SOUTHERN UNIVERSITY®

AND AGRICULTURAL AND MECHANICAL COLLEGE

ADVISEMENT & GRADUATION CHECKOUT PROCEDURES

for the

MECHANICAL ENGINEERING DEPARTMENT

College of Engineering

2014-2017 Catalog

www.subr.edu/ME

Revised: November 08, 2016

Greetings and welcome to the Department of Mechanical Engineering at Southern University, Baton Rouge. We hope that your association with us will prove to be interesting, challenging, and profitable. We strive to provide you with necessary information to make your stay here a pleasant experience. All of the faculty and staff are here to serve you and they are consistently available to help you.

In the brief discussions presented below, you will find registration and advisement procedures that will assist in navigating you throughout your matriculation, as well as an application form to apply for graduation, and a list of checkout procedures. Please remember that the information provided here is not an exhaustive list of rules, regulations, and requirements. The Southern University Catalog for the Baton Rouge campus is the definitive rulebook for all aspects of your matriculation. You are required to review and keep abreast of its contents, with emphasis on the section entitled **Enrollment Privileges and Responsibilities**. This section includes information that is applicable to you as a student and that may affect several aspects of your graduation requirements.

I. Academic Advisement

The primary purpose of academic advisement is to assist students in successfully completing the degree requirements associated with their Mechanical Engineering Program. This includes counseling students on issues pertaining to:

- Understanding institutional support services available to them,
- Understanding institutional policies and procedures,
- Development of educational plans,
- Selection of appropriate courses and other educational experiences, and
- Evaluation of progress toward fulfilling graduation requirements.

Student Transfer from University College ~ Students who are interested in majoring in Mechanical Engineering (ME) must satisfy the requirements needed to exit from the University College and, subsequently, satisfy the admission requirements for entering the College of Engineering. Upon achieving eligibility status for transfer into this college, each student is required to have the University College certify Sections **I** and **II** located on the College of Engineering Entry Evaluation Form. This form is shown on the next page.

COLLEGE OF ENGINEERING
SOUTHERN UNIVERSITY AND A&M COLLEGE
ENTRY EVALUATION FORM

Name: _____ Student ID: _____/____/_____ Date: ___/ ___ /___

Start Date at SUBR: _____ / (__S ___M ___F) ACT/SAT Scores: _____ / _____ /_____ /_____ / _____
Year Semester English Math Reading Sciences Composite

Other Colleges: _____Locations: _____

Major (___ CE ___ EE ___ EET ___ ME) Total Curriculum Credit Hours: _____ GPA: _____

I. Admission Requirements Successfully Completed (25 Hours): (T = indicates transfer credit)

a. For Engineering Majors (25 hours)
English (6 hours): ENGL (_____110,_____111)
Mathematics (4 hrs): MATH (_____264)
***Sciences* (11 hours):** BIOL (_____104 or _____) CHEM (_____112, _____132) PHYS (_____221/223)
***Engineering* (4 hours):** ENGR (____ 120, ____130)

b. For Electronics Engineering Technology Majors (24 hours)
English (6 hours): ENGL (_____110, _____111)
Mathematics (3 hrs): MATH (_____135)
Sciences (11 hours): BIOL (_____104 or _____) CHEM (_____112, _____132) PHYS (_____141)
Engineering (4 hours): ENGR (____120, ____130)

II. The student is **DEFICIENT** in the following requirements for admission into the College of Engineering:

a. Applicant **HAS NOT EARNED** a "C" or better in the following required courses:

____ MATH 264 (Calculus I)
____ MATH 135 (Pre-Calculus I**)**
____ PHYS 141 (Elements of Physics)
____ PHYS 221/223 (General Physics I)
____ CHEM 112 (General Chemistry Lab)
____ CHEM 132 (General Chemistry Lecture)
____ ENGR 120 (Freshman Engineering I)
____ ENGR 130 (Freshman Engineering II)

b. ____Applicant **HAS NOT EARNED** the required **MINIMUM GPA** for at least 25 credit hours for engineering majors (24 credit hours for EET majors). (i. e., **2.2/4.0 required for Civil, Electrical, or Mechanical engineering majors OR 2.0/4.0 for EET majors**).

c. _____Writing Proficiency (ENGL 001)

Department Evaluator Only

III. Your petition for admission to the Department of _____is:

____ APPROVED ____ DENIED ____ CONDITIONALLY APPROVED

While under this status, the Applicant MUST enroll in ALL courses that are checked above in **Section II** and earn a "C" or better in each. **Until this is done, the Applicant will not be allowed to take additional engineering courses**. When the Applicant has satisfactorily completed ALL the cited courses, he/she will be "Fully Approved" for admission into the Department and be allowed to take additional engineering courses.

_____ _____
Department Chair Date

Transfers from the University College (See the appropriate University Catalog)

To be admitted to the College of Engineering (COE), students must have:

1. Qualified to officially exit from University College.
2. Completed a minimum of **25** hours (for engineering majors) with a GPA of 2.2/4.0 or better if they desire to major in Civil, Electrical, Mechanical Engineering or a minimum of 24 hours (for electronic engineering technology majors) with a GPA of 2.0/4.0 or better if they desire to major in electronics engineering technology.
3. Earn a "C" or better in each of the following courses:
   a. For Engineering Majors (25 hours)
      English (6 hours): ENGL (_____110,_____111)
      Mathematics (4 hrs): MATH (_____264)
      Sciences (11 hours): BIOL (___104 or ___) CHEM (_____112, _____132) PHYS (_____221/223)
      Engineering (4 hours): ENGR (_____ 120, _____130)

   b. For Electronics Engineering Technology Majors (24 hours)
      English (6 hours): ENGL (_____110,_____111)
      Mathematics (3 hrs): MATH (_____135)
      Sciences (11 hours): BIOL (_____104 or _____) CHEM (____112, ____132) PHYS (_____141)
      Engineering (4 hours): ENGR (_____ 120, _____130)

   c. _____Writing Proficiency

Applicants who satisfy entry requirements 1 and 2, but have not adequately passed all courses cited in entry requirements 3, can be "Conditionally Admitted". This action is contingent upon applicants enrolling at the next opportunity in each missing course cited and earning a "C" or better. Until this requirement is fully meet, Applicants will be denied permission to continue taking engineering courses beyond this point.

Academic Advisement Procedures ~ The academic advisement procedures that are established in the ME department include the following components:

1. All students admitted to the ME program are assigned to an academic advisor on an alphabetical basis. In addition, all transfer students are ***initially*** assigned to a senior faculty member, who will be responsible for identifying courses previously taken by students at other institutions that can be transferred as equivalent to appropriate courses in the ME curriculum.

   Table 1 depicts the assignment of Mechanical Engineering Academic and Career Advisors via the first letter of students' last name. Once the transfer course equivalencies have been established, the student will then be assigned to an academic advisor according to this table. Furthermore, all prospective graduates of the ME department are first advised by their academic advisor and then by the department's chairperson.

