

Semester-by-Semester Distribution of Courses in the Tentative Five-Year Dual BSEEN/MS Program in ME

(Jointly Developed by the MEE Undergraduate and Graduate Committees)

First Semester

ENGR 125	Introduction to Engineering Profession	1
ENGR 196	Introduction to Engineering	3
CHEM-C 105	Chemical Science I	3
COMM-R 110	Fundamentals of Speech Communication	3
MATH 165	Analytic Geometry & Calc I	4
ENG-W 131	Elementary Composition I	3
	Total	17

Second Semester

ENGR 197	Introduction to Programming Concepts	2
MATH 171	Multidimensional Math	3
MATH 166	Analytic Geometry & Calc II	4
PHYS 152	Mechanics	4
GEN ED		3
	Total	16

Third Semester

ENGR 297	Computer Tools for Engineering	1
MATH 261	Multivariate Calculus	4
PHYS 251	Heat, Electricity, and Optics	5
EEN 22501	EEN LAB 1	1
ME 200	Thermodynamics I	3
EEN 22001	Fund of Energy Materials	3
	Total	17

Fourth Semester

EEN 26201	Design, Ethics, Entrepreneurship	2
MATH 266	Ordinary Differential Equations	3
ECE 204	Intro to Electrical Circuits	4
EEN 240	Basic Mechanics	4
EEN 260	Sustainable Energy	3
EEN 25001	EEN LAB 2	1
	Total	17

Fifth Semester

ME 327	Engineering Economics	3
EEN 33001	Modeling & Measurements of Dynamic Systems	3
STAT ELEC	Statistic Elective (ex. Stat 350)	3
ME 272	Mechanics of Materials	3
EEN 310	Fluid Mechanics	3
EEN 32501	EEN LAB 3	1
	Total	16

Sixth Semester

ME 31401	Heat and Mass Transfer	3
Gen. Ed Elective	Gen Ed Elective	3
TECH ELEC	Approved Tech Elective	2
ECE 495	Fundamentals of Electrical & Energy Engineering	3
EEN 345	Renewable Systems Design	3
EEN 35001	EEN LAB 4	1
	Total	15

Seventh Semester

EEN 42501	EEN LAB 5	1
ME 482	Control Systems Analysis and Design	3
ECE 321	Electromechanical Motion	3
EEN 445	Renewable Kinetic Energy	3
TCM 360	Communication and Engineering Practice	2
EEN Elective (ME 5XX)	MSME Primary/Related Area Course (500 level Approved EEN Elective)	3
	Total	15

Eighth Semester

EEN Elective (ME 5XX)	ME Primary/Related Area Course (ME 500 level Approved EEN Elective)	3
Gen Ed Elective		3
ME 462	Engineering Design	3
EEN Elective (ME 5XX)	ME Primary/Related Area Course (ME 500 level Approved EEN Elective)	3
EEN Elective (ME 5XX)	ME Primary/Related Area Course (ME 500 level Approved EEN Elective)	3
	Total	15

Ninth Semester

ME 5XX	MSME Primary Area Course	3
ME 5XX	MSME Related Area Course	3
ME 698 (thesis option) ME 5XX (non-thesis option)	Thesis ME Primary Area Course	3
	Total	9

Tenth Semester

ME 5XX	ME Related Area Course	3
ME 698 (thesis option) ME 5XX (non-thesis option)	Thesis ME Primary Area Course	3
ME 698 (thesis option) ME 5XX (non-thesis option)	Thesis ME Related Area Course	3
	Total	9

Total: 148 credit hours

Notes:

1. Students who want to do thesis or an independent project are advised to take *ME 698 MS Thesis Research* or *ME 597 Mechanical Engineering Project I* during the summer following the eighth semester to reduce their work load in the last semester.
2. Depending on the thesis topic, the thesis options may take longer than five years.
3. Two math courses are required as the related area courses. At least one of these courses must be a graduate mathematics course offered by the mathematics department, the other may a graduate course with strong math content from ME or another department, as approved by the graduate committee.
4. It is to be noted that very few undergraduates take 500 level courses as ME electives currently in the program. They usually take 400 level courses. However, students in the proposed dual program will be required to take 500 level courses as ME electives, since they are expected to achieve more because of their commitment to the graduate program.
5. Taking a general education course during the summers of second and third years may reduce the course load in the senior year, hence increase chances of success in the, where graduate courses will be taken.

