

**Summary of
Undergraduate Academic Rules and Regulations
Department of Chemical and Biomedical Engineering
FAMU-FSU College of Engineering**

**Academic Year 2009-2010
Fall 2009 version**

This document is intended to be a summary of some (but not all) of the most important academic rules and regulations pertaining to the Chemical and Biomedical Engineering undergraduate curriculum. The purpose of producing this form is to ensure that all students become familiar with the numerous academic rules and regulations so that they may progress in a satisfactory and timely manner through the Department's curriculum. This document is not intended to be comprehensive; students should reference the complete Undergraduate Student Handbook, which is available at:

http://www.eng.fsu.edu/departments/chemical/index.php?page=cur_under_student_handbook

Students will be held responsible for the rules and regulations contained within this summary document and also in the Undergraduate Student Handbook. This pertains especially to the course prerequisites and corequisites, and to the graduation requirements.

Academic Rules and Regulations

1. Prerequisite and Corequisite Courses and Student Classification

All students will be strictly held to published course prerequisite and corequisite course requirements except under extraordinary circumstances. Students are responsible for satisfying all of the prerequisites and corequisites for any engineering course prior to attending the course. If a student has not completed the prerequisites for an engineering course, his/her registration may be involuntarily canceled and the student may be liable for any fees that result.

For Department purposes, students will be classified as a Sophomore during the term in which ECH 3023 (Mass & Energy Balances I) is first attempted. Students should note that from the junior-level onward, courses are normally offered only one time per academic year. Refer to the table at the end of this document for a comprehensive list of the required prerequisites, corequisites, and course term availability.

2. Progression from the Sophomore to the Junior-Level Courses

Students should be especially aware of the course prerequisite requirements to be eligible to take Junior-level courses in the Department.

The courses that absolutely must be completed before taking any of the departmental Fall Term Junior-level courses are:

1. CHM 2210 – Organic Chemistry I.
2. ECH 3023 – Mass and Energy Balances I ("C" grade or higher).
3. ECH 3024 – Mass and Energy Balances II ("C" grade or higher).
4. ECH 3301 – Process Analysis and Design ("C" grade or higher).
5. MAC 2313 – Calculus with Analytic Geometry III.
6. PHY 2049C – General Physics B with Lab.

NOTE: Grades of "C" or higher must be attained in the sophomore-level courses ECH 3023, ECH 3024, and ECH 3301 before a student can progress to the junior-level courses ECH 3101, ECH 3266, and ECH 3854.

Once the prerequisites listed above have been completed, Junior-level students may register in the Fall Term for:

1. ECH 3101 – Chemical Engineering Thermodynamics.
2. ECH 3266 – Transport Phenomena I.
3. ECH 3854 – Chemical Engineering Computations.
4. BME 4403C – Quantitative Anatomy and Systems Physiology I (for BME majors only).

Courses that are corequisite to ECH 3101, ECH 3266, and ECH 3854 for Fall Term Junior-level students are:

1. EGM 3512 – Engineering Mechanics.
2. CHM 4410 – Physical Chemistry I.

3. Progression from the Junior-Level and Beyond

From the Fall Term of the Junior Year and henceforth, if a student receives a "D" grade in a Chemical Engineering course, he/she will be allowed to progress to the next course in the sequence. That is, even if a "D" has been attained in a prerequisite course, a student may continue to progress in the curriculum. However, all students must retake every course for which they received a "D" during the next term that the course is offered. If a student receives an "F" grade in any course that is a prerequisite for a subsequent course, then the student will not be allowed to continue progression in the curriculum. Any junior-level or higher Chemical Engineering course in which an "F" grade is received must be retaken the next term offered before going on to the next level (i.e., the student must meet normal prerequisites).

Students should note that from the Junior-level onward, courses are normally offered only one time per academic year. The pre- and corequisites for all courses can be determined by consulting the attached table.

4. Progression Policy for the College of Engineering

Any full-time engineering student with a term GPA below 2.0 for two consecutively enrolled semesters will be automatically transferred into the Pre-Engineering major. They will no longer be permitted without special permission to enroll in 4000-level engineering courses. A student may be re-instated back into his or her original major only upon recommendation from the Council of Academic Program Coordinators (CAPC). Students not recommended for re-instatement will not be permitted to graduate with a degree in engineering.

5. Department Course Repeats Policy

The FAMU-FSU College of Engineering has approved a "Repeated Course Attempts Policy", which permits each department to define, monitor, and enforce its own policy designed to limit the number of courses repeated by engineering students. The College policy was established in part to ensure that its undergraduate engineering programs maintain their accreditation status. The Faculty of the Department of Chemical and Biomedical Engineering has, therefore, approved the following course repeats policy for its majors effective with the Spring 2009 semester. This policy will be enforced beginning with the Spring 2009 semester for all undergraduate students in the Department.

5.1. Any student who fails ("F" grade) one or more courses taught in the Department (with prefixes ECH or BME) during a term can not take any course for which the failed course is a prerequisite. The failed course must be re-taken during the next term it is offered.

5.2. A student may repeat any engineering* course for which a "D" or an "F" grade has been received only once to achieve a "C" grade or higher. Any student receiving a grade below "C" more than once in a single engineering course will not be allowed to continue in any of the five majors in the Chemical Engineering BS degree program. The student will have his/her major administratively changed to Pre-Engineering, and he/she must pursue another degree program at the universities. If a student has more than one grade below "C" in a single engineering course when this policy goes into effect (Spring 2009), no further retakes of a single engineering course will be allowed.