Table 1. Mechanical Engineering Academic and Career Advisors

First Letter of Student's Last Name	Advisor	Email Phone	Pinchback Hall Office
A -- B	Dr. Stephen Akwaboa	Stephen_Akwaboa@subr.edu (225) 771-3580	334
C -- F	Dr. Ghanashyam Joshi	Ghanashyam_Joshi@subr.edu (225) 771-5917	360
G -- I	Dr. Amitava Jana	Amitava_Jana@subr.edu (225) 771-5792	345
J -- L	Dr. Edgar Blevins	Edgar_Blevins@subr.edu (225) 771-4736	355
M -- Q	Dr. Patrick Mensah	Patrick_Mensah@subr.edu (225) 771-4193	356
R -- T	Dr. Samuel Ibekwe	Samuel_Ibekwe@subr.edu (225) 771-2525	358
U -- Z	Dr. Fareed Dawan Dr. Chun-Ling Huang	Fareed_Dawan@subr.edu (225) 771-2207 Chun-ling_Huang@subr.edu (225) 771-3258	346 353
All Transfer Students	Dr. Dwayne Jerro	Dwayne_Jerro@subr.edu (225) 771-3580	334
Graduating Senior Final Check Out	Dr. Dwayne Jerro	Dwayne_Jerro@subr.edu (225) 771-3580	334
C-USA (CTLE) Advisor for all Incoming Freshman	Ms. Veronica Richardson	Veronica_Richardson@subr.edu (225) 771-6270	Harris Hall 1082

2. Academic advisors provide students with information and guidance concerning the ME program and they also approve students' schedules of classes throughout their matriculation in the program. All ME students are required to meet with their

academic advisor early during registration periods; wherein they complete a Registration Advisement Form that acknowledges each advisement encounter. This form is attached to the set of procedure forms given to each student. It should be noted that all students must first be cleared by their assigned academic advisor before being authorized to engage in regular registration, cross-registration, or telephone registration activities.

3. All ME students are required to meet with their academic advisors at least once during a semester to discuss their individual progress toward earning the Bachelors of Science degree in Mechanical Engineering.

4. Academic advisors will make every effort to counsel their advisees regularly, with special attention being focused on those students with a poor academic performance. A meeting should be set immediately following the publication of mid-term grades with advisees who have critical GPA-related problems.

5. All ME students are required to satisfy course prerequisites as outlined in the description for required courses.

6. Students are to select a curriculum path and then faithfully follow the inherent graduation requirements. They may choose to adhere to the catalog in force during the year they began their matriculation at Southern University or any subsequent catalogue issued thereafter.

7. The academic advisor will use a department "**Degree Requirements Record Form**" that is based on the appropriate curriculum taken from the catalogue that a student chooses to use as the basis for graduation checkout.

8. The department will maintain an accurate master file for all students enrolled in the ME program. These files will include transcripts, grade reports, schedules of classes, personal data, a degree requirements record form, and other appropriate academic documents.

9. Each academic advisor will maintain an accurate list of his/her advisees and will have access to the Banner System that contains authoritative proof of students' complete academic record.

To facilitate a university-wide advisement process, strong collaborative procedures have been developed and implemented in cooperation with the faculty and staff of the Center for Undergraduate Student Achievement (C-USA). C-USA (www.subr.edu/CUSA) was formerly named the Center for Center for Teaching and Learning Excellence (CTLE) / University College. The team at C-USA is mainly responsible for advisement incoming students. All engineering faculty and students are also encouraged to participate in the University-wide Mentorship Program.

The computerization of advisement at the University has been a process of continuous improvement. Students can find the Southern University Banner Links website at the following URL http://banner.subr.edu. On that site, the student will see the ***Production***

Links section header and should click on the ***"Self-Service Banner [PROD8-SSB]…"*** link which leads the to the Banner Self-Service access page. The student can then access their records by using their Banner Student Number (or S-number) and an assigned PIN. The computerized academic advisement system offers such access services as on-line academic records, class schedule, student demographic data, degree curricula, interactive registration, course descriptions, and course prerequisites. This system is being used to greatly improve academic planning throughout students' matriculation.

REGISTRATION ADVISEMENT FORM

College of Engineering
Mechanical Engineering Department

Student's Name: _____

SU Banner ID No.: _____ Telephone No.: ( )_____

Email Address: _____

Semester[§]: _____ Current Date: _____

[§]Semester means the term for which you are registering or pre-registering.

Discussion Points:

RECOMMENDED COURSES

CRN	Course Title	Course No.	Sec. No.	Cred. Hrs.	Day(s)	Time(s)	Instructor
12345	*Example ME Course Title*	*MEEN 123*	*1*	*3.0*	*MWF*	*7:00 – 7:50 AM*	*John Doe*

ALTERNATE COURSES:

TOTAL HOURS RECOMMENDED: _____

Comments:

Note:
The signatures below verify that I have had an advisement conference with my faculty advisor concerning courses I should take during the semester indicated. My advisor has approved the courses listed on the registration form.

Student Signature

Advisor Signature

DEGREE REQUIREMENTS RECORD FORM

DEPARTMENT OF MECHANICAL ENGINEERING

2014-2017 Catalog Proposed Date of Graduation _____

Student's Name: _____ **SUID:** _____ **Advisor:** _____

Last First Middle

FRESHMAN YEAR

First Semester

Course	Dept	No	Cr	Grd	Sem	Yr
Freshman Engr I	ENGR	120	2			
Life Science Elective*			3			
Freshman Composition	ENGL	110	3			
General Chemistry Lec	CHEM	132	3			
General Chemistry Lab	CHEM	112	1			
Calculus I	MATH	264	4			
Total			16			

Second Semester

Course	Dept	No	Cr	Grd	Sem	Yr
Freshman Engr II	ENGR	130	2			
Freshman Composition	ENGL	111	3			
Economics	ECON	205	3			
General Physics I	PHYS	221	3			
General Physics I Lab	PHYS	223	1			
Calculus II	MATH	265	4			
Total			16			

SOPHOMORE YEAR

First Semester

Course	Dept	No	Cr	Grd	Sem	Yr
Statics	CIEN	224	3			
Cal III & Diff Eqn Engr	MATH	395	4			
Social Science Elect*			3			
General Physics II	PHYS	222	3			
General Physics II Lab	PHYS	224	1			
Tech Communication	ENGR	230	2			
Total			16			

Second Semester

Course	Dept	No	Cr	Grd	Sem	Yr
Dynamics	MEEN	225	3			
Mechanics of Materials	MEEN	227	3			
Materials Sci & Engr	MEEN	235	3			
Intro to CADD	MEEN	252	2			
Num Methods for Engr	MEEN	221	3			
E. E. Fundamentals	ELEN	352	3			
Total			17			

