



UNIVERSITY OF SOUTH ALABAMA
COLLEGE OF ENGINEERING

New Student Guide

2018-2019

www.southalabama.edu/Engineering

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WELCOME TO THE COLLEGE OF ENGINEERING!

We are pleased you have elected to pursue an engineering degree at the University of South Alabama. The faculty and staff have an “open door” policy for any questions or concerns you may have; take advantage of this. If you have a question relating to a class, please refer to your class syllabus for listed “office hours.” Feel free to visit the academic departments, get to know the staff and consult with faculty whenever necessary. Keep in mind, we are here to assist you in obtaining your Bachelor of Science Degree in Engineering.

You are to be commended for choosing to study engineering. The road to becoming an engineer is certainly not the quickest or easiest, but it does lead to a very satisfying and rewarding career. Hard work and perseverance can pay off when combined with your ability and the support and guidance of others interested in your academic and professional success.

This booklet was created to make life easier by serving as a quick reference guide as well as a source of important time-and money-saving information as you begin your studies at the University of South Alabama. This guide focuses on common questions and issues undergraduates can experience their first year in the College of Engineering.

Resources

The College of Engineering web site can be accessed at:

www.southalabama.edu/engineering

You are encouraged to visit this site for more information about the College, individual programs and current activities. The department web sites can be accessed from the college page.

PAWS

PAWS provides online services to students and can be accessed at: <https://paws.southalabama.edu>. Services include registration, grades, and payments to the university. The Schedule of Classes is also available in PAWS.

USA Bulletin/Academic Calendar

Become familiar with the USA Bulletin as it contains the University’s policies and degree programs, as well as the Academic Calendar, which can be found online at: www.southalabama.edu/bulletin

Post a copy of the current academic calendar in your study area so you will always have registration and other important dates at your fingertips. Missing deadlines can prove costly!

The Lowdown

The student handbook Lowdown, a joint publication of Student Government Association and the Division of Student Affairs, can be found at: www.southalabama.edu/lowdown

The Lowdown includes valuable information regarding Student Academic Conduct Policy, Grade Grievances, Security Policies and Procedures, and Sexual Harassment and Sexual Violence Policy. You need to be familiar with everything in the Lowdown.

Advising

All students must be advised every semester, prior to registration.

For the first year, students will be assigned to a First Year Advisor in the Academic Advising and Transfer Services Office. Upon enrolling in Calculus 2, students will then be assigned to a faculty advisor. Students who have decided on a specific engineering major will be assigned to a faculty member in that department who will act as an advisor and mentor. Those who haven't selected a field of engineering are designated "Engineering General Studies" students and are advised by the Associate Dean and the Dean's Office Student Services Director. When you have declared a major, you will be assigned an advisor in the appropriate department.

Advising is a critical activity between you and your faculty advisor. It can include, but is not limited to, information about your curriculum, courses to be taken during a particular semester, personal discussions, and career advising. **Advising is a responsibility of both you and your advisor.** The University of South Alabama will endeavor to provide timely and accurate advisement. However, students are ultimately responsible for selecting and registering for courses, meeting course pre-requisites and graduation requirements, and adhering to University policies and procedures as stated in the Bulletin.

Typically, advising occurs two weeks in October for the following spring term and in March for the upcoming summer and fall terms. To help students stay on track in their degree program, students cannot register for classes until they have been advised. Advising holds are removed once a student meets with his/her advisor, enabling the student to register.

Degree Programs/Course Prerequisites

The University of South Alabama's College of Engineering offers a Bachelor of Science degree in five major disciplines: **Chemical Engineering, Civil Engineering, Computer Engineering, Electrical Engineering, and Mechanical Engineering.**

"Model" curricula and timetables for each degree program are shown on pages 18-22. As changes do occur, refer to your *Bulletin* for the current curriculum for your major.

Students can pursue a Pre-Medicine Track. For more information, contact the major department.

You may find it necessary to take some courses in different semesters than those listed. If you are a transfer student, you may already have taken the equivalent of some courses and may be ready to enroll in more advanced ones. Engineering classes build on knowledge from earlier classes in mathematics, sciences, and basic engineering topics (prerequisites or co-requisites). Attempting a class without the needed background makes it difficult to be successful in mastering the new material. Be sure to check the *Bulletin* for prerequisites. You will not be allowed to register for a course unless you meet the prerequisite criteria.

