

2004-2005

FIRST YEAR ADVISERS' HANDBOOK

FOR

**THE SCHOOL OF ENGINEERING
and APPLIED SCIENCE**

(Engineering, Computing, and Nursing)



Kreger Hall

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FOR
THE SCHOOL OF ENGINEERING and APPLIED SCIENCE
(ENGINEERING, COMPUTING, AND NURSING)
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This handbook outlines the complete academic requirements, by major, for the School of Engineering and Applied Science. It has been designed specifically for your use in advising our first year students. We want to maintain and enhance our relations with you in all phases of academic and student life.

We realize that many students are uncertain about choosing a major. The School has developed a recommended first-year course pattern for these students. This pattern allows students maximum flexibility if they are considering any major based on science or mathematics.

Students who have selected a major should try to follow the suggested course pattern for their respective majors as illustrated throughout this handbook. These course patterns include all the requirements for graduation. Students may deviate from these patterns (e.g., beginning math selection) without hindering their progress. However, those who find it necessary to deviate greatly from these course patterns may have to make up course work during the summer sessions or go beyond the traditional four year period.

In addition to having you as their first year adviser, all first year students in the School of Engineering and Applied Science are assigned an academic adviser in their major department at the start of their first year. All students majoring in the School of Engineering and Applied Science are encouraged to review their academic progress with their academic adviser each semester prior to registration.

It is gratifying to know that you have accepted the responsibility for all first year students who are in your residence hall or commuting. Please allow us to assist you. Let us help you in making course substitutions or any "specifics" not clearly understood. If you have any problems in these areas, feel free to call us at 529-4036. I cordially invite you to visit Kreger Hall and become personally acquainted with us.

Sincerely yours,



Marek Dollár
Dean

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COMPUTER ENGINEERING	Lavender
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 ELECTRICAL ENGINEERING	Orange
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 ENGINEERING (GENERAL)	Tan
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 ENGINEERING MANAGEMENT	Buff
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Manufacturing Specialty	
Paper Science Specialty	
 MANUFACTURING ENGINEERING	Blue
Program Description	
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 MECHANICAL ENGINEERING	Ivory
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 PAPER SCIENCE AND ENGINEERING	Cherry
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 SYSTEMS ANALYSIS	Green
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ENGINEERING and APPLIED SCIENCE CHIEF ACADEMIC ADVISERS

4-YEAR PROGRAMS* OXFORD CAMPUS

<u>CATEGORY</u>	<u>NAME</u>	<u>LOCATION</u>	<u>PHONE</u>
The Division	Lisa Abrams	201 Bonham	9-4036
Electrical Engineering (EE)	C S Chen	109 Kreger	9-8342
Engineering Management (EGM)	Osama Ettouney	144 Kreger	9-2650
Manufacturing Engineering (MME)	Osama Ettouney	144 Kreger	9-2650
Mechanical Engineering (MME)	Osama Ettouney	144 Kreger	9-2650
Nursing (NSG)**	Lisa Abrams	201 Bonham	9-4036
Paper Science & Engineering (PSE)	R.C. Peterson	225 Gaskill	9-2200
Computer Engineering (CE)	C S Chen	109 Kreger	9-8342
Computer Science & Systems Analysis (CSA)	Bobbi Jaworski	127 Kreger	9-5941
Undecided Major (UND)	Lisa Abrams	201 Bonham	9-4036

* Associate Degree (2 year) programs in Engineering and Applied Science are offered at Miami's Middletown and Hamilton Campuses in Electrical and Computer Engineering Technology, Mechanical Engineering Technology, Nursing, Computer Technology, and Computer and Information Technology. Bachelor Degree (4 year) programs in Engineering and Applied Science are offered on the Middletown and Hamilton Campuses in Engineering Technology and Nursing. These programs are outlined in the University Bulletin.

