

# MECHANICAL ENGINEERING UNDERGRADUATE HANDBOOK

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The purpose of this handbook is to provide mechanical engineering students at Wayne State University a quick and complete source of information and guidelines to their curriculum requirements. It is the intent of the Department to revise this handbook on a yearly basis, unless deemed necessary to revise it more frequently. Always consult the Academic Advisor or the Director of Undergraduate Studies if this handbook cannot provide you with the proper guidelines or if you have any doubt or concern about your curriculum beyond the scope of this handbook. This handbook can be downloaded from the department web site, <http://www.eng.wayne.edu/me/>.

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## **Department Faculty and Staff Directory**

### **Teaching Faculty**

Faculty Name	Areas of Research Expertise & Interest	Room	Phone	E-mail
<b>Bryzik, Walter (Chair)</b>	<b>Engines, combustion, vehicle systems</b>	<b>2105</b>	<b>7-3843</b>	<a href="mailto:wbryzik@eng.wayne.edu">wbryzik@eng.wayne.edu</a>
Singh, Trilochan ( <del>Interim</del> Associate Chair)	Combustion and energy conservation	<del>2105</del> 2101	<del>7-3843</del> 7-3845	<a href="mailto:tsingh@wayne.edu">tsingh@wayne.edu</a>
Ku, Jerry C. (Director UG Studies)	Heat transfer, energy, radiation, combustion	2117	7-3814	<a href="mailto:jku@wayne.edu">jku@wayne.edu</a>
Ayorinde, Emmanuel O. (Director of Graduate Studies)	Mechanics of structural composites	2148	7-5548	<a href="mailto:ayorinde@eng.wayne.edu">ayorinde@eng.wayne.edu</a>
Berdichevsky, Victor	Turbulence and statistical mechanics	2138	7-3905	<a href="mailto:vberd@eng.wayne.edu">vberd@eng.wayne.edu</a>
Chalhoub, Nabil	Dynamics, vibration and control	2111	7-3753	<a href="mailto:mailna@eng.wayne.edu">mailna@eng.wayne.edu</a>
Gibson, Ronald F. ( <del>Interim</del> Chair)	Mechanics of structural composite materials	2105 2140	7-3843 7-3702	<a href="mailto:gibson@eng.wayne.edu">gibson@eng.wayne.edu</a>
Henein, Naeim A.	Heat and mass transfer	2121	7-3887	<a href="mailto:henein@eng.wayne.edu">henein@eng.wayne.edu</a>
Ibrahim, Raouf A.	Nonlinear vibration and dynamics	2119	7-3885	<a href="mailto:ibrahim@eng.wayne.edu">ibrahim@eng.wayne.edu</a>
Kline, Kenneth A. (Emeritus)	Finite element analysis, Structural dynamics			<a href="mailto:kline@eng.wayne.edu">kline@eng.wayne.edu</a>
Lai, Ming-Chia	Thermal and fluid engineering	2129	7-3893	<a href="mailto:lai@eng.wayne.edu">lai@eng.wayne.edu</a>
Lee, Joon Sang	Computational fluid dynamics, turbulence modeling, Micro and bio fluids	2146	7-3796	<a href="mailto:joonlee@wayne.edu">joonlee@wayne.edu</a>
<del>Liu, Sheng</del> <b>Li, Wen</b>	<del>Materials testing</del> <b>Dynamics, acoustics, NVH, structural health monitoring and damage detection, numerical methods</b>	2131	7-3875	<del>slu@eng.wayne.edu</del> <b>wli@wayne.edu</b>
Newaz, Golam	Advanced materials and composites	2135	7-3877	<a href="mailto:gnewaz@eng.wayne.edu">gnewaz@eng.wayne.edu</a>
Rivin, Eugene	Design, vibration control, manufacturing	2115	7-3898	<a href="mailto:rivin@eng.wayne.edu">rivin@eng.wayne.edu</a>
Tan, Chin An	Dynamics and control of structural and biological systems	2137	7-3888	<a href="mailto:tan@wayne.edu">tan@wayne.edu</a>
Taraza, Dinu	Dynamics and vibration of IC engines	2142	7-3701	<a href="mailto:taraza@eng.wayne.edu">taraza@eng.wayne.edu</a>
<del>Whitman, Alan</del>	<del>Dynamics and engineering mathematics</del>	<del>2125</del>	<del>7-3880</del>	<del>whitman@eng.wayne.edu</del>
Wu, Sean F.	Acoustics	2133	7-3884	<a href="mailto:swu@eng.wayne.edu">swu@eng.wayne.edu</a>
Wu, Xin	Material processing and manufacturing	2144	7-3882	<a href="mailto:xwu@eng.wayne.edu">xwu@eng.wayne.edu</a>