Familiarize yourself with the requirements listed in the *Bulletin* for the degree you plan to complete. Note that you may work on a minor as you fulfill the requirements for your major. You can also concurrently pursue a second major. As with your major, you must "declare" your second major or minor as described in the *Bulletin*.

In addition to completing the required program of study, students must satisfy additional requirements to graduate. These are described in the *Bulletin* and include a minimum overall GPA of 2.00 and taking the Fundamentals of Engineering Examination.

Requirements

A well-balanced curriculum includes technical knowledge, humanities and social sciences for each degree program in the College of Engineering. The undergraduate programs of study are accredited by the Engineering Accreditation Commission of ABET. The accreditation of undergraduate programs is important because graduating from an accredited program is one step in becoming a registered professional engineer.

General Education

In addition to the engineering courses specific to each degree program, engineering students must meet general education requirements by completing 18 semester hours in Literature, Humanities, Fine Arts, History, and the Behavioral/Social Sciences. This will give you a broader education and help prepare you for your professional role in society. A list of approved courses for academic areas and general education requirements is provided on pages 17-22.

Certain courses should be taken as soon as possible as they can be prerequisites for more advanced classes. These include EH 101 and EH 102 (English Composition I and II), CH 131 (General Chemistry I) and MA 125 (Calculus I).

Introduction to Engineering and Design (EG 101)

All first-term freshmen students with less than 15 credit hours earned, who are taking MA113 or higher, are required to take EG 101. You should discuss alternatives with your advisor if you are not eligible to register for EG101. The goal of EG 101 is to improve student learning, academic success, and provide first-term college students the skills necessary to successfully transition to the demands of the college experience. Students who take any Freshmen Seminar in another college can be used in place of EG101.

Computer Competency Requirement

All students must demonstrate basic computer skills prior to graduation from the University. Engineering students satisfy this requirement through their academic program and do NOT need to take or pass the computer proficiency exam prior to beginning classes at the University.

Chemistry

All engineering degree candidates must take at least one semester of General Chemistry (CH 131). Placement in Chemistry is based on your ACT Math score (24 or higher for CH 131). If you are placed in CH 100, this must be completed before taking CH 131.

English

Completion of English Composition I and II (EH 101 and EH 102) or their equivalents with a grade of "C" or better is required for all degrees offered by the University. If you took equivalent courses at another institution and earned less than a "C", you will have to repeat the course. EH 101 is a prerequisite for EH 102.

If you are a first semester freshman and have a score of 27 or higher on the English section of the ACT (SAT verbal of 610 or higher), you will be exempt from EH 101, and you will be advised to take EH 102 instead.

Mathematics

Students will be placed in Math courses based on Math-ACT scores as follows:

For Placement In:	ACT or Math Placement Test	Students with College Level Math Credit
MA 125	27 or 90-100	MA 113* or MA 115**
MA 113	24 or 80-89	MA 112* or Equivalent
MA 112	22 or 70-79	MTH 101
MTH 101***	NA	

**Students must earn a “C” or better to fulfill prerequisite requirements. **MA 115: Pre-calculus Algebra and Trigonometry is an accelerated, review course covering the material in both MA 112 and MA 113.*

****Students who earn a “C” or better in MTH 101 will be allowed to take the Math Placement Exam on the designated date provided by their instructor. They cannot reschedule this date if missed for any reason.*

The “model curricula” shows MA 125 (Calculus I) as a first semester, freshman course. However, you may have to begin in more basic courses. The reality is that some students will not complete a degree in engineering in four years. It may take four and a half or even five years because of varying academic backgrounds.

The Math Placement test determines the most appropriate math course for which the student is qualified. The computer-based test will be given at scheduled times in the Instructional Laboratory Building (ILB 245 or 405). The test will be proctored and no calculators or outside resources will be allowed. The Math Placement test is given during orientation and other scheduled dates, which can be found at:

www.southalabama.edu/colleges/artsandsci/mathstat/placementschedule.html

*Who does **not** have to take the Math Placement Test?*

- 1) Students who have an ACT score.
- 2) Students who receive transfer credit for Math courses at or above the level of MA 112.

