CASE SCHOOL OF ENGINEERING
CASE WESTERN RESERVE UNIVERSITY

Students must take the equivalent of the following courses at their liberal arts college before entering CWRU

General Requirements for Dual Degree Program		
Course	**Course Title**	**Semester Credit Hours**
MATH		
MATH 121	Calculus for Science & Engineering I	4
MATH 122	Calculus for Science & Engineering II	4
MATH 223	Calculus for Science & Engineering III	3
MATH 224	Elementary Differential Equations	3
CHEMISTRY		
CHEM 105	Principles of Chemistry I	3
CHEM 106	Principles of Chemistry II	3
CHEM 113	Principles of Chemistry Laboratory	2
PHYSICS		
PHYS 121	General Physics I-Mechanics	4
PHYS 122	General Physics II-Electricity and Magnetism	4
COMPUTER PROGRAMMING		
Students must take **one** of the following: **EECS 132** should be taken by Computer Engineering majors and computer tracks of BME (Biomedical Computing and Analysis) All other majors should take **ENGR 131**		
ENGR 131	Elementary Computer Programming (MATLAB)	3
EECS 132	Introduction to Programming in Java	3

Sample Course Sequence for Electrical Engineering

Year 1 Fall

Course	Course Title	Semester Credit Hours
EECS 281	Logic Design and Computer Organization	4
ENGL 398	Professional Communication for Engineers	2
ENGR 398	Professional Communication for Engineers	1
ENGR 210	Introduction to Circuits and Instrumentation	4
STAT 332	Statistics for Signal Processing	3
	Technical Elective	3
		17

Year 1 Spring

Course	Course Title	Semester Credit Hours
EECS 245	Electronic Circuits	4
EECS 309	Electromagnetic Fields I	3
EECS 321	Semiconductor Electronic Devices	4
ENGR 145	Chemistry of Materials	4
	Technical Elective	3
		18

Year 2 Fall

Course	Course Title	Semester Credit Hours
EECS 246	Signals and Systems	4
EECS 398	Engineering Projects I	4
ENGR 200	Statics and Strength of Materials	3
	Technical Elective	3
	Technical Elective	3
		17

Year 2 Spring

Course	Course Title	Semester Credit Hours
EECS 313	Signal Processing	3
EECS 399	Engineering Projects II	3
ENGR 225	Thermodynamics, Fluid Dynamics, Heat and Mass Transfer	4
	Technical Elective	3
	Technical Elective	3
		16

Note: *The course sequence serves as an example of the classes necessary to complete the Dual Degree Program. Courses and the semesters taken will be based on the student's transfer credit and discussion with the Case Western Reserve University faculty advisor.*

** **Technical Elective Requirement***

Each student must complete eighteen (18) credit hours of approved technical electives. Technical electives shall be chosen to fulfill the depth requirement (see next) and otherwise increase the student's understanding of electrical engineering. Technical electives not used to satisfy the depth requirement are more generally defined as any course related to the principles and practice of electrical engineering. This includes all EECS courses at the 200 level and above and can include courses from other programs. All non-EECS technical electives must be approved by the student's academic advisor.

**** Depth Requirement***

Each student must show a depth of competence in one technical area by taking at least three courses from one of depth area. This depth requirement may be met using a combination of the core courses and a selection of open and technical electives. The depth areas and the associated courses are available in the CWRU General Bulletin:
http://bulletin.case.edu/schoolofengineering/elecengcompsci/#undergraduatetext
Alternative depth areas may be considered by petition to the program faculty.