



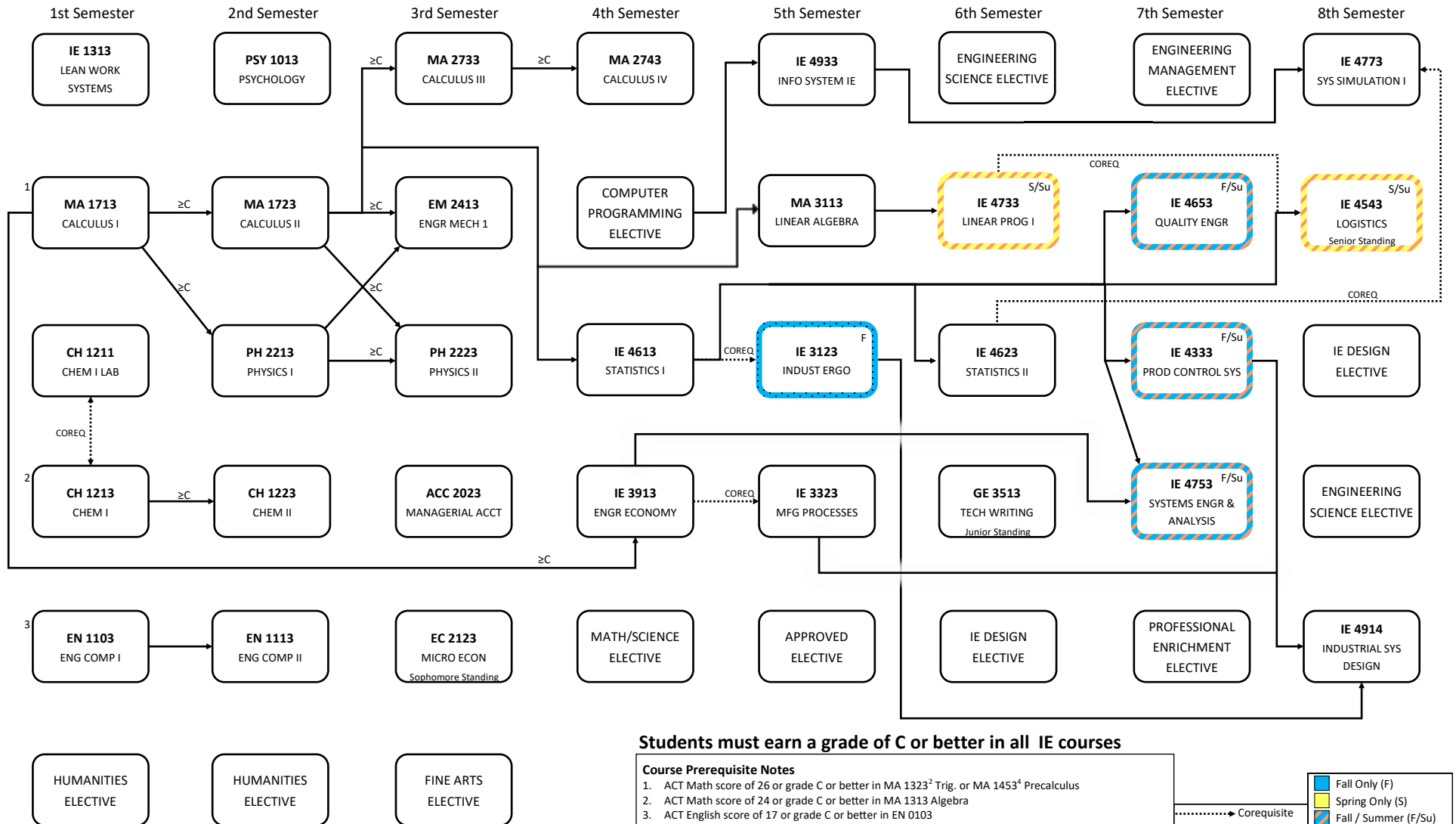
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# INDUSTRIAL & SYSTEMS ENGINEERING

## INDUSTRIAL ENGINEERING CURRICULUM FLOW SHEET

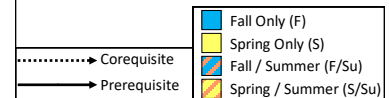
\* Click upper right corner to mark as complete



