Glendale Community College Engineering

Engineering Transfer Certificate: Civil Track

MATH	Description	Units
MATH 103E	Calculus with Analytic Geometry	5
MATH 104E	Calculus with Analytic Geometry	5
MATH 105	Multivariable and Vector Calculus	5
MATH 108	Ordinary Differential Equations	5
PHYSICS AND CHEMISTRY		
PHY 101	Physics for Scientists and Engineers: A	5
PHY 102	Physics for Scientists and Engineers: B	5
CHEM 101	General Chemistry	5
NATURAL SCIENCE (Choose one class with Lab)		
BIOL 122	Intro to Biology	5
or GEOL 101	Physical Geology	3
and GEOL 111	Physical Geology Lab	1
or GEOL 102	Environmental Geology	3
and GEOL 112	Environmental Geology Lab	1
or OCEAN 115	Oceanography	3
and OCEAN 116	Oceanography Lab	1
ENGINEERING		
ENGR 100	Introduction to Engineering	3
ENGR 122	Engineering Graphics	3
ENGR 140	Materials Science and Engineering	3
ENGR 141	Materials Science and Engineering Lab	1
ENGR 152	Engineering Mechanics – Statics	3
ENGR 156	Programming and Problem Solving in MATLAB	3
ENGR 230	Dynamics	4
ENGR 241	Strength of Materials	4
ENGR 240	Electrical Engineering Fundamentals	4
or ENGR 180	Surveying	3
GENERAL EDUCATION		
ENGL 101	Introduction to College Reading and Composition	4
ENGL 104	Critical Thinking and Argumentation	3
SPCH 101	Public Speaking	3
POL S 101	Introduction to Government	3
HISTORY	History of the United States	3
Total Units		**82-84**

NOTES

1. Engineering students should to consult multiple sources, such as academic counselors, engineering faculty, university advisors, and student peers to plan their transfer programs.
2. Recommended for preparation for transfer to CSU and complete BSCE in two years (60 Units).
3. Students transferring to a UC campus should also take MATH 107, PHYS 103, and CHEM 102
4. This document is meant as a guide only. There are many successful pathways in engineering and students should use their best judgement while guiding their career.
5. For CSULA choose surveying

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Glendale Community College Engineering

Civil Engineering Suggested Study Plan

Transfer Certificate in Civil Engineering

82 -84 Units

	Fall Semester			Spring Semester		
	Course	**Description**	**Units**	**No**	**Description**	**Units**
Year 1	MATH 103E	Calculus with Analytic Geometry I	5	ENGR 100	Introduction to Engineering	3
	ENGL 101	Introduction to College Reading and Composition	4	MATH 104E	Calculus with Analytic Geometry II	5
	CHEM 101	General Chemistry	5	PHY 101	Physics for Scientists and Engineers A	5
	Total Units		**14**	**Total Units**		**13**
Year 2	ENGR 122	Engineering Graphics	3	ENGR 152	Engineering Mechanics - Statics	3
	MATH 105	Calculus with Analytic Geometry III	5	MATH 108	Differential Equations	5
	PHY 102	Physics for Scientists and Engineers B	5	ENGR 156	Programming and Problem Solving in MATLAB	3
	ENGLISH 104	Critical Thinking and Argumentation	3	POL S 101	Introduction to Government	3
	Total Units		**16**	**Total Units**		**14**
Year 3	ENGR 241	Strength of Materials	4	ENGR 230	Dynamics	4
	ENGR 140	Materials Science and Engineering	3	ENGR 240 or ENGR 180	Electrical Engineering Fundamentals Surveying	3 or 4
	ENGR 141	Materials Science and Engineering Lab	1	SPCH 101	Public Speaking	3
	HIST 117 or 118	History of the United States	3			
	GEOL 101 and GEOL 111	General Biology or Physical Geology & Physical Geology Lab	4 or 5			
	Total Units		**15 or 16**			**9 or 10**
Total Units for Transfer		**82-84**				