### **Staff**

Name	Position	Room	Phone	E-mail
Wadley, Keith L.	Academic Advisor	<del>2165</del> 2129	7-5939	<a href="mailto:keith.wadley@wayne.edu">keith.wadley@wayne.edu</a>
Willis, Rosalind	Administrative Assistant	2103	7-3843	<a href="mailto:rwillis@wayne.edu">rwillis@wayne.edu</a>
Nedeltcheva, Lidia	Electronic Technician	1325	7-5788	<a href="mailto:lid@me1.eng.wayne.edu">lid@me1.eng.wayne.edu</a>
<del>Rejniak, Ann</del>	<del>Office Services Clerk</del>	<del>2109</del>	<del>7-3845</del>	<del>arejniak@eng.wayne.edu</del>

## Part-Time Teaching Faculty

Faculty Name	Phone	Fax	E-mail
Agapiou, John	586-986-9356	810-947-0524	<a href="mailto:john_agapiou@gmr.com">john_agapiou@gmr.com</a>
Abdolhosseini, Reza	248-363-2486	734-710-4701 (tel)	<a href="mailto:rabdolho@visteon.com">rabdolho@visteon.com</a>
<del>Bryzik, Walter</del>	<del>586-574-6461</del>		<del><a href="mailto:walter.bryzik@us.army.mil">walter.bryzik@us.army.mil</a></del>
<b>Ceausu, Radu V.</b>			<a href="mailto:ae9126@wayne.edu">ae9126@wayne.edu</a>
Fey, Victor	248-538-0136		<a href="mailto:fev@trizgroup.com">fev@trizgroup.com</a>
Genik, Laura J.			<a href="mailto:lgenik@gmail.com">lgenik@gmail.com</a>
<b>Gianaris, Nicholas</b>			<a href="mailto:nick@gianaris.com">nick@gianaris.com</a>
Hassan, Joe	248-576-6676		<a href="mailto:ae9590@wayne.edu">ae9590@wayne.edu</a>
Khalil, Tom	313-577-5546		<a href="mailto:tkhalil@rrb.eng.wayne.edu">tkhalil@rrb.eng.wayne.edu</a>
Kovacs, Alan			<a href="mailto:ai6299@wayne.edu">ai6299@wayne.edu</a>
Liu, Sheng Dong	734-591-5636		<a href="mailto:sliu@nationalsteel.com">sliu@nationalsteel.com</a>
Mian, Ahsan	313-577-0576		<a href="mailto:amian@wayne.edu">amian@wayne.edu</a>
Ozbeki, Ali	313-986-8722		<a href="mailto:ali_ozbeki@gm.com">ali_ozbeki@gm.com</a>
Pant, Rajiv	313-594-2321	313-248-7110	<a href="mailto:rpant1@ford.com">rpant1@ford.com</a>
Prabhakaran, Prathibha	313 577-1233		<a href="mailto:as5125@wayne.edu">as5125@wayne.edu</a>
Saha, Nripen	734-913-4544		<a href="mailto:nsaha@ford.com">nsaha@ford.com</a>
Schmueser, David	586-947-5104		<a href="mailto:dschmues@sprynet.com">dschmues@sprynet.com</a> ; <a href="mailto:d.schmueser@comcast.net">d.schmueser@comcast.net</a>
Shea, Rex	248-753-3974		<a href="mailto:trex312@aol.com">trex312@aol.com</a>
Stevenson, Robin	586-986-9356		<a href="mailto:robin.stevenson@gm.com">robin.stevenson@gm.com</a> ; <a href="mailto:robin_stevenson@gmr.com">robin_stevenson@gmr.com</a>
Sweidan, Basheer	313-337-1479		<a href="mailto:bsweidan@ford.com">bsweidan@ford.com</a>
Tung, Simon C.	586-986-1904		<a href="mailto:simon.c.tung@gm.com">simon.c.tung@gm.com</a>
Xie, Chunlei	734-761-8937		<a href="mailto:clxie@wayne.edu">clxie@wayne.edu</a>
<b>Yang, Fulun</b>			<a href="mailto:Fulun.Yang@Tenneco-Automotive.com">Fulun.Yang@Tenneco-Automotive.com</a>
Zhang, Daming	248-576-3156		<a href="mailto:DZ10@daimlerchrysler.com">DZ10@daimlerchrysler.com</a>

## Suggested BSME Curriculum

### Degree Requirements for B.S. in Mechanical Engineering at Wayne State University

#### Freshman Year

First Semester	Credits
MAT 2010 – Calculus I	4
CHM 1225 – (PS) Chemical Structure, Bonding & Reactivity	3
CHM 1230 – Chemical Principles in the Laboratory	1
B E 1200 – Introduction to Engineering Design	3
ENG 1020 – (BC) Introductory College Writing	4
<b>Total</b>	<b>15</b>

#### Second Semester

MAT 2020 – Calculus II	4
PHY 2175 – (PS) General Physics	4
M E 2050 – Introduction to Computer-Aided Drafting	2
B E 1300 – Science of Engineering Materials I	3
B E 1310 – Science of Engineering Materials Lab	1
<del>M E 2060 – Computer Based Engr. Economics &amp; Problem Solving</del>	<del>2</del>
<b>Total</b>	<b>14</b>