JUNIOR YEAR

First Semester

Course	Dept	No	Cr	Grd	Sem	Yr
Thermodynamics I	MEEN	300	3			
Engineering Math	ENGR	340	3			
Fluid Mechanics	MEEN	312	3			
Materials Processing	MEEN	335	3			
Mechanics of Machines	MEEN	350	3			
Health/PE Activity*			2			
Total			17			

Second Semester

Course	Dept	No	Cr	Grd	Sem	Yr
Thermodynamics II	MEEN	301	3			
Matl Sci & Engr Elect	MEEN		3			
Machine Design	MEEN	365	3			
Measurements	MEEN	356	3			
Probability & Statistics	ENGR	320	2			
History Elective*			3			
Total			17			

SENIOR YEAR

First Semester

Course	Dept	No	Cr	Grd	Sem	Yr
Engineering Seminar	ENGR	400	1			
Heat Transfer	MEEN	442	3			
ME Senior Design I	MEEN	450	2			
Thermal Science Elect	MEEN		3			
History Elective*			3			
Literature Elective*	ENGL**		3			
Total			15			

Second Semester

Course	Dept	No	Cr	Grd	Sem	Yr
Engineering Economy	CIEN	310	3			
ME Senior Design II	MEEN	451	2			
Control & Engr Model	MEEN	456	3			
General Tech Elective	MEEN		3			
Arts Elective*			3			
Total			14			

OTHER REQUIREMENTS:

Course	Dept	No	Cr	Grd	Sem	Yr
African American Experience	ENGL**	203	3			
Service Learning	SVLR	400 or 100, 200, & 300	3			
Writing Proficiency	ENGL	001	0			
Dept. Comp Exam	MEEN	000	0			

APPROVED:

Faculty Advisor: _____

Date:

Dept. Chair: _____

Date:

Academic Dean: _____

Date:

***** Choose from the General Education Requirements list, see the catalog

****** Satisfies both requirements, other courses may be taken, see the catalog

Notes:

DEGREE REQUIREMENTS RECORD FORM

DEPARTMENT OF MECHANICAL ENGINEERING

Catalog 2010-2014 **Proposed Date of Graduation** _____

Student's Name: _____ SUID: _____-___-_____ Advisor: _____

Last First Middle

FRESHMAN YEAR

First Semester

Course	Dept	No	Cr	Grd	Sem	Yr
Freshman Engr I	ENGR	120	2			
Life Science Elec**			3			
Fresh. Composition	ENGL	110	3			
General Chem Lec	CHEM	132	3			
General Chem Lab	CHEM	112	1			
Calculus I	MATH	264	4			
Total			16			

Second Semester

Course	Dept	No	Cr	Grd	Sem	Yr
Freshman Engr II	ENGR	130	2			
Freshman Composition	ENGL	111	3			
Economics	ECON	205	3			
General Physics	PHYS	221	3			
General Physics Lab	PHYS	223	1			
Calculus II	MATH	265	4			
Total			16			

SOPHOMORE YEAR

First Semester

Course	Dept	No	Cr	Grd	Sem	Yr
General Physics	PHYS	222	3			
General Physics Lab	PHYS	224	1			
Statics	CIEN	224	3			
Tech Communication	ENGR	230	2			
Cal III & Diff Eqn Engr	MATH	395	4			
Social Science Elect**			3			
Total			16			

Second Semester

Course	Dept	No	Cr	Grd	Sem	Yr
Num Methods for Engr	MEEN	221	3			
Dynamics	MEEN	225	3			
Mechanics of Materials	MEEN	227	3			
Materials Sci & Engr	MEEN	235	3			
Intro to CADD	MEEN	252	2			
E. E. Fundamentals	ELEN	352	3			
Total			17			

JUNIOR YEAR

First Semester

Course	Dept	No	Cr	Grd	Sem	Yr
Thermo I	MEEN	300	3			
Fluid Mechanics	MEEN	312	3			
Materials Processing	MEEN	335	3			
Engr Math	ENGR	340	3			
Mech of Machines	MEEN	350	3			
Health/PE Activity**			2			
Total			17			

Second Semester

Course	Dept	No	Cr	Grd	Sem	Yr
Thermo II	MEEN	301	3			
Prob. & Statistics	ENGR	320	2			
Matl Sci & Engr Elect	MEEN	XXX	3			
Measurements	MEEN	356	3			
Machine Design	MEEN	365	3			
History Elective**			3			
Total			17			

SENIOR YEAR

First Semester

Course	Dept	No	Cr	Grd	Sem	Yr
Engineering Seminar	ENGR	400	1			
Heat Transfer	MEEN	442	3			
ME Senior Design I	MEEN	450	2			
Thermal Sci Elective	MEEN	YYY	3			
History Elective**			3			
Literature Elective**	ENGL*	203	3			
Total			15			

Second Semester

Course	Dept	No	Cr	Grd	Sem	Yr
Engr Economy	CIEN	310	3			
ME Senior Design II	MEEN	451	2			
Control & Engr Model	MEEN	456	3			
General Tech Elective	MEEN	ZZZ	3			
Arts Elective**			3			
Total			14			

OTHER REQUIREMENTS:

Course	Dept	No	Cr	Grd	Sem	Yr
African American Experience	ENGL*	203	3			
Service Learning	SVLR	400 or 100, 200, & 300	3			
Writing Proficiency	ENGL	001	0			
Dept. Comp Exam	MEEN	000	0			

APPROVED:

Faculty Advisor: _____

Date:

Dept. Chair: _____

Date:

Academic Dean: _____

Date:

*****Satisfies both requirements, other courses may be taken, see the catalog

** Choose from the ME H&S Elective List

Notes:

_____

_____

_____

_____

DEGREE REQUIREMENTS RECORD FORM

DEPARTMENT OF MECHANICAL ENGINEERING

2009-2010 Catalog **Proposed Date of Graduation** _____

Student's Name: _____ SSN: _____-___-_____ Advisor: _____
Last **First** **Middle**

FRESHMAN YEAR

First Semester

Course	Dept	No	Cr	Grd	Sem	Yr
Freshman Engr I	Engr	120	2			
Life Science Elec**			3			
Fresh. Composition	Engl	110	3			
General Chem Lec.	Chem	132	3			
General Chem Lab	Chem	112	1			
Calculus I	Math	264	4			
Total			16			

Second Semester

Course	Dept	No	Cr	Grd	Sem	Yr
Freshman Engr II	Engr	130	2			
Freshman Composition	Engl	111	3			
Economics	Econ	205	3			
General Physics	Phys	221	5			
Calculus II	Math	265	4			
Total			17			

SOPHOMORE YEAR

First Semester

Course	Dept	No	Cr	Grd	Sem	Yr
Statics	CiEn	224	3			
Cal III & Diff Eqn Engr	Math	395	4			
Humanities Elective**			3			
General Physics	Phys	222	5			
Tech Communication	Engr	230	2			
Total			17			

Second Semester

Course	Dept	No	Cr	Grd	Sem	Yr
Dynamics	MeEn	225	3			
Mechanics of Materials	MeEn	227	3			
Material Sc. & Engr.	Math	235	3			
Intro to CADD	MeEn	252	3			
Num Methods for Engr	MeEn	221	3			
E.E. Fundamentals	ElEn	352	3			
Total			18			

