

PAYMENT DUE Click here to enter a date.

AS: Engineering Science

Curriculum Chair: Prof. Kyriakos Ioannou TECH-33 Tel # (914) 606-8561 Email: Kyriakos.Ioannou@sunywcc.edu Academic Dean: Dr. Kwesi Amoa TECH-106 Tel # (914) 606-6789 Email: Kwesi.Amoa@sunywcc.edu

Developmental Courses as required based on placement scores						
	ENG 91 Writing for College 1 – Score of 4 E Code 1 and below, 30.01 Choose an item.					
	ENG 92 Writing for College 2 – Score of 6 E Code 2, 30.02 Choose an item.					
	ENG 99 Writing Studio (with linked section of ENG 101+) - Score of 6 E Code 2, 30.02					
	ESL 94 Academic Writing 1 – Score of 5 or 6 E Code 6, 20.01.					
3□	ESL 122 Academic Writing 2 – Score of 7 E Code 7, 21.01					
	MATH 92 Pre-Algebra – Arithmetic score 44 and below, Elementary Algebra 54 and below, 40.01 Choose an					
OR □	MATH 93 Beginning Algebra – Arithmetic score 45 and above, Elementary Algebra 54 and below, 40.02 Choose an item.					
	MATH 94 Foundations of Mathematical Reasoning – Arithmetic score 45 and above, Elementary Algebra 54 and below, 40.02 Choose an item.					
	READ 93 Foundation of College Reading – Score of 57 and below, 10.01 Choose an item.					
3□	READ 105 Analytical Reading – Score of 58 and higher 11.01 Choose an item.					

	New General Education Requirements						
3□	ENG 101 – Writing and Research OR ENG 101H Choose an item.						
3□	ENG 102 – Writing and Literature OR ENG 102H Choose an item.						
4□	MATH 181 ¹ – Calculus 1: MATH 161 or 165 are the prerequisites. Choose an item.						
4□	MATH 191 – Calculus 2: MATH 181 is the prerequisite. Choose an item.						
4□	MATH 230 – Calculus 3: MATH 191 is the prerequisite. Choose an item.						
4□	MATH 240 – Differential Equations: MATH 191 is the prerequisite. Choose an item.						
5□	CHEM 107 – Inorganic Chemistry 1 and Lab: MATH 130, 135 or higher level MATH course are the						
	prerequisites. Choose an item.						
5□	PHYSC 121 – Engineering Physics 1 and Lab: MATH 161 is the prerequisite and MATH 181 is a co-requisite.						
50	Choose an item.						
5□	PHYSC 122 – Engineering Physics 2 and Lab: PHYSC 121 or equivalent and MATH 181 are the prerequisite						
	and MATH 191 or instructor's permission is a co-requisite. Choose an item.						
	SOCIAL SCIENCES GENERAL ED REQUIREMENTS – Select a 3 credit course:						
	ANTHR 101, 102, 103, 201, CJ 111, ECON 101, 101H, 102, 102H, GEOG 101, HSERV 102, 200, LIN 201,						
	POLSC 111, 111H, 115, PSYCH 101, 101H, 103, 103H, 107, 109, 110, 111, 112H, 201 SOC 101, 101H, 102, 103, 104						
3□							

¹Calculus I is the prerequisite or co requisite Engineering Physics I & Lab.



	AMERICAN HISTORY, THE ARTS, FOREIGN LANGUAGE, OTHER WORLD CIVILIZATIONS, or						
	WESTERN CIVILIZATION GENERAL ED REQUIREMENTS – Select a 3/4 credit course:						
	ART 101, 102, 103, 104, 105, 106, 107, 108, 109, 109A, 110, 111, 112, 125, 129, 130, 133, 134, 135, 137, 138, 140,						
	141, 147, 201, 203, 212, 265, DANCE 101, 102, 107, 112, 115, 120, 121, 205, 207, FILM 100, 101, 102, 130 MUSIC 110, 110H, 111, 120, 121, 130, 131, 132, 133, 150, 230, 231, 232, 233, THEAT 111, 113, 201						
	ARABC 101, 102, CHINS 102, FREN 101, 102, 201, ITAL 101, 102, 103, 201, 201H, 202, 202H, 250, JAPNS 101, 102, RUSSN 101, SPAN 101, 102, 103, 104, 201, 201H, 202, 202H, 203, 204						
	ANTHR 120, 210, 215H, HIS 101, 102, 104, 106, 110, 111, 112, 121*, 133**, 134**, 119, 128, 129, 131, POLSC 102, 104, 107, 113						
	*Students who complete this course cannot use HIS 133 or 134 to fulfill degree and/or general education						
	requirements						
	**Students who complete this course cannot use HIS 121 to fulfill degree and/or general education requirements,						
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3□/4□							

