

**Civil and Environmental Engineering
Tentative Five Year Course Planner**

9/29/2016

Course	Course Title	CREDIT	VIDEO STREAM	Summer 2016	Fall 2016	Spring 2017	Summer 2017	Fall 2017	Spring 2018	Summer 2018	Fall 2018	Spring 2019	Summer 2019	Fall 2019	Spring 2020	Summer 2020	Fall 2020	Spring 2021	Summer 2021	Fall 2021	Spring 2022	Course Coordinator					
CCE 3930H	SYS ANALYSIS SUSTAINABILITY	3	3,0			●			□						●							●	Tatari				
CCE 4003	INTRO TO CONST IND	3	3,0	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Tatari/Fries			
CCE 4004	CONSTRUCTION METHODS	3	3,0			●			●			●			●			●				●	Tatari				
CCE 4034	CONS EST & SCHEDULE	3	3,0					●			●				●			●				●	Oloufa				
CCE 4402	CONSTR EQUIPMT & PROD	3	3,0			●			●			●			●			●				●	Oloufa				
CCE 4810C	CONSTR ENGR DESIGN	3	2,2			●			●			●			●			●				●	Oloufa/Chair				
CCE 4813	MECH & ELECT SYS BLDGS	4	4,0			●			●			●			●			●				●	Oloufa/Swami				
CCE 5006	INFRASTRUCTURE SYS MGMT	3	3,0	✓		●					●						●						Oloufa				
CCE 5205	DECISION SUPPORT INFRA PROJ	3	3,0	✓																							
CCE 5220	GREEN DESIGN & CONSTRUCTION	3	3,0	✓		●						●							●				Tatari				
CCE 6036	ADV CONS PLAN + CONTROL	3	3,0	✓		●						●							●				Oloufa				
CCE 6045	COST ANALY SUSTAIN SYSTEMS	3	3,0	✓							●							●					Tatari				
CCE 6211	DES & MODEL CONSTR PROCESS	3	3,0	✓																							
CCE 6817	DYNAMICS OF SUSTAINABLE SYS	3	3,0	✓																			●	Tatari			
CEG 4011C	GEOTECH ENGR I	4	3,2		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Nam/Filler			
CEG 4012	GEOTECH ENGR II	3	3,0	□	●	●	□	●	●	□	●	●	□	●	●	□	●	●	□	●	●	□	●	●	Chopra/Filler		
CEG 4801C	GEOTECH DESIGN	3	2,2		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Chopra/Chair		
CEG 5405	SEEPAGE IN SOILS	3	3,0	✓		●			●					●				●						Nam			
CEG 6065	SOIL DYNAMICS	3	3,0	✓		●					●				●							●		Nam			
CEG 6115	FOUNDATION ENGR	3	3,0	✓		●			●			●			●			●				●		●	New Faculty/Nam		
CEG 6317	ADV GEOTECH ENGR	3	3,0	✓		●			●			●			●			●				●		Chopra			
CES 4100C	STRUCT ANALYSIS I	4	3,3		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Mackie		
CES 4205	STRUCTURAL MECHANICS	3	3,0			●			●			●			●			●				●		Makris			
CES 4605	STEEL STRUCTURES	3	3,0	□	●	●	□	●	●	□	●	●	□	●	●	□	●	●	□	●	●	□	●	●	Catbas		
CES 4702	REIF CONC STRUCTURES	3	3,0	□	●	●	□	●	●	□	●	●	□	●	●	□	●	●	□	●	●	□	●	●	Yun		
CES 4743C	STRUCTURAL DESIGN	3	2,2	□	●	●	□	●	●	□	●	●	□	●	●	□	●	●	□	●	●	□	●	●	●	Mackie/Chair	
CES 5144	MATRIX METH STRUCT ANALYSIS	3	3,0	✓		●			●			●			●			●				●		●	Catbas		
CES 5325	BRIDGE ENGINEERING	3	3,0	✓					●						●							●		●	Catbas		
CES 5606	ADV STEEL STRUCTURES	3	3,0	✓		●			●			●			●			●				●		●	Zaurin		