JUNIOR YEAR

First Semester

Course	Dept	No	Cr	Grd	Sem	Yr
Thermo I	MeEn	300	3			
Engr Math	Engr	340	3			
Fluid Mechanics	MeEn	312	3			
Materials Processing	MeEn	335	3			
Mech of Machines	MeEn	350	3			
Social Science Elect**			3			
Total			18			

Second Semester

Course	Dept	No	Cr	Grd	Sem	Yr
Thermo II	MeEn	301	3			
Matl Sci. & Engr Elect			3			
Machine Design	MeEn	365	3			
Measurements	MeEn	356	3			
Prob. & Statistics	Engr	320	2			
History Elective**			3			
Total			17			

SENIOR YEAR

First Semester

Course	Dept	No	Cr	Grd	Sem	Yr
ME Seminar	MeEn	400	1			
Heat Transfer	MeEn	442	3			
Heat Transfer Lab	MeEn	444	1			
ME Senior Design I	MeEn	450	2			
Thermal Sc. Elec**			3			
History Elective**			3			
Literature Elective**	Engl*	203	3			
Total			16			

Second Semester

Course	Dept	No	Cr	Grd	Sem	Yr
Engr Economy	CiEn	310	3			
ME Senior Design II	MeEn	451	2			
Control & Engr Model	MeEn	456	3			
General Tech. Elective	MeEn		3			
Arts Elective**			3			
Health/PE Activity**			2			
Total			16			

OTHER REQUIREMENTS:

Course	Dept	No	Cr	Grd	Sem	Yr
African American Experience	Engl*	203	3			
Service Learning	SVLR	400 or 100, 200 & 300	3			
Writing Proficiency	Engl	001	0			
Dept. Comp Exam	MeEn	000	0			

APPROVED:

Dept. Chair: _____

Date:

Academic Dean: _____

Date:

Faculty Advisor: _____

Date:

*****Satisfies both requirements, other courses may be taken, see the catalog

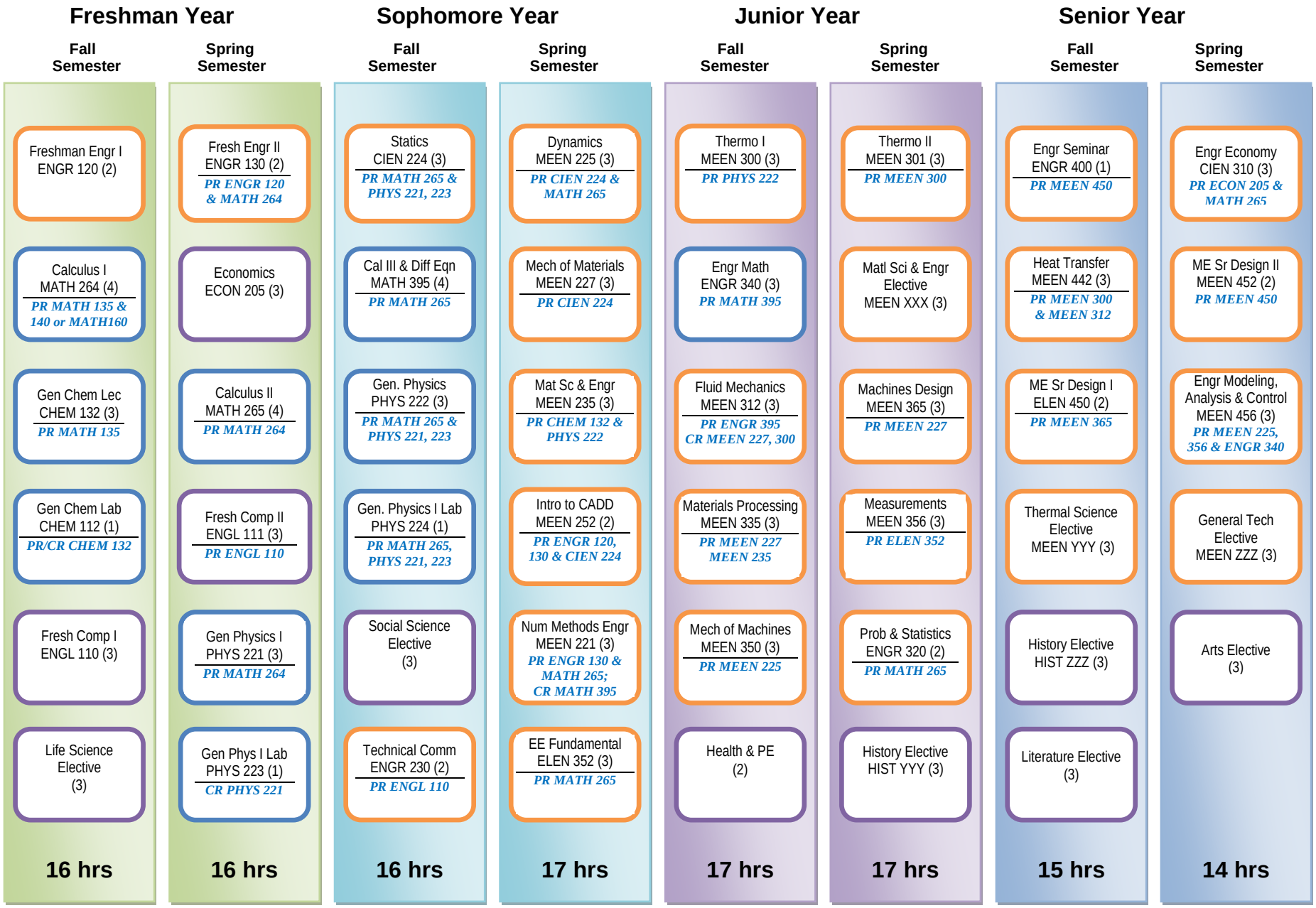
**Choose from the ME H& S Elective List

Notes: _____

_____

_____

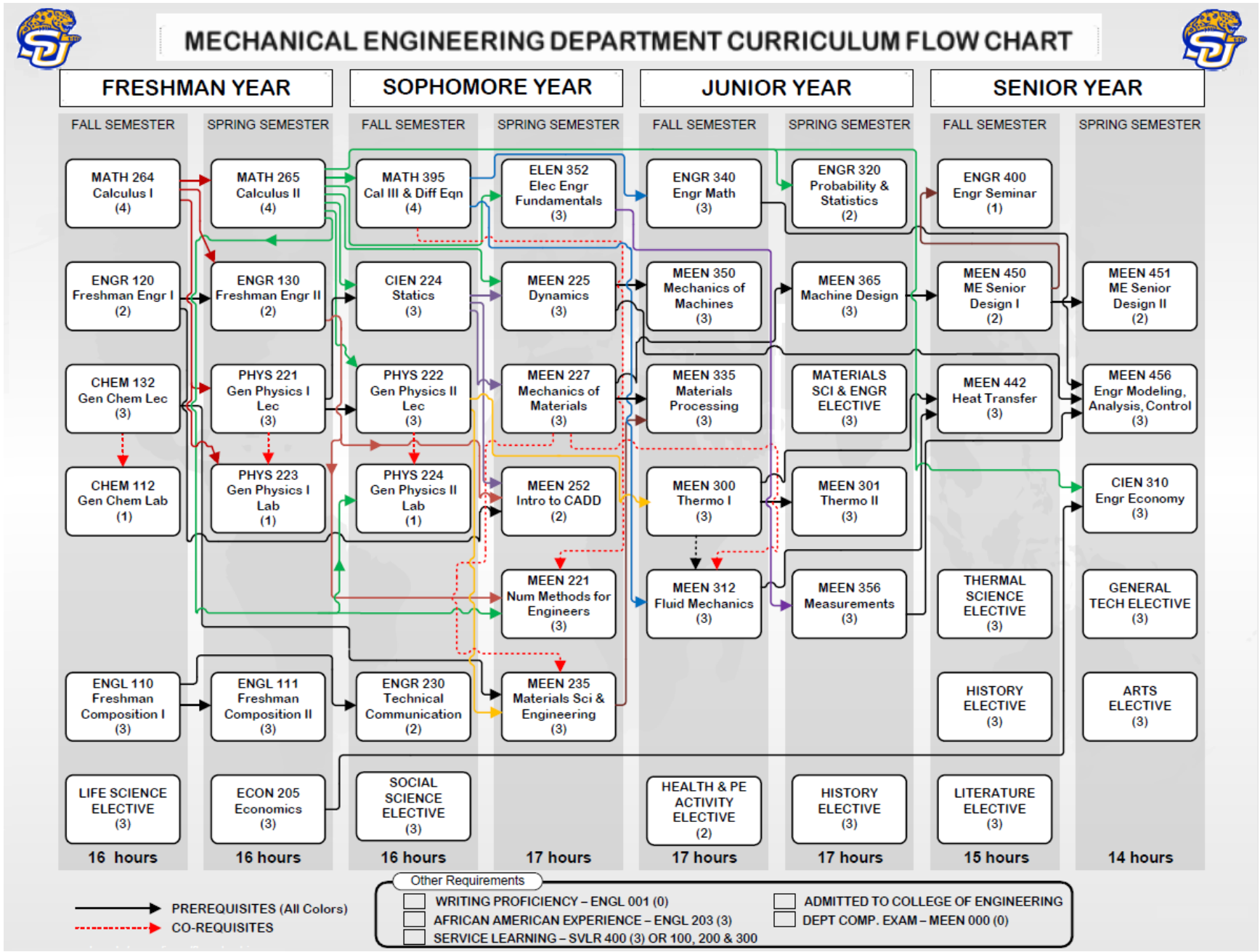
2014-2017 ME CURRICULUM PRE-REQUISITE (*PR*) AND CO-REQUISITE (*CR*) FLOW CHART



Color Codes:

- Math & Science Requirements: 27 Cr H
- Social & Humanities Elective Requirements: 29 Cr H
- Engineering Major Requirements: 72 Cr H
- Total Credit Hours Requirements: 128 Cr H

2014-2017 ME CURRICULUM FLOWCHART with PRE-REQUISITE AND CO-REQUISITE FLOW LINES



Southern University College of Engineering / Mechanical Engineering Department
COURSE PRE-REQUISITES

Course ID	Course Title	Pre-Requisite(s)
ENGR 120	Freshman Engineering I	NONE
MATH 264	Calculus I	MATH 135 **and** 140, or MATH 160 or Math Placement Score
ENGL 110	Freshman Composition I	NONE
See Elective List	Life Science Elective	See Course(s) for Requirements
CHEM 132	General Chem Lecture	High school chemistry and algebra or MATH 135 or above
CHEM 112	General Chem Lab	Prerequisite or Co-requisite: CHEM 132
ENGR 130	Freshman Engineering II	ENGR 120 and MATH 264
MATH 265	Calculus II	MATH 264
ENGL 111	Freshman Composition II	ENGL 110
PHYS 221/223	General Physics I Lecture & Lab	MATH 264
ECON 205	Principles of Economics	NONE
CIEN 224	Statics	PHYS 221, PHYS 223, and MATH 265
ENGR 230	Technical Communications	ENGL 110
PHYS 222/224	General Physics II Lecture & Lab	MATH 265, PHYS 221, and PHYS 223
MATH 395	Cal III & Diff Equations for Engr Majors	MATH 265 or Consent of Math Department
See Elective List	Social Science Elective	See Course(s) for Requirements
MEEN 221	Numerical Methods for Engineering	ENGR 130 and MATH 265. Co-requisite: MATH 395
MEEN 225	Dynamics	CIEN 224 and MATH 265
MEEN 227	Mechanics of Materials	CIEN 224
MEEN 235	Materials Science & Engineering	CHEM 132 and PHYS 222
MEEN 252	Introduction to CADD	ENGR 120, ENGR 130, and CIEN 224
ELEN 352	Electrical Engineering Fundamentals	MATH 265
MEEN 300	Thermodynamics I	PHYS 222
MEEN 312	Fluid Mechanics	MATH 395. Co-requisites: MEEN 227 and MEEN 300
MEEN 335	Materials Processing	MEEN 227 and MEEN 235
ENGR 340	Engineering Mathematics	MATH 395
MEEN 350	Mechanics of Machines	MEEN 225
See Elective List	Health/PE Activity	See Course(s) for Requirements
MEEN 301	Thermodynamics II	MEEN 300
ENGR 320	Probability & Statistics	MATH 265
See ME Electives List	Materials Sci & Engr Elective (MEEN XXX)	See Course(s) for Requirements
MEEN 356	Measurements	ELEN 352
MEEN 365	Machine Design	MEEN 227
HIST	History Elective	See Course(s) for Requirements
ENGR 400	Engineering Seminar	MEEN 450
MEEN 442	Heat Transfer	MEEN 300 and MEEN 312
MEEN 450	ME Senior Design I	MEEN 365
See ME Electives List	Thermal Science Elective (MEEN YYY)	See Course(s) for Requirements
HIST	History Elective	See Course(s) for Requirements
See Elective List	Literature Elective	See Course(s) for Requirements
CIEN 310	Engineering Economy	ECON 205 and MATH 265
MEEN 451	ME Senior Design II	MEEN 450
MEEN 456	Engineering Modeling, Analysis & Control	MEEN 225, ENGR 340, and MEEN 356
See ME Elective List	General Technical Elective (MEEN ZZZ)	See Course(s) for Requirements
See Elective List	Arts Elective	See Course(s) for Requirements

Degree Requirements

The Bachelor of Science Degree in Mechanical Engineering (BSME) is awarded to students who complete the requirements of the department as stated below:

1. Complete the Mechanical Engineering (ME) curriculum requirements with a minimum overall grade point average of 2.00 out of 4.00. The total credit hours required for graduation is 128 credit hours, which excludes remedial and repeated courses.