#### Sophomore Year

First Semester	Credits
MAT 2030 – Calculus III	4
PHY 2185 – General Physics	4
M E <del>2210-2200</del> – Thermodynamics: <del>Theory and Lab</del>	<del>4</del> <b>3</b>
M E <del>2400-2410</del> – Statics <del>and Mechanics of Materials</del>	<del>4</del> <b>3</b>
ECO 2010 – (SS) Principles of Microeconomics *	3
<del>English Proficiency Exam or ENG 1080 (EP) [taking sooner is better]</del>	<del>0</del>
Critical Thinking Exam or PHI 1050 (CT) [taking sooner is better]	0
<b>Total</b>	<b>17</b>

#### Second Semester

MAT 2150 – Differential Equations and Matrix Algebra	4
<del>M E 3480 – Design of Machine Elements</del>	<del>4</del>
<del>M E 2420 – Mechanics of Materials</del>	<del>3</del>
B E 2100 – Probability and Statistics for Engineering Application	3
B E 2550 – (CL) Computer Programming and Numerical Methods	3
ENG 3050 – (IC) Technical Communication I: Report Writing	3
<b>Total</b>	<b>17</b>

- o Summer is NOT regarded as a “regular primary” semester, in that there are no guaranteed course offerings.

#### Junior Year

First Semester	Credits
M E <del>3300-3310</del> – Fluid Mechanics, <del>Theory and Lab</del>	<del>4</del> <b>3</b>
<del>M E 3320 – Fluid Mechanics Lab</del>	<del>1</del>
M E 3450 – Manufacturing Processes I	3
M E <del>3400-3430</del> – Dynamics	<del>4</del> <b>3</b>
ECE 3300 – Introduction to Electrical Circuits	3
ECE 3310 – Electrical Circuits Laboratory	1
ENG 3060 – (OC) Technical Communication II: Writing & Speaking	3
<b>Total</b>	<b>17</b>

#### Second Semester

M E 4210 – Heat Transfer Theory and Lab	4
M E 4250 – <del>Mechanical Engineering Design I</del> <del>Design Machine Elem</del>	<del>4</del> <b>3</b>
M E 4410 – Vibrations Theory and Lab	4
PHI <del>1100-1120</del> – (PL) <del>Contemporary Moral Issues</del> <del>Professional Ethics</del>	<del>3</del> <b>3</b>
Visual & Performing Arts Elective – (VP)	3
<b>Total</b>	<b>18</b>

#### Senior Year

First Semester	Credits
M E 4300 – Thermal Fluid Systems Design	4
M E 4420 <del>5540</del> – Analysis and Control of Dynamic Systems	<del>4</del> <b>3</b>
Mechanical Engineering 5000 Level Technical Electives	4
Historical Studies Elective – (HS)	3
P S 1030- – (AI) The American Government System *	3
<b>Total</b>	<b>18</b>

#### Second Semester

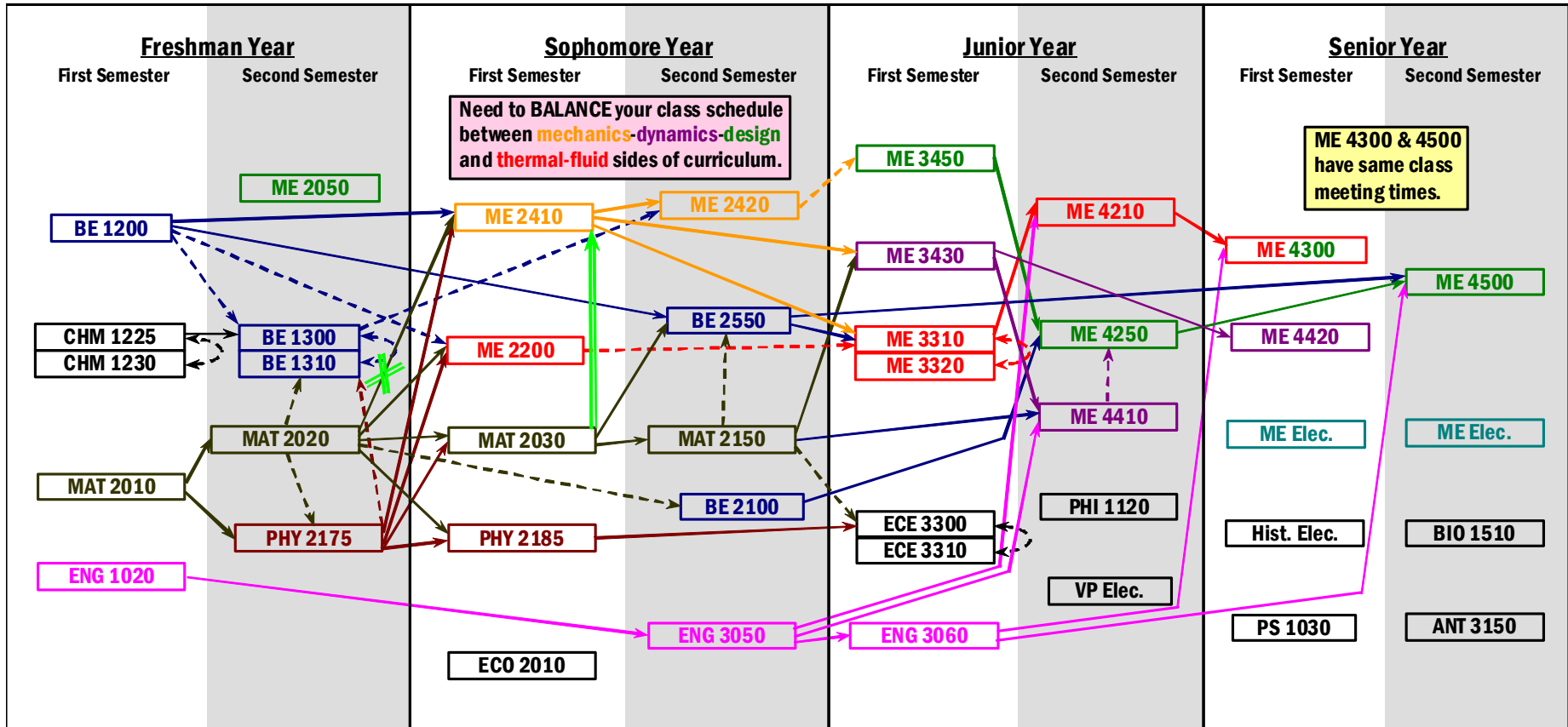
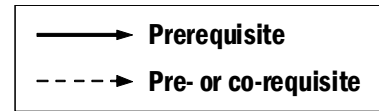
M E 4500 – (WI) Mechanical Engineering Design II	4
<del>[M E 4500 and M E 4300 have the same class meeting times.]</del>	<del>4</del>
Mechanical Engineering 5000 Level Technical Elective	4
BIO 1510 – (LS) Basic Life Mechanisms	3
ANT 3150 – (FC) Anthropology of Business *	3
<b>Total</b>	<b>14</b>