CES 5706	ADV REIF CONCRETE	3	3,0	✓					●			●			●			●				●		●	Yun		
CES 5821	MASONRY/TIMBER	3	3,0	✓																							
CES 6010	STRUCTURAL RELIABILITY	3	3,0	✓		●					●							●						●	Mackie		
CES 6116	FINITE ELEMENT STRUC ANALY	3	3,0	✓		●					●							●						●	Catbas		
CES 6170	BNDRY ELEM CIV ENGR	3	3,0	✓																							
CES 6209	DYNAMICS OF STRUC	3	3,0	✓		●					●						●							●	Catbas		
CES 6220	WIND/EARTHQUAKE ENGR	3	3,0	✓							●						●							●	Makris		
CES 6230	ADV STRUC MECHANICS	3	3,0	✓					●						●							●		●	Yun		
CES 6527	NON LINEAR ANALYSIS	3	3,0	✓					●						●							●		●	Mackie		
CES 6715	PRESTRESSED CONCRETE	3	3,0	✓					●						●							●		●	Yun		
CES 6840	COMPOSITE STL/CONC STR	3	3,0	✓																							
CES 6910	RESEARCH IN STRUCT ENGR	3	3,0	✓																							
CGN 3405	APPL NUM METHODS FOR CIVIL ENG	3	3,0			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Mayo/Mackie		
CGN 3501C	CIVIL ENGINEERING MATLS	3	3,2			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Nam/Filler		
CGN 3700C	CE MEASUREMENTS	2	2,2			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Medeiros	
CGN 4008C	CIVIL ENGINEERING CAPSTONE	3	2,2			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Chair	
CGN 5606	ADVANCED PAVEMENT & CE MATLS	3	3,0	✓								●											●		Nam		
CGN 5877	MONITORING INFRASTR SYSTEMS	3	3,0	✓																							
CGN 6655	REG PLAN DES DEV	3	3,0	✓		●			●			●			●			●				●		●	Abdel-Aty/Eluru		
CWR 3201	ENGINEERING FLUID MECH	3	3,0		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Mayo	
CWR 4120	HYDROLOGY	3	3,0		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Kibler
CWR 4124	HYDROGEOLOGY	3	3,0			●			●			●			●			●				●		●	●	Singh	
CWR 4202C	HYDRAULICS	3	3,2		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Nnadi/Wahl
CWR 4812C	WATER RESOURCES DESIGN	3	2,2	□	●	●	□	●	●	□	●	●	□	●	●	□	●	●	□	●	●	□	●	●	●	●	Nnadi/Chair
CWR 5125	GROUNDWATER HYDROLOGY	3	3,0	✓											●								●		●	Wang	
CWR 5205	HYDRAULIC ENGINEERING	3	3,0	✓											●								●		●	Singh	
CWR 5515	NUMERICAL METHODS IN CEE	3	3,0	✓					●						●								●		●	Mayo	
CWR 5545	WATER RESOURCES ENGRG	3	3,0	✓		●					●							●						●		Nnadi	
CWR 5634	WAT RES CHANGING ENV	3	3,0	✓					●						●								●		●	Wang	
CWR 6xxx	FIELD STUDY																									Kibler	
CWR 6xxx	Stochastic Geomorphology	3	3,0			●						●										●			●	Singh	
CWR 6007	ECOHYDRAULICS	3	3,0	✓					●						●								●		●	Kibler	
CWR 6102	ADVANCED HYDROLOGY	3	3,0	✓		●					●							●							●	Singh	
CWR 6126	GROUNDWATER MODELING	3	3,0	✓		●					●							●				●			●	Wang	

