

**Required UMaine Undergraduate CIE Degree Courses in Which an Engineering for Change (E4C) Component Can be Introduced**

Course Number	Course Name	When Offered	E4C Options for HVSC credits	E4C Student Portfolio Content <sup>2</sup>	Introduce E4C Module within Existing Course <sup>3</sup>	New E4C Course
CIE 100	Intro to Civil and Env Engineering	Fr1			x	
HVSC Elective		Fr1	x			
CIE 101	Civil Engineering Graphics	Fr2		x	x	
CMJ 103	Fundamentals of Public Communication	So1		x		
Science Elective		So2				x <sup>4</sup>
CIE 225	Transportation Engineering	So2		x	x	
HVSC Elective		So2	x			
ENG 320	Technical Communication for Engineers	Ju1		x		
HVSC Elective		Ju2	x			
CIE 394	Engineering Practice   Co-op	Ju or Se		x		
CIE 412	Engineering Decisions	Se1		x	x	
HVSC Elective		Se1	x			
HVSC Elective		Se2	x			
CIE 42x - 45x	CIE Concentration areas (multi-course) <sup>1</sup>	Se1 and Se2		x	x	
CIE 411	Capstone	Se1 and Se2		x		
CIE 498	Technical Elective   Selected Studies	Se1 or Se2				x <sup>5</sup>

1. Concentrations require 3 courses at 400+ level within one of four principal practice areas: Transportation; Structural; Environmental; Water Resources
2. <https://eddesignlab.org>; completion of badges in HVSC credits, Portfolio content and E4C modules within existing courses results in transcript Credential
3. To be developed for CIE faculty
4. Methods in Community-Oriented Field Science; can be offered outside of CIE
5. Socio-Technical Mapping and the Built Environment; can be offered outside of CIE

Relevant UMaine Undergraduate Courses for Engineering for Change (E4C) Credential - HVSC options

Course	Course Title	Meets General Education Requirements						Relevance	
		W	S	C	P	A	E		WI
LST 101	Introduction to Labor Studies		x						1
WGS 101	Introduction to Women's, Gender, and Sexuality Studies		x				x		
NAS 102	Introduction to Wabanaki Culture, History and Contemporary Issues		x	x					
SOC 201	Social Inequality		x	x					
PAX 201	Introduction to Peace and Reconciliation Studies		x	x					
LST 201	Work and Labor in a Global Economy		x						
FAS 270	Immigration -Yesterday and Today		x	x			x	x	
ANT 270	Environmental Justice Movements in the United States		x	x					
PAX 290	Non-Violence: Perceptions and Perspectives			x			x		
DIS 300	Disability: Interaction of Human Diversity and Global Environment			x	x				
WGS 303	Social Movements, Media and Change		x	x					
SOC 309	Sociology of Gender		x	x					
SOC 338	Race and Ethnicity		x	x					
WGS 340	Transnational Feminisms			x					
CHF 351	Human Sexuality		x				x		
ECO 381	Sustainability Science, Policy, and Action				x		x		
DIS 400	Disability as Diversity			x			x		
PAX 401	Women Social Activists: Warriors for Peace and Justice		x	x					
NUR 415	Socio-Cultural Issues in Health		x	x					
ANT 430	Who Owns Native Cultures?		x	x					
PHI 432	Environmental Justice		x		x		x	x	
DIS 450	Disability: Population - Environment Diversity				x		x	x	
NAS 451	Native American Cultures and Identities			x					
HTY 415	African-American History								
LDR   POS 220	Leadership and Social Movements								
ENG 243	Topics in Multicultural Literature	x		x			x		2
EES 312	Energy, Law & Environment: Contending with Climate Change								
HTY 330	Robber Barons, Reformers and Radicals	x							
EES 351	Energy, Wealth, and Power: a Biophysical Systems View of Nature and Society				x				
ECO 381	Sustainable Development Principles and Policy				x		x		
ANT 410	Human Dimensions of Climate Change				x				
CMJ 466	Narrative, Performance, and Social Change					x		x	
CMJ 107	Communication and the Environment		x		x				3
FAS 120	People, Places and Pasts				x				
PHI 132	Life, Technology and Evolution				x				
ECO 180	Citizens, Energy & Sustainability		x		x				
CIE 210	Sustainability in Engineering				x		x		
ANT 225	Climate Change, Societies and Cultures				x				
ANT 250	Conservation Anthropology: Socio-Cultural Dimension of Environmental Issues			x	x				
GEE 250	Sustainable Solutions in the Developing World			x	x				
HTY 251	Technology and Society from Ancient Times till the Present	x	x						
GEO   HTY 265	The Power of Maps			x		x			
ENG 320	Technical Communication for Engineering		x					x	
HTY 365	The American Immigrant Experience				x			x	
CET 412	Sustainable Population and Environmental Design and Construction				x				
EET 484	Engineering Economics		x				x		

1 = Relevant as described

2 = Potentially significantly relevant; could require additional content or specific selection of readings

3 = Generally relevant; would require additional specific focus on power structures in culture and social inequality within the U.S.

W = Western Cultural Tradition

S = Social Context and Institutions

C = Cultural Diversity and International Perspectives

P = Population and the Environment

A = Artistic and Creative Expression

E = Ethics

WI = Writing Intensive