

**UNIVERSITY OF MIAMI**  
**BACHELOR OF SCIENCE IN INDUSTRIAL ENGINEERING**  
**Engineering Management Concentration**  
**Program Requirements – 128 Credits**  
**2019 – 2020**

NAME:

STUDENT #:

COURSE	CR	SEM	GR	QP	SUB	INI	COURSE	CR	SEM	GR	QP	SUB	INI
<b>**FRESHMAN YEAR**</b>													
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 221 University Physics I	3						ECO 211 or ECO 212 Economic Principles & Problems	3					
							PHY 222 University Physics II	3					
							PHY 224 University Physics II Lab	1					
<b>**SOPHOMORE YEAR**</b>													
BSL 212 Introduction to Business Law or BUS 202 Introduction to Legal Environment of Business	3						CAE 210 Mechanics of Solids I, or ECE 205 Principles of Electrical Engineering I, or MAE 303 Thermodynamics I	3					
HA Cognate (HA Elective) <sup>1</sup>	3						CHM 151 Chemistry for Engineers I	3					
IEN 201 Methods Analysis & Work Measurements	3						CHM 153 Chemistry Laboratory for Engineers	1					
MTH 210 Vectors & Matrices	3						HA Cognate (HA Elective) <sup>1</sup>	3					
PHY 223 University Physics III	3						MTH 311 Ordinary Differential Equations	3					
PHY 225 University Physics III Lab	1						PS Cognate (PS Elective) <sup>1</sup>	3					
<b>**JUNIOR YEAR**</b>													
HA Cognate (HA Elective) <sup>1</sup>	3						PS Cognate (PS Elective) <sup>1</sup>	3					
IEN 310 Introduction to Engineering Probability	3						IEN 312 Applied Statistical Methods	3					
IEN 351 Industrial Safety Engineering	3						IEN 361 Industrial Cost Analysis	3					
IEN 380 Engineering Economy	3						IEN 363 Project Management for Engineers	3					
IEN 441 Deterministic Models in Operations Research	3						IEN 406 Computer-Aided Manufacturing	3					
PS Cognate (Advanced PS Elective) <sup>1</sup>	3						IEN 442 Stochastic Models in Operations Research	3					
<b>**SENIOR YEAR**</b>													
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 570 Engineering Management	3					
IEN 571 Engineering Entrepreneurship	3						IEN 572 Management of Technological Innovation	3					

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