M.S. in Engineering Science

Degree Requirements

To ensure academic success in their graduate studies, students may be required to take additional undergraduate or graduate courses before beginning graduate curricula. This program of bridge courses will be individually-designed in consultation with the student's graduate advisor. Such courses are not counted toward degree requirements. Students interested in pursuing a focus in engineering education can do so through the Master's Thesis or Master's Project option.

A minimum of 30 credits is required. A thesis or project may be included.

Seminar: In addition to the minimum 30 degree credits, all students who receive departmental or research-based awards must enroll each semester in a graduate seminar. The seminar is selected in consultation with the graduate advisor.

Graduate Co-op: Graduate Co-op Work Experience in Engineering Science (ESC 690) is an elective course that can be used for degree credit. Students must have completed 18 credits of graduate coursework prior to the commencement of the co-op. Approval of departmental co-op advisor and the Division of Career Development Services is required for registration.

M.S. in Engineering Science (courses only)

Code	Title	Credits
Required		
Two 600-level math courses		6
One 600-level physics, chemistry, or biology course		3
Two 600-level engineering courses		6
Electives [1]		
Select five courses in consultation with graduate advisor		15
Total Credits		**30**

1 The elective credits must form a meaningful and coherent program integrated with the specialization in science or engineering.

M.S. in Engineering Science (Master's project)

Code	Title	Credits
Required		
Two 600-level math courses		6
One 600-level physics, chemistry, or biology course		3
Two 600-level engineering courses		6
Project		
Master's project		3
Electives [1]		
Select four courses in consultation with graduate advisor		12
Total Credits		**30**

1 The elective credits must form a meaningful and coherent program integrated with the specialization in science or engineering.

M.S. in Engineering Science (Master's thesis)

Code	Title	Credits
Required		
Two 600-level math courses		6
One 600-level physics, chemistry, or biology course		3
Two 600-level engineering courses		6
Thesis		
Master's thesis		6
Electives [1]		

Select three courses in consultation with graduate adviso	9
Total Credits	**30**

[1] The elective credits must form a meaningful and coherent program integrated with the specialization in science or engineering.

M.S. in Engineering Science (Master's project, Engineering Education Focus)

Code	Title	Credits
Required		
MATH 644	Regression Analysis Methods	3
MATH 661	Applied Statistics	3
BIOL 660	College Teaching	3
or BIOL 630	Critical Thinking for the Life Sciences	
ESC 705	Advances in Engineering Education Research	3
Two 600-level engineering courses		6
Project		
Master's Project		3
Electives [1]		
Select three courses in consultation with graduate advisor		9
Total Credits		**30**

[1] The elective credits must form a meaningful and coherent program integrated with the specialization in science or engineering.

M.S. in Engineering Science (Master's Thesis, Engineering Education Focus)

Code	Title	Credits
Required		
MATH 644	Regression Analysis Methods	3
MATH 661	Applied Statistics	3
BIOL 660	College Teaching	3
or BIOL 630	Critical Thinking for the Life Sciences	
ESC 705	Advances in Engineering Education Research	3
Two 600-level engineering courses		6
Thesis		
Master's Thesis		6
Electives [1]		
Select two courses in consultation with graduate advisor		6
Total Credits		**30**

[1] The elective credits must form a meaningful and coherent program integrated with the specialization in science or engineering.