

UNIVERSITY OF MIAMI
BACHELOR OF SCIENCE IN INDUSTRIAL ENGINEERING
Program Requirements – 128 Credits
2017 – 2018

NAME:

STUDENT #:

COURSE CR SEM GR QP SUB INI COURSE CR SEM GR QP SUB INI

****FRESHMAN YEAR****

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|--|---|--|--|--|--|--|--|---|--|--|--|--|--|--|
| IEN 111 Introduction to Engineering I | 3 | | | | | | IEN 112 Introduction to Engineering II | 2 | | | | | | |
| ENG 105 English Composition I | 3 | | | | | | ENG 107 Writing About Science | 3 | | | | | | |
| MTH 151 Calculus I for Engineers | 5 | | | | | | MTH 162 Calculus II | 4 | | | | | | |
| PHY 205 University Physics I | 3 | | | | | | ECO 211 or ECO 212 Economic Principles & Problems | 3 | | | | | | |
| | | | | | | | PHY 206 University Physics II | 3 | | | | | | |
| | | | | | | | PHY 208 University Physics II Lab | 1 | | | | | | |

****SOPHOMORE YEAR****

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| HA Cognate (HA Elective) ¹ | 3 | | | | | | HA Cognate (HA Elective) ¹ | 3 | | | | | | |
| IEN 201 Methods Analysis & Work Measurements | 3 | | | | | | CAE 210 Mechanics of Solids I, or ECE 205 Principles of Electrical Engineering I, or MAE 303 Thermodynamics I | 3 | | | | | | |
| MTH 210 Vectors & Matrices | 3 | | | | | | CHM 151 Chemistry for Engineers I | 3 | | | | | | |
| PHY 207 University Physics III | 3 | | | | | | CHM 153 Chemistry Laboratory for Engineers | 1 | | | | | | |
| PHY 209 University Physics III Lab | 1 | | | | | | MTH 311 Ordinary Differential Equations | 3 | | | | | | |
| PS Cognate (PS Elective) ¹ | 3 | | | | | | PS Cognate (PS Elective) ¹ | 3 | | | | | | |

****JUNIOR YEAR****

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|--|---|--|--|--|--|--|--|---|--|--|--|--|--|--|
| HA Cognate (Advanced HA Elective) ¹ | 3 | | | | | | IEN 312 Applied Statistical Methods | 3 | | | | | | |
| IEN 310 Introduction to Engineering Probability | 3 | | | | | | IEN 361 Industrial Cost Analysis | 3 | | | | | | |
| IEN 351 Industrial Safety Engineering | 3 | | | | | | IEN 363 Project Management for Engineers | 3 | | | | | | |
| IEN 380 Engineering Economy | 3 | | | | | | IEN 406 Computer-Aided Manufacturing | 3 | | | | | | |
| IEN 441 Deterministic Models in Operations Research | 3 | | | | | | IEN 442 Stochastic Models in Operations Research | 3 | | | | | | |
| PS Cognate (Advanced PS Elective) ¹ | 3 | | | | | | Technical Elective ² | 3 | | | | | | |

****SENIOR YEAR****

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|---|---|--|--|--|--|--|--|---|--|--|--|--|--|--|
| IEN 465 Production & Inventory Control | 3 | | | | | | IEN 494 Senior Project | 3 | | | | | | |
| IEN 512 Statistical Quality Control & Quality Management | 3 | | | | | | IEN 524 Decision Support Systems in IE | 3 | | | | | | |
| IEN 547 Computer Stimulation Systems | 3 | | | | | | IEN 568 Material Handling & Facilities Planning | 3 | | | | | | |
| IEN 557 Ergonomics & Human Factor Engineering | 3 | | | | | | IEN Elective ³ | 3 | | | | | | |
| IEN Elective ³ | 3 | | | | | | IEN Elective ³ | 3 | | | | | | |

¹Students take a minimum of 3 courses (9 credit hours) in HA cognate and 3 courses in PS Cognate (9 credit hours).

²The Technical Elective is selected from courses at the 300 level or above, offered by one of the following departments: MTH, BME (except BME 320), CAE, ECO, EEN, IEN, MEN, ACC, FIN, MGT (except MGT 303), MAS, MKT.

³IEN Electives are selected from courses at the 300 level or above, offered by the Department of Industrial Engineering.