Students must earn a grade of C or better in all IE courses

**Course Prerequisite Notes**

1. ACT Math score of 26 or grade C or better in MA 1323<sup>2</sup> Trig. or MA 1453<sup>4</sup> Precalculus
2. ACT Math score of 24 or grade C or better in MA 1313 Algebra
3. ACT English score of 17 or grade C or better in EN 0103
4. ACT Math score of 24 or grade C or better in MA 1323 or score of 70+ on Precalculus Qualifying Exam



**ENGLISH (6 HOURS)**

EN 1103<sup>2</sup> ENGLISH COMPOSITION I  
 EN 1113 ENGLISH COMPOSITION II

**FINE ARTS (3 HOURS)**

\_\_\_3 FINE ARTS ELECTIVE  
 AAS 1103 *African-American Music (MU 1103)*  
 ARC 1013 *Architectural Apprec. (BCS 1013)*  
 ART 1013 *Art History I*  
 ART 1023 *Art History II*  
 ART 1113 *Art Appreciation*  
 CO 1503 *Introduction to Theatre*  
 HON 3173 *Honors Seminar in Fine Arts*  
 ID 3643 *History of Interiors*  
 LA 1803 *Landscape Architecture Appreciation*  
 MU 1113 *History & Appreciation of Music*  
 MU 1123 *History & Apprec. of American Music*  
 MU 1133 *History of Rock and Roll*  
 MU 1143 *History of Jazz*  
 MU 1163 *Introduction to Music in Film*  
 MU 1173 *Music of the Beatles*  
 MU 2173 *Women in Music*  
 MU 3013 *Survey of Western Music History I*  
 PE 1323 *History & Appreciation of Dance*  
 PSS 2343 *Floral Design*  
 TKI 2413 *Hist. & Appreciation of the Arts*

**Fine Arts Selection:****NATURAL SCIENCES (13 HOURS)**

CH 1213<sup>2</sup> CHEMISTRY I  
 CH 1211 INVESTIGATIONS IN CHEMISTRY I  
 CH 1223 CHEMISTRY II  
 PH 2213 PHYSICS I  
 PH 2223 PHYSICS II

**MATHEMATICS (15 HRS)**

MA 1713<sup>1</sup> CALCULUS I  
 MA 1723 CALCULUS II  
 MA 2733 CALCULUS III  
 MA 2743 CALCULUS IV  
 MA 3113 LINEAR ALGEBRA

**SOCIAL SCIENCES (6 HOURS)**

EC 2123 PRINCIPLES OF MICROECONOMICS  
 PSY 1013 GENERAL PSYCHOLOGY

**STUDENTS MUST CHECK COURSE DESCRIPTIONS FOR PREREQUISITE AND/OR GRADE REQUIREMENTS.**

Fine Arts and Humanities elective lists are not exhaustive. See the Undergraduate Catalog for a complete listing. Effective date: August 1, 2020

**HUMANITIES (6 HOURS)**

\_\_\_3 HUMANITIES ELECTIVE  
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 AAS 1063 *Intro. to African-American Studies*  
 AAS 2363 *Intro. to African-American Lit.*  
 AAS 3013 *African-American History to 1865*  
 AAS 3023 *African-American Hist. since 1865*  
 ARC 2313 *History of Architecture I*  
 ARC 3313 *History of Architecture II*  
 ARC 3323 *History of Architecture III*  
 BCS 2013 *Construction and Culture*  
 EN 2203 *Introduction to Literature*  
 EN 2213 *English Literature before 1800*  
 EN 2223 *English Literature after 1800*  
 EN 2243 *American Literature before 1865*  
 EN 2253 *American Literature after 1865*  
 EN 2273 *World Literature before 1600*  
 EN 2283 *World Literature after 1600*  
 FL\*\*1113 *Language I*  
 FL\*\*1123 *Language II*  
 FL\*\*2133 *Language III*  
 FL\*\*2143 *Language IV*  
 HI 1003 *History of Science in Six Ideas*  
 HI 1013 *History of Technology in Six Objects*  
 HI 1063 *Early U.S. History*  
 HI 1073 *Modern U.S. History*  
 HI 1163 *World History before 1500*  
 HI 1173 *World History since 1500*  
 HI 1213 *Early Western World*  
 HI 1223 *Modern Western World*  
 HI 1313 *East Asian Civilizations to 1300*  
 HI 1323 *East Asian Civilizations since 1300*  
 HI 4683 *Europe: First World War to Hitler*  
 HON 1163 *The Quest Begins*  
 HON 3183 *Honors Seminar in the Humanities*  
 PHI 1103 *Introduction to Philosophy*  
 PHI 1113 *Introduction to Logic*  
 PHI 1123 *Introduction to Ethics*  
 PHI 3023 *History of Western Philosophy I*  
 PHI 3033 *History of Western Philosophy II*  
 PHI 3153 *Aesthetics*  
 REL 1103 *Introduction to Religion*  
 REL 3213 *World Religions I*  
 REL 3223 *World Religions II*