5.3. A student may have a maximum of five (5) course repeats in all engineering* courses taken during an academic career. Any student exceeding five (5) total engineering course repeats will not be allowed to continue in any of the five majors in the Chemical Engineering BS degree program. The student will have his/her major administratively changed to Pre-Engineering, and they must pursue another degree program at the universities. If a current student exceeds five (5) course repeats when this policy goes into effect (Spring 2009), then only one (1) additional course repeat will be allowed.

5.4. Withdrawal from any engineering course during the normal, College-approved course drop period will not be counted as a course attempt. Conversely, withdrawal from any engineering course after the College-approved course drop date that requires the Associate Dean's approval/signature will be counted as a course attempt.

** An "engineering" course is defined here as 1) all of the courses taught in the Department of Chemical and Biomedical Engineering (that have the course prefixes ECH and BME), and 2) the two required engineering service courses taught in other departments, namely, **EGM 3512 (Engineering Mechanics), and EEL 3003 EEL 3003L (Introduction to Electrical Engineering and Lab)**.*

6. Academic Advising

All students in the College of Engineering, regardless of major, must be academically advised each term during the school year. When a student has officially changed to one of the five majors in the Department, they will be assigned a faculty advisor, who will approve their course load for the upcoming term. To find out who your advisor is, please contact the Department of Chemical and Biomedical Engineering Main Office at 410-6149, or stop by Room A131. Prior to advising, students should obtain and fill out an academic advising form (trial schedule) from the ChE-BmE Department Main Office. All students are placed on registration "hold" prior to the registration period each semester, and will not be allowed to register until they have been properly advised. Not being academically advised could result in students being assessed late registration fees. A more detailed description of the academic advising procedures can be found at:

http://www.eng.fsu.edu/departments/chemical/index.php?page=cur_under_advising.

7. Course Drop/Add Procedures

To drop or add a course after the normal "Drop/Add Period" (the first week of each the term), go to the COE Office of Student Services (Room B111) to pick up the required form. The filled-out form must be signed by a) the ChE-BmE Department Academic Advisor (Room A131), and b) the COE Associate Dean's Office (Student Services, Room B111). The College of Engineering has drop deadlines that are different from and supersede those of the two universities. To determine each term's specific drop deadlines, consult: <http://www.eng.fsu.edu/deadlines.htm>.

8. Requirements for a BS Degree in Chemical Engineering

A program of study encompassing one hundred thirty-one (131) semester hours of defined coursework is required for the Bachelor of Science (BS) degree in Chemical Engineering. A candidate for the Bachelor's degree is required to earn a "C" or higher in all engineering courses, and must achieve a 2.0 grade point average (GPA) in the forty-five (45) semester hours of Chemical/Biomedical Engineering courses in the major. In addition, students must achieve a grade of "C" or higher in all courses transferred into the Department of Chemical and Biomedical Engineering. Students should contact the Department for the most up-to-date information concerning the chemical engineering curriculum requirements. The course requirements for a BS degree in Chemical Engineering can be found at: http://www.eng.fsu.edu/departments/chemical/index.php?page=cur_under_guide.

9. Major Course Requirements (Electives)

Although the Department offers one Bachelor of Science degree (Chemical Engineering), students may choose from among five diverse areas of study in the broader field of chemical engineering. These major options include 1) Chemical Engineering, 2) Chemical-Environmental Engineering, 3) Bioengineering, 4) Chemical-Materials Engineering, and 5) Biomedical Engineering. In addition to the courses that are required for all majors, several elective courses are specifically required for each of the five majors. Students must take the approved elective courses for their particular major in order to graduate with that particular major. The requirements can be found at: http://www.eng.fsu.edu/departments/chemical/index.php?page=cur_under_major_req.

10. Graduation Checks and Requirements

A University and Department Graduation Check are required of all students when they have reached the milestone of reaching 100 credit hours. These grad checks must be done regardless of the class standing (i.e., Junior or Senior) of the student, and registration will be blocked if the grad check procedure is not followed. Contact the University Registrar and the Department to schedule a grad check appointment.

The graduation requirements of the Department of Chemical & Biomedical Engineering, College of Engineering, and University can be found at:

http://www.eng.fsu.edu/departments/chemical/index.php?page=cur_under_grad_req.

Table of Prerequisites, Corequisites, and Course – Term Availability – Fall 2009 Version
Department of Chemical and Biomedical Engineering
(March, 2009)

Prefix – Number	Course Title	Prerequisites	Corequisites	Term Taught		
				Fall	Spring	Sum.
ECH 2050 (2 hrs) (Fresh)	Engineering Communications	ENC 1101.	EGN 1004L.	X	---	---
ECH 3023 (4 hrs) (Soph)	Mass and Energy Balances I	BSC (2/1)010, CHM 1046, MAC 2312.	CHM 2210, MAC 2313, PHY 2048C.	X	X	* (1 st 6-week session)
ECH 3024 (3 hrs) (Soph)	Mass and Energy Balances II	ECH 3023, CHM 2210, MAC 2313, PHY 2048C.	ECH 3301, PHY 2049C.	---	X	* (2 nd 6-week session)
ECH 3032 (3 hrs) (Soph)	Engineering Ethics	EGN 1004L	----	TBA	TBA	TBA
ECH 3101 (3 hrs) (Junior)	Chemical Engineering Thermodynamics	ECH 3023 ("C" grade), ECH 3024 ("C" grade), ECH 3301 ("C" grade), PHY 2049C.	ECH 3266, ECH 3854, EGM 3512, CHM 4410.	X	---	---
ECH 3266 (3 hrs) (Junior)	Transport Phenomena I	ECH 3023 ("C" grade), ECH 3024 ("C" grade), ECH 3