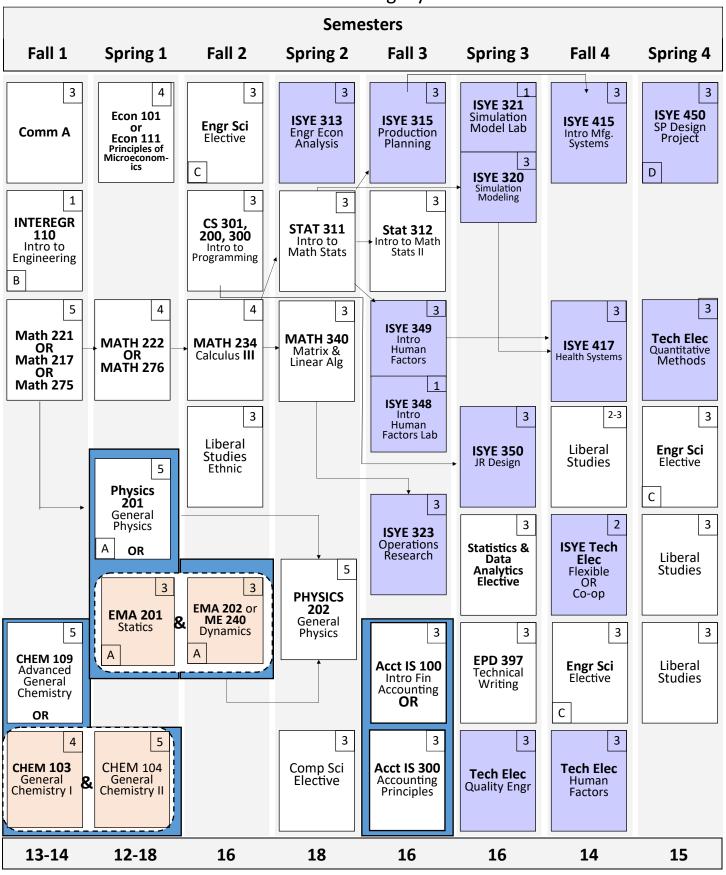
## **Industrial and Systems Engineering**

Effective for Students Entering ISyE Fall 2016 or Later



Required ISYE courses offered every semester

Both courses must be taken

## ISyE Required Curriculum (Fall 2016 and beyond)

Mathematics and Statistics		Credits
Math 221 (or 217 or 275)	Calculus and Analytic Geometry	5
Math 222 (or 276)	Calculus and Analytic Geometry	4
Math 234	Calculus - Functions of Several Variables	4
Math 340	Elementary Matrix & Linear Algebra	3
Stat 311	Introduction to Mathematical Statistics I	3
Stat 312	Introduction to Mathematical Statistics II	3
otal Credits		22
Science		
Physics 201 (or EMA 201) <sup>A</sup>	General Physics	5
Physics 202 <sup>A</sup>	General Physics	5
Chem 109 (or 103 & 104)	General Chemistry	5-9
Comp Sci 301, 200, or 300	Introduction to Programming	3
otal Credits		18-22
Eng. & Science Electives	Eng. Science 3(Non ISyE or EPD) (min 3cr), Computer Science Elective (min 3cr), Statistics Elective (min 3cr); Additional 6 credits of electives in Eng. Science, CS, Statistics, Math, or Biology.	15
Required ISyE Courses		
Acct IS 300 (or 100)	Accounting Principles	3
SyE 313	Engineering Economic Analysis	3
SyE 315	Production Planning and Control	3
SyE 320	Simulation and Probabilistic Modeling	3
ISyE 321	Simulation Modeling Laboratory	1
SyE 323	Operations Research-Deterministic Modeling	3
SyE 348	Human Factors Laboratory2	1
SyE 349	Introduction to Human Factors	3
SyE 350	Junior Design Laboratory	3
SyE 415	Introduction to Mfg. Systems, Design & Analysis	3
SyE 417 SyE 450 <sup>D</sup>	Health Systems Engineering	3
•	Senior Design Project	3
otal Credits		32
SyE Technical Electives	Human Factors, Quantitative Methods, Quality Engineering and Inter Egr 110—Intro to Engineering	12
Communication Skills		
Comm A + Comm B (EPD 397)	According to CoE regulations	
· · · ·	Technical Communication	6
Liberal Studies		
Electives	According to COE Regulations for Liberal Studies Electives	11
Econ 101 (or 111)	Principles of Micro Economics	4
		15
Min Required Credits		120

<sup>&</sup>lt;sup>A</sup> EMA 201 alone does NOT meet the pre-req for Physics 202. If you take EMA 201 you must take either EMA 202 or ME 240 also to meet the Physics 202 pre -requisites. EMA 202 and ME 240 will fulfill Engineering Science credit requirements.

For complete ISyE Curriculum Guide Details please visit: <a href="https://www.engr.wisc.edu/department/industrial-systems-engineering/">https://www.engr.wisc.edu/department/industrial-systems-engineering/</a>

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<sup>&</sup>lt;sup>B</sup> This course is not required for transfer students. (Inter Egr 110 will count as a 1 credit undesignated IE Tech Elective for ISyE students)

<sup>&</sup>lt;sup>c</sup> InterEgr 170 (or other eligible InterEgr departmental course option) will count toward the Engineering & Science Elective credits.

DISYE 450 prerequisites are all ISYE required courses with the exception of one of the following courses taken concurrently (ISYE 415 OR ISYE 417)