

Int Engr - Sustainability Degree Checklist (2025/26 catalog)

Complete	Core Curriculum (33-39 Units)	Course that Satisfies Requirement	Units
	First Year Writing (CFYW)	FYW 150	3
	Mathematical Reasoning (CMRP)	MATH 150	
	Second Language Competency		3 to 9
	Lower-Division Theological and Religious Inquiry (FTRI)		3
	Upper-Division Theological and Religious Inquiry (FTRI)		3
	Philosophical Inquiry (FPHI)		3
	Ethical Inquiry (FETI)		3
	Scientific and Technological Inquiry (ESTI)	ENGR 101	
	Historical Inquiry (EHSI)		3
	Social and Behavioral Inquiry (ESBI)		3
	Literary Inquiry (ELTI)		3
	Artistic Inquiry (EARI)		3
	Diversity, Inclusion, Social Justice (FDD1)	ENGR 103	
	Diversity, Inclusion, Social Justice (FDD2 or FDG2)	GENG 350	
	Advanced Writing (CADW)	GENG 350	
	Oral Communication (CORL)		3
	Critical Thinking (CCTH)		
	Information Literacy (CILT)		
	Quantitative Reasoning (CQUR)	ISYE 330	
	First Year Integration (CINL)	LLC course	
	Advanced Integration (CINT)	GENG 492	
Complete	Math/Science Courses (33-34 Units)	Prerequisites/(Corequisites)	
	CHEM 151/151L - General Chemistry I & Lab	(MATH 115 or MATH 150 or MATH 151)	4
	EOSC 105 - Natural Disasters or EOSC 110 - Dynamic Earth		4
	MATH 150 - Calculus I		4
	MATH 151 - Calculus II	MATH 150 (C- or better)	4
	MATH 310 - Applied Math for Science and Engineering I	MATH 151 (C- or better)	3
	MATH 250 - Calculus III or MATH 262 - Discrete Math	MATH 151 (C- or better)	3-4
	ISYE 330 - Engineering Probability & Statistics	MATH 151 or MATH 262	3
	PHYS 270/270L - Mechanics & Lab	MATH 150 (C- or better)	4
	PHYS 271/271L - Electricity & Magnetism & Lab	PHYS 270/270L (C- or better), MATH 151	4
Complete	Engineering Core Courses (12.5 Units)	Prerequisites/(Corequisites)	
	ENGR 101 - Introduction to Engineering	(MATH 150)	3
	ENGR 102 - Electromechanical System Design	ENGR 101, COMP 110, (MATH 151)	3
	ENGR 103 - User-Centered Design	ENGR 101, (MATH 151)	3
	COMP 110 - Computational Problem Solving	MATH 115 or placement in MATH 130 or higher	3.5
Complete	Engineering Core Courses (35 Units)	Prerequisites/(Corequisites)	
	MENG 210 - Statics	PHYS 270, MATH 150	3
	GENG 250 - Integrated Approach to Energy	(PHYS 271, PHYS 271L, ENGR 102, ENGR 103, MATH 310)	3
	GENG 288 - Integrated Approach to Electrical Engineering	PHYS 271, (MATH 310)	4
	GENG 311 - Engineering Materials Science	CHEM 151/151L, MATH 151, PHYS 271/271L	3
	GENG 350 - Engineering and Social Justice	ENGR 103, (GENG 250 or GENG 288 or MENG 311)	3
	GENG 360 - Experimental Engineering	ENGR 102, GENG 288 or ELEC 201, MENG 210, GENG 250 or MENG 260, COMP 110, MATH 310, (ISYE 330)	3
	GENG 380 - Sustainability and Engineering		3
	GENG 491 - Engineering Senior Design I	GENG 360, (GENG 350)	4
	GENG 492 - Engineering Senior Design II	GENG 491	3
	Engineering Elective (lower or upper division)	See Undergraduate Catalog for respective course prerequisites/corequisites	3
	Engineering Elective (upper division)	See Undergraduate Catalog for respective course prerequisites/corequisites	3
Complete	Sustainability Concentration (22-27 Units)	Prerequisites/(Corequisites)	
	EOSC 123 - Organisms & Ecosystems		4
	EOSC 300 or EOSC 303 - Enviro. Issues or Enviro Issues Abroad	EOSC 105 or EOSC 110, EOSC 123	3
	Choose 3 courses from Group A	See Undergraduate Catalog for respective course prerequisites/corequisites	9-10
	Choose 1 course from Group B	See Undergraduate Catalog for respective course prerequisites/corequisites	3-4
	Choose 2 additional courses from Group A, B, or C	See Undergraduate Catalog for respective course prerequisites/corequisites	3-6
Complete	Additional Requirements	Notes for Additional Requirements	
	Connect (Career Readiness Program)	Complete 12 points (orientation, networking, senior survey, and 9 flex points)	
	Free Electives	Complete additional units needed to meet 147 Unit requirement for degree	
<b>Total GENG Degree Units</b>			<b>147</b>

Group A Sustainability Engineering: GENG 383, GENG 384, GENG 482, ISYE 385, MENG 415

Group B Sustainability Science: EOSC 305, EOSC 314, EOSC 415, EOSC 420, EOSC 431, EOSC 432, EOSC 434, EOSC 435, EOSC 473, EOSC 474, EOSC 485, EOSC 487, EOSC 488

Group C Sustainability Elective: BSCM 302, BSCM 305, CHEM 152, CHEM 355, EOSC 220, ECON 308, ENGR 351, GENG 420, ETLW 302, ETLW 313, ETLW 403, HIST 370, HNRS 318, ISYE 335, ISYE 340, ISYE 420, ISYE 430, ISYE 480, MENG 260, MENG 360, MENG 370, MENG 410, MGMT 304, MGMT 310, MGMT 312, PHIL 338, PHIL 344, PHIL 415, POLS 340, POLS 342, POLS 346, POLS 348, POLS 349, SOCI 315, SOCI 471, SOCI 473, THRS 338