Total Credits **135** ~~129~~

- \* You can substitute: ECO 2020 for ECO 2010; any (AI) designated course for P S 1030; any (FC) designated course for ANT 3150.

# ME Curriculum Flow Chart [Effective Starting Summer 2008, with “” starting Winter 2009]

**Note:** Summer is NOT regarded as a “primary” semester, in that there are no guaranteed course offerings.



Color Code	
ME Design/Manufacturing	Mathematics
ME Thermal-Fluids	Physics
ME Solid Mechanics	English
ME Dynamics/Vibration/Acoustics/Control	Others
ME Electives	

## **5000-Level Coherent Technical Electives:**

### **DYNAMICS, VIBRATIONS, ACOUSTICS AND CONTROLS**

ME 5400	Dynamics II
ME 5410	Vibrations II
ME 5425	Analyses of Vibration Measurements & Instrumentation
ME 5440	Industrial Noise Control
ME 5460	Fundamentals in Acoustics and Noise Control

### **BIOMECHANICAL ENGINEERING**

ME 5040	Finite Element Methods I
ME 5100	Engineering Physiology (BME 5010)
ME 5160	Musculoskeletal Biomechanics (BME 5210)
ME 5170	Design of Human Rehabilitation Systems (BME 5570)
ME 5180	Int. to Biomaterials (BME 5370)

### **SOLID MECHANICS**

ME 5040	Finite Element Methods I
ME 5400	Dynamics II
ME 5410	Vibrations II
ME 5600	Advanced Mechanics of Materials
ME 5620	Fracture Mechanics in Engineering Design
ME 5700	Fundamentals of Mechanics
ME 5720	Mechanics of Composite Materials
ME 5730	Tribology and Lubrication Technology

### **DESIGN AND MANUFACTURING**

ME 5170	Design of Human Rehabilitation Systems (BME 5570)
ME 5440	Industrial Noise Control
ME 5470	Creative Problem Solving in Design and Manufacturing
ME 5620	Fracture Mechanics in Engineering Design

### **THERMAL/FLUID SCIENCE**

ME 5120	Fundamental of Alternative Energy Technology+
ME 5300	Intermediate Fluid Mechanics
ME 5700	Fundamentals of Mechanics
ME 5800	Combustion Engines
ME 5810	Combustion and Emissions

### **ENGINEERING ANALYSIS**

ME 5000	Engineering Analysis I
ME 5010	Engineering Analysis II

## **Policy on Course Prerequisites**

The Mechanical Engineering Department has instituted a system of prerequisites and co-requisites for every undergraduate course. These requirements are designed to ensure that students have the necessary background knowledge for the courses in which they are currently enrolled. This strategy is also essential to ensure that students will successfully complete those courses and to maintain our ABET (*The Accreditation Board for Engineering and Technology*, <http://www.abet.org/>) accreditation. Thus, the Department will **adhere strictly to this established policy**, and **waivers may be considered for truly exceptional cases only**. Request for waiving any established department or college rules must be **submitted to the Director of Undergraduate Studies** using the **standard petition form (Appendix A)**. The Director will then consider each petition carefully and provide his/her decision to the student by e-mail. For special cases, the Director of Undergraduate Studies may consult the Mechanical Engineering Undergraduate Committee to make the decision.