2. Pass the **Writing Proficiency Examination** (WPE) before applying for graduation. In actuality, the WPE must be taken before a student is admitted to the College of Engineering. Students are ***strongly*** encouraged to take this examination as they complete the ENGL 111 (Freshman Composition II) course. The course is administered by the English Department, and the student **MUST ENROLL** in the course on Banner. The WPE is listed as ENGL 001 in the schedule of courses. The Writing Laboratory located in Harris Hall, Room 2024 as a resource to prepare students to pass the Examination. For more details on the WPE, visit the web link: www.subr.edu/index.cfm/page/332/n/260.

3. Pass the **Departmental Comprehensive Examination (DCE).** The course is administrated by Mechanical Engineering Department, and the student **MUST ENROLL** in the course on Banner. It is listed as MEEN 000 in the schedule of courses. The Departmental Comprehensive Examination is a part of the Engineering Seminar (ENGR 400) course activity.

4. Complete the University mandated **African-American Experience**. Courses that satisfy the African-American Experience requirement include ARTS 440; ENGL 203*, 313, 407, 413, 415, and 485; HIST 311*, 399, 401, 419, 486, 496, and 497; MUSC 243, 352, and 353; HUMN 366 and 403; MCOM 331; PHIL 426; SOCW 250 and 450; SPTH 399. See the current university catalog for additional details.

   Waivers: *Students who were first-time freshmen at any post-secondary institution **before** August 1, 1991.*

5. Complete the University mandated **Service Learning (Community Service) Requirement**. Students are required to complete a minimum of 60 clock hours of community service as one of the requirements for graduation from SUBR. Service Learning (SVLR) courses are: SVLR 100, 200, and 300 (which are each a 1 semester credit hour course); and SVLR 400 (which is 3 semester credit hour course). A total of three semester hours of credit is required.

   Wavers:

   a. *Students who were first-time freshmen at any post-secondary institution **before** August 1, 1993;*
   b. *International Students;*
   c. *Those students **25 years or older** who completed high school or who earned high school equivalency seven or more years prior to admission;*
   d. *Any person with certifiable disability of such a nature that community service projects would jeopardize the welfare of the parties involved. In such a case, the disability must be on file in the Office of the Registrar.*

General Education Requirements ~ All students entering the ME department in the Southern University College of Engineering must complete a general education component, which is discussed below:

1. At least nine (9) hours of course work in the **Humanities** are required. Six (6) of those hours must be **History** courses and three (3) of those hours must be in literature. The six (3) hours of history must be selected from the following courses: HIST 114,115, 230, 311*, 399, 401, 410*, 463, and 486. The three (3) hours in **Literature** must be taken from ENGL 201, 203*, 204, or 205.
2. Three (3) hours of course work are required in the **Arts** and are to be taken from among the following series of courses: Fine Arts (ARTS 200, 210/211, 320, 330, and 440*); Music (MUSC 200, 250/251, 352*, 353*); Speech and Theater (SPTH 360).
3. Six (6) hours of course work are required in the **Social Sciences** area of which three (3) hours must be either Economics (ECON 200 or 205). The remaining course must be selected from among the following series of courses: Economics (ECON 210, 370); Geography (GEOG 210, 221, 401); Political Science (POLS 200, 210, 320, 402); Sociology (SOCL 210,324, 448); and Psychology (PSYC 210, 315, 350).
4. Fifteen (15) hours of course work are required in the **Life (Natural) Science** area, which include the Biological and Physical Sciences, with a laboratory experience. Eight (8) hours must be taken in a two-semester sequence of Physics courses (PHYS 221/223 and PHYS 222/224), and four (4) hours must be taken in Chemistry courses (CHEM 132 and CHEM 112). Three (3) hours of **life science** course work are required and may be selected from the following Biology courses: BIOL 104 or BIOL 105.
5. Two (2) hours of course work are required in **Physical Education** or **Health** and are to be taken from among the following series of courses: Physical Education (PHED 100-250) or Health (HLTH 110-365).

* *These courses can be taken to simultaneously satisfy the indicated ME elective requirements as well as the University's African-American Experience requirement.*

CORE Mathematics and Science Requirements ~ A grade of "C" or better is required in the following mathematics and science CORE courses:

Course	Course No.	Credit Hour
Calculus I	MATH 264	4
Calculus II	MATH 265	4
Calculus III & Differential Equations for Engr Majors	MATH 395	4
General Physics Lecture and Lab	PHYS 221/223	3 / 1
General Physics Lecture and Lab	PHYS 222/224	3 / 1
General Chemistry Lecture	CHEM 132	3
General Chemistry Lab	CHEM 112	1

Departmental Course Requirements ~ **All** of the required courses outlined in the curriculum sheet designated by the prefixes **MEEN** and **ENGR** are considered to be CORE courses for the mechanical engineering majors and a grade of "C" or better is required. The CIEN 224 (Statics) course is also considered to be a part of the CORE course list.

Technical Electives ~ Nine (9) hours of technical elective may be taken from any of the following courses prior to graduation:

Mechanical Engineering Technical Elective Groups

Materials Science & Engineering (MEEN XXX)

Course	No.	Cr.
Engineering Materials & Selection	MEEN 337	3
Composite Materials	MEEN 336	3
Intro to Finite Elements	MEEN 430	3
Engineering Design: Materials & Manufacturing	MEEN 462	3

Thermal Science (MEEN YYY)

Course	No.	Cr.
Fluid Dynamics	MEEN 313	3
Thermal Environmental Engineering	MEEN 421	3
Mechanical Energy Systems	MEEN 460	3
Thermal System Analysis	MEEN 482	3

General Technical Elective (MEEN ZZZ)

Course	No.	Cr.
Mechatronics	MEEN 464	3
Mechanical Vibrations	MEEN 343	3
Computer-Integrated Manufacturing	MEEN 471	3
Fracture Mechanics	MEEN 338	3
Intermediate Manufacturing Processes	MEEN 439	3
Topics in Mechanical Engineering	MEEN 467-468	3
Senior Projects	MEEN 497-498	3
Engineering Practice	MEEN 499	3

Notes:

a) The courses listed under Thermal Science Elective, and Materials Science and Engineering Elective may also count as one of the General Technical elective courses.
b) At least one technical elective course is offered every semester.
c) A grade “C” or better is required for technical elective courses.

Transfer Credits ~ Transfer courses can be substituted or used to satisfy the requirements for engineering courses if, and only if:

- The course contents, rigor of presentation, and prerequisites are equivalent, and
- Transfer credits come from engineering programs that are accredited by EAC/ABET.

Residency Requirement ~ All ME students must complete 30 hours of the last 36 hours in residence at Southern.