** The Nursing program is available only on the Hamilton and Middletown campuses.

UNIVERSITY CODE NUMBER

Division	Engineering & Applied Science	AP
Major		
Electrical Engineering	EE	EE
Engineering Management	EGM	QV
	Environmental Science - QV76	
	Manufacturing - QV84	
	Paper Science - QV72	
Manufacturing Engineering	EGR	84
Mechanical Engineering	ME	ME
Paper Science & Engineering	PSE	72
Systems Analysis	SAN	89
Computer Engineering	CE	CE
Computer Science	CS	90
Engineering (General)	GE	GE
Undecided	UND	56

INTRODUCTION

The School of Engineering and Applied Science is dedicated to providing comprehensive associate, baccalaureate and selected graduate programs consistent with the mission and role of Miami University. The faculty and staff desire to meet the needs of business and industry that are related to professional programs by providing highly qualified, socially responsible graduates who will be successful in their chosen fields. To this end we assist students in finding internships and co-op positions in industry. Graduates from these baccalaureate programs remain in high demand as illustrated by last year's placement rate of nearly 90% and average starting salaries between \$37,500 and \$45,400.

The School offers courses in engineering, computing, and nursing that serve the needs of students within the college and other schools of the university.

DIVISIONAL CORE REQUIREMENTS

All students in Engineering and Applied Science must attain a minimum 2.0 GPA for required departmental courses in their major. A required division or departmental course is defined as a course with the prefix of EAS (Engineering and Applied Science), MME (manufacturing engineering, mechanical engineering), ECE (electrical engineering, computer engineering), NSG (nursing), PSE (paper science and engineering), or CSA (computer science & systems analysis). Since Engineering Management is an interdisciplinary program the departmental prefix includes MME, PSE, and MGT (Management). All students majoring in programs in the School of Engineering and Applied Science are encouraged to review their academic progress with their faculty adviser each semester prior to advanced registration. There are no divisional course requirements for the associate degree programs.

In addition to fulfilling the Miami Plan, the requirements of the major, and completing 128 hours, SEAS students complete:

- 2 semesters of calculus
- 1 course in statistics
- 2 semesters of physical science
- 1 course in economics
- 1 technical writing course
- 1 course in oral communication or equivalent experience in major classes
- 1 computing course
- laboratory requirements in the major discipline

Specific course requirements for each of the School's majors are listed in this handbook.

In addition to meeting the above core requirements, each department has a strong commitment to developing strong oral and written communication skills in its major.

MINORS

The School of Engineering and Applied Science offers minors in chemical engineering, computer engineering, computer science, electrical engineering, manufacturing engineering and mechanical engineering. See the University Bulletin or a School of Engineering and Applied Science Chief Academic Advisor for more information.

**A RECOMMENDED PATTERN OF FIRST YEAR COURSES
FOR UNDECIDED STUDENTS**

This pattern is recommended for students who have not chosen a major and who want to progress satisfactorily in the School of Engineering and Applied Science while maintaining maximum flexibility in considering any science/math based program. These courses should be chosen with the help of an academic advisor.

	<u>First Semester</u>	<u>Second Semester</u>
<u>FIRST YEAR</u>		
ENG 111-112 College Composition and Literature (MPF I)	3	3
PHY 181,183,182,184 The Physical World and Laboratory (MPF IVB) or CHM 141,142,144,145 College Chemistry and Lab (MPF IVB) or Miami Plan Elective **	3-5	3-5
Miami Plan Elective **	3	3
MTH 151 (MPF V) (or 153), 251 Calculus I, II or MTH 249 (MPF V), 252 Calculus II, III*	4-5	4
EAS 101, 102	<u>1</u>	<u>3</u>
TOTAL	14-17	16-18

- * Typically, students will start with MTH 151. Depending on the results of the math placement exam, ACT/SAT scores, and high school background, however, you may start with MTH 104, 123, 153 or 249. Students who take a pre-requisite course to MTH 151 (104 or 123) will usually not hinder their academic progress.

- ** Discuss elective choice with advisor.