

BS/MBA MECHANICAL ENGINEERING

Course Guide for students starting ME prior to Fall 2016

[Students entering Fall 2016 or later should refer to their Undergraduate Catalog](#)

First Year

Fall Semester	Credit Hrs	Spring Semester	Credit Hrs.
MTH 141 Calculus I	4	MTH 142 Calculus II	4
CHE 107 Chemistry I ^	4	PHY 107 Physics I	4
EAS 140 Engineering Principles	3	MAE 177 Intro to Eng Drawing/CAD	2
ENG 101 or 201 Writing **	3	EAS 230 Engineering Computations	3
General Education %	3	ENG 201 Writing 2 or Humanities **	3
Total Credits	17	EAS 202 Engineering Impact on Society ^	1
Library Skills *		Total Credits	17

Second Year

MTH 241 Calculus III	4	MTH 306 Differ. Equations	4
PHY 108 Physics II	4	EAS 208 Dynamics	3
PHY 158 Physics II Lab	1	EAS 209 Mech of Solids	3
EAS 207 Statics	3	EE 200 EE Concepts	3
MAE 204 Thermodynamics	3	General Education %	3
MAE 277 Intro to ME Practice	3	Total Credits	16
Total Credits	18		

Third Year

MAE 335 Fluid Mechanics	3	MAE 311 Machines I	3
MAE 376 Applied Math for MAE's	3	MAE 336 Heat Transfer	3
MAE 340 Dynamic Systems	3	MAE 364 Manufacturing Processes	3
MAE 381 Engrg. Materials I	3	MAE 334 MAE Lab I	2
MAE 377 Product Design in a CAD Envir.	3	MAE 385 Materials Lab	1
Total Credits	15	MAE Technical Elective ***	3
		Total Credits	15

MBA applications are due by May 1 of third year

Fourth Year

First Semester MBA Core @	15	Second Semester MBA Core @	10
MAE 451 Design Process & Methods	3	MBA Elective @	3
MAE 338 MAE Lab II	2	General Education %	3
Total Credits	20	Total Credits	16

Fifth Year

MBA Electives - may include internship @	12	Fourth Semester MBA Core @	2
MAE Technical Elective ***	3	MBA Electives @	6
General Education %	3	MAE 494 Design Project	3
		MAE Technical Elective ***	3
		General Education %	3
Total Credits	18	Total Credits	17

- * Library Skills Test is required for all students entering UB in Fall of 1997 and thereafter.
See the Library Skills website at <http://ublib.buffalo.edu/libraries/units/ugl> or go to room 107 in UGL.
- ** ENG 101 and ENG 201 and Humanities as determined by placement: SAT/ACT, AP, TOEFL, or transfer credit. SAT verbal 400-570 = ENG 101 and then 201, 580-720 = ENG 201 and Humanities (%), 730-800 = Exempt from Writing Skills but need Humanities (%).
- *** To satisfy the technical elective requirements, students must complete a total of three courses at the 300 level or higher from the MAE department. The two professional practice courses required in the standard BS degree are satisfied by the MBA core when the requirements for the combined degree are fulfilled. MGQ 608 Statistical Analysis for Managers and MGQ 609 Analytics for Managers satisfy the applied math elective.
- ^ CHE 101 OR CHE 105 may be substituted for CHE 107.
- ^^ EAS 202 Engineering Impact on Society is required for students entering UB Engineering as freshman beginning with the fall 2011 catalog year.
- % World Civilizations I and II, American Pluralism or approved cognate, Social & Behavioral Science, Arts, and Humanities (if not required to complete ENG 101-201 sequence).
- @ Contact the School of Management for advisement on core MBA requirements and electives

This outline reflects course changes in MAE 334 and MAE 340 effective fall 2011 and MAE 338 effective Fall 2012. Students who have already successfully completed these courses prior to the changes do not need to retake them.