Department of

MECHANICAL ENGINEERING

Guidebook for B.S.M.E.

[Effective Fall 2008]

THE UNIVERSITY OF AKRON

Department of Mechanical Engineering
College of Engineering
Akron, OH 44325-3903
(330) 972-7731 Office
(330) 972-6027 Fax

Date: _____

Dear _____

I am pleased to inform you that your transfer into the College of Engineering takes effect as of the above date.

Your total degree requirements are identified on the attached Plan of Study. The Bachelor of Science in Mechanical Engineering requires a minimum of 137 semester credit hours. For your information, copies of the College of Engineering Policies on course withdrawal, academic probation, and academic dismissal are also provided.

As long as you remain in this department and complete all requirements within five years from this date or six years from entering The University of Akron, no additions can be made to the list of requirements or to the total hours. If you change majors you will be required to meet your new departmental requirements in effect on the date of your change in major. If, however, you do not complete your degree requirements within the five years, any change in University, College and Departmental requirements will affect you. Should you transfer colleges, a new set of College requirements will be effective as of the date of transfer, to be determined by the College into which you transfer.

Sincerely,

_____ _____

Advisor Date Department Chair Date

_____

Student Date

GRADE CHECKSHEET effective 10/06-BSME

Student: _____
Advisor: _____
Date: _____

COURSE	CR	GR	Term/ Year Taken	COURSE	CR	GR	Term/ Year Taken
GENERAL EDUCATION				REQUIRED ENGINEERING			
5540: Phys. Ed.	0.5			4300:201 Statics	3		
5540: Phys. Ed.	0.5			4300:202 Intro: Mechanics of Solids	3		
7600:105 Intro to Public Speaking – or – 7600:106 Effective Oral Communication	3			4400:320 Basic Electrical Engineering	4		
3300:111 English Composition I	4						
3300:112 English Composition II	3			4600:165 Tools for Mechanical Engineering	3		
: Social Science Elective*	3			4600:203 Dynamics	3		
3400:210 Humanities in Western Tradition I	4			4600:260 Engineering Analysis I	2		
: Humanities Electives I**	3			4600:300 Thermodynamics I	3		
: Humanities Electives II**	3			4600:301 Thermodynamics II	2		
3250:244 Intro to Economic Analysis (Soc Sci)	3			4600:310 Fluid Mechanics I	2		
: Area Studies & Cultural Diversity***	2			4600:311 Fluid Mechanics II	3		
Total General Education	29			4600:315 Heat Transfer	3		
* From Social Science Sets 2 to 7 (see bulletin)				4600:321 Kinematics of Machines	2		
** From Humanities Sets 1 to 4 (see bulletin)				4600:336 Anal. of Mechanical Components	3		
*** Engineering students select one course (see bulletin)				4600:337 Design of Mechanical Components	3		
				4600:340 System Dynamics and Response	3		
MATH AND NATURAL SCIENCE				4600:360 Engineering Analysis II	2		
3150:151 Principles of Chemistry I	3			4600:380 Mechanical Metallurgy	2		
3150:152 Principles of Chemistry Lab	1			4600:400 Thermal Systems Components	3		
3150:153 Principles of Chemistry II	3			4600:402 Senior Seminar	1		
3450:221 Analytical Geometry & Calculus I	4			4600:431 Fund. of Mechanical Vibrations	3		
3450:222 Analytical Geometry & Calculus II	4			4600:441 Control System Design	3		
3450:223 Analytical Geometry & Calculus III	4			4600:460 Concepts of Design	3		
3450:335 Differential Equations	3			4600:461 ME Senior Design Project I	2		
3470:401 Probabilities of Statistics …	2			4600:471 ME Senior Design Project II	2		
3650:291 Elemental Classical Physics I	4			4600:483 Measurements Lab	2		
3650:292 Elemental Classical Physics II	4			4600:484 Mechanical Engineering Lab	2		
Total Math/Nat. Sci.	32			**Total Required Engineering**	**67**		
*APPROVED ELECTIVES				*APPROVED ELECTIVES			
Mechanical Engineering Design Elective →				:	3		
Technical Elective →				:	3		
Mechanical Engineering Technical Elective →				:	3		
				Total Electives	9		

TOTAL: 137

MECHANICAL ENGINEERING (Co-Op)

1st Year (32)

FALL			SPRING		
4600:165	Tools for Mechanical Eng.	3	7600:	Speech (105 or 106)	3
5540:	Physical Education	1	3300:112	English Composition II	3
3150:151	Principles of Chemistry I	3	3150:153	Principles of Chemistry II	3
3150:152	Principles of Chemistry I Lab.	1	3450:222	Calculus II	4
3300:111	English Composition I	4	---	Social Science Elective	3
3450:221	Calculus I	4			16
		16			

2nd Year (65)

FALL			SPRING			SUMMER
3650:291	Physics I	4	3650:292	Physics II	4	
4300:201	Statics	3	3450:335	Differential Equations	3	OPTIONAL
3450:223	Calculus III	4	4600:203	Dynamics	3	Co-op
3400:210	Humanities-West. Trad. I	4	4300:202	Mechanics of Solids	3	
3250:244	Intro. to Economic Anal.	3	**4600:260**	**Engineering Analysis I**	2	
		18			15	

3rd Year (87)

