	Solid Mechanics 2	48.0	0.0	0.0	0.0	0.0	48.0	0.0	48.0
	CIVE222	Differential Equations	42.0	29.4	29.4	0.0	0.0	12.6	0.0	12.6
	CIVE230	Engineering & Sustainable Development	42.0	10.5	0.0	10.5	10.5	10.5	10.5	21.0
	CIVE280	Fluid Mechanics	46.0	11.5	0.0	11.5	0.0	23.0	11.5	34.5
	CIVE392	Economics and Life Cycle Analysis	42.0	0.0	0.0	0.0	42.0	0.0	0.0	0.0
3A	CIVE303	Structural Analysis 1	42.0	0.0	0.0	0.0	0.0	42.0	0.0	42.0
	CIVE332	Civil Systems and Project Management	42.0	10.5	10.5	0.0	0.0	21.0	10.5	31.5
	CIVE341	Transportation Engineering Applications	42.0	0.0	0.0	0.0	0.0	21.0	21.0	42.0
	CIVE353	Geotechnical Engineering 1	54.0	0.0	0.0	0.0	0.0	54.0	0.0	54.0
	CIVE382	Hydrology and Open Channel Flow	44.0	11.0	0.0	11.0	0.0	22.0	11.0	33.0
	WkRpt200	Work-term Report	11.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3B	CIVE310	Introduction to Structural Design	62.0	0.0	0.0	0.0	0.0	15.5	46.5	62.0
	CIVE375	Environmental Engineering Principles	48.0	19.2	0.0	19.2	0.0	28.8	0.0	28.8
	WkRpt300	Work-term Report	11.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4A	CIVE491	Engineering Law and Ethics	36.0	0.0	0.0	0.0	36.0	0.0	0.0	0.0
	CIVE400	Civil Engineering Project 1	44.7	0.0	0.0	0.0	0.0	0.0	44.7	44.7
	WkRpt400	Work-term Report	11.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4B	CIVE401	Civil Engineering Project 2	44.7	0.0	0.0	0.0	0.0	0.0	44.7	44.7

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<b>Lis A (Engineering Design Electives)</b>	CIVE343	Traffic Simulation Modelling & Applications	42.0	0.0	0.0	0.0	0.0	21.0	21.0	42.0
	CIVE354	Geotechnical Engineering 2	42.0	0.0	0.0	0.0	0.0	10.5	31.5	42.0
	CIVE413	Structural Steel Design	42.0	0.0	0.0	0.0	0.0	10.5	31.5	42.0
	CIVE414	Structural Concrete Design	42.0	0.0	0.0	0.0	0.0	10.5	31.5	42.0
	CIVE596	Construction Engineering	42.0	0.0	0.0	0.0	12.6	16.8	12.6	29.4
	CIVE415	Structural Systems Design	42.0	0.0	0.0	0.0	0.0	0.0	42.0	42.0
	CIVE460	Engineering Biomechanics	42.0	14.7	0.0	14.7	0.0	14.7	12.6	27.3
	CIVE512	Rehabilitation of Structures	45.0	11.3	0.0	11.3	0.0	22.5	11.3	33.8
	CIVE542	Pavement Structural Design	42.0	0.0	0.0	0.0	0.0	0.0	42.0	42.0
	CIVE554	Geotechnical Engineering 3	42.0	0.0	0.0	0.0	0.0	0.0	42.0	42.0
	CIVE583	Design of Urban Water Systems	42.0	0.0	0.0	0.0	0.0	10.5	31.5	42.0
ENVE577	Engineering for Solid Waste Management	48.0	0.0	0.0	0.0	0.0	14.4	33.6	48.0	
<b>Lis B (Tech Electives)</b>	CIVE306	Mechanics of Solids 3	42.0	0.0	0.0	0.0	0.0	31.5	10.5	42.0
	ENVE277	Air Quality Engineering	42.0	0.0	0.0	0.0	0.0	31.5	10.5	42.0
	ENVE279	Energy and the Environment	42.0	10.5	0.0	10.5	0.0	21.0	10.5	31.5
	ARCH277	Timber: Design, Structure & Construction	36.0	0.0	0.0	0.0	0.0	18.0	18.0	36.0
	CIVE484	Physical Infrastructure and Planning	42.0	10.5	0.0	10.5	10.5	10.5	10.5	21.0
	CIVE422	Finite Element Analysis	42.0	21.0	10.5	10.5	0.0	21.0	0.0	21.0
	CIVE440	Transit Planning and Operations	42.0	0.0	0.0	0.0	10.5	21.0	10.5	31.5
	CIVE505	Structural Dynamics	42.0	0.0	0.0	0.0	0.0	31.5	10.5	42.0
	CIVE507	Building Science and Technology	42.0	10.5	0.0	10.5	0.0	21.0	10.5	31.5
	ENVE383	Advanced Hydrology & Hydraulics	44.0	0.0	0.0	0.0	0.0	33.0	11.0	44.0
	ENVE573	Contaminant Transport	42.0	0.0	0.0	0.0	0.0	42.0	0.0	42.0
CIVE497	Special topics: GIS applications	36.0	0.0	0.0	0.0	0.0	9.0	9.0	18.0	

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<b>List C (Natural Science Tech Elevtives)</b>	BIOL150	Organismal and Evolutionary Ecology	36.0	36.0	0.0	36.0	0.0	0.0	0.0	0.0
	BIOL240	Fundamentals of Microbiology	36.0	36.0	0.0	36.0	0.0	0.0	0.0	0.0
	BIOL273	Principles of Human Physiology 1	36.0	36.0	0.0	36.0	0.0	0.0	0.0	0.0
	CHE161	Engineering Biology	42.0	42.0	0.0	42.0	0.0	0.0	0.0	0.0
	CHEM209	Introductory Spectroscopy and Structure	42.0	42.0	0.0	42.0	0.0	0.0	0.0	0.0
	CHEM217	Chemical Bonding	44.7	44.7	0.0	44.7	0.0	0.0	0.0	0.0
	CHEM262	Organic Chemistry for Engineering and Bioninformatics Students	42.0	42.0	0.0	42.0	0.0	0.0	0.0	0.0
	EARTH221	Geochemistry 1	42.0	31.5	0.0	31.5	0.0	10.5	0.0	10.5
	EARTH270	Disasters and Natural Hazards	36.0	36.0	0.0	36.0	0.0	0.0	0.0	0.0
	EARTH281	Geological Impacts on Human Health	36.0	36.0	0.0	36.0	0.0	0.0	0.0	0.0
	ENVS200	Field Ecology	42.0	42.0	0.0	42.0	0.0	0.0	0.0	0.0
	KIN100	Human Anatomy	36.0	28.8	0.0	28.8	0.0	7.2	0.0	7.2
	PHYS124	Modern Physics	42.0	42.0	0.0	42.0	0.0	0.0	0.0	0.0
	PHYS125	Physics for Engineers	48.0	48.0	0.0	48.0	0.0	0.0	0.0	0.0
	SCI238	Introductory Astronomy	36.0	36.0	0.0	36.0	0.0	0.0	0.0	0.0