Although we rely primarily on the Banner system for prerequisite and pre-professional checks, students will be **administratively withdrawn at any time during the term** if through any other means we find them lacking the necessary requirements. Compliance with prerequisite and pre-professional requirements is **solely the responsibility of a student**. Curricular checks provided by faculty or advisors, in response to a student's request, are to be regarded as advises only. Only the authorized faculty member, and **not the course instructor**, could approve any deviation from established department or college rules.

## **Code of Student Conduct**

It is the responsibility of each student to adhere to the principles of academic integrity. Academic integrity means that a student is honest with him/herself, fellow students, instructors, and the University in matters concerning his or her educational endeavors. Thus, a student should not falsely claim the work of another as his/her own, or misrepresent him/herself so that the measures of his/her academic performance do not reflect his/her own work or personal knowledge. In this regard, cheating will not be tolerated. Cheating includes (but is not limited to) any communication (written or oral) during examinations and sharing of work, such as using the same models or computer programs or copying work. All homework and projects must be an individual effort unless specifically noted. **STUDENTS WHO CHEAT ON ANY ASSIGNMENT OR DURING ANY EXAMINATION WILL BE ASSIGNED A FAILING GRADE FOR THE COURSE.** Therefore avoid all appearance of improper behavior! Students who witness cheating should report the incident to the instructor as soon as possible. Students are also welcome to discuss any concerns related to cheating with **Dr. T. Singh, Interim** the Chair of **the** Mechanical Engineering Department.

**Table of Course Prerequisites (Effective Winter 08; except MAT 2030 for ME 2410)**

**Mechanical Engineering Undergraduate Course Prerequisites**

<u>Course</u>	<u>Prerequisite(s)</u>
ME 2050, 2 crs	(none)
<del>ME 2060, 2 crs</del>	<del>PHY 2175 and ME 2050 as pre- or co-requisites</del>
ME <del>2210</del> <b>2200</b> , 4-3 crs	MAT 2020, PHY 2175, with BE 1200 as pre- <del>or</del> /co-requisite
ME <del>2400</del> <b>2410</b> , 4-3 crs	BE 1200, <del>MAT 2020</del> , PHY 2175, with <del>BE 1300 and MAT 2030*</del> as pre- <del>or</del> /co-requisite (*effective W/09)
ME 2420, 3 crs	ME 2410, with BE 1300 as pre-/co-requisite
ME <del>3300</del> <b>3310</b> , 4-3 crs	ME <del>2400</del> <b>2410</b> , BE 2550, with ME <del>2210</del> <b>2200*</b> and ME 3320 as pre- <del>or</del> /co-requisite {* Students with > 3.0 GPA can petition to take it as a co-requisite.}
ME 3320, 1 crs	ME 3310 as pre-/co-requisite
ME <del>3400</del> <b>3430</b> , 4-3 crs	ME <del>2400</del> <b>2410</b> , MAT 2150
ME 3450, 3 crs	ME <del>2400-2420</del> as pre- <del>or</del> /co-requisite
<del>ME 3480, 4 crs</del>	<del>ME 2400, with BE 2100 as pre- or co-requisite</del>
ME 4210, 4 crs	ME <del>3300</del> <b>3310</b> , ENG 3050
ME 4250, 4 crs	<del>ME 3480</del> , ME 3450, <b>BE 2100</b> , with ME 4410 as pre- <del>or</del> /co-requisite
ME 4300, 4 crs	ME 4210, ENG 3060
ME 4410, 4 crs	ME <del>3400</del> <b>3430</b> , ENG 3050
ME 4420, 4 crs	ME <del>3400</del> <b>3430</b>
ME 4500, 4 crs	ME 4250, ENG 3060, BE 2550 <b>[ME 4500 &amp; ME 4300 have overlapping class meeting times.]</b>

**NOTES:**

- Prerequisites are cumulative. ~~ME 2060, 2210-2200~~ & ~~2400-2410~~ are pre-professional courses.

## **Policy on Transfer of Credits**

- Students who wish to enroll in courses (those listed on page 4) at other accredited institutions and to transfer the credits of these courses to their curriculum at WSU should first consult the Academic Advisor or the Director of Undergraduate Studies before making their plans.

- **All transfer of credits for ME courses must be approved by the Director of Undergraduate Studies. Use the form in Appendix A for such requests. Both the university online course transfer equivalency table and recommendations by the Registrar Office are used as a guide only, as these have not been updated to reflect ME's continuous curriculum improvements.**

- For all students:

Under normal circumstances, all 4000-level courses (ME 4210, 4250, 4300, 4410, 4420, 4500) are **NOT** transferable. Exceptions pertain to special exchange programs (e.g., Germany exchange program). Those cases will be considered by the Director of Undergraduate Studies on a case-by-case basis.

- For WSU regular students:

- \* A maximum of two ME courses, including courses that are prerequisites to ME courses, with grades C or better are transferable.
- \* Only courses that are similar in content to our courses are transferable. For example, if a student takes a thermodynamics course without a laboratory component at another institution, then this course cannot be counted as similar to ME 2210 and is thus not transferable.