FALL			SPRING	SUMMER		
4600:300	Thermodynamics I	3		**4600:311**	**Fluid Mechanics II**	**3**
4600:310	**Fluid Mechanics I**	**2**		4600:380	Mech. Metallurgy	2
4600:321	**Kinematics**	**2**		4600:340	Sys. Dyn. & Response	3
4600:336	Anal. Mech. Comp.	3	Co-op			8
4600:360	**Eng. Analysis II**	**2**				
3470:401	**Prob. & Stat. for Eng**	2				
		14				

4th Year (104)

FALL	SPRING				SUMMER
	4600:315	Heat Transfer	3		
	4600:337	Design of Mech. Comp.	3		
Co-op	4600:431	Fund. Of Mech. Vibrations	3		Co-op
	4400:320	Basic Elec. Eng.	4		
	4600:483	ME Measurements Lab	2		
	4600:301	Thermodynamics II	2		
			17		

5th Year (137)

FALL			SPRING		
4600:400	Thermal System Components	3	-----	**Area Studies & Cultural Diversity**	**2**
4600:441	Control Systems Design	3	**4600:471**	**ME Senior Design Proj. II**	**2**
4600:460	Concepts of Design	3	----	Humanities Elective I	3
4600:484	Mechanical Engineering Laboratory	2	----	Electives* (2)	6
4600:461	**ME Senior Design Proj. I**	**2**	----	Humanities Elective II	3
4600:402	**Senior Seminar**	**1**			16
-----	Elective*	3			
		17			

* Electives must include 3 credits Mech. Eng. design elective, 3 credits technical elective, and 3 credits Mech. Eng. technical elective. This course schedule is in effect for those students entering The University of Akron in the Fall, 2005 or later, who are co-op students who expect to graduate in May, 2010 or later. It may also be in effect for students who have entered The University prior to Fall, 2005 but have fallen behind in their course schedule. The appropriate course schedule will be handled on an individual basis.

MECHANICAL ENGINEERING (Non-Co-Op)

1st Year (32)

FALL			SPRING		
4600:165	Tools for Mechanical Eng.	3	7600:	Speech (105 or 106)	3
5540:	Physical Education	1	3300:112	English Composition II	3
3150:151	Principles of Chemistry I	3	3150:153	Principles of Chemistry II	3
3150:152	Principles of Chemistry I Lab.	1	3450:222	Calculus II	4
3300:111	English Composition I	4	---	Social Science Elective	3
3450:221	Calculus I	4			16
		16			

2nd Year (65)

FALL			SPRING		
3650:291	Physics I	4	3650:292	Physics II	4
4300:201	Statics	3	3450:335	Differential Equations	3
3450:223	Calculus III	4	4600:203	Dynamics	3
3400:210	Humanities-West. Trad. I	4	4300:202	Mechanics of Solids	3
3250:244	Intro. to Economic Anal.	3	**4600:260**	**Eng. Analysis I**	**2**
		18			15

3rd Year (103)

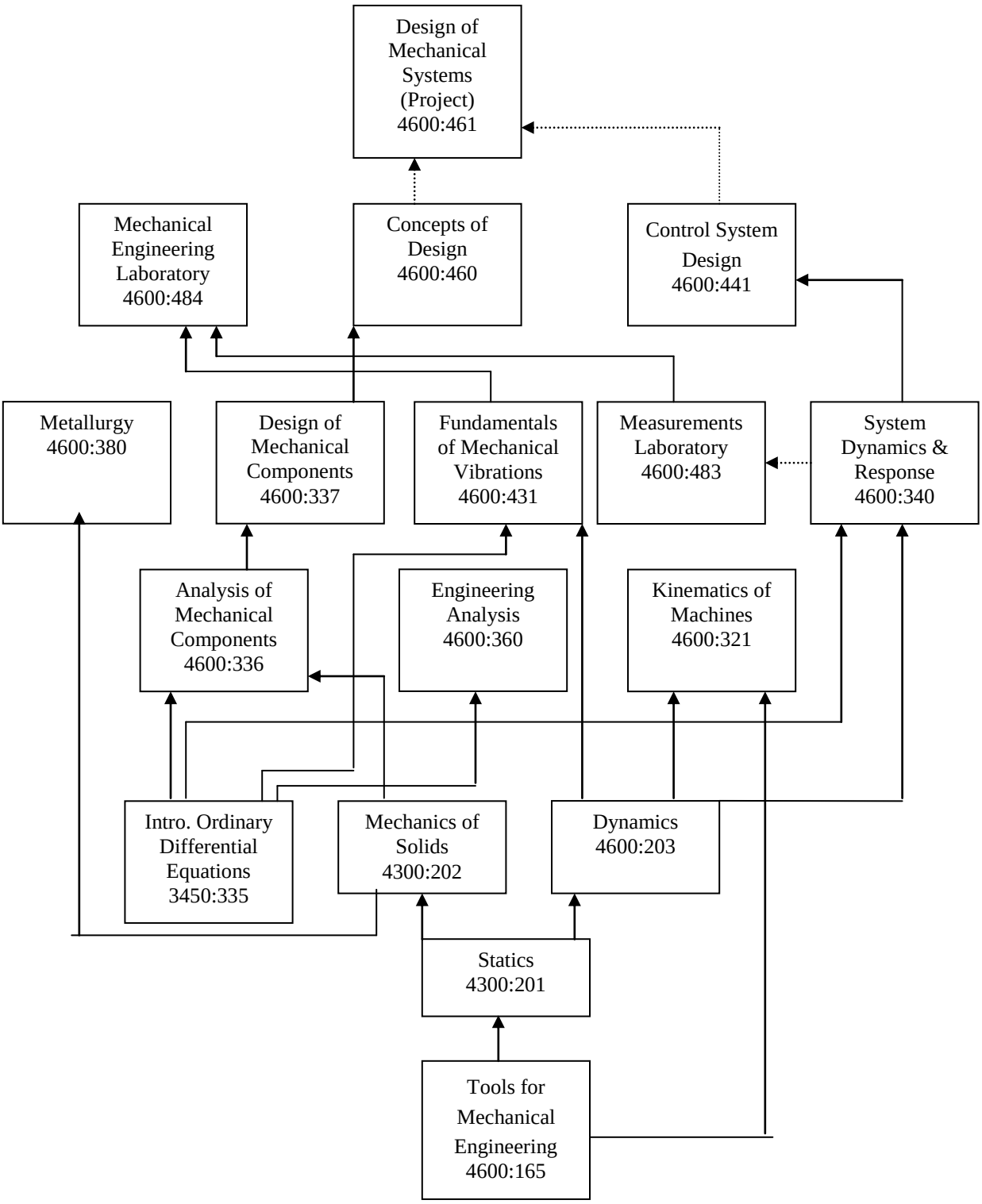
FALL			SPRING			SUMMER		
4600:300	Thermodynamics I	3	4600:315	Heat Transfer	3	**4600:311**	**Fluid Mechanics II**	**3**
4600:310	**Fluid Mechanics I**	**2**	4600:337	Design of Mech. Comp.	3	4600:380	Mech. Metallurgy	2
4600:321	**Kinematics**	**2**	4600:340	Sys. Dyn. & Response	3	4600:431	Fund: Mech. Vibrations	3
4600:336	Anal. Mech. Comp.	3	**4600:483**	**ME Measurements Lab**	**2**			8
4600:360	**Eng. Analysis II**	**2**	4600:301	Thermodynamics II	2			
3470:401	**Prob & Stat for Eng**	**2**	----	Humanities Elective I	3			
		14			16			

