

UNIVERSITY OF MIAMI
DEPARTMENT OF INDUSTRIAL ENGINEERING
BACHELOR OF SCIENCE IN INDUSTRIAL ENGINEERING
PRE-MEDICAL CONCENTRATION

135 Credits
2011-2012

<i>Freshman Year:</i>					
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	PHY 206	University Physics II	3
ECO 211	Economic Principles and Problems	3	PHY 208	University Physics II Lab	1
			CHM 111	Principles of Chemistry I	3
			CHM 113	Chemistry Laboratory I	1
Total		17	Total		17

<i>Sophomore Year:</i>					
BIL 150	General Biology	4	BIL 160	Evolution & Biodiversity	4
BIL 151	General Biology Lab	1	BIL 161	Evolution & Biodiversity Lab	1
CHM 112	Principles of Chemistry II	3	COS 211	Public Speaking	3
CHM 114	Chemistry Laboratory II	1	ECO 212	Economic Principles and Problems	3
MTH 210	Introduction to Linear Algebra	3	MTH 311	Ordinary Differential Equations	3
PHY 207	University Physics III	3	PHY 209	University Physics III Lab	1
IEN 201	Methods Analysis & Work Measurements	3		Humanities and Arts Elective*	3
Total		18	Total		18

<i>Junior Year:</i>					
CHM 201	Organic Chemistry I (Lecture)	3	CHM 202	Organic Chemistry II (Lecture)	3
CHM 205	Organic Chemistry Laboratory I	1	CHM 206	Organic Chemistry Laboratory II	1
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 442	Stochastic Models in Operations Research	3
Total		16	Total		16

<i>Senior Year:</i>					
IEN 465	Production & Inventory Control	3	IEN 406	Computer - Aided Manufacturing	3
IEN 512	Statistical Quality Control & Quality Management	3	IEN 494	Senior Project	3
IEN 547	Computer Simulation Systems	3	IEN 513	Quality Management in Service Organizations	3
IEN 557	Ergonomics & Human Factors Engineering	3	IEN 524	Decision Support Systems in IE	3
	Advanced PS/HA Elective*	3	IEN 568	Materials Handling & Facilities Planning	3
	Advanced PS/HA Elective*	3			
Total		18	Total		15

* [PS/HA Electives](#) are selected from a list of approved electives maintained in the department at UM.