SUSTAINABILITY AND RENEWABLE ENERGY SYSTEMS (SRES) MAJOR, B.S.

Course	Title	Credits
General Requirements		
General Education (https://catalog.uwplatt.edu/undergraduate/degree-requirements/bachelor-of-science-degree-core-curriculum/)		22
Energy Core [1]		
ECONOMIC 2130	Principles of Macroeconomics	3
ACCTING 2010	Financial Accounting	3
BUSADMIN 2100	Supply Chain Management	3
ENGLISH 3000	Technical Writing	3
or BUSADMIN 2010	Business Communication	
AGBUS 1500	Introduction to Agribusiness	3
or BUSADMIN 2330	Leadership and Management	
ENVSS 3330	Environmental Conservation	3
or ENERGY 3130	Sustainability: Ecology, Resources and Practice	
ENERGY 2130	Energy, Environment, and Society	3
ENERGY 2340	Fundamentals of Energy Sources	4
ENERGY 3230	Biorenewable Resources	3
ENERGY 3330	Electrical Energy Systems and Energy Storage	3
ENERGY 3430	Green Building Design	3
ENERGY 3580	Principles of Project Management and Sustainable Development	3
ENERGY 3950	Sustainability and Renewable Energy Systems Cooperative Education	1-2
or ENERGY 3970	Sustainability and Renewable Energy Systems Internship	
ENERGY 4620	Data Analysis and Verification Tools	3
ENERGY 4920	Senior Design Project	3
Advanced ENERGY Courses [1]		
Select three of the following courses:		10-11
ENERGY 4130	Sustainability Policy and Practice	
ENERGY 4230	Biofuels	
ENERGY 4330	Wind and Solar Systems Design	
ENERGY 4430	Building Energy Management	
Emphasis		
Select one of the following emphases		
Total Credits		**76-78**

[1] All ENERGY courses require a C- or better grade to satisfy major requirements.

DEVELOPMENT AND MANAGEMENT EMPHASIS

Course	Title	Credits
Required Courses		
MATH 1830	Elementary Statistics	3
MATH 2640	Calculus and Analytic Geometry I	4
Select one of the following options:		5-8
Option 1:		
CHEMSTRY 1050	Survey of General Chemistry	
Option 2:		
CHEMSTRY 1140 & CHEMSTRY 1240	General Chemistry I and General Chemistry II	

Option 3:		
CHEMSTRY 1450	Chemistry for Engineers	
Select one of the following options:		8-10
Option 1:		
PHYSICS 1350 & PHYSICS 1450	Introductory Physics I and Introductory Physics II	
Option 2:		
PHYSICS 2240 & PHYSICS 2340	General Physics I and General Physics II	
ACCTING 2020	Management Accounting	3
AGBUS 2430	Agricultural Marketing	3
or BUSADMIN 2630	Introduction to Marketing	
BUSADMIN 3620	Corporate Finance	3
ECONOMIC 2230	Principles of Microeconomics	3
Emphasis Electives [1,2,3]		**12**
Total Credits		**44-49**

1 Requires at least 12 credits (of which at least 6 credits must be in 3000 or 4000 level) from the following subjects will count as an Emphasis Elective: ENERGY, AETM, AGBUS, AGET, BIOLOGY, BUSADMIN, CHEMSTRY, CIVILENG, ECORES, ELECTENG, ENGRPHYS, ENVENG, ENVSS, ENVHORT, INDSTENG, MECHENG, POLISCI, SCSCI, or SEJ.

2 Electives cannot double count for major or other emphasis requirements.

ENERGY SYSTEMS ENGINEERING TECHNOLOGY EMPHASIS

Course	Title	Credits
Required Courses		
MATH 2640	Calculus and Analytic Geometry I	4
MATH 2740	Calculus and Analytic Geometry II	4
MATH 4030	Statistical Methods with Applications	3
Select one of the following options:		5-8
Option 1:		
CHEMSTRY 1450	Chemistry for Engineers	
Option 2:		
CHEMSTRY 1140 & CHEMSTRY 1240	General Chemistry I and General Chemistry II	
PHYSICS 2240 & PHYSICS 2340	General Physics I and General Physics II	8
GENENG 1320	Engineering Computer Graphics	2-3
or GENENG 2030	Engineering Modeling and Design	
GENENG 2130	Engineering Mechanics-Statics	3
GENENG 2230	Engineering Mechanics-Dynamics	3
MECHENG 2630	Thermodynamics	3
GENENG 2820	Engineering Economy	2
GENENG 2930	Applications of Electrical Engineering	3-4
or ELECTENG 2210	Circuit Modeling II	
Emphasis Electives [1,2]		**3**
Total Credits		**43-48**