4th Year (137)

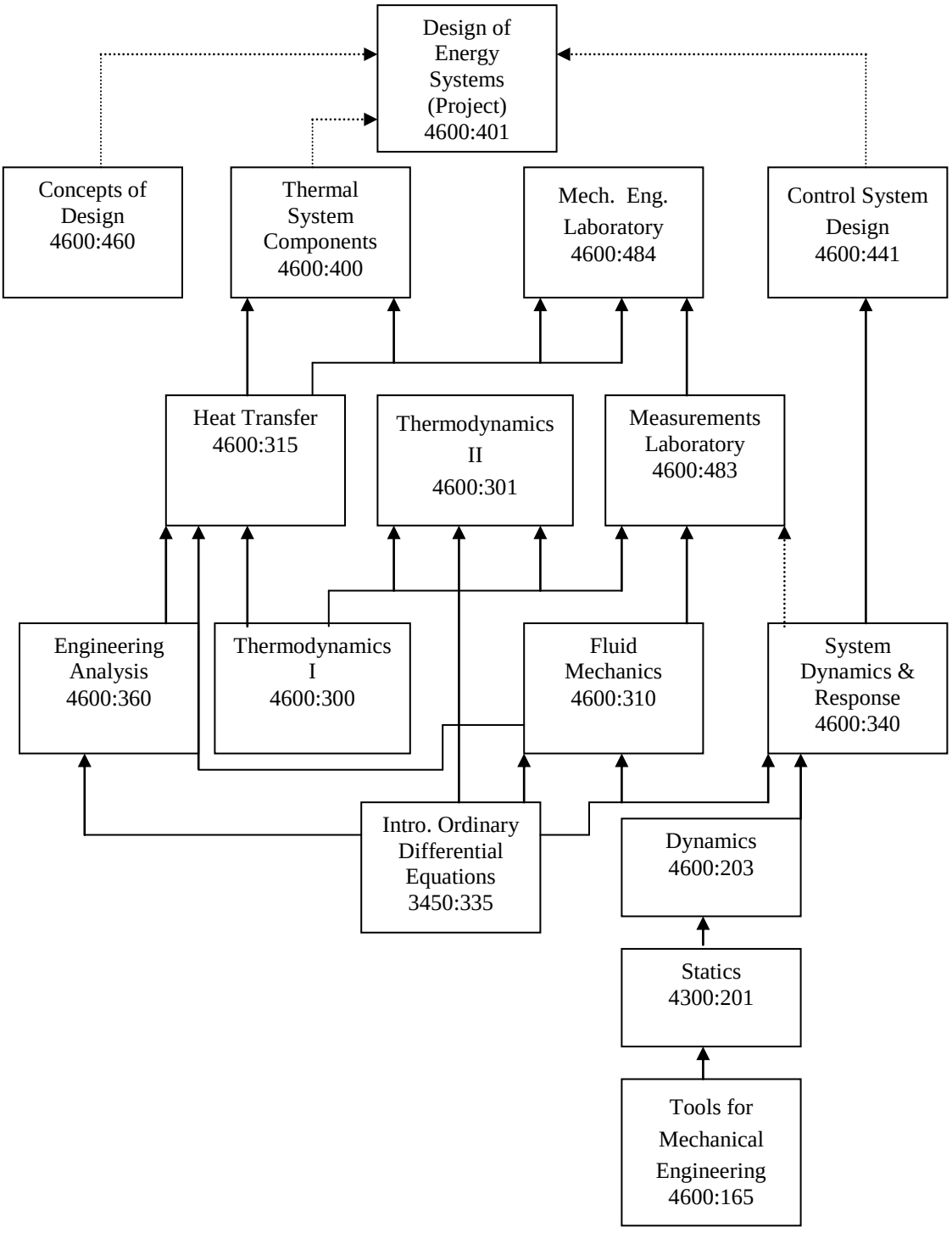
FALL			SPRING		
4600:400	Thermal Systems Components	3	----	**Area Studies & Cultural Diversity**	**2**
4600:441	Control Systems Design	3	**4600:471**	**ME Senior Des. Proj. II**	**2**
4600:460	Concepts of Design	3	----	Electives* (2)	6
4600:461	**ME Senior Des. Proj. I**	**2**	----	Humanities Elective II	3
4600:484	**Mechanical Engineering Lab**	**2**	**4400:320**	**Basic Elec. Eng.**	**4**
4600:402	**Senior Seminar**	**1**			17
----	Elective*	3			
		17			