Who must take the Math Placement Test?

- 1) Students who do not have an ACT score.
- 2) Students who need courses, which have a pre-req of MA 112 or above but no transfer, credit for those courses.

Who might wish to take the Math Placement Test?

- 1) Students who have course credit may take the exam to check mastery of the material.
- 2) Students who disagree with the course placement as determined by ACT score.

Students without ACT or Math Placement Test scores should register for MTH 101.

These guidelines are designed to place students into the appropriate math course. If you find that you are in a math course that is too easy or difficult, speak to your instructor immediately! You may be able to enroll in a more suitable course — before the add/drop deadline.

Registration

Returning students can register early during Phase I Registration. Registration is also possible immediately before classes begin (Phase II). The dates for Phase I and Phase II registration are listed in the *Academic Calendar*. Students who register early (Phase I) have a better chance of getting into classes they want and/or need.

The date and time you can register is available on the PAWS website. The date that 'registration time tickets' are posted on PAWS can be found in the *Academic Calendar*; you will not receive a notice in the mail stating your registration time. (*Remember, you can only register after you have been advised.*)

When your registration date and time arrive (according to your 'registration time ticket'), you may register through PAWS. If you have problems with the registration procedure, e.g. you need to register for a class that is closed, contact your department or the Student Services Director.

Professional Component Standing (PCS)

Once you successfully complete your fundamental courses, you will be eligible for Professional Component Standing (PCS), which allows you to take upper-level (300-and 400-numbered) courses in your degree program. For a better understanding of PCS and other aspects of earning your Bachelor of Science in Engineering, refer to the current *Bulletin* or consult your academic advisor. Note that each department has different requirements.

AP, IB and CLEP Credit

The *Bulletin* describes the University's policy regarding credit through AP, IB and CLEP examination and other means of accelerating course work. For example, credit for EH 101 and 102 can be obtained through AP, IB and CLEP examination. However, no more than 32 semester hours are allowed for credit received through AP, IB, CLEP, credit by exam, correspondence courses, military service or other non-collegiate credit combination.

Transferring to the University of South Alabama

All previous college or university academic credits are evaluated by the Registrar's Office. Check your USA transcript carefully once previous college credits have been evaluated. If you have any questions about the evaluation, make an appointment with your academic advisor to discuss your transfer credits. You may view Transfer Equivalency Tables at:

www.southalabama.edu/departments/registrar/transfercenter/transfer_evaluation_system.html

Student Academic Conduct

As a community of students and scholars, the University strives to maintain the highest standards of academic integrity. All members of the community are expected to exhibit honesty and competence in academic work. This responsibility can be met only through earnest and continuing effort on the part of all students and faculty. If you are uncertain whether an activity (e.g. group work on assignments out of class etc...) could be considered academic misconduct, please check with your instructor.

Any dishonesty related to academic work or records constitutes academic misconduct including, but not limited to, activities such as giving or receiving unauthorized aid in tests and examinations, improperly obtaining a copy of an examination, plagiarism, and misrepresentation of information, altering transcripts or

university records. Penalties range from the loss of credit for a particular assignment to dismissal from the University.

Computer Policy

Engineering students must have a personal laptop computer by the time they enter sophomore level courses in engineering. For more details about specific requirements:

www.southalabama.edu/colleges/engineering/currentstudents/academic_policies.html

Calculator Policy

Engineering students are only allowed to use calculators approved for the FE Exam.

Email

You already have a Jgmail email address. It is **absolutely critical** that you read these messages **every day**, as this is the address used by faculty and staff in communicating with you.

Engineering Learning Community

A learning community is a group of students with shared interests who attend two or three classes together and participate in activities outside of class. The Engineering Learning Community is restricted to engineering freshmen; math, chemistry and freshman seminar are reserved for the students registered in this community. For more information visit:

www.southalabama.edu/departments/academicsuccess/lc/

Course Load

USA operates on a semester system, and courses typically are three (3) or four (4) credit hours each. This roughly translates into the number of hours of class time per week. Twelve (12) credit hours (four 3-credit hour courses) are considered a full load and a student with such a schedule is classified as full time. However, a student needs to average approximately 16 credit hours per semester in order to graduate in four years.

