

**SAMPLE CURRICULUM with SEMESTER IN LUXEMBOURG
MECHANICAL ENGINEERING
SCHOOL OF ENGINEERING & APPLIED SCIENCE - MIAMI UNIVERESITY
2008-2009**

Please see advisor for MUDEC courses and other alternatives

Freshman Year

<i>First Semester</i>		<i>Second Semester</i>	
EAS 101 Computing, Engineering & Society	1	EAS 102 Problem Solving & Design	3
ENG 111 College Composition (MPF I)	3	ENG 112 Composition and Literature (MPF I)	3
MTH 151 Calculus I (MPF V)	5	MTH 251 Calculus II	4
PHY 181 The Physical World (MPF IVB)	4	PHY 182 The Physical World (MPF IVB)	4
PHY 183 The Physical World Lab (MPF IVB)	1	PHY 184 The Physical World Lab (MPF IVB)	1
Miami Plan Biological Science Course (MPF IVA)	3	Miami Plan Fine Arts Course (MPF IIA)	3
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Sophomore Year

<i>First Semester</i>		<i>Second Semester</i>	
CHM 141 College Chemistry (MPF IVB)	3	ECE 205 Electric Circuit Analysis	3
CHM 144 College Chemistry Lab (MPF IVB)	2	MME 223 Engineering Materials	3
ECO 201 Principles of Microeconomics (MPF IIC)	3	MME 312 Mechanics of Materials	3
MME 211 Static Modeling of Mechanical Systems	3	MME/PCE 341 Engineering Economics	3
MME 213 Computational Methods in Engineering	3	STA 368 Introduction to Statistics	4
MTH 245 Differential Equations for Engineers	3	Miami Plan U.S. Cultures Course (MPF IIIA)	3
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Junior Year

<i>First Semester</i>		<i>Second Semester</i>	
Language	4	ENG 313 Technical Writing	3
Miami Plan Humanities Course (MPF IIB)	3	MME/ECE 303 Computer-Aided Experimentation	4
Miami Plan Thematic Sequence (MPT)	6	MME 231 Manufacturing Processes	3
Miami Plan Fine Arts, Humanities or Social Science Course (MPF IIA,B, or C)	3	MME/PCE 313 Fluid Mechanics	3
		MME/PCE 314 Engineering Thermodynamics	3
		MTH 222 Introduction to Linear Algebra	3
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Senior Year

<i>First Semester</i>		<i>Second Semester</i>	
MME 311 Dynamic Modeling of Mechanical Systems	3	MME 315 Mechanical Vibrations	3
MME 411 Machine and Tool Design	4	MME 412 Advanced Mechanics of Materials	3
MME 414 Advanced Thermodynamics	3	MME 449 Senior Design Project (MPC)	2
MME/ECE 436 Control of Dynamic Systems	3	MME/PCE 403 Heat Transfer	3
MME/ECE 448 Senior Design Project (MPC)	2	Miami Plan World Cultures Course (MPF IIIB)+	3
Technical Elective (see below)	3	Technical Elective (see below)	3
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+The School of Engineering & Applied Science and its Industrial Advisory Council suggest you consider taking IDS 159, Strength Through Cultural Diversity, to meet the World Cultures (MPF IIIB) requirement.

The Miami Plan for Liberal Education Foundation (MPF) requirement includes 6 hours of English Composition (ENG 111-112 fulfills this requirement); 12 hours in Fine Arts, Humanities, and Social Science (ECO 201 fulfills 3 hours of Social Science) with a minimum of 3 hours in each; 6 hours in U.S. and World Cultures; 9 hours of Natural Science, including one laboratory course with a minimum of 3 hours in Biological Science and 3 hours in Physical Science (PHY 181-182, 183-184 and CHM 141-144 more than fulfills the Physical Science requirement; however, a biological science course is still required); 3 hours of Mathematics, Formal Reasoning or Technology (MTH 151 fulfills this requirement). At least one of these foundation courses must provide a historical perspective (H). The actual order in which you take these courses is up to you. The outline above is just one sample of how the courses might be arranged. You must also complete 12 hours of Focus: Advanced Liberal Learning courses, including 9 hours in an approved Thematic Sequence (MPT) and a 3 hour Senior Capstone Experience (MPC) (MME/ECE 448/449 fulfills the capstone requirement).

Technical Electives - Select two courses from the courses listed below

ECE/CSA 287 Digital Systems Design	CSA 174 Fundamentals of Programming & Problem Solving
ECE 304 Electronics	CSA 271 Object-oriented Programming
ECE 306 Signals & Systems	CSA 273 Optimization Modeling
MME 334 Quality Planning & Control	CSA 372 Analysis of Stochastic Systems
MME 434 Advanced Manufacturing	CSA 484 Manufacturing Planning Systems
MME 435 Manufacturing Topics	PCE 482 Process Control
MME 437 Computer-Integrated Manufacturing Systems	