* Electives must include 3 credits Mech. Eng. design elective, 3 credits technical elective, and 3 credits Mech. Eng. technical elective. This course schedule is in effect for those students entering The University of Akron in the Fall, 2005 or later, who are non-co-op students who expect to graduate in May, 2009 or later. It may also be in effect for students who have entered The University prior to Fall, 2005 but have fallen behind in their course schedule. The appropriate course schedule will be handled on an individual basis.

STRUCTURES AND MOTIONS STEM



ENERGY SYSTEMS STEM



TECHNICAL ELECTIVES

The available credits of electives are divided as follows:

— At least three credits must be mechanical engineering "design" elective (available choices are marked by [1] in the list of mechanical engineering electives).

— At least three credits must be technical electives, selected from the listed mechanical engineering electives, other engineering electives, basic science electives, construction technology electives, polymer science electives, mechanical engineering technology electives, math/statistics electives, computer science electives, professional development, or polymer engineering electives, or mechanical engineering graduate course, unless specifically excluded.

— The remaining three credits are mechanical engineering technical electives, selected from the listed mechanical engineering electives.

Students with a specific profession objective (e.g., management, bioengineering, computer applications, graduate study, military service) will be permitted, upon petition to and approval of their advisor, to use their technical elective and their mechanical engineering technical elective to take courses in management/business administration, computer science, military science, polymer specialization, or graduate courses if these courses are all in a single area and total at least six (6) credits.

The College of Engineering and the College of Polymer Science and Polymer Engineering allow for a specialization for the mechanical engineering students. Students completing this specialization will be awarded a certificate of "Polymer Engineering Specialization." The certificate is awarded to those students that take one of the following three Polymer courses:

9871:401 Introduction to Elastomers
9871:402 Introduction to Plastics
9871:407 Polymer Science

and the following two courses:

4700:425 Introduction to Blending and Compounding of Polymers
4700:427 Mold Design

A mechanical engineering student may elect to choose a Polymer Engineering Design Project in lieu of one of the above two previous courses. If this is done, the student will still have to take a mechanical engineering technical elective.

ELECTIVES

Mechanical Engineering

4600:410	Heating & Air Conditioning[1]	(3)
4600:411	Compressible Fluid Mechanics	(3)
4600:412	Fundamentals of Flight[1]	(3)
4600:413	Intro to Aerodynamics	(3)
4600:414	Intro to Aerospace propulsion	(3)
4600:415	Energy Conversion[1]	(3)
4600:416	Heat Transfer Processes	(3)
4600:420	Intro to Finite Elem Meth[1]	(3)
4600:422	Experimental Stress Analysis	(3)
4600:430	Machine Dynamics[1]	(3)
4600:432	Vehicle Dynamics[1]	(3)
4600:442	Industrial Auto Control[1]	(3)
4600:443	Optimization Meth in Mech Engr[1]	(3)
4600:444	Robot Design, Control & Application[1]	(3)
4600:450	Intro Computat Fluid Flow & Conv	(3)
4600:462	Pressure Vessel Design[1]	(3)
4600:463	Computer Aided Design & Manuf[1]	(3)
4600:486	Special Topics	(1-3)
4700:427	Mold Design [1]	(3)

Other Engineering

4200:463	Pollution Control	(3)
4300:306	Theory of Structures	(3)
4300:313	Soil Mechanics	(3)
4300:321	Intro. to Environmental Eng.	(3)
4300:323	Water Supply & Pollution Control	(3)
4300:341	Hydraulic Engineering	(4)
4300:361	Transportation Engineering	(3)
4300:380	Engineering Materials Lab	(3)
4300:401	Steel Design	(3)
4300:403	Reinf Concrete Design	(3)
4300:423	Chemistry for Environmental Engrs	(3)
4300:450	Urban Planning	(3)
4300:451	Computer Methods of Struct Analys	(3)
4300:471	Constr Admin	(3)
4450:410	Computer Methods	(3)
4450:432	System Simulation	(3)
4450:441	Expert Systems Design & Develop	(3)

Basic Science

3100:111	Principles of Biology I[2]	(4)
3100:112	Principles of Biology II[2]	(4)
3100:130	Principles of Microbiology	(3)
3100:200, 201	Human Anatomy & Physiology &lab	(4)

Basic Science-cont'd.