A good rule of thumb is to plan to spend two hours outside of class preparing for every one hour in class. This means a student carrying 12 credit hours should allow at least 24 hours each week per class for outside class preparation in order to make satisfactory academic progress.

A word of caution...financial aid and scholarship

recipients may be required to carry a minimum number of credit hours to remain eligible for their award. Other restrictions may apply. Check with the Financial Aid Office and your departmental advisor.

If you are employed, it may be necessary for you to carry less than 12 hours. Your academic success should be of prime importance, so a balance must be reached between the hours you work and your course load, keeping in mind the need for sufficient out-of-class study time. If you are a first time freshman or an adult student returning after several years away from school, and you must work full-time, consider taking one course your first semester in order to establish the discipline and the good study habits necessary to be a successful student. Once you have a good, workable routine, you may want to increase your course load in subsequent semesters. Any full-time student who plans to work more than ten (10) hours per week should discuss the situation with his or her academic advisor.

Supplemental Instruction

Some engineering courses offer Supplemental Instruction (SI) sessions. SI sessions are offered to enhance student success in entry-level courses. These are excellent opportunities for better understanding course material. Courses with SI sessions are listed at: www.southalabama.edu/academicsuccess

In the event of a time conflict with an SI session and a required course, you should contact your advisor regarding a possible time conflict override.

Academic Problems, Drop/Add, Withdrawing

If you are having difficulties in a course, such as falling behind because of illness or inability to comprehend the material, consult your instructor first. They may be able to suggest something to get you beyond this hurdle. Also, notify your advisor immediately, particularly if you are in the first week of the semester. You may be able to take another course as a replacement. However, financial aid recipients must have their schedule finalized by the end of the drop/add period, which is usually the first three days of the semester. Supplemental instruction sessions may be available to you. Free tutoring is offered through Academic Success and JagPALS.

On or before the final drop/withdrawal deadline, you can drop a course or withdraw from the University using PAWS without penalty. (A “WD” appears on your transcript for each course.)

However, you should see your Advisor before dropping any class. If you are on Financial Aid, see a Financial Aid Advisor as there may be serious implications for withdrawing from classes. If you wish to drop a class or completely withdraw from the University after the drop/withdrawal deadline, you must see your Advisor; a late drop or withdrawal also requires the approval of the Dean of the College of Engineering. A bad grade does not justify a late drop or withdrawal! Above all, don't abandon your classes by not attending, as you will then receive "F"s for all of your courses! Be sure to consult the Academic Calendar for Drop/Add and Withdraw deadlines.

Taking a Course at another Institution (Transient Credit)

You can take a course or courses at another college or university for USA credit, ***only if you have received prior approval by your department.*** Approval is not normally granted to take courses at institutions that are within commuting distance of the University of South Alabama. Requirements for consideration includes having a GPA of 2.5 or higher. Forms can be located at: www.southalabama.edu/colleges/engineering/currentstudents/resources/transientform2017.pdf

If you feel you need to take a course at another institution, first discuss it with your advisor. They will have the appropriate form and can tell you what documentation you will need. Note that online courses generally are not approved.

Sitting Out a Semester or Two

With the exception of the summer semester or being enrolled in co-operative education (co-op), readmission is required for a student who has not been enrolled for three consecutive terms. In order to reapply, you must be eligible to return and you reapply through the Registrar's Office.

Readmission deadlines for Fall, Spring, and Summer terms are on the *Academic Calendar*.

Academic Probation and Dismissal

Per the University Academic Probation Policy, students with a cumulative GPA below 2.0 are placed on academic probation. Students on academic probation have an advising hold placed on their account and are required to meet with their academic advisor. The full policy and Suspension/Dismissal Table can be located on our webpage at:

www.southalabama.edu/colleges/engineering/currentstudents/resources/coeacademicprobationpolicy.pdf

Academic Bankruptcy

Students readmitted after an absence of at least one calendar year may choose to declare Academic Bankruptcy, in effect wiping out all prior work at the University of South Alabama and academic work with a GPA of zero. However, all course work will remain on the student's academic record. This determination must be made during the term of reentry, no later than the last day of class for that term, but preferably at the time of readmission. **This requires Dean's office approval.** This election may be made only once during a student's USA career and is irrevocable. For financial aid recipients, filing academic bankruptcy will not clear a problem with satisfactory progress or reinstate your federal financial aid eligibility (including loans).