- For transfer students:

- \* At least twenty-four of the University-required minimum thirty-two credits for WSU degree must be ME courses. Of these twenty-four credits, twenty credits go to the 4000-level courses and no restriction is imposed on the remaining four credits as long as they are consistent with our pre- and co-requisite requirements and other requirements that are applicable.
- ~~\* Students will be allowed the option of transferring a course as partial credits. Specifically, students who have taken Statics only at another institution will be allowed to make up for the missing Mechanics of Materials portion by registering for a one-credit Directed Study, but will be required to complete all assignments, quizzes, and examinations in ME 2400. For students who do not have a transferable laboratory component for ME 2210 or ME 3300, they will be allowed to register for one-credit Directed Study to complete the laboratory portion, but must also take the respective final examination.~~
- ~~\* Transfer will be allowed for a three-credit Dynamics course if it covers all subjects in ME 3400, and such a student is not required to make up for the one-credit difference. Students who do not satisfy the above criteria will be required to take the entire ME 3400 course.~~

## **Undergraduate Academic Performance Regulations**

### **Pre-professional and Professional Programs**

(For details see “Handbook for Pre-Professional Students,” downloadable from College website.)

Students must first complete the pre-professional program (basically the freshman and sophomore years) before applying to the professional program (basically the junior and senior years). Students are allowed to register for 3000-, 4000-, or 5000-level engineering courses **ONLY AFTER** they are admitted to the professional program. Pre-professional requirements include earning a C-minus or better in each, and a minimum 2.5 GPA, in the following courses: MAT 2010, 2020 and 2030; CHM 1225 and 1230; PHY 2175 and 2185; BE 1010 (new 1200) and 1300/1310; ENG 1020; and ME ~~2060, 2210-2200~~ and ~~2400~~**2410**; and passing the ~~English Proficiency and~~ Critical Thinking Exams.

Students who complete the pre-professional curriculum but do not meet the necessary GPA requirement should meet with the Associate Dean for Academic Affairs to determine if a Plan of Work can be developed that will allow the student to demonstrate greater academic mastery of the technical subjects and also elevate his/her GPA. This Plan of Work may include repeating courses, or taking additional courses that may not count towards the degree requirements. Students who do not complete the Plan of Work so as to raise their GPA to the required level within a stipulated period of time will be excluded from the College.

### **Repeating Courses**

Students must earn a grade of C- or higher in all ~~engineering~~ courses (see **Pre-professional Handbook**) ~~or prerequisites to engineering courses~~. If a substandard grade (**which includes WF/WN/WP**) is earned in any ~~such required~~ course, the student **MUST** repeat the course in the next regular semester (~~Fall or Winter~~) that the course is offered.

The grade earned in a repeated course will replace the original grade in GPA calculation, if a “Repeat of Course” form, approved by the Academic Advisor, is submitted to the Registrar’s Office, but the original grade will remain on the transcript. Students who have studied only at Wayne State will be **allowed only five repeats** in their pre-professional and professional programs. If a sixth repeat is required to complete the required curriculum, exclusion proceedings will be initiated. Transfer students will earn one allowed repeat for every 24 credits earned at Wayne State.

Students will be **allowed only two repeats** in a single course. Students who receive three (3) substandard grades in a single class will be subject to exclusion considerations from the College.

### **Probation and Exclusion**

Any student whose University or College GPA falls below 2.0 will be placed on probation, and is given a warning letter or e-mail, and is required to meet with their academic advisor. The letter will explain that the student has one semester in which to bring up his/her GPA, or he/she will risk exclusion from the College of Engineering.

Any student who has (a) not met the conditions of the probation, (b) exceeded the number of repeated allowed or (c) received three (3) substandard grades, will be considered for exclusion from the College of Engineering and issued a letter to this effect. Following exclusion, the privilege of registering in Engineering will be withheld for at least one calendar year.

Students can appeal the exclusion decision to the Mechanical Engineering Undergraduate Committee, and ultimately the College of Engineering Academic Standards Committee.

## **ME Course Offering and Class Scheduling Policies**

Fall and Winter are considered as "primary" semesters, for which the Department will offer all required UG courses. Summer is not considered as a primary semester.

Only ME 2200 and 2410 will be considered for offering in Summer on a regular basis. ME 3310 and 3430 will be considered for offering in alternating summers. 3000- and 4000-level courses may be offered in Summer ONLY IF: (a) full-time instructors can be identified, and (b) 20 students register. The primary objectives for such policies are to maintain the qualities of UG teaching, and to provide students with sufficient and correct information for their class planning.

The Department will offer every required course in a time slot after 5 PM at least once each academic year. Based on students' preferences (in a Fall 04 survey), every attempt will be made to offer 2000 level courses in the afternoon, and 3000 and 4000 levels in late afternoon and early evening respectively. Fall and Winter course schedule will be set up such that there are no conflicts among courses intended to be taken in the same semester according to the "Suggested BSME Curriculum" (Page 4 of this Handbook).