3100:265	Intro to Human Physiology	(4)
3150:154	Qualitative Analysis[2]	(2)
3150:263	Organic Chemistry Lecture I	(3)
3150:264	Organic Chemistry Lecture II	(3)
3150:265	Organic Chemistry Lab I	(2)
3150:266	Organic Chemistry Lab II	(2)
3370:101	Introductory Physical Geology	(4)
3370:441	Fundamentals of Geophysics	(3)
3370:446	Exploration Geophysics	(3)
3650:301	Elementary Modern Physics	(3)
3650:320	Waves	(3)
3650:331	Intermediate Astronomy	(3)
3650:340	Thermal Physics	(3)
3650:350	Modeling and Simulation	(3)
3650:406	Optics	(3)
3650:432	Mechanics II	(3)
3650:436	Electromagnetism I	(3)
3650:437	Electromagnetism II	(3)
3650:481	Methods of Mathematical Physics I	(3)
3650:482	Methods of Mathematical Physics II	(3)

Polymer Science

9871:401	Introduction to Elastomers	(3)
9871:402	Introduction to Plastics	(3)
9871:407	Polymer Science	(4)
9871:411	Mole Struct & Phy Prop Polymer I	(2)
9871:412	Mole Struct & Phy Prop Polymer II	(2)
9871:413	Mole Struct & Phy Prop Polymer III	(2)

Mechanical Engineering Technology

2870:348	CNC Programming I	(3)
2870:348	CNC Programming II	(3)
2920:247	Technology of Machine Tools	(3)
2920:347	Production Machinery and Processes	(3)

Math/Statistics

3450:312	Linear Algebra	(3)
3450:414	Vector Analysis	(3)
3450:415	Combinatorics & Graph Theory	(3)
3450:421	Advanced Calculus I	(3)
3450:422	Advanced Calculus II	(3)
3450:425	Complex Variables	(3)
3450:427	Applied Numberical Mehods 1	(3)
3450:428	Applied Numberical Methods 2	(3)
3450:430	Numerical Solutions for Partial Differential Equations	(3)
3450:432	Partial Differential Equations	(4)
3450:430	Numerical Solutions for Partial Differential Equations	(3)

Math/Statistics – cont'd.

3450:435	Systems of Ordinary Differential Equations	(3)
3450:436	Math Models	(3)
3450:438	Advanced Engineering Math I	(3)
3450:439	Advanced Engineering Math II	(3)
3450:441	Concepts of Geometry	(4)
3470:450	Probability	(3)
3470:451	Theoretical Statistics I	(3)
3470:452	Theoretical Statistics II	(3)

3470:460	Statistical Methods	(4)
3470:461	Applied Statistics I	(4)
3470:462	Applied Statistics II	(4)

Computer Science

3460:210	Data Structures&Algorithms I	(4)
3460:306	Assy Language Programming	(3)
3460:307	Applied System Programming	(3)
3460:316	Data Structures&Algorithms II	(3)
3460:440	Compiler Design	(3)

Management/Business Administration[3]

6140:331	Personal Finance	(3)
6140:300	Intro to Finance	(3)
6200:201	Accounting	(3)
6200:202	Managerial Accounting	(4)
6200:301	Cost Manegement and Enterprise Resource Planning	(3)
6400:220	The Legal & Social Env. In Bus.	(3)
6400:371	Business Finance	(3)
6400:432	Personal Finance Planning	(3)
6400:473	Financial Statement Analysis	(3)
6500:221	Quantitative Business Analysis I	(3)
6500:222	Quantitative Business Analysis II	(3)
6500:324	Data Management for Info. Systems	(3)
6600:475	Business Negotiations	(3)

Management/Business Administration[3] – cont'd.

6600:300	Marketing Principles	(3)
6600:490	Marketing Strategy	(3)
6500:301	Mgmt: Principles & Concepts	(3)

Military Science

1500:303,304 (3,3)	Third Year Aero Studies	
1500:453,454 (3,3)	Fourth Year Aero Studies	
1600:300,301 (3,3)	Advanced Leadership I, II	
1600:400,401 (3,3)	Military Management I, II	

Professional Development

2020:222	Tech Report Writing	(3)
3300:489	Seminar in English: Science Writing	(3)

Polymer Engineering

4700:321	Polymer Fluid Mechanics	(3)
4700:422	Polymer Processing	(3)
4700:425	Intro to Blend & Compounding of Polymers	(3)
4700:427	Mold Design	(3)
4700:450	Engr Properties & Processes of Polymers	(3)
4700:499	Polymer Engineering Proj.	(1-3)

Polymer Science & Polymer Engineering

4700:281	Polymer Science for Engineers	(2)
4700:381	Polymer Morphology for Eng.	(3)

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[1] M.E. Design Elective
[2] May NOT be used for Technical Elective credit
[3] Some courses provide "bridge-up" for MBA degree. Check with the College of Business Administration for an updated and complete list of "bridge-up" courses.