Changing Your Major

If you have not made a decision as to which degree program to pursue, you can concentrate on completing required courses common to all degree programs. However, by the end of your Freshman year, you should be focusing on a particular degree plan in order to minimize the time it takes to earn your Bachelor of Science. A change in your major must be initiated by completing a "Change of Major" form available from the Student Services Director or any of the academic departments.

Grade Replacement Policy

Undergraduate students are allowed three grade replacements. For more information, please look at the Bulletin.

www.southalabama.edu/departments/registrar/grades.html

Scholarships and Financial Aid

There are many forms of scholarships and financial aid available, some of them specific to engineering students. The Student Financial Aid office can help you with sources available to all students. For engineering scholarships, you must complete the Engineering Scholarship Application each spring to be considered for an award. The application is available on the college web site and the **deadline is February of each year.** For more information visit: www.southalabama.edu/departments/financialaffairs/scholarships

Opportunities

Cooperative Education

The Cooperative Education Program allows students to gain valuable experience in engineering while pursuing an engineering

degree. Once a student completes the freshman year (including the Calculus courses, MA 125 and MA 126), he or she may be able to alternate working full-time (with an excellent salary) and attending class. You should be aware that many companies, the larger ones in particular, are recruiting graduating engineering students who have internship and/or co-op experience. Visit the USA Career Services Center or the college Student Services Director for more information.

Internships

Internships allow students to gain valuable experience in engineering while pursuing an engineering degree. For assistance with identifying internship opportunities, see the Student Services Director and the Career Services Center.

Study Abroad

USA offers many study abroad programs. Participating in one of these programs gives you an opportunity to see another part of the world and become better educated about the culture, customs, and people in that country. Many of the companies who hire engineers compete globally and want to employ engineers with experience in other countries. For more information visit:

www.southalabama.edu/departments/ie/studyabroad/

Student Organizations

There are many student organizations at USA, some of these specific to the College of Engineering. Student organizations play a large, active role in student life and provide varying degrees of technical support, community service, career planning, and just plain fun! You are encouraged to become involved early in your college career and take advantage of important opportunities to interact with practicing engineers from local companies, establish friendships with other engineering students, and develop leadership skills. Serving as an officer or committee chair is an important part of your résumé.

A partial list of these organizations includes:

- American Institute of Aeronautics and Astronautics
- American Institute of Chemical Engineers
- American Society of Civil Engineers
- American Society of Heating, Refrigeration and Air Conditioning Engineers
- American Society of Mechanical Engineers

- Associated General Contractors
- Biomedical Engineering Society
- Design, Build, Fly
- Float, Dive, Swim
- Institute of Transportation Engineers
- Institute of Electrical and Electronics Engineers
- National Society of Black Engineers
- Society of American Military Engineers
- Society of Automotive Engineers
- Society of Women Engineers
- USA Launch Society

Students who are eligible will be invited to join the engineering honor society, Tau Beta Pi, and/or departmental honor societies.



General Education Requirements (18 hours)

Nine hours in Literature, Humanities and Fine Arts

Nine hours in History, Social Sciences and Behavioral Sciences

Literature (3 hours required)

EH 215, 216 British Literature

EH 225, 226 American Lit

EH 235, 236 World Literature

Fine Arts (3 hours required)

ARH 100 Survey of Art

ARH 103, 123 Art History

ARS 101 Art Appreciation

DRA 110 Intro to Drama

MUL 101 Intro to Music

Humanities (3 hours required)

AFR 101 Intro to African American Studies

AIS 105 Encounter with the Humanities

*CA 110 Public Speaking (required for CE, ECE, ME)

LG 111, 112, 211, 212 French

LG 131, 132, 231, 232 Spanish

LG 151, 152, 251, 252 German

LG 171, 172, 271, 272 Russian

LGS 101, 102, 201, 202 Japanese

LGS 106, 107, 206, 207 Arabic

LGS 121, 122, 221, 222 Chinese

LGS 141, 142, 241, 242 Greek

PHL 110, 121, 131, 231, 240 Philosophy

History (3 hours required)

HY 101, 102 History of Civilization

HY 135, 136 US History

Social Sciences and Behavioral Sciences (3 hours required)

