Sample 5-year BS/MSE Mechanical Engineering Program

Note that these courses are one sample curriculum out of many possibilities.
Actual coursework is determined by the student in consultation with his or her advisor.

WHITING SCHOOL OF ENGINEERING - POLICY ON BACHELOR'S-MASTER'S DOUBLE-COUNTING

Coursework applied to a bachelor's degree: Students either in a WSE concurrent (bachelor's/master's) program or seeking a WSE master's degree after having earned a WSE or Krieger School of Arts and Sciences bachelor's degree **may double-count two advanced graduate courses (600-level or higher) to both programs only with the permission of the master's faculty advisor.** WSE master's degree candidates may not double-count courses applied to a bachelor's degree earned at a different institution. Individual graduate programs reserve the right to enforce stricter policies.

Coursework not applied to a bachelor's degree: For students who are either in WSE concurrent bachelor's/master's degree programs or have already earned a Whiting School of Engineering or Krieger School of Arts and Sciences bachelor's degree and are seeking a WSE master's degree, any graduate-level coursework (as defined by the WSE graduate program) not applied to the undergraduate degree may be applied to the graduate degree, regardless of when that course was taken (i.e., before or after the undergraduate degree has been conferred) with the permission of the master's faculty advisor.

For students who earned an undergraduate degree outside of the Whiting School of Engineering or the Krieger School of Arts and Sciences, no coursework completed before the undergraduate degree was conferred can be applied to a WSE master's degree, regardless of whether that course was applied to the undergraduate degree.

WSE master's students wishing to double-count courses must submit these courses to the WSE master's program for approval. If it is learned that a student has double-counted a course for the WSE master's degree without permission of the WSE master's program, this program reserves the right to revoke the degree.

FRESHMAN YEAR			
FALL		**SPRING**	
110.108 Calculus I	4	110.109 Calculus II	4
530.101 Freshmen Experiences I	2	530.102 Freshmen Experiences II	2
530.103 Intro to Mechanics I	2	530.104 Intro to Mechanics II	2
530.105 Freshmen Lab I	1	530.106 Freshmen Lab II	1
510.101 Intro to Materials Chemistry	3	H/S Elective #2	3
H/S Elective #1 (.100-.200)	3	H/S Elective #3: Micro- or Microeconomics	3
Total credits	**15**	**Total credits**	**15**
SOPHOMORE YEAR			
FALL		**SPRING**	
110.202 Calculus III	4	550.291 L.A./D.E. *	4
530.201 Statics and Mechanics	4	560.202 Dynamics	4
530.231 Thermodynamics	4	530.215 Mechanics Based Design	4
171.102 General Physics II	4	530.241 Electronics and Instrumentation	4
173.112 General Physics II Lab.	1		
Total credits	**17**	**Total credits**	**16**
JUNIOR YEAR			
FALL		**SPRING**	
530.327 Intro. Fluid Mechanics	4	530.334 Heat Transfer	3+1
530.352 Materials Selection	4	530.343 D. & A. Dynamic Systems	3+1
H/S #4 Writing Elective (.100-.200)	3	ME Elective #1	3
H/S Elective #5 (.300-.400)	3	Tech Elective #1	3
Statistics Elective	3		
Total credits	**17**	**Total credits**	**14**
SENIOR YEAR			
FALL		**SPRING**	
530.403 Eng. Design Project I	4	530.404 Eng. Design Project II	4
530.454 Manufacturing Engineering	3	ME Elective #3	3
Eng. Business and Mgmt. options**	3	Tech Elective #2	3
ME Elective #2 (.300-.400. Could take permitted 600-.700 course, would count for	3	Tech Elective #3 (.300-.400. Could take permitted 600-.700 course, would count for MSE, also)	3
H/S Elective #6 (.300-.400)	3	H/S Elective #7 (.300-.400)	3
Total credits	**16**	**Total credits**	**16**
5th YEAR – MASTER'S DEGREE of ENGINEERING - GRADUATE STUDY			
FALL		**SPRING**	
Graduate Course (.600-.700)		Graduate Course (.600-.700)	
Graduate Course (.600-.700)		Graduate Course (.600-.700)	
Graduate Course (.600-.700)		Graduate Course (.600-.700)	
Graduate Course (.600-.700)		Graduate Course (.600-.700)	
Graduate Course (.600-.700) [If taking 10 course option and if not counted in Sr. year]		Graduate Course (.600-.700) [If taking 10 course option and if not counted in Sr. year]	

* - Students are encouraged to take 110.302 Differential Equations (4) and 110.201 Linear Algebra (4) instead of the combined 550.291 L.A./D.E. course (4) if they can work the additional four credits into their schedule. An advantage of taking the courses separately is that 110.302 Differential Equations can be counted as a Technical Elective.

** - Students must take either
A) 530.461 Engineering Business and Management *or*
B) 660.105 Introduction to Business and Management and 660.341 Business Process and Quality Mgmt.