

BS/MBA INDUSTRIAL ENGINEERING

Course Guide for students starting IE 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	CHE 108 Chemistry II ^^	4
ENG 101 or 201 Writing **	3	ENG 201 Writing 2 or Humanities **	3
General Education %	3	IE 101 Discover Industrial Engineering	1
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	IE 320 Engineering Economy	3
PHY 158 Physics II Lab	1	Engrg. Science Elective: choose EE 200, EE 202, MAE 204, EAS 208 or EAS 209	3
EAS 207 Statics	3	General Education %	3
EAS 230 Engineering Computations	3	General Education %	3
General Education %	3	Total Credits	16
Total Credits	18		

Third Year

EAS 305 Applied Probability	4	IE 306 Statistical Methods	4
IE 373 Operations Research I	4	IE 327 Facilities Design	3
IE 326 Planning for Production	4	IE 323 Ergonomics	4
MTH 309 Linear Algebra	4	IE 374 Operations Research II	4
Total Credits	16	General Education %	3
		Total Credits	18

MBA applications are due by May 1 of third year

Fourth Year

First Semester MBA Core @	15	Second Semester MBA Core @	10
IE 477 Digital Simulation	4	IE 408 Quality Assurance	3
Total Credits	19	IE Technical Elective ***	3
		Total Credits	16

Fifth Year

MBA Electives - may include internship @	12	Fourth Semester MBA Core @	2
IE 420 IE Lab	3	MBA Electives @	9
IE Technical Elective ***	3	IE 496 IE Internship	4
Total Credits	18	Total Credits	15

- Pr. Indicates a prerequisite for the course. Not all prerequisites are noted.
- * 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 (%).
- *** Please see department manual for details on IE technical electives. 2 IE TE's are required; 1 IE TE must be chosen from IE 441, IE 435 or IE 436. 2 non-IE TE's and 2 additional IE TEs required in the standard BS degree are satisfied by the MBA core when the requirements for the combined degree are fulfilled.
- ^ CHE 101-102 OR CHE 105-106 may be substituted for CHE 107-108.
- ^^ PHY 207/257 (Physics III w/lab) or BIO 200 or BIO 201 with lab may be taken instead of CHE 108.
- ^^^ 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.

Note: This outline reflects changes made in the IE curriculum fall 2011. The "EAS 208 or EAS 209" requirement was eliminated in the new curriculum making the course selection for the "Eng Sci Elective" = EE 200, EE 202, MAE 204, EAS 208 or EAS 209. The other curriculum change converting the free elective to an IE TE does not affect the BSMBA program since one of the MBA courses can satisfy this requirement when requirements for the combined degree are fulfilled. See *** above.