AIS 201 Seasons of Life

ECO 215, 216 Economics

PSC 130 US Government

SY 109, 112 Sociology

CA 100 Intro to Communication

CA 211 Interpersonal Communication

AN 100, 101 Anthropology

GEO 114, 115 Geography

PSY120, 250, 121 Psychology

GS 101 Intro to Gender Study

IS 100 Global Issues

CURRICULA

Bachelor of Science in Chemical Engineering

Year 1	Fall		Spring		
EH 101	English Comp I	3	EH 102	English Comp II	3
MA 125+	Calculus I	4	MA 126	Calculus II	4
CH 131*+	General Chem I	4	CH132*	General Chem II	4
EG 101	Intro to Engr & Design	2	PH 201*	Cal based Physics I	4
BLY 121	General Biology	3			
Year 2	Fall		Spring		
MA 227	Calculus III	4	MA 238	App Diff Equations I	3
CH 201*	Organic Chemistry I	4	CH202*	Organic Chemistry	4
PH 202*	Cal based Physics II	4	EG 231	Engr Econ & Ethics	3
CHE 203	Material & Energy Bal	4	Technical Elective I		3
			General Ed Requirement		3
Year 3	Fall		Spring		
CHE 311	Separations I	3	CHE 342	Engr Communications	3
CHE 321	Transport Phenom. I	3	CHE 322	Transport Phenom. II	3
CHE 331	Thermo I	3	CHE 352	Measurement Lab	1
CHE 351	Modeling Lab	1	CHE 372	Reactor Design	3
General	Education Requirement	3	CHE 332	Thermo II	3
Chemistry Elective (CH265*/CH440)		3	General Ed Requirement		3
Year 4	Fall		Spring		
CHE 421	Separations II	3	CHE 442	Unit Ops Lab II	2
CHE 441	Unit Ops Lab I	2	CHE 452	Process Dyn/Control	3
CHE 461	Design I	3	CHE 462	Design II	3
CHE Elective I		3	CHE Elective II		3
General Ed Requirement		3	General Ed Requirement		3
General Ed Requirement		3	Total of 126 hours		

*Includes a One (1) credit hour Laboratory.

+Placement in first semester math and science courses is based on ACT math subscores.

CURRICULA

Bachelor of Science in Civil Engineering

Year 1		Fall		Spring	
EH 101	English Comp I	3	EH 102	English Comp. II	3
MA 125+	Calculus I	4	MA 126	Calculus II	4
CH 131*+	General Chem I	4	CH 132*	General Chem II	4
EG 101	Intro to Engr & Design	2	PH 201	Cal based Physics I	4
General Ed Requirement		3	CE 102	Intro to Civil Eng.	2
Year 2		Fall		Spring	
MA 227	Calculus III	4	MA 238	App Diff Equations	3
Science Elective*		4	EG 284	Dynamics	3
CE 204	Surveying	2	EG 315	Mech. of Materials	3
CE 205	Surveying Lab	1	ST 315	App Prob & Statistics	3
EG 283	Statics	3	General Ed Requirement		3
General Ed Requirement		3	General Ed Requirement		3
Year 3		Fall		Spring	
CE 352	Transportation	3	CE 370	Intro to Envir. Eng.	3
CE 384	Structural Analysis	3	CE 374	Environ. Eng. Lab	1
CE 385	Structural Anal. Lab	1	CE 367	Hydraulics Lab	1
EG 231	Engr Econ and Ethics	3	CE 340	Soil Mechanics	3
EG 360	Fluid Mechanics	3	CE 341	Geotechnical Lab	1
CE 314	Civil Engr Materials	3	CE 353	Geometric Design	3
CE 315	Civil Engr Mat Lab	1	CE 360	Water Res Engr I	2
			General Ed Requirement		3
Year 4		Fall		Spring	
CE 431	Civil Engr Design I	2	CE 432	Civil Engr Design II	4
CE 440	Geotechnical Engr	3	Technical Elective		3
CE 48x	Structural Design	3	Technical Elective		3
CE 48x	Structural Design Lab	1	General Ed Requirement		3
CE 470	Wtr/Wastwtr Design	3			
CE 471	Wtr/Wastewtr Lab	1			
CE 460	Water Res Engr II	3	Total of 131 hours		

**Includes a One (1) credit hour Laboratory.*

+Placement in first semester math and science courses is based on ACT math subscores.

