

## Master of Science in Engineering

**Degree Codes:** ES MSE ENGR

**Concentration:** Electrical Engineering

**Contact:** Professor Chester Wilson

Overall requirements for the specific options are as follows:

### Requirements for all degree types

Course Category	Number	Course Name		SCH	
<b>Core Courses</b>	ENGR 510	Introduction to Engineering and Science Research Methods	2	5	
	Engineering Mathematics: select one of the following two courses				
	ENGR 541	Advanced Mathematical Methods for Engineering and Physics	3		
	ENGR 592	Engineering Computational Methods	3		
<b>Concentration Courses*</b>	Three courses (9 semester hours) from at least <b>two</b> of the four groups below*			9	
	Group A	Controls (ELEN 572, ELEN 567, ELEN 575)			
	Group B	Communications (ELEN 512, ELEN 561, ELEN 565, ELEN 567, ELEN 575, ELEN 557 <sup>A</sup> , ELEN 533)			
	Group C	Microelectronics (ELEN 512, ELEN 533, ELEN 535, ELEN 537, ELEN 538)			
	Group D	Power Systems (ELEN 581, ELEN 582, ELEN 557 <sup>A</sup> )			
				Total 14	

<sup>A</sup>Special Topics courses. Make sure topic is associated with each group.

### Thesis Option (in addition to courses above)

Course Category	Number	Course Name		SCH
<b>Core Course</b>	ENGR 511	Eng. And Science Research Proposal Development	1	1
<b>Electives**</b>	Three courses (9 semester hours) approved by advisory committee (at least two ELEN or MSE courses)**			9
<b>Thesis</b>	ELEN 551 or ENGR 551	Research & Thesis (6 SCH are required with at least 3 SCH taken in the quarter the thesis is reviewed and approved) ELEN if advisor is ELEN professor, ENGR if advisor is not		6
				Total 30

### Practicum Option (in addition to courses above)

Course Category	Number	Course Name		SCH
<b>Core Course</b>	ENGR 511	Eng. And Science Research Proposal Development	1	1
<b>Electives**</b>	Six courses (18 semester hours) approved by advisory committee (at least two ELEN or MSE courses)**			18
<b>Practicum</b>	ELEN 555	Practicum		3
				Total 36

**Coursework Only Option** (in addition to courses above)

<b>Course Category</b>	<b>Number</b>	<b>Course Name</b>		<b>SCH</b>
<b>Core Course</b>	ENGR 589A	Special Topics	1	1
<b>Electives**</b>	Five courses (15 semester hours) approved by advisory committee (at least two ELEN or MSE courses)**			15
<b>MATH/STAT</b>	One MATH and one [STAT course or INEN 514]			6
				<b>Total 36</b>

\*The concentration courses for the concentration in Electrical 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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