SYSTEMS ANALYSIS (*SAMPLE*) FOUR-YEAR PLAN
2004-2005

Freshman Year

First Semester		*Second Semester*	
ENG 111 College Composition (MPF I)	3	ENG 112 Composition and Literature (MPF I)	3
MTH 151 or 153 Calculus I (MPF V) & (MPT MTH2)*	4-5	MTH 251 Calculus II	4
EAS 101 Computing, Engineering & Society (1 hr).	1	CSA 271 Object-Oriented Programming	3
CSA 174 Fund. of Programming & Problem Solving	3	MTH 231 Discrete Math (MPT MTH2)*	3
Miami Plan Fine Arts Course (MPF IIA)	3	Miami Plan Biological Science Course (MPF IVA)	3
Miami Plan World Cultures Course (MPF IIIB)+	3		16
	17-18		

Sophomore Year

First Semester		*Second Semester*	
ECO 201 Prin of Microeconomics (MPF IIC)	3	CSA 273 Optimization Modeling	3
CSA 274 Data Abstraction and Data Structures	3	CSA 278 Computer Architecture	3
STA 301 Applied Statistics (MPT MTH2)*	3	STA 401 Probability	3
Miami Plan Foundation II Elective	3	COM 135 Public Express/Critical Inquiry (MPF IIB)	3
Miami Plan Physical Science (MPF IVB)	3	Miami Plan Physical Science (MPF IVB)	3
	15	Free Elective	3
			18

Junior Year

First Semester		*Second Semester*	
CSA 283 Data Communications & Networks	3	ENG 313 Technical Writing	3
CSA 385 Database Systems	3	CSA 361 Ethical & Social Issues of Computing	3
CSA 372 Stochastic Modeling	3	Systems Analysis Elective (SA)	3
Special Interest area**	3	Miami Plan US Cultures Course (MPF IIIB)	3
Free Elective	3	Special Interest area**	3
	15		15

Senior Year

First Semester		*Second Semester*	
CSA 472 Software Engineering	3	CSA 475 Software Systems Project (MPC)	3
CSA 471 Simulation	3	Systems Analysis Elective (SA)	3
Systems Analysis Electives (SA)	6	Special Interest area**	3
Special Interest area**	3	Free Elective	7-8
	15		16-17

128 Hours required for degree

+The School of Engineering & Applied Science and its Advisory Council suggest you consider taking IDS 159, Strength Through Cultural Diversity, to meet the World Cultures (MPF IIIB) requirement and the non-dominant (ND) perspective.

The Miami Plan for Liberal Education Foundation (MPF) requirement includes 6 hours of English Composition (ENG 111-112 fulfills this requirement); 9 hours in Fine Arts and Humanities with a minimum of 3 hours in Fine Arts and 6 hours in Humanities (COM 135 fulfills 3 hrs of humanities); 9 hours in Social Science and World Cultures with a minimum of 3 hours in Social Science and 3 hours in World Cultures (ECO 201 fulfills 3 hours of Social Science); 9 hours of Natural Science, including one laboratory course with a minimum of 3 hours in Biological Science and 3 hours in Physical Science (CSA Science requirement fulfills 6 hours of Physical Science; however you still need to fulfill 3 hours of biological science); 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) and at least one must provide a perspective different from that of the dominant cultural heritage (ND) of the United States (typically fulfilled with selected Fine Arts, Humanities, Social Science, or World Cultures courses). Foundation courses ordinarily are taken in your first two years. 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 also must complete 12 hours of Focus: Advanced Liberal Learning courses, including 9 hours of an approved Thematic Sequence (MPT)* and a 3 hour Senior Capstone Experience (MPC) (CSA 475 fulfills the capstone requirement).

* The thematic sequence MTH2-Basic Mathematical Tools for Science is fulfilled by CSA requirements (MTH 151 or 153, MTH 231, and STA 301); the form to "declare" a thematic sequence must be submitted through the department offering the sequence).

** This requirement allows you to choose courses in an interest area outside your major. Some examples of special interest areas include accountancy, general business, mathematics, psychology, engineering, and music.

SYSTEMS ANALYSIS (SA) ELECTIVES (choose 4)

CSA 275 Data Processing and File Design
CSA 285 Client Server Systems
CSA 381 Operating systems
CSA 386 Introduction to Computer Graphics
CSA 464 Algorithms
CSA 465 Comparative Programming Languages
CSA 467 Computer & Network Security
CSA 470 Special Topics
CSA 473 Automata, Formal Languages, and Computability
CSA 474 Compiler Design
CSA 483 Statistical Forecasting
CSA 484 Manufacturing Planning Systems
CSA 485 Advanced Database Systems
CSA 486 Introduction to Artificial Intelligence