II-Graduation Checkout Procedures

Students must be approved for graduation by their academic advisors, departmental chairman, academic dean, and the Office of the Registrar. The process to become a Candidate for Graduation begins in the semester prior to that in which the student is scheduled to graduate. These checkout procedures to be followed by prospective ME graduating seniors include:

1. Submittal of an Application for Graduation: Deadlines for a student's academic advisor to receive his/her application for graduation are:
   - Spring Commencement - **Third week of August**
   - Summer Commencement - **Third week of January**
   - Fall Commencement - **Third week of March**

2. Validate Earned Curriculum Credits: The prospective graduate, along with his/her academic advisor, must review the Degree Requirements Record Form reflecting the ME curriculum in force for the SUBR catalogue selected for graduation checkout. His/her latest transcript is to be consulted to certify what if any graduation requirements still remain. If all remaining graduation requirements can be satisfied within the next semester, the academic advisor should sign the Degree Requirements Record Form. The completed form should be inserted into the prospective graduate's application packet.

3. Fill-out the Candidate for the Bachelor's Degree Official Check-Out Form: The prospective graduate should list on this form all courses that are currently in progress and any additional courses required to complete the degree requirements. The completed form should be inserted into the prospective graduate's application packet.

4. Fill-out the Graduation Application Data Sheet: The prospective graduate should fill-out this sheet with the required personal information. The completed form should be inserted into the prospective graduate's application packet.

5. Fill-out necessary Request for Course Substitution Forms: It is necessary to complete and sign one of these forms for each course to be substituted. The completed forms should be inserted into the prospective graduate's application packet.

6. Submission of Application Packet to Department Chair: The student should then take the application packet, containing the signed forms that were cited above, to his/her Chair's office for further review and additional signatures.

7. Submission of Application Packet to Engineering Dean: The departmental chairman will forward the prospective graduate's application packet to the Dean's Office after affixing his approval.

8. Submission of Application Packet to Academic Affairs: The Dean of the College of Engineering will forward the prospective graduate's application packet to the Academic Affair's Office after affixing his approval.

9. Fill-out the Graduating Senior Exit Survey: The prospective graduate must fill-out this survey and return it to the ME department office.

It is the student's responsibility to understand and meet graduation requirements.

APPENDIX

Southern University-Baton Rouge
REQUEST FOR SUBSTITUTION OF COURSE

Please Type

I, _____, _____, _____
Student's Name Student's ID Department

_____, request permission to substitute _____
Classification Course Number

_____ _____ _____
Descriptive Title of Course Department Credit Hours

Semester hours of credit for the required course _____
Course Number

_____ _____ _____
Descriptive Title of Course Department Credit Hours

Reasons(s) for said request follows: (If request involves a Transfer of Credit, please indicate institution of origin and location. Attach a course description from the university Catalog.)

_____

_____

_____

_____

_____

Please list all previous substitutions (must be completed)	
Title of Course	**Course Number**

Advisor: _____ Date: _____ ( ) Approved ( ) Disapproved

Department Chair: _____ Date: _____ ( ) Approved ( ) Disapproved

Dean: _____ Date: _____ ( ) Approved ( ) Disapproved

Academic Affairs: _____ Date: _____ ( ) Approved ( ) Disapproved

Registrar: _____ Date:_____ ( ) Approved ( ) Disapproved

Revised 11/2004

SOUTHERN UNIVERSITY
AND AGRICULTURAL AND MECHANICAL COLLEGE

CANDIDATES FOR THE BACHELOR'S DEGREE OFFICIAL CHECK-OUT SHEET
Su 651

Name of Student	College: Engineering
Proposed Date of Graduation	Curriculum
Degree	Catalog Issue

COURSES IN PRGRESS

COURSE	COURSE NUMBER	SEMESTER HOURS

ADDITIONAL COURSES REQUIRED

COURSE	COURSE NUMBER	SEMESTER HOURS

OTHER REQUIREMENTS

Total Semester Hours Carried	Total Quality Credits	Hours Applicable to Degree	Military Service Credit	Credit Examinations

DEFICIENT QUALITY CREDITS		IF TRANSFER STUDENTS: Hours & Credits Carried at SU		
Overall:	Major Field:	No. of Hours	Quality Credits	Deficiency Quality Credits

Signature of Student: Date:

DO NOT WRITE BELOW THIS LINE (For Office Use Only)

Record Checked by: 1.	Departmental Chairman: 2.	
Approved by: 1. Academic Dean	2. Office of the Registrar	Date

SOUTHERN UNIVERSITY

and Agricultural and Mechanical College

APPLICATION DATA SHEET

_____ _____

Social Security Number *Area Code and Telephone Number*

_____

Last Name *First Name* *Middle Name* *Maiden Name*

_____

Permanent Mailing Address *City and State* *Zip Code*

Sex *Marital Status*

_____ ____ *Male* _____ *Single*

Date of Birth ____ *Female* _____ *Married*

_____ *Divorced*

_____ *Widowed*

Degree _____ *Major* _____ *Minor* _____

Racial/Ethnic Data

- *Black, non-Hispanic: A person having origins in any of the black racial groups of Africa (except those of Hispanic origin).*
- *American Indian or Alaskan Native: A person having origins in any of the original peoples of North America and who maintains cultural identification through tribal affiliation or community recognition.*
- *Asian or Pacific Islander: A person having origins in any of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands. This area includes, for example, China, Japan, Korea, the Philippine Islands, and Samoa.*
- *Hispanic: A person of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish culture or origin, regardless of race.*
- *White, non-Hispanic: A person having origins in any of the original peoples of Europe, North Africa, or the Middle Fast (except those of Hispanic origin).*
- *Non-Resident Alien: A person who is not a citizen or national of the United States and who is in this country on a temporary basis and does not have the right to remain indefinitely. Resident aliens who are not citizens or nationals of the United States and who have been lawfully admitted for permanent residence (and who hold alien registration receipt cards -Form 1-551/155) , are to be reported in the appropriate racial/ethnic categories along with United State citizens. Please give your Alien Registration Receipt Card Number*

  _____

  Card Number

Print Form

SOUTHERN UNIVERSITY

Mechanical Engineering Department

GRADUATING STUDENT EXIT SURVEY

Semester: _____ ***Date:*** _____

To further improve the educational experiences of those who follow you, and to assist us in re-examining our program, please answer each question as accurately as possible.

Last Name:	***First Name:***	***M.I.***
Permanent Address:		***Phone No.:***
Current Address:		***Phone No.:***

BIOGRAPHICAL /ENROLLMENT DATA

1- Sex:
☐ Female
☐ Male

2- Race:
☐ Black
☐ White
Other_____

3- Citizenship:
☐ US
☐ Other _____

4- Residence:
☐ Louisiana
☐ Other _____

5- Current Age:
☐ 22 or under
☐ 23-29
☐ 30 or older

6- While pursuing your degree, did you:

☐ Enrolled at SUBR to begin college study?
☐ Transfer from a 2-year college?
☐ Transfer from another university?

