



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	Q	4	C	
<i>Prerequisite: C in Math 1405 or 1450, MPE 5, Math ACT 27, Math SAT 640</i>						<i>Prerequisite: C in Math 2200</i>					
COSC 1010	Intro to Comp. Sci.		3	D		ES 2110	Statics		3	C	
<i>USP: US & Wyo Const.</i>						<i>Prerequisite: Concurrent in MATH 2205</i>					
<i>USP: US & Wyo Const.</i>						<i>USP: Communications II</i>					
<i>USP: US & Wyo Const.</i>						<i>Prerequisite: C in CI</i>					
CHEM 1020	General Chemistry I	PN	4	C		LIFE 1010	General Biology I	PN	4	D	
<i>Prerequisite: ACT Math 23 or concurrent MATH 1400, 1405 or 1450</i>						<i>Prerequisite: ACT Math 23 or concurrent MATH 1400, 1405 or 1450</i>					
<i>USP: Communications I</i>						<i>MATH 2250</i>					
<i>USP: Communications I</i>						<i>Elem. Linear Algebra</i>					
<i>USP: Communications I</i>						<i>Prerequisite: C in Math 2200</i>					
Total						Total					

SOPHOMORE YEAR

<i>USP: Human Culture</i>						<i>ES 2310</i>					
<i>USP: Human Culture</i>						<i>Thermodynamics</i>					
<i>USP: Human Culture</i>						<i>Prerequisite: C in MATH 2210 and ES 2120</i>					
ES 2120	Dynamics		3	C		ES 2330	Fluid Dynamics		3	C	
<i>Prerequisite: C in MATH 2205 and ES 2110</i>						<i>Prerequisite: C in MATH 2210 and ES 2120</i>					
ES 2210	Electric Circuit Analysis		3	C		ES 2410	Mechanics of Materials		3	C	
<i>Prerequisite: Concurrent in MATH 2205</i>						<i>Prerequisite: C in MATH 2205 and ES 2110</i>					
MATH 2210	Calculus III		4	C		MATH 2310	Applied Differential Eqns		3	C	
<i>Prerequisite: C in Math 2205</i>						<i>Prerequisite: C in Math 2205</i>					
PHYS 1220	Engr Physics II	PN	4	D		ES 1060	Intro to Eng Problem		3	C	
<i>Prerequisite: Concurrent in MATH 2210</i>						<i>Prerequisite: Concurrent MATH 2200</i>					
Total						Total					

JUNIOR YEAR

ESE 3005	Engineering Experimentation		3	D		ESE 3160	Thermal/Fluid Science Lab		3	D	
<i>Prerequisite: MESC, C- in ES 1060, C in ES 2120</i>						<i>Prerequisite: MESC, ME 3005, C- in ES 2330,</i>					
ESE 3020	System Dynamics		3	D		ESE 3360	Fund. Of Transport Phenom		3	D	
<i>Prerequisite: MESC, C- in ES 2210 and MATH 2310</i>						<i>Prerequisite: MESC, C- in MATH 2310, ES 2310, and ES 2330</i>					
ESE 3040	Thermodynamics II		3	D		ESE Elective					
<i>Prerequisite: MESC, CHEM 1020 and C- in ES 2310</i>											
ATSC 2100	Global Warming	PN	3	D		Technical Elective					
<i>Prerequisite: MESC, CHEM 1020 and C- in ES 2310</i>											
ENR 4750	ENR Law and Policy		3	D		Technical Elective					
<i>Prerequisite: ENR 2000 and upper division standing</i>											
Total						Total					

SENIOR YEAR

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

Fall only or spring only course

Total Program Credits: **126**

- A minimum of 126 hours is required. • A minimum of 48 hours must be upper division. 30 hours of upper division must be from UW.
- Math/Science and Business Electives must be selected with advisor's approval from Department list.
- ESE Electives- Choose 2 from: ECON 1300, ENR 2000, 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 3060, ME 3400, ME 3450, ME 4340, ME 4430, ESE/ME 4455, ESE/ME 4460, ESE/ME 4461, ESE/ME 4470, ARE 4740
- 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.