2/01

HUMANITIES AND SOCIAL SCIENCE ELECTIVES

Studies in the humanities and social sciences meet the objectives of a broad education as well as those of the engineering profession. These courses, which are important to the general education of an engineer, are intended to make engineers fully aware of their social responsibilities and have the objective of improving your ability to consider related factors in decision-making processes. Humanities are the branches of knowledge concerned with the arts, literature and culture; while social sciences comprise studies of relationships in society. These electives are part of the General Education requirements of the University College as listed in the Undergraduate Bulletin of the University. In your freshman year, you are to select one of the listed courses for your social science elective. In your sophomore and senior year you are to select two courses, each from a different set (1-4) for your humanities electives. In your senior year, you are to select a single course in Area Studies and Cultural Diversity.

Social Science Electives

3350:100	Introduction to Geography	3 cr.
3400:250	U.S. History to 1877	4 cr.
3400:251	U.S. History since 1877	4 cr.
3600:125	Theory and Evidence	3 cr.
3700:100	Government and Politics in the U.S.	4 cr.
3700:150	World Politics and Governments	3 cr.
3750:100	Introduction to Psychology	3 cr.
3850:100	Introduction to Sociology	4 cr.
3870:150	Cultural Anthropology	4 cr.
5100:150	Democracy and Education	3 cr.

Humanities Electives			Prerequisites
Set 1 - Fine Arts			
7100:210	Visual Arts Awareness	3 cr.	3400:210
7500:201	Exploring Music	3 cr.	3400:210
7800:301	Introduction to Theatre and Film	3 cr.	3400:210
7900:200	Viewing Dance	3 cr.	3400:210
Set 2 - Philosophy/Classics			
3200:220	Introduction to the Ancient World	3 cr	3400:210
3200:289	Mythology of Ancient Greece	3 cr.	3400:210
3200:230	Sports & Society in Ancient Greece & Rome	3 cr,	none
3600:101	Introduction to Philosophy	3 cr.	none
3600:120	Introduction to Ethics	3 cr.	none
3600:170	Introduction to Logic	3 cr.	none
Set 3 - Literature			
3200:361	Literature of Greece	3 cr.	3400:210
3300:250	Classic and Contemporary Literature	3 cr.	3300:111, 112
3300:251	Topics in World Literature	3 cr.	3300:111, 112 & 3400:210
3300:252	Shakesphere and His World	3 cr.	3300:111, 112
3300:281	Fiction Appreciation	3 cr.	3300:111, 112 & 3400:210
3520:350	Themes in French Literature in Trans.	3 cr.	3400:210
3580:350	Literature of Spanish-American in Trans	3 cr.	3400:210
Set 4 - Western Culture			
3400:211	Humanities in the Western Tradition II	4 cr.	3400:210
Area Studies and Cultural Diversity			
2040:254	The Black Experience I	2 cr.	2020:121 or 3300:112
3001:300	Intro to Women's Studies	3 cr.	none
3005:300	Canadian Studies: An Interdis. Approach	3cr.	none
3350:375	Geography of Cultural Diversity	2 cr.	none
3400:385	World Civilization: China	2 cr.	64 credits
3400:386	World Civilization: Japan	2 cr.	64 credits
3400:387	World Civilization: S.E. Asia	2 cr.	64 credits
3400:388	World Civilization: India	2 cr.	64 credits
3400:389	World Civilization: Near East	2 cr.	64 credits
3400:390	World Civilization: Africa	2 cr.	64 credits
3400:391	World Civilization: Latin America	2 cr.	64 credits
3870:251	Human Diversity	3 cr.	none

COLLEGE OF ENGINEERING WITHDRAWAL POLICY

UNIVERSITY POLICY
A student may withdraw from a course up to the midpoint of the course with the signature of the student's advisor.

After the midpoint of a course, a student must have the written approval of both instructor and advisor to withdraw. Such approval must be dated and processed through the offices of the Registrar and the Cashier prior to the final examination period. Should the instructor or advisor refuse to sign the withdrawal form, the student may appeal to the dean of the student's college, who shall make the final decision after consultation with those who declined to approve the withdrawal.

COLLEGE OF ENGINEERING
Instructors and advisors from the College of Engineering will observe the following:

There are only three valid reasons for withdrawal after the midpoint of a course:

1. Instructor responsibility: To permit better evaluation a student may be advised to remain in a course until the "next" exam (after the midpoint). If a withdrawal is in order it must be accomplished within one week after exam results are returned.
2. Unavoidable interruption: If a properly documented illness, accident, or other unavoidable event interrupts a student's academic routine, a withdrawal could be considered for load reduction. For a part-time student a documented forced change of work schedule could be a valid reason for withdrawal.
3. Change of objective: If an engineering student is transferring out of a department in the College of Engineering and the appropriate transfer is completed, consideration will be given for a withdrawal. This is not automatic. If a student is failing and has not done the required work, a grade of F is appropriate.

Withdrawing from a course after midterm to avoid a low grade is not permitted. Any withdrawal during the last week of class requires the approval of the Dean of the College.

Note to students on probation: If you withdraw from a course listed on your Approved Group of Courses, the agreement cannot be met and you are subject to "dismissal action".

An approved withdrawal will be indicated on the University official academic record by a WD. A student who leaves a course without going through the withdrawal procedure will receive an F in the course.

Although the laboratory portion of a combined lecture-laboratory course may constitute a minority of the total credit of that course, a student cannot pass the course without having satisfactorily completed the laboratory. This includes attendance at and participation in all laboratory experiments, and submission of required laboratory reports by designated deadlines. Students failing to meet these and related requirements (as set forth by their various laboratory instructors) will be subject to a grade of F without regard to their performance in the lecture portion of the course.