7- Number of years in attendance at Southern University?

☐ One ☐ Two ☐ Three
☐ Four ☐ Five ☐ Six or more

8- Please estimate your cumulative GPA upon completion of your degree curriculum.

☐ 3.75-4.00 ☐ 3.50-3.74 ☐ 3.25-3.49 ☐ 3.00-3.24 ☐ 2.75-2.99 ☐ 2.50-2.74 ☐ 2.00-2.49

9- Level of activity in COE student organizations?

☐ High ☐ Moderate ☐ Low ☐ None

10-Average number of hours employed per week during the past academic year?

☐ None ☐ 1-10 ☐ 11-20 ☐ 21-30 ☐ 31-40

11- What are your immediate employment plans?

☐ I plan to work in a job I recently obtained.
☐ I plan to continue my education before working full time.
☐ I am currently looking for a job.
☐ I have not formulated my employment plan.

12- If you indicated in question #11 that you currently have or will be starting a new job, to what extent is it related to your major or area of study at Southern?

12-A

☐ Directly related
☐ Somewhat related
☐ Not related

12-B

Is the job in Louisiana? ☐ Yes ☐ No

Employer _____Location_____

13- If you indicated in question #11 that you will continue your education, what:
Degree? _____ **University?** _____ **Start Date?** _____

14- A. Did you take the FE Exam? ☐ Yes ☐ No **14- B. Did you pass?** ☐ Yes ☐ No ☐ Results not known.

ASSESSMENT OF SPECIFIC SKILLS, ABILITIES, AND ATTRIBUTES

Please give us feedback on the following skills, abilities and attributes that are generally expected of engineering professionals. Base your responses on your total learning experience as an undergraduate student (i.e., course interactions with faculty and other students, co-op experience, etc.). Please feel free to use the space provided after each list to briefly explain your responses, especially if you feel that your preparation was less than adequate. Use a response scale of 1 through 5 with the following explanations for use when estimating professional development value:

0 =No Response 1 =Not Important 2=Somewhat Important 3=Important 4=Very Important 5=Extremely Important

15- An understanding and ability apply knowledge of general requirements:

	Emphasis Given in Program was:			Value to Professional Development:					
	Too Much	Adequate	Too Little	0	1	2	3	4	5
Computer Science	☐	☐	☐	☐	☐	☐	☐	☐	☐
Mathematics	☐	☐	☐	☐	☐	☐	☐	☐	☐
Physical Sciences	☐	☐	☐	☐	☐	☐	☐	☐	☐
Humanities & Social Sciences	☐	☐	☐	☐	☐	☐	☐	☐	☐

16- An understanding and ability to apply knowledge of engineering requirements:

	Emphasis Given in Program was:			Value to Professional Development:					
	Too Much	Adequate	Too Little	0	1	2	3	4	5
Engr. Science & Mechanics	☐	☐	☐	☐	☐	☐	☐	☐	☐
Experimental Apparatus	☐	☐	☐	☐	☐	☐	☐	☐	☐
Electrical Engr. & Electronics	☐	☐	☐	☐	☐	☐	☐	☐	☐
Engineering Economics	☐	☐	☐	☐	☐	☐	☐	☐	☐
Computer Aided Design	☐	☐	☐	☐	☐	☐	☐	☐	☐
Mechanical Systems	☐	☐	☐	☐	☐	☐	☐	☐	☐
Design Process	☐	☐	☐	☐	☐	☐	☐	☐	☐
Professional and Ethical Responsibility	☐	☐	☐	☐	☐	☐	☐	☐	☐

ASSESSMENT OF THE ENVIRONMENT OF LEARNING

Please indicate the level of your satisfaction with each of the following aspects of your experience at Southern University. Feel free to use the space provided after each list to briefly explain your responses, especially if you feel less than satisfied with a particular experience.

17- Quality of instruction and support for learning by the faculty in:

	No Opinion	Not Satisfied	Somewhat Satisfied	Very Satisfied	Extremely Satisfied
Mathematics & Physical Sciences	☐	☐	☐	☐	☐
Humanities & Social Sciences	☐	☐	☐	☐	☐
ME Major Course	☐	☐	☐	☐	☐
Non-ME Engineering Courses	☐	☐	☐	☐	☐

18- Equity of Advisement with respect to:

Academic Planning	☐	☐	☐	☐	☐
Career Planning	☐	☐	☐	☐	☐
Graduate Education	☐	☐	☐	☐	☐

19-Equity of treatment by:

Academic Administrators	☐	☐	☐	☐	☐
Faculty & Staff	☐	☐	☐	☐	☐
Fellow Students	☐	☐	☐	☐	☐

20- Physical quality of the following facilities:

Computing	☐	☐	☐	☐	☐
Classrooms	☐	☐	☐	☐	☐
Laboratories	☐	☐	☐	☐	☐
Library	☐	☐	☐	☐	☐

21- ASSESSMENT OF a-k ABET OUTCOMES FOR ENGINEERING PROGRAMS

Please give us feedback on the following skills, abilities and attributes that are expected of you at the time of graduation. Use a response scale of 1 through 5 with the following explanations for use when assessing ABET outcomes.

1 =Not Prepared 2=Somewhat Prepared 3= Prepared 4= Well Prepared 5= Extremely Well Prepared

As a graduate of the ME Program, I attained the following outcomes:	1	2	3	4	5
a. an ability to apply knowledge of mathematics, science, and engineering	☐	☐	☐	☐	☐
b. an ability to design and conduct experiments, as well as to analyze and interpret data	☐	☐	☐	☐	☐
c. an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability	☐	☐	☐	☐	☐
d. an ability to function on multidisciplinary teams	☐	☐	☐	☐	☐
e. an ability to identify, formulate, and solve engineering problems	☐	☐	☐	☐	☐
f. an understanding of professional and ethical responsibility	☐	☐	☐	☐	☐
g. an ability to communicate effectively	☐	☐	☐	☐	☐
h. the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context	☐	☐	☐	☐	☐
i. a recognition of the need for, and an ability to engage in life-long learning	☐	☐	☐	☐	☐
j. a knowledge of contemporary issues	☐	☐	☐	☐	☐
k. an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.	☐	☐	☐	☐	☐

22- ASSESSMENT OF MECHANICAL ENGINEERING PROGRAM OUTCOMES

Please give us feedback on the following skills, abilities and attributes that are expected of you at the time of graduation. Use a response scale of 1 through 5 with the following explanations for use when assessing ME Program outcomes.

1 =Not Prepared 2=Somewhat Prepared 3= Prepared 4= Well Prepared 5= Extremely Well Prepared

As a graduate of the ME Program, I can demonstrate to have the ability to:	1	2	3	4	5
a. apply principles of engineering, basic science, and mathematics (including multivariate calculus and differential equations) to model, analyze, design, and realize physical systems, components or processes.	☐	☐	☐	☐	☐
b. work professionally in both thermal and mechanical systems areas.	☐	☐	☐	☐	☐