**Humanities Selections:**

\*\* Chinese (FLC), French (FLF), German (FLG), Greek (FLH), Italian (FLI), Japanese (FLJ), Latin (FLL), Russian (FLR), and Spanish (FLS).

**MAJOR CORE:****MATH/SCIENCE ELECTIVE (3 HOURS)**

\_\_\_3 MATH/SCIENCE ELECTIVE  
**APPROVED MATH/SCIENCE ELECTIVES:**  
 BIO 1134 *Biology I*  
 CH 2313 *Analytical Chemistry*  
 GG 4153 *Engineering Geology*  
 GG 4233 *Applied Geophysics*  
 MA 3053 *Foundation of Math I*  
 MA 3253 *Differential Equations I*  
 MA 4143 *Graph Theory*  
 MA 4313 *Numerical Analysis I*  
 PH 2233 *Physics III*  
 ST 4213 *Nonparametric Methods*

**Math/Science Selection:****ENGINEERING TOPICS (12 HOURS)**

EM 2413 ENGINEERING MECHANICS I  
 \_\_\_3 ENGINEERING SCIENCE ELECTIVE  
 \_\_\_3 ENGINEERING SCIENCE ELECTIVE  
**APPROVED ENGINEERING SCIENCE ELECTIVES:**  
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**Engineering Science Selection (1):****Engineering Science Selection (2):**

\_\_\_3 COMPTR PROGRAMMING ELECTIVE  
**APPROVED COMPTR PROGRAMMING ELECTIVES:**  
 CSE 1233 *Computer Programming with C*  
 CSE 1284 *Introduction to Computer Programming*

**Computer Programming Selection:****INDUSTRIAL ENGINEERING (52 HOURS)**

IE 1313 LEAN WORKS SYSTEMS  
 IE 3123 INDUSTRIAL ERGONOMICS  
 IE 3323 MANUFACTURING PROCESSES  
 IE 3913 ENGINEERING ECONOMY I  
 IE 4333 PRODUCTION CONTROL SYSTEMS I  
 IE \_\_\_3 ENGR MANAGEMENT ELECTIVE  
**APPROVED ENGR MANAGEMENT ELECTIVES:**  
 IE 4513 *Engineering Administration*  
 IE 4533 *Project Management*  
 IE 4543 LOGISTICS ENGINEERING  
 IE 4613 ENGINEERING STATISTICS I  
 IE 4623 ENGINEERING STATISTICS II  
 IE 4653 QUALITY ENGINEERING  
 IE 4733 LINEAR PROGRAMMING I  
 IE 4753 SYSTEMS ENG & ANALYSIS  
 IE 4773 SYSTEMS SIMULATION I  
 IE 4914 INDUSTRIAL SYSTEMS DESIGN  
 IE 4933 INFORMATION SYSTEMS IN IE  
 IE \_\_\_3 IE DESIGN ELECTIVE  
 IE \_\_\_3 IE DESIGN ELECTIVE

**Engineering Management Selection:****IE Design Elective Selection (1):****IE Design Elective Selection (2):****OTHER (12 HOURS)**

ACC 2023 MANAGERIAL ACCOUNTING  
 GE 3513 TECHNICAL WRITING  
 \_\_\_3 PROF. ENRICHMENT ELECTIVE  
*This elective is to aid students in the enrichment of the undergraduate program in a professional manner. The course is chosen in consultation with advisor to support the student in the advancement of their educational and career goals. To meet this requirement, a grade of C or better must be achieved in the selected course.*

\_\_\_3 APPROVED ELECTIVE  
*Students may choose nearly any course or combination of courses totaling three credit hours or more. Exceptions which students may not choose are remedial courses, LSK courses, and physical education courses outside of varsity sports.*