1 Any 3000 or 4000 level course from the following subjects will count as an Emphasis Elective: ENERGY, AETM, AGBUS, AGET, BIOLOGY, BUSADMIN, CHEMSTRY, CIVILENG, ECORES ELECTENG, ENGRPHYS, ENVENG, ENVSS, ENVHORT, INDSTENG, MECHENG, POLISCI, SCSCI, or SEJ.

2 Electives cannot double count for major or other emphasis requirements.

BIOENERGY AND SUSTAINABLE LAND USE EMPHASIS

Course	Title	Credits
Required Courses		
MATH 1830	Elementary Statistics	3
MATH 2640	Calculus and Analytic Geometry I	4
Select one of the following options: (5-8 credits)		5-8
Option 1:		
CHEMSTRY 1050	Survey of General Chemistry	
Option 2:		
CHEMSTRY 1140 & CHEMSTRY 1240	General Chemistry I and General Chemistry II	
Option 3:		
CHEMSTRY 1450	Chemistry for Engineers	
PHYSICS 1350 & PHYSICS 1450	Introductory Physics I and Introductory Physics II	8-10
or PHYSICS 2240 & PHYSICS 2340	General Physics I and General Physics II	
ECORES 1010	Introduction to Ecological Restoration and Resource Management	3
SCSCI 1240	Introduction to Plant Science	3
AGET 1750	Equipment, Structure and Power Systems	3
SCSCI 2230	Soils	4
SCSCI 2260	Crop Production and Agroecology	3
ECORES 3880	Environmental Law	3
AGET 3950	Soil and Water Conservation Engineering	3
or SCSCI 4350	Soil and Water Conservation	
Emphasis Electives [1,2]		**3**
Total Credits		**45-50**

1 Any 3000 or 4000 level course from the following subjects will count as an Emphasis Elective: ENERGY, AETM, AGBUS, AGET, BIOLOGY, BUSADMIN, CHEMSTRY, CIVILENG, ECORES, ELECTENG, ENGRPHYS, ENVENG, ENVSS, ENVHORT, INDSTENG, MECHENG, POLISCI, SCSCI, or SEJ.

2 Electives cannot double count for major or other emphasis requirements.

GREEN BUILDING AND ENERGY MANAGEMENT EMPHASIS

Course	Title	Credits
MATH 1830	Elementary Statistics	3
MATH 2640	Calculus and Analytic Geometry I	4
Select one of the following options: (5-8 credits)		5-8
Option 1:		
CHEMSTRY 1050	Survey of General Chemistry	
Option 2:		
CHEMSTRY 1140 & CHEMSTRY 1240	General Chemistry I and General Chemistry II	
Option 3:		
CHEMSTRY 1450	Chemistry for Engineers	
Select one of the following options (8-10 credits)		8-10
Option 1:		
PHYSICS 1350 & PHYSICS 1450	Introductory Physics I and Introductory Physics II	
Option 2:		
PHYSICS 2240 & PHYSICS 2340	General Physics I and General Physics II	

AETM 1010	Principles of Safety and Risk Management	3
AETM 1100	Introduction to the Construction Industry	3
AETM 1300	Construction Computer Applications	3
AETM 2430	Building Construction Materials	3
AETM 3140	General Construction Estimating	3
AETM 4530	Commercial Planning and Design	3
AETM 4630	Building Systems Analysis	3
Emphasis Electives [1,2]		**3**
Total Credits		**44-49**

1 Any 3000 or 4000 level course from the following subjects will count as an Emphasis Elective: ENERGY, AETM, AGBUS, AGET, BIOLOGY, BUSADMIN, CHEMSTRY, CIVILENG, ECORES, ELECTENG, ENGRPHYS, ENVENG, ENVSS, ENVHORT, INDSTENG, MECHENG, POLISCI, SCSCI, or SEJ.

2 Electives cannot double count for major or other emphasis requirements.