## APPENDIX: FORMS

Appendix A: College of Engineering Academic Petition Form (General Purpose)

Appendix B: Petition and ~~authorization~~ **Authorization form** ~~Form~~ to enroll in ME 5900,  
5990 or 5992

Appendix C: **BSME** Degree Checklist



**Section A** Complete Instructions Provided on Reverse – Please Read Before Completing Form

Name \_\_\_\_\_ Student ID (ex: P001234567) \_\_\_\_\_  
 Email \_\_\_\_\_ Phone \_\_\_\_\_ Today's Date \_\_\_\_\_  
 Course to which this request applies<sup>1</sup>: \_\_\_\_\_ Proposed semester of registration: \_\_\_\_\_  
 Course CRN (for WSU courses): \_\_\_\_\_ Department \_\_\_\_\_  
 Undergraduate  Graduate Current GPA \_\_\_\_\_ Credits Earned to Date \_\_\_\_\_

**Policy that you are requesting a waiver to:**

Complete Sections A, B, & D

- Prerequisite/co-requisite requirements
- Professional status requirements
- Other<sup>2</sup> \_\_\_\_\_

Complete Sections A & D

- Late withdrawal from class (after 5<sup>th</sup> week)
- Late registration in a class (after 2<sup>nd</sup> week)

Complete Sections A, C, & D

- Registration for a technical course at an outside institution
- Transfer credit equivalency re-evaluation (include official transcript and syllabus)

**Section B – Missing Requirements**

Prerequisite, co-requisite, or pre-professional requirement(s) that you are missing: \_\_\_\_\_

When do you plan on taking the missing requirement (specify semester): \_\_\_\_\_

Please provide information on pre-/co-requisites that you have completed for this course (*use additional sheet if necessary*)

Course	Semester Completed	Grade

**Section C – Transfer Credit**

Institution at which you took/wish to take the course: \_\_\_\_\_

WSU course for which you believe this course is equivalent: \_\_\_\_\_

**Section D – Reason for Request** (*Use an additional sheet if necessary*)

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Signature of Submitting Student** \_\_\_\_\_

**Section E - Action**

Request Approved  Request Denied  Date \_\_\_\_\_

Rationale behind decision \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_

Signature \_\_\_\_\_ Name/Title \_\_\_\_\_

*List of authorized signatures is provided on reverse*

***Falsified or incomplete information can result in the denial of appeal and further disciplinary action.***

<sup>1</sup> Please document the course for which you want to register at WSU (for pre-req/co-req waivers) or that you are requesting to transfer. In the case of a course for transfer, please use the course identification at the institution where the credit was/will be earned.

<sup>2</sup> Please describe your petition completely and attach necessary documentation.

## Instructions and Background

The College of Engineering and its Departments have established academic policy in order to support strong educational programs within the College. These policies have been implemented following substantial discussion among the faculty and administrators of the Departments and College based on established educational objectives.

It is a student's right to request an exception to policy in cases of extenuating circumstances. However, these requests must be substantiated with documentation of circumstances and facts that support a request. Only in cases of truly exceptional circumstances should a petition be filed. Petitions should first be directed to your home department or the department offering the course to which the request applies. After a departmental decision is made, it is the right of a student to appeal that decision to the Dean's Office and finally the Provost's Office.

In order to provide for a "paper trail" in the petition and possible appeals process, this form has been implemented to document both the request and the decisions that are made. Petitions and appeals will only be considered if presented on this form. The form should be completed electronically and emailed to the appropriate individual. A hard copy should also be provided, attached to copies of any materials that substantiate a request. This may include transcripts from other institutions, syllabi and examples of work, course descriptions, and evidence of extenuating circumstances. It is preferable that original copies not be included in order to prevent their loss, with the exception of transcripts for transfer credit evaluation. If additional space is required to complete this form, please attach an additional page to both the electronic and hard copy formats. The petition will be reviewed by the appropriate departmental representatives, and a response will be provided via email and in hard copy through this form within two weeks. If additional time is required by the department, due to an extended investigation, the student will be notified of the revised decision date. A copy of the petition will be maintained in electronic format in the student's advising file for future reference. The hard copy will be returned to the student with a decision and rationale indicated, along with the substantiating documentation.

Initial petitions should be made to the following individuals:

- *Biomedical Engineering* – Graduate Chair (Graduate)
- *Chemical Engineering and Materials Science* – Department Chair (Undergraduate) or Graduate Director (Graduate)
- *Civil and Environmental Engineering* – Department Chair (Undergraduate) or Graduate Director (Graduate)
- *Electrical and Computer Engineering* – Department Chair (Undergraduate) or Graduate Director (Graduate)
- *Industrial and Manufacturing Engineering* – Undergraduate Director (Undergraduate) or Graduate Director (Graduate)
- *Mechanical Engineering* - Undergraduate Director (Undergraduate) or Graduate Director (Graduate)
- *Basic Engineering Courses and Undecided Students* – Associate Dean for Academic Affairs
- *Engineering Technology* – Division Chair

Policy: Any requests for a waiver of academic policy should be made in advance of taking any action (e.g. registering for a course) that relies on the decision. If such a time line is not followed, students must include in their request the rationale behind the delayed submission of this form. Only petitions filed two weeks or more before the beginning of the intended semester will be guaranteed a response.