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CWR 6235	OPEN CHANNEL HYDRAULICS	3	3,0	✓		●						●						●				Nnadi
CWR 6236	RIVER ENGRG & SED TRNSPT	3	3,0	✓				●					●							●		Nnadi
CWR 6535	MDLG WATER RES SYSTEMS	3	3,0	✓		□					□						□					Mayo
CWR 6539	FIN ELEM SUR WTR MDLG	3	3,0	✓	●						●						●					Mayo
CWR 6660	WAT POLICY, PLNG & GOVERN	3	3,0	✓						□							□					Kibler
EES 4111C	BIOL PROCESS CONTROL	4	3,3			●			●			●			●			●			●	Randall
EES 4202C	CHEM PROCESS CONTROL	4	3,3		●			●			●			●			●			●		Duranceau
EES 5318	INDUSTRIAL ECOLOGY	3	3,0	✓								●						●				Chang
EGN 3310	ENGR ANAL-STATICS	3	3,0		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Zaurin
EGN 3310H	ENGR ANAL STAT (HONORS)	3	3,0		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Zaurin
EGN 3331C	MECHANICS OF MATLS	3	3,2		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Mackie
ENV 3001	ENVIRONMENTAL ENGINEERING	3	3,0		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Randall
ENV 3930H	ST: WATER: DISEASE, SANIT,SUST	3	3,0					●		□				□						□		Randall
ENV 4120	AIR POLL & HAZ WASTE CONTROL	3	3,0		●			●						●			●			●		
ENV 4122C	AIR POLL CTRL DESIGN	3	2,2			●			●					●			●			●		Chair
ENV 4341	SUSTAINABLE RESOURCE MGMT	3	3,0		●			●					●			●			●			Chang
ENV 4433C	ENV ENGR WASTEWATER DESIGN	3	2,2		●	□		●			□		●			□		●				Chair/Godlewski
ENV 4531	ENV ENGR OPS & PROCESSES	3	3,0		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Fries
ENV 4561	ADV ENV ENGR OPS & PROCESSES	3	3,0		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	Randall/Fries
ENV 4562C	ENV ENGR WATER TRTMT DESIGN	3	2,2			●			●					●			●			●		Chair/Duranceau
ENV 5410	WATER TRTMT	3	3,0	✓		●						●						●				Duranceau
ENV 5505	SLUDGE MGMT OPS	3	3,0	✓		●				●							●					Randall
ENV 5517	CHEM & BIO PROCESSES	3	3,0	✓		●																Randall
ENV 5636	ENV & WATER RESOURCES	3	3,0	✓				●					●							●		Chang
ENV 6015	PHYS/CHEM TRTMT SYS	3	3,0	✓		●			●				●				●			●		Duranceau
ENV 6016	BIOL TRTMT SYS	3	3,0	✓		●			●				●				●			●		Randall
ENV 6030	ENV BIOTECHNOLOGY	3	3,0	✓				●					●							●		Lee
ENV 6046	MEMBRANE MASS TRANSFER	3	3,0	✓													□					Sadmani
ENV 6047	ENV INFORMATICS	3	3,0	✓					●					●						●		Chang
ENV 6055	FATE & TRNSPT SUB CONTAM	3	3,0	✓										●								Chang
ENV 6106	ATMOS DISPERSION MDLG	3	3,0	✓		●						●						●				
ENV 6126	DES AIR POLLUTION CONTROLS	3	3,0	✓					●						●							●
ENV 6347	HAZ WASTE INCINERATION	3	3,0	✓						●							●					
ENV 6504L	UNIT OPS & PROCESS LAB	3	1,6																			Randall
ENV 6515L	BIO UNIT OPS & PROCESS LAB	3	1,6																			Randall
ENV 6519	AQUATIC CHEM PROCESSES	3	3,0	✓					●					●						●		Duranceau
ENV 6558	INDUSTRIAL WASTE TRTMT	3	3,0	✓				●					●							●		Randall
ENV 6616	ECOLOG ENGR RCVG WATER IMPAC	3	3,0	✓						●							●					Chang
TTE 3810	HIGHWAY ENGINEERING	3	3,0		●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	Abdel-Aty
TTE 4274	TRANSPORTATION ENGRG SYS	3	3,0		●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	Al-Deek
TTE 4300	TRANSPORTATION ANALYTICS	3	3,0												●							Eluru
TTE 4601C	URBAN SYSTEMS DESIGN	3	2,2			●			●											●		Abdel-Aty
TTE xxxx	DATA SCIENCE IN SMART CITIES	3	3,0	✓				●					●					●				Hasan
TTE xxxx	TRANSPORTATION NETWORKS	3	3,0	✓						●								●				Eluru
TTE 5204	TRAFFIC ENGINEERING	3	3,0	✓		●			●					●				●				Radwan
TTE 5805	GEOM DESIGN TRANS SYS	3	3,0	✓	●		●			●			●				●			●		Abdel-Aty
TTE 5835	PAVEMENT ENGINEERING	3	3,0	✓		●		●									●					Nam
TTE 6205	HIGHWAY CAPACITY	3	3,0	✓					●						●					●		Al-Deek
TTE 6256	TRAFFIC OPERATIONS	3	3,0	✓		●			●				●				●			●		Al-Deek
TTE 6270	INTELLIGENT TRANS SYS	3	3,0	✓			●					●						●				Al-Deek
TTE 6315	TRAFFIC SAFETY ANALYSIS	3	3,0	✓			●			□		●			●			●			●	Abdel-Aty
TTE 6526	PLANNING & DESIGN AIRPORTS	3	3,0	✓				●					●							●		Radwan
TTE 6625	MASS TRANSPORTATION SYS	3	3,0	✓					●										●			Abdel-Aty
TTE 6667	DISCRETE CHOICE ANALYSIS	3	3,0	✓				●					●							●		Eluru

KEY: ● = Course scheduled to be taught
□ = Course may be taught based on available resources

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