

AAS: Energy Systems

Curriculum Chair: Prof. Richard VanInwegan Tech T24 Tel # (914) 606-6877 Email: Richard.VanInwegan@sunywcc.edu

Associate Dean: Ted Nygreen TECH-106 Tel # (914) 606-6789 Email: Ted.Nygreen@sunywcc.edu

Developmental Courses as required based on placement scores

<input type="checkbox"/>	No Developmental Courses Required
<input type="checkbox"/>	ENG 91 Writing for College 1 – Score of 4 E Code 1 and below
<input type="checkbox"/>	ENG 92 Writing for College 2 – Score of 6 E Code 2
<input type="checkbox"/>	ESL 94 Academic Writing 1 – Score of 5 or 6 E Code 6
3 <input type="checkbox"/>	ESL 122 Academic Writing 2 (3 credits) – Score of 7 E Code 7
<input type="checkbox"/>	MATH 92 Pre-Algebra – Arithmetic score 44 and below, Elementary Algebra 54 and below
<input type="checkbox"/>	MATH 93 Beginning Algebra – Arithmetic score 45 and above, Elementary Algebra 54 and below OR MATH 94 Math Literacy – Arithmetic score 45 and above, Elementary Algebra 54 and below
<input type="checkbox"/>	READ 93 Foundation of College Reading – Score of 57 and below
3 <input type="checkbox"/>	READ 105 Analytical Reading (3 credits) – Score of 58 and higher

Core Requirements

3 <input type="checkbox"/>	ENG 101 – Writing and Research Choose an item.
3 <input type="checkbox"/>	ENG 102 – Writing and Literature Choose an item.
4 <input type="checkbox"/>	MATH 135 – College Algebra with Trigonometry Choose an item.
4 <input type="checkbox"/>	MATH 161 – Pre-Calculus Choose an item.
4 <input type="checkbox"/>	PHYS 111 – College Physics 1: MATH 135 is the prerequisite. Choose an item.
4 <input type="checkbox"/>	CHEM 107 – Inorganic Chemistry 1: MATH 130, 135 or higher level are the prerequisites. OR Choose an item.
	ELEC 160 - Electronics¹: High School Algebra or MATH 93 is the prerequisite. Choose an item.
	<p>BEHAVIORAL SCIENCE: Choose a 3 credit course from 2 areas for a total of 6 credits. Courses include: Sociology (SOC), Psychology (PSYCH), Anthropology (ANTHR), Linguistics (ANTHR), and Geography (GEOG). <i>However SS 101 and SS 103 CANNOT BE USED TO FULFILL Behavioral Science. OR</i></p> <p>HUMANITIES: Courses include:</p> <ul style="list-style-type: none"> ▪ Art (ART) 101, 103, 105, 108, 108A, 108B, 109, 109A, 125, 128, 129, 133, 139, 185, or 265. Additional fees and/or supplies may be required of ART classes; see catalog for details. ▪ Communications (COMM) 101, 103, 109, or 115 ▪ Dance (DANCE) 101, 102, 105, 107, 121, 205, or 207 OR A combination of three 1 credit dance classes to be chosen from DANCE 112, 115, 120, or 122 ▪ English (ENG) any ENG course EXCEPT ENG 101, 101H, 102, 102H, 124, or 222 CANNOT BE USED TO FULFILL Humanities elective. ▪ Film (FILM) 100, 101, 102, 103, 109, 113, 114H, 115H, 125, 125H, 220, 220H ▪ Foreign Language to be chosen from: ARABC, CHINS, FREN, GER, ITAL, JAPNS, RUSSN, SPAN. ITAL 104 or ITAL 105 CANNOT BE USED TO FULFILL a Foreign Language elective, but CAN BE USED TO FULFILL a Humanities elective. ▪ Music (MUSIC) 100, 101, 102, 103, 111, 150, or 211

¹ By Advisement of the Curriculum Chair.

	<ul style="list-style-type: none"> ▪ Philosophy (PHIL) 101A, 102A, 111, 150, 160, or 201H ▪ Theater (THEAT) 101, 103, 111, 113, or 201 <p>THEAT 117A is a 2 credit course which must be combined with another 1 credit approved Humanities elective. OR</p> <p>SOCIAL SCIENCE: Courses include: History (HIS), Political Science (POLSC), Economics (ECON), and Geography (GEOG). <i>However SS 102 and SS 105 CANNOT BE USED TO FULFILL Social Science.</i></p>
3 <input type="checkbox"/> / 4 <input type="checkbox"/>	3 <input type="checkbox"/> / 4 <input type="checkbox"/>
	<p>PEC/PEH/PES: A combination of two courses (2 credits) either PEH and PES, or PEC and PES, or PEC or PEH, PEC and PEC. PEC 110 (2 credits) <i>IS THE ONLY COMBINIATION COURSE THAT FULFILLS BOTH P.E. REQS.</i></p>
1 <input type="checkbox"/>	1 <input type="checkbox"/>

Degree Requirements	
3 <input type="checkbox"/>	PHYSC 165 – Principles of Energy Choose an item.
3 <input type="checkbox"/>	ELEC 128 – Electrical Circuits: High School Algebra or MATH 93 is the prerequisite. Choose an item.
3 <input type="checkbox"/>	ELEC 129 – Digital Logic: High School Algebra or MATH 93 is the prerequisite. Choose an item.
3 <input type="checkbox"/>	ELEC 134 – Power Circuit Analysis Choose an item.
3 <input type="checkbox"/>	MECH 162 – CAD 1 Choose an item.
3 <input type="checkbox"/>	ELEC 218 – Introduction to Microprocessors Choose an item.
3 <input type="checkbox"/>	MECH 127 – Introduction to Thermodynamics: MATH 135 is the prerequisite. PHYSC 111 is a co-requisite. Choose an item.
3 <input type="checkbox"/>	MECH 120 – Mechanisms: MATH 135, PHYSC 101, MECH 113, and MECH 162 are prerequisites. Offered in Spring semester. Choose an item.
ENERGY ELECTIVES: Select 4 courses from the following (See Below) – (12 credits)	
3 <input type="checkbox"/>	3 <input type="checkbox"/>
3 <input type="checkbox"/>	3 <input type="checkbox"/>

SEEN BY: _____ Completed credits _____ of 64 required

Energy Electives

Nuclear Power: **ELEC 245** - Nuclear Fundamentals, **ELEC 246** - Reactor Materials, **ELEC 247** - Radiation Detection, **ELEC 248** - Reactor Theory

Electrical Power: **ELEC 204** - Electrical Machinery (**ELECT 128 is the prerequisite**), **ELEC 205** - Power Generation Systems (**MECH 204 is the prerequisite**), **ELEC 206** - Power plant Operation and Maintenance, **ELEC 207** - Instrumentation and Control Systems

Electrical Power Distribution: **ELEC 228** - Energy Conversion & Power, **ELEC 229** - Distribution Systems Components, **ELEC 230** - Transmission Line Theory and Practice

Solar and Geothermal Power: **ELEC 139** - Solar and Geothermal Technologies (**MECH 127 is the prerequisite**).

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Academic Plan		Completed credits of 64 required			
		Fall/Spring		Fall/Spring	
<u>Class</u>	<u>Credits</u>	<u>Class</u>	<u>Credits</u>	<u>Class</u>	<u>Credits</u>
Fall/Spring		Fall/Spring			
<u>Class</u>	<u>Credits</u>	<u>Class</u>	<u>Credits</u>	<u>Class</u>	<u>Credits</u>