Appeals: Academic policy allows a student to appeal a decision made at the department level to the Dean's Office and the Provost's Office, in that order. Appeals should only be made in exceptional circumstances – departmental decisions are taken with substantial care and thought. An appeal to the Dean's Office should be described in a cover letter and should include the reason for the request. The cover letter must be submitted with the hard copy of the petition form, indicating the department's decision and rationale, and all supporting materials. The appeal must be made within 30 days of the original, departmental decision. A decision will be rendered within two weeks of the receipt of a complete appeals packet.



**This is for Undergraduate Students ONLY**

This form must be filled out neatly, approved, and signed as shown below. After obtaining all the signatures, submit this to the Academic Advisor to be filed for the student's record.

**IMPORTANT:** The total number of technical elective credits chosen from among ME 5900, 5990 and 5992 must not exceed 8 credits; senior standing is required for admission to ME 5990. Sophomores are limited to no more than 2 credits per semester from among ME 5900 and 5992.

**Please type or print clearly the following requested information.**

Student's Name: \_\_\_\_\_ Date: \_\_\_\_\_

Address: \_\_\_\_\_ City: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone: (\_\_\_\_) \_\_\_\_\_ ID: \_\_\_\_\_

Requests permission to register in \_\_\_\_\_ for \_\_\_\_\_ hours of credit for the term \_\_\_\_\_

Study to be completed by \_\_\_\_\_. Credit hours already earned in ME 5900 and ME 5992 \_\_\_\_\_

**DESCRIPTION OF STUDY:** (Discuss with instructor BEFORE defining nature, scope and significance. Continue on reverse side, if necessary.)

I understand that **an overall GPA of at least 2.8 is required** to participate in this course, and that I meet this requirement. *Student's Signature:* \_\_\_\_\_ *Date:* \_\_\_\_\_

Grade Determination: (Check all that apply giving appropriate comments)

Written Report                       Written Examination                       Intensive Oral Examination

Comments: \_\_\_\_\_

Instructor's Approval: I approve the above course work and can give the necessary time to direct work.

*Instructor's Signature:* \_\_\_\_\_ *Date:* \_\_\_\_\_

Mechanical Engineering Director of Undergraduate Studies, Department Chair, or Associate Chair Approval:

*Dept. Signature:* \_\_\_\_\_ *Date:* \_\_\_\_\_

## BSME DEGREE CHECK LIST

Name \_\_\_\_\_ ID \_\_\_\_\_ Updated \_\_\_\_\_

Course	Term	Grade		Course	Term	Grade
<b>MAT</b>				<b>BE</b>		
2010	_____	_____		1200/1010	_____	_____
2020	_____	_____		1300	_____	_____
2030	_____	_____		1310	_____	_____
2150	_____	_____		2100/3220	_____	_____
_____	_____	_____		2550/3040 (CL)	_____	_____
				_____	_____	_____
<b>CHM (PS)</b>				<b>ME</b>		
1225 &	_____	_____		2050	_____	_____
1230	_____	_____		<del>2060</del> 2200/2210	_____	_____
1050 (or)	_____	_____		<del>2210</del> 2410/2400	_____	_____
1070 (or)	_____	_____		24002420	_____	_____
_____	_____	_____		<del>3300</del> 3310/3300	_____	_____
				34003320	_____	_____
<b>PHY (PS)</b>				<del>3450</del> 3430/3400	_____	_____
2175/2170	_____	_____		<del>3480</del> 3450	_____	_____
2185/2180	_____	_____		4210/4991	_____	_____
				4250	_____	_____
<b>ENG</b>				4300	_____	_____
1020 (BC)	_____	_____		4410/4993	_____	_____
3050 (IC)	_____	_____		4420/5540	_____	_____
3060 (OC)	_____	_____		4500 (WI)	_____	_____
				5_____	_____	_____
<b>ECE</b>				5_____	_____	_____
3300	_____	_____		<del>_____</del> 3480	_____	_____
3310	_____	_____		_____	_____	_____
_____	_____	_____		_____	_____	_____
<b>GenEd Requirements</b>		<b>Yes</b>	<b>N/A</b>	<b>Other Course</b>		
Prior to 1999		_____		_____	_____	_____
(AI) _____		_____		_____	_____	_____
(CT) Exam		_____		_____	_____	_____
<del>(EP) Exam</del>		_____		_____	_____	_____
(FC) ANT 3150		_____		_____	_____	_____
(HS) _____		_____		_____	_____	_____
(LS) BIO 1510		_____		_____	_____	_____
(MP) Exam		_____	_____	_____	_____	_____
(PL) PHI <del>1100</del> 1120		_____		_____	_____	_____
(SS) ECO 2010		_____		_____	_____	_____
(VP) _____		_____		_____	_____	_____
				_____	_____	_____