

UNIVERSITY OF MIAMI
BACHELOR OF SCIENCE IN INDUSTRIAL ENGINEERING
Program Requirements – 128 Credits
2019 – 2020

NAME:

STUDENT #:

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

****FRESHMAN YEAR****

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						

****SOPHOMORE YEAR****

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 223 University Physics III	3						CHM 153 Chemistry Laboratory for Engineers	1						
PHY 225 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****

HA Cognate (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 (PS Elective) ¹	3						Technical Elective ²	3						

****SENIOR YEAR****

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.