A student may be dropped from a course by the Dean if absences are repeated and the instructor recommends this action. A dismissed student may gain readmission only with the permission of the instructor and the Dean. A student dropped from a course receives an F which counts as work attempted whenever grade-point ratio calculations are made. (Passed May 5, 1983; Revised February 1988; Revised March 1991)

POLICY

COLLEGIATE PROBATION

College of Engineering
The University of Akron

EFFECTIVE Spring Semester, 1982, i.e., students who fall under this definition during the Spring Semester, 1982, will be on probation during the next term when enrolled.

1. A student is placed on Collegiate Probation when any one of the following events occur:

a. Half or more of the credit hours or courses for any semester result in grades of D+, D, D-, F, I and/or W. Students taking one course are exempted from this rule. W grades may be excluded by action originated by the student's department head.

b. The overall or engineering grade point average for the semester is less than 1.50. Students taking one course are exempted from this rule.

c. The overall or engineering grade point average for two successive semesters is less than 2.000.

d. The cumulative grade point average for all engineering courses taken is less than 2.000.

2. A student on Collegiate Probation must file an "Approved Group of Courses" developed through the auspices of the appropriate department head or BSE advisor before commencing the next semester or summer session.

3. A student on Collegiate Probation is subject to immediate administrative withdrawal from any course(s) not listed on that individual's "Approved Group of Courses".

4. At the end of a semester on Collegiate Probation, a student is returned to good standing if a grade point average ≥ 2.2500 is received for a fully completed "Approved Group of Courses".

5. A student is continued on Collegiate Probation only when recommended by the department head, usually when the grade point average is > 2.000 but < 2.2500 and the student has completed all of the "Approved Group of Courses", or the student has a grade point average ≥ 2.2500 but has failed to complete all of the "Approved Group of Courses".

6. Students not removed from probation or recommended for continued Collegiate Probation by the department head will be suspended from the College of Engineering or dismissed from the University.

3/91

POLICY
SUSPENSION FROM THE COLLEGE OF ENGINEERING
AND
DISMISSAL FROM THE UNIVERSITY

College of Engineering
The University of Akron

EFFECTIVE January 1983, i.e., a student can be suspended from the College only after completion of the Fall Semester, 1982.

1. A student who has been on Collegiate Probation for at least one semester, and who is not removed from probation or continued on probation on recommendation of the Department Head, will be suspended from the College of Engineering for a period of two consecutive semesters or a consecutive semester and summer session only if the student's cumulative grade point average is <2.000. If the student's grade point average is <2.000, the student will be dismissed from the University unless accepted by another College of The University of Akron.
2. A student who attempts any course for a third time (by reason of previous D+, D, D-, F, W and/or I grades) and obtains a grade below C- will be suspended from the College of Engineering for two consecutive semesters or a consecutive semester and summer session.
3. When a student is placed on suspension, that student's records will be transferred to the Office of the Dean. Advisement for students suspended from the College of Engineering will also be performed by the Dean's Office.
4. While a student is suspended from the College of Engineering, no engineering courses can be audited or taken for credit.
5. At the end of two consecutive semesters or a consecutive semester and summer session on suspension from the College of Engineering, a student with an overall grade point average >2.000 may be reinstated with Collegiate Probation upon submission and approval of a petition.
6. A student reinstated from Collegiate Suspension must remove himself/herself from Probation at the end of that semester or be subject to dismissal.
7. A student who has been dismissed from the University may petition for readmission after one year. Readmitted students are placed on Collegiate Probation.

ANTI-CHEATING RESOLUTION

- WHEREAS, the Faculty of the College of Engineering recognizes cheating in any form is unethical and is contrary to all Codes of Ethics of our profession and is not to be condoned and
- WHEREAS, students as prospective and graduate engineers are often ill-informed in ethical matters and are frequently tempted to cheat and
- WHEREAS, the Faculty of the College of Engineering has endorsed the report “Handling the Cheater” during its deliberations
- BE IT RESOLVED that we, the Faculty of the College of Engineering, immediately make a concentrated effort to guide students in proper ethical behavior and to identify and discipline students who cheat.

TRANSFER TO THE COLLEGE OF ENGINEERING

1. Complete 30 hours.

2. Complete Calculus II

3. Have 2.3 GPA in three of four categories:

(a) All course work

(b) Engineering course work (4x00:xxx)

(c) Required Mathematics

(d) Required Physics and Chemistry

4. No more than three grades in one course unless illness, etc.*

5. All mathematics grades ≥ C-. Only the highest grade is counted for each repeated course. B required in any course taken a third time.

6. Only six repeats for change-of-grade is permitted in the entire phase of study before transfer.

* Different from University policy

The Program Educational Objectives, effective as of the fall semester of 2006, are:

1. Practice the mechanical engineering discipline successfully within community accepted standards.

2. Acquire teamwork and communications skills to develop a successful career in mechanical or mechanical-polymer engineering.

3. Fulfill professional and ethical responsibilities in the practice of mechanical engineering, including social, environmental and economical considerations.