CURRICULA

Bachelor of Science in Computer Engineering

Year 1	Fall		Spring		
EH 101	English Comp I	3	EH 102	English Comp II	3
MA 125+	Calculus I	4	MA 126	Calculus II	4
CH 131*+	General Chem I	4	PH 201	Cal based Physics I	4
EG 101	Intro to Engr & Design	2	CIS 210	Intro to C++ Prog	3
General Ed Requirement		3	General Ed Requirement		3
Year 2	Fall		Spring		
MA 227	Calculus III	4	EE 223	Network Analysis	3
PH 202	Cal based Physics II	4	EE 227	Circuits/Devices Lab	1
MA 267	Discrete Math	3	CSC 231	Intro Data Struct Algs	4
EE 220	Circuit Analysis	3	MA 238	App Diff Equations	3
EE 263	Digital Logic Design	3	EE 268	Digital Logic Lab	1
			EE 264	Microp & Interface	3
			General Ed Requirement		3
Year 3	Fall		Spring		
EE 321	Signals and Systems	3	EE 328	Feedback Control	3
EE 331	Physical Electronics	3	EE 334	Analog & Dig Elec	4
CSC 311	Networking & Comm.	3	EE 322	Prob Rand Signals	3
EE 368	Microp Interface Lab	1	CSC 322	Operating Systems	3
EG 231	Intro to Ethics & Econ	3	EE 457	Embedded Design	3
General Ed Requirement		3			
Year 4	Fall		Spring		
EE 401	ECE Design I	1	EE 404	ECE Design II	3
EE 446	Embedded Sys. Design Lab	1	EE 454	Digital Comp Arch	3
Technical Elective		3	Senior Lab		1
Technical Elective		3	Technical Elective		3
Technical Elective		3	Technical Elective		3
General Ed Requirement		3	General Ed Requirement		3
Total of 130 hours					

**Includes a One (1) credit hour Laboratory.*

+Placement in first semester math and science courses is based on ACT math subscores.

CURRICULA

Bachelor of Science in Electrical Engineering

Year 1	Fall		Spring		
EH 101	English Comp I	3	EH 102	English Comp II	3
MA 125+	Calculus I	4	MA 126	Calculus II	4
CH 131*+	General Chem I	4	PH 201	Cal Based Physics I	4
EG 101	Intro to Engr & Design	2	CIS 210	Intro to C++ Prog	3
General Ed Requirement		3	General Ed Requirement		3
Year 2	Fall		Spring		
MA 227	Calculus III	4	EE 223	Network Analysis	3
PH 202	Cal based Physics II	4	EE 227	Circuits/Devices Lab	1
EE 220	Circuit Analysis	3	EE 264	Microp & Interface	3
EE 263	Digital Logic Design	3	EE 268	Digital Logic Lab	1
General Ed Requirement		3	MA 237	Linear Algebra I	3
			MA 238	App Diff Equations	3
			EG 270	Thermodynamics	3
Year 3	Fall		Spring		
EE 321	Signals and Systems	3	EE 328	Feedback Control	3
EE 331	Physical Electronics	3	EE 334	Analog & Dig Elec	4
EE 354	Electromagnetics I	3	EE 355	Electromagnetics II	2
EE 368	Microp Interface Lab	1	EE 372	Intro Communications	3
EE 381	Elec Energy Conversion	3	EE 385	Energy Conv Lab	1
EE 322	Prob Rand Signals	3	EE 465	Digital Signal Proc	3
			EE 337	Electronics Lab	1
Year 4	Fall		Spring		
EG 231	Engr Econ & Ethics	3	EE 404	ECE Design II	3
EE 401	ECE Design I	1	Technical Elective		3
General Ed Requirement		3	Technical Elective		3
Technical Elective		3	General Ed Requirement		3
Technical Elective		3	General Ed Requirement		3
Senior Lab Elective		1	Total of 129 hours		

**Includes a One (1) credit hour Laboratory.*

+Placement in first semester math and science courses is based on ACT math subscores.

