

Master of Science in Engineering

Degree Codes: ES MSE ENGR

Concentration: Mechanical Engineering

Contact: Professor Prabhu Arumugam

Overall requirements for the specific options are as follows:

Requirements for all degree types

| Course Category | Number | Course Name | | SCH | |
|-------------------------------|---|---|---|-----|--|
| Core Courses | ENGR 510 | Introduction to Engineering and Science Research Methods | 2 | 5 | |
| | Engineering Mathematics: select <u>one</u> of the following two courses | | | | |
| | ENGR 541 | Advanced Mathematical Methods for Engineering and Physics | 3 | | |
| | ENGR 592 | Engineering Computational Methods | 3 | | |
| Concentration Courses* | Students must take <u>one</u> course in each of the following areas | | | 9 | |
| | Mechanics (MEMT 563, MEMT 577, or MEMT 588) | | 3 | | |
| | Materials (MEMT 511 or MEMT 517) | | 3 | | |
| | Thermal Systems (MEEN 542 or MEEN 543 or CMEN 522) | | 3 | | |
| Total 14 | | | | | |

Thesis Option (in addition to the courses above)

| Course Category | Number | Course Name | | SCH |
|---------------------|---|---|---|-----|
| Core Courses | ENGR 511 | Engineering and Science Research Proposal Development | 1 | 1 |
| Electives** | Three courses (9 semester hours) approved by the student's advisory committee | | | 9 |
| Thesis | MEEN 551 | Research & Thesis (6 SCH are required with at least 3 SCH taken in the quarter the thesis is reviewed and approved) | | 6 |
| Total 30 | | | | |

Practicum Option (in addition to the courses above)

| Course Category | Number | Course Name | | SCH |
|---------------------|--|---|---|-----|
| Core Courses | ENGR 511 | Engineering and Science Research Proposal Development | 1 | 1 |
| Electives** | Six courses (18 semester hours) approved by the student's advisory committee | | | 18 |
| Practicum | MEEN 555 | Practicum | | 3 |
| Total 36 | | | | |

Coursework Only Option (in addition to the courses above)

| Course Category | Number | Course Name | | SCH |
|---------------------|---|----------------------------------|---|-----|
| Core Courses | ENGR 589A | Professional Development Seminar | 1 | 1 |
| Electives** | Five courses (15 semester hours) approved by the student's advisory committee | | | 15 |
| MATH/STAT | One MATH and one [STAT course or INEN 514] | | | 6 |
| Total 36 | | | | |

*The concentration courses for the concentration in Mechanical Engineering.

**The maximum number of variable credit Directed Study courses that can be applied towards the degree is 6 SCH.

Plan of Study Important Information: When entering information in the plan of study, it is important to note that only core courses and all core courses need to be put in section 1.1, while all others are put in section 1.2 (i.e. special topics, seminar, and research courses).

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