4. Engage in professional service, such as participation in professional society and community service.

5. Engage in life-long learning activities, such as graduate studies or professional workshops.

6. Develop a professional career in the prevailing market that meets personal goals, objectives and desires.

The University of Akron
Department of Mechanical Engineering Faculty

		Research Interests
Dr. Celal Batur Department Chair batur@uakron.edu	Ph.D. University of Leicester, 1975	Neural network, and fuzzy logic based process control. System identification, Nonlinear control.
Dr. M.J. Braun Professor mbraun@uakron.edu	Ph.D. Carnegie-Mellon University, 1978	Energy conversion, Fluid dynamics, Lubrication, Heat transfer.
Dr. Abhilash Chandy Assistant Professor Ac76@uakron.edu	Ph.D. Purdue University, 2007	Fluid dynamics, Combustion, Numerical methods and high-performance computing.
Dr. Fred Choy Professor fchoy@uakron.edu	Ph.D. University of Virginia, 1977	Dynamics of rotating machinery, Lubrication, Vibrations, Experimental signal analysis.
Dr. B.T.F. Chung F. Theodore Harrington Professor Emeritus bchung@uakron.edu	Ph.D. Kansas State University, 1968	Heat and mass transfer, Fluid mechanics, Numerical methods.
Dr. Jerry E. Drummond Associate Professor drummon@uakron.edu	Ph.D. Ohio State University, 1981	Computational fluid mechanics heat transfer, Natural convection, Laminar flow stability.
Dr. Erik Engeberg Assistant Professor Ee9@uakron.edu	Ph.D. University of Utah, 2008	Control of autonomous mobile robots, Biological signal processing, Bio-inspired control algorithms and sensor, Hybrid forms of robotic locomotion, Intelligent grasp force control of robotic manipulators.
Dr. Xiaosheng Gao Assistant Professor xgao@uakron.edu	Ph.D. Brown University, 1997	Solid Mechanics, Crack growth models.
Dr. Jon Gerhardt Adjunct Professor jgerhar@uakron.edu	Ph.D. University of Cincinnati, 1971	Design and Manufacturing.
Dr. Richard Gross Associate Professor Emeritus rgross@uakron.edu	Ph.D. (Mechanical Engineering), Carnegie-Mellon University, 1967	Heat transfer, Fluid flow, Thermodynamics.
Dr. Michelle S. Hoo Fatt Assistant Professor hoofatt@uakron.edu	Ph.D. Massachusetts Institute of Technology, 1992	Dynamic plasticity, Impact mechanics, Composite structures, Structural crashworthiness.
Dr. S. Graham Kelly Associate Professor sgraham@uakron.edu	Ph.D. Virginia Polytechnic Inst. & State Univ., 1979	Nonlinear mechanics, Acoustics, Open cavity flows, Boundary layer stability.

Dr. Frank Loth F. Theodore Harrington Endowed Associate Professor Loth@uakron.edu	Ph.D. Georgia Institute of Technology, 1993	Fluid dynamics, Biofluids, Biological flows, Unsteady flows, Fluid structure interaction, Transitional flows, Laser Doppler anemometry, Doppler ultrasound, Computational fluid dynamics.
Dr. Gaurav Mittal Assistant Professor Gm29@uakron.edu	Ph.D. Case Western Reserve University, 2001	Design of novel and well-characterized experimental facilities for combustion studies, Combustion at elevated pressures relevant to practical combustors and engines, Chemical kinetics of hydrocarbon fuels, Flame phenomena, Laser diagnostics, Development of reduced mechanisms, Alternative fuels.
Dr. Gregory Morscher Assistant Professor Gm33@uakron.edu	Case Western Reserve University, 2000	Microstructure/property relationships of ceramic matrix composites and Nondestructive evalutions.
Dr. Alex Povitsky Associate Professor povitsky@uakron.edu	Moscow Institute for Steel and Alloys, 1988	Heat transfer and Computational fluids.
Dr. D.Dane Quinn Assistant Professor quinn@uakron.edu	Cornell University, 1995	Applied dynamical systems, Mechanics, Combustion instability modeling.
Dr. Scott Sawyer Associate Professor ssawyer@uakron.edu	Purdue University, 1997	Fluid Mechanics, Turbo machinery, Active noise control, Computational fluid dynamics.
Dr. Tirumalai Srivatsan Professor tsrivatsan@uakron.edu	Georgia Institute of Technology, 1984	Mechanical behavior of materials, Materials science, Metallurgy, Fatigue analysis, Fracture mechanics, Electron microscopy, Composite materials.
Dr. Guo-Xiang Wang Assistant professor gwang@uakron.edu	University of California at Santa Barbara, 1995	Heat and mass transfer, Materials processing, Solidification theory and applications.
Dr. Shengyong Wang Assistant Professor wangs@uakron.edu	Purdue University, 2006	Systems engineering, Healthcare delivery systems modeling and optimization, Supervisory control for flexible manufacturing systems, Supply chain management.
Dr. Josh Wong Assistant Professor swong@uakron.edu	University of Sydney, 1999	Nanomaterials, Polymer-Matrix Composites, Functional Materials, Fracture Behavior of Polymers and Biomaterials, Processing-Structure-Property Relationships.
Dr. Zhenhai Xia Assistant Professor zxia@uakron.edu	Northwestern Polytechnic University, 1990	Mechanics of micro- and nano-composites; Multiscale computational methods; Multifunctional and bio-/biomimetic materials; Characterization of nano-materials and thin films.
Dr. John Zhe Assistant Professor jzhe@uakron.edu	Columbia University, 2002	MEMS.