	Degree Requirements				
4□	COMSC 101 – Computer Programming 1: Prerequisite: Placement Reading score of 80 or above or passing READ 105. MATH 181 or higher are pre/ co-requisites. Choose an item.				
3□	MECH 109 – Intro to Engineering: MATH 181 or higher is the co-requisite.				
3□	MECH 126 – Statics: MATH 181 and PHYSC 121 are the prerequisites. Choose an item.				
	ENGINEERING ELECTIVES: Select four courses from list below (Minimum 12 credits). SUGGESTED ENGINEERING ELECTIVES CONSULT CURRICULUM CHAIR.				
3□					
3□					
3□					
3□					

SEEN BY: Completed credits of 65 required



ENGINEERING ELECTIVES:

- NO CONCENTRATION Select 12 credits from the following course options:
 - 1. CIVIL 214 Surveying 1, Offered Fall Semester, Prereq: MATH 135
 - 2. CIVIL 221 Strength of Materials, Offered Fall Semester, Prereq: MATH 181
 - 3. COMSC 110 Computer Programming 2, Prereq: COMSC 101 with a C or higher
 - 4. COMSC 201 Data Structures, Prereq: COMSC 110 with a C or higher
 - 5. ELEC 128 Electrical Circuits, Coreq: MATH 93, Prereq: H.S Algebra or MATH 93
 - 6. ELEC 129 Digital Logic, Prereq: H.S Algebra or MATH 93
 - 7. ELEC 223 Digital Logic and Switching Circuits
 - 8. ELEC 227 Electrical System Analysis, Offered Fall & Spring, Prereq: ELEC 128
 - **9. ELEC 255** Circuits for Engineers
 - 10. MECH 127 Intro to Thermodynamics, Coreq: PHYSC 111, Prereq: MATH 135 or higher and PHYSC 101 or higher.
 - 11. MECH 227 Dynamics, Offered evenings in fall, Offered days in spring, Prereq: MECH 126

• CIVIL -

- 1. MECH 227 Dynamics, Offered evenings in fall, Offered days in spring, Prereq: MECH 126
- CIVIL 221 Strength of Materials, Offered fall semester, Prereq: MATH 181 Calculus 1 and PHYSC 101A – Engineering Physics 1
- **3. CIVIL 214** Surveying 1, **Offered fall semester** Prereq: **MATH 135** College Algebra with Trigonometry

And select 1 of the following:

- 1. BIOL 101
- 2. CHEM 111
- 3. PHYSC 143

ELECTRIAL –

- **1. ELEC 255** Circuits for Engineers
- 2. MATH 215 Linear Algebra, Prereq: MATH 191 Calculus 2 Offered once a year
- 3. ELEC 223 Digital Logic & Switching
- 4. ELEC 227 Offered fall and spring, Prereq: ELEC 128

• MECHANICAL -

- 1. MECH 227: Dynamics, Offered evenings in fall, Offered days in spring, Prereq: MECH 126 Statics
- CIVIL 221: Strength of Materials, Offered Fall Semester Prereq: MATH 181 Calculus 1 and PHYSC 101A: Engineering Physics 1
- 3. MECH 127 Intro to Thermodynamics, Coreq: PHYSC 111 College Physics 1 & Lab, Prereq: MATH 135 College Algebra with Trigonometry and PHYSC 101 Technical Physics 1
- **4. ELEC 255** Circuits for Engineers



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Academic Plan			Completed	credits of 65 req	of 65 required	
		Fall/Spring		Fall/Spring		
<u>Class</u>	Credits	<u>Class</u>	Credits	<u>Class</u>	Credits	
Fall/Spring			Fall/Spring			
Class	Credits	<u>Class</u>	Credits	<u>Class</u>	Credits	