CURRICULA

Bachelor of Science in Mechanical Engineering

Year 1	Fall		Spring		
EH 101	English Comp I	3	EH 102	English Comp II	3
MA 125	Calculus I	4	MA 126	Calculus II	4
CH 131*	General Chem I	4	PH 201*	Cal based Physics I	4
EG 101	Intro to Engr & Design	2	ME 135	Engr Graphics	3
	General Ed Requirement	3	CA 110	Public Speaking	3
Year 2	Fall		Spring		
MA 227	Calculus III	4	MA 238	App Diff Equations	3
MA 237	Linear Algebra	3	EG 315	Mech of Materials	3
PH 202*	Cal based Physics II	4	EG 284	Dynamics	3
EG 283	Statics	3	EG 220	Electrical Circuits	3
	General Ed Requirement	3		General Ed Requirement	3
Year 3	Fall		Spring		
EG 270	Thermodynamics	3	ME 312	Mech Engr Thermo	3
EG 360	Fluid Mechanics	3	ME 314	Mach Comp Design	3
ME 326	Materials Science	3	ME 316	Instrum & Exper	3
ME 328*	Mech Eng Analysis	4	ME 317	Heat Transfer	3
	Science Elective	3	ME 336	Materials Science Lab	1
			EG 231	Engr Econ & Ethics	3
Year 4	Fall		Spring		
ME 410	Principles of Design	3	ME 414	Capstone Design	1
ME 412	Thermal Science Lab	1	ME 416	Capstone Design Project	2
ME 426	Controls	3	ME 472	Vibrations	3
ME 429	Controls Lab	1	ME Elective		3
	Technical Elective	3	Add'l Elective (Technical or ME)		3
	General Ed Requirement	3	General Ed Requirement		3

Total of 126 hours

**Includes a One (1) credit hour Laboratory.*

+Placement in first semester math and science courses is based on ACT math subscores.

A Survivor's "To Do" List

- **Go to class! Sit up front!**
- **Strive for good grades.** Plan your schedule so that you can devote enough time to your courses. Allow two hours preparation for each hour in class.
- Have a **specific time and place** that is free of distraction and interruption in which **to study**. You must have the understanding and cooperation of your significant others.
- **Get involved.....** student engineering **organizations**, Engineering Week activities, etc. can provide important social contacts for you now and valuable business contacts in the future.
- **Meet your advisor every semester.** You can't register if you don't.
- **Register early ...** you will have a better choice of classes.
- Get information about the **Co-op Program** early in your first year. Co-op can make the difference when you are job hunting!
- **Focus on each semester.** Don't think about the big picture (what you have to achieve in order to graduate). Smaller goals don't seem as overwhelming.
- **Use the University resources** available to you if you need them. That includes your instructors and advisor, special accommodations, tutoring and Supplemental Instruction, career and personal counseling and remediation in basic academic skills through Developmental Studies. **Check with the Student Services Director if you need guidance.**
- **Keep a copy of the *Bulletin* and *The Lowdown* handy for easy reference.** Most, if not all, answers to University policy questions can be found in either one or both publications.
- **Put a copy of the academic calendar** (found in PAWS and on the University website) **in an easily accessible, readily viewable location.** Familiarize yourself with important deadlines such as refund dates, the add/drop/withdrawal deadline, early advising dates, phase I registration, etc. It can save you trouble, time and money!
- **Check your University e-mail address often** for important messages from the Registrar, your academic department and other offices. The University and College of Engineering rely on e-mail to provide you with information critical to your academic program. Check with your department or PAWs if you have forgotten your USA e-mail address.

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Career Services	MH 2100	251-460-6188
Counseling & Testing Center	AHE 326	251-460-7051
Developmental Studies Office	AHE 202	251-460-7155
First Year Advising Center	ASC 1375	251-341-4017
Financial Aid	MH 1200	251-460-6231
JagSuccess (Student Academic Success)	ASC 1304	251-460-7103
Math/Statistics Tutoring	ILB 456	251-460-6264
Registrar's Office	MH 1100	251-460-6251
Special Disability Services	ESB, 320 Alumni Circle, Suite 19	251-460-7212
Student Accounting	MH 1300	251-460-6195
Student Health Services	5870 Alumni Drive	251-460-7151
University Writing Center	ASC 1390	251-460-6480
Office of Veteran Affairs	ASC 1345	251-460-6230