

**SAMPLE CURRICULUM -- DOUBLE MAJOR with Semester in Luxembourg
MANUFACTURING ENGINEERING and ENGINEERING MANAGEMENT - MANUFACTURING
ENGINEERING TECHNICAL SPECIALITY
SCHOOL OF ENGINEERING & APPLIED SCIENCE - MIAMI UNIVERESITY
2008-2009**

First Year

First Semester

EAS 101 Computing, Engineering & Society
ENG 111 College Composition (MPF I)
MTH 151 Calculus I (MPF V)
PHY 181 Physical World (MPF IVB)
PHY 183 Physical World Lab (MPF IVB)
Miami Plan U.S. Cultures Course (MPF IIIA)

Second Semester

1 EAS 102 Problem Solving & Design
3 ENG 112 Composition & Literature (MPF I)
5 MTH 251 Calculus II
4 PHY 182 Physical World (MPF IVB)
1 PHY 184 Physical World Lab (MPF IVB)

Summer

3 ACC 221 Intro to Financial Accounting 3
3 ECO 201 Prin of Microeconomic (MPF IIC) 3
4 ECO 202 Prin of Macroeconomic (MPF IIC) 3
4 COM 135 Public Express/Critical (MPF IIB) 3

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17

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12

Second Year

First Semester

CHM 141 College Chemistry (MPF IVB)
CHM 144 College Chemistry Lab (MPF IVB)
MME 223 Engineering Materials
MME 213 Computational Methods in Engineering
MME 211 Static Modeling of Mechanical Systems
STA 368 Introduction to Statistics

Second Semester

3 ECE 205 Electric Circuit Analysis
2 MME 231 Manufacturing Processes
3 MME/PCE 313 Fluid Mechanics
3 MME 312 Mechanics of Materials
3 MTH 245 Differential Equations for Engineers
4 MFG Technical Elective

Summer

3 ENG 313 Technical Writing 3
3 MGT 291 Organizational Behavior & Theory 3
3 MGT 302 Operations Management 3
3 MKT 291 Principles of Marketing 3

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Third Year

First Semester

Language
Miami Plan World Cultures (MPF IIIB)+
Miami Plan Fine Arts Elective (MPF IIA)
Add'l hours in consultation w/your
advisor

Second Semester

4 MME/ECE 303 Computer-Aided Experimentation
3 MME/PCE 314 Engineering Thermodynamics
3 MME 334 Quality Planning and Control
6 EGM/MGT 311 Project Management
3 CSA 372 Analysis of Stochastic Systems
3 MME/PCE 341 Engineering Economics

Summer

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Fourth Year

First Semester

MME 411 Machine & Tool Design
MME 434 Advanced Manufacturing
MME/ECE 436 Control of Dynamic Systems
MME/ECE 448 Senior Design Project (MPC)
MME 311 Dynamic Modeling of Mech Systems
Management Track

Second Semester

4 MME 435 Manufacturing Topics 3
3 MME 437 Computer-Integrated Mfg Systems 3
3 MME/ECE 449 Senior Design Project (MPC) 2
2 MFG Technical Elective 3
3 Management Track 3
3 Miami Plan Biological Science (MPF IVA) 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 (there are more options, see your advisory for more details)

ECE/CSA 287 Digital Systems Design
ECE 304 Electronics
ECE 305 Electric Circuit Analysis II
ECE 306 Signals & Systems
MME 315 Mechanical Vibrations
MME/PCE 403 Heat Transfer
MME 412 Advanced Mechanics
MME 414 Engineering Thermodynamics II

PCE 482 Process Control
PHY 286 Introduction to Computational Physics
CSA 174 Fundamentals of Programming & Problem Solving
CSA 271 Object-oriented Programming
CSA 273 Optimization Modeling
CSA 278 Computer Architecture
CSA 484 Manufacturing Planning Systems