



ENERGY SYSTEMS ENGINEERING, BSEN

FALL

SPRING

Course number	Course Title	USP	CR	Min Grade	Grade	Course Number	Course Title	UPS	CR	Min Grade	Grade
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FRESHMAN YEAR

MATH 2200	Calculus I	Q	4	C		MATH 2205	Calculus II		4	C	
Prerequisite: C in Math 1405 or 1450, MPE 5, Math ACT 27, Math SAT 640						Prerequisite: C in Math 2200					
	USP: First Year Seminar	FYS	3	C		ES 2110	Statics		3	C	
Prerequisite: Concurrent in MATH 2200						Prerequisite: Concurrent in MATH 2205					
ES 1060	Intro to Eng Problem		3	C-			USP: Communications II	C2	3	C	
Prerequisite: Concurrent MATH 2200						Prerequisite: C in C1					
CHEM 1020	General Chemistry I	PN	4	C-		LIFE 1010	General Biology I	PN	4	D	
Prerequisite: ACT Math 23 or concurrent MATH 1400, 1405 or 1450						Prerequisite: ACT Math 23 or concurrent MATH 1400, 1405 or 1450					
	USP: Communications I	C1	3	C			USP: Human Culture	H	3	D	
Total						Total					
17						17					

SOPHOMORE YEAR

ATSC 2100	Global Warming		3	D		ES 2310	Thermodynamics		3	C-	
Prerequisite: C in MATH 2205 and ES 2110						Prerequisite: C in MATH 2210 and ES 2120					
ES 2120	Dynamics		3	C		ES 2330	Fluid Dynamics		3	C-	
Prerequisite: C in MATH 2205 and ES 2110						Prerequisite: C in MATH 2210 and ES 2120					
ES 2210	Electric Circuit Analysis		3	C-		ES 2410	Mechanics of Materials		3	C-	
Prerequisite: Concurrent in MATH 2205						Prerequisite: C in MATH 2205 and ES 2110					
MATH 2210	Calculus III		4	C		MATH 2310	Applied Differential Eqns		3	C-	
Prerequisite: C in Math 2205						Prerequisite: C in Math 2205					
PHYS 1220	Engr Physics II		4	D			USP: US & Wyo Const.	V	3	D	
Prerequisite: Concurrent in MATH 2210						Prerequisite: C in Math 2205					
							Math/Science Elective		3	D	
Total						Total					
17						18					

JUNIOR YEAR

ESE 3005	Engineering Experimentation		3	D		ESE 3160	Thermal/Fluid Science Lab		3	D	
Prerequisite: MESC, C- in ES 1060, C in ES 2120						Prerequisite: MESC, ME 3005, C- in ES 2330,					
ESE 3020	System Dynamics		3	D		ESE 3360	Fund. Of Transport Phenom		3	D	
Prerequisite: MESC, C- in ES 2210 and MATH 2310						Prerequisite: MESC, C- in MATH 2310, ES 2310, and ES 2330					
ESE 3040	Thermodynamics II		3	D			ESE Elective		3		
Prerequisite: MESC, CHEM 1020 and C- in ES 2310											
ESE 3060	Numerical Meth. For Engineers		3	D			Technical Elective		3		
Prerequisite: MESC, C- in ES 1060, and concurrent in MATH 2310											
ENR 4750	ENR Law and Policy		3				Technical Elective		3		
Prerequisite: ENR 2000 and upper division standing											
Total						Total					
15						15					

SENIOR YEAR

ESE 4060	Systems Design I		3	D		ESE 4070	Systems Design II		3	D	
Prerequisite: MESC, ESE 3040 and ESE 3360						Prerequisite: MESC, ESE 4060, COM2					
ENR 3000	ENR Problem Solving		3	D		ENR 4900	ENR Assessment Practice	C3	3	C	
Prerequisite: ENR 2000						Prerequisite: ENR 3000					
	Technical Elective		3	D			ESE Elective		3	D	
	Technical Elective		3	D			Business Elective		3	D	
	USP: Human Culture	H	3	D			Technical Elective		3	D	
Total						Total					
15						15					

Fall only or spring only course

Total Program Credits: 129

- A minimum of 129 hours is required. • A minimum of 48 hours must be upper division.
- Math/Science and Business Electives must be selected with advisor's approval from Department list.
- ESE Electives- Choose 2 from: ECON 1300, ENR 2000, ENR/PHIL 2345, POLS 4051, POLS 4350, GEOL 3500, GEOL 3650, PETE 4000, ENR 4890 (Applied GIS or Econ Nat Resource)
- Technical Electives - Choose 5 from: ES 2800, PETE 2050, GEOL 4190, CHEM 4050, CE 3400, CE/CHE 4430, ME 3400, ME 3450, ME 3975, ME 4340, ME 4430, ESE/ME 4455, ESE/ME 4460, ESE/ME 4470
- Degree candidates must meet the academic requirements of the university, and must have a minimum GPA of 2.0 in all engineering courses, and a minimum GPA of 2.0 in all ME/ESE courses attempted at UW.
- Students may not take a course for S/U credit to satisfy any requirement, unless the course is offered for S/U credit only.
- ME Success Curriculum (MESC): Before enrolling in any upper division ME course, students must have a 3.0 overall GPA in the following MESC courses: MATH2200, MATH 2205, MATH 2210, ES 1060, ES 2110, ES 2120, ES 2210, ES 2310, ES 2330 and ES 2410.
- The following courses must be taken at UW and *cannot* be transferred: ESE 3020, ESE 3040, and ESE 3360.