

# DESIGN SPINE CURRICULUM: ENGINEERING MANAGEMENT FIVE-YEAR PLAN

## CO-OP SCHEDULE A – Class of 2009 and Beyond

*Listed by Course Number, Course Name, Lecture Hours-Lab Hours-Credit Hours*

<b>Class Term I - Fall</b>			<b>Class Term II - Spring</b>		
CH 115	General Chemistry IA	3-0-3	CH 116 / CH 281/ EN 250	Science Elective and associated Lab	3-0-3
CH 117	General Chemistry Lab I	0-3-1	PEP 111	Physics I	3-0-3
Ma 115	Calculus I	3-0-3	Ma 116	Calculus II	3-0-3
E 101	Engineering Experiences I	1-0-0	E 102	Eng. Experiences II	1-0-1
E 121	Engineering Design I	0-3-2	E 122	Engineering Design II	0-3-2
E 120	Engineering Graphics	0-2-1	HU	Humanities	3-0-3
E 115	Intro. To Programming	1-1.5-2			
HU	Humanities	3-0-3			
		11-9.5-15			13-3-15

### **Co-op Term I Summer**

<b>Class Term III – Fall</b>		<b>Co-op Term II Spring</b>		<b>Class Term IV - Summer</b>	
Ma 221	Differential Equations	4-0-4	Ma 227	Multivariate Calculus	3-0-3
PEP 112	Physics II	3-0-3	E 232	Engineering Design IV	2-3-3
E 126	Mechanics of Solids	4-0-4	E 234	Thermodynamics	3-0-3
E 245	Circuits & Systems	2-3-3	E 355	Engineering Economics	3-3-4
E 231	Engineering Design III	0-3-2	HU	Humanities	3-0-3
EM 365	Statistics for Engineers	3-1.5-4	PEP 201 or above	Science Elective II without lab	2-3-3
		16-7.5-20			16-9-19

<b>Class Term V – Spring</b>		<b>Co-op Term IV Summer</b>		<b>Class Term VI - Fall</b>	
E 321	Engineering Design V	0-3-2	EM 301	Acct. & Business Analysis.	3-3-4
EM 360	Total Quality Mgmt.	3-0-3	EM 351	Mgt. Of Info. Networks.	3-0-3
EM 385	Innovative System Design	3-0-3	HU	Humanities	3-0-3
E 344	Materials Processing	3-0-3	GE	General Elective	3-0-3
EM 322	Engineering Design VI	1-3-2	CE 342	Transport/Fluid Mechanics	3-3-4
EM 345	Modeling & Simulation	3-0-3			
EM 270	Mgt Engineering & Tech	3-0-3			
		16-6-19			15-6-17

### **Co-op Term V Spring/Summer**

<b>Class Term VII - Fall</b>			<b>Class Term VIII - Spring</b>		
EM 423	Engineering Design VII	1-7-3	EM 424	Engineering Design VIII	1-7-3
TG	Technogenesis Core	3-0-3	EM 450	Logistics and Operations Management	3-0-3
GE	General Elective	3-0-3	GE	General Elective	3-0-3
EM 457	Operations Research	3-0-3	HU	Mgt 243- Macroecon.	3-0-3
HU	Mgt 244- Microeconomics	3-0-3	EM 275	Project Management	3-0-3
EM 435	Bus Process Reengineering	3-0-3			
		16-7-18			13-7-15

#### **Notes:**

Boxed courses are EM Senior Design

- MGT 243 and MGT 244 count for humanities credit, they may be taken in any semester
- EM385 and EM345 are prerequisites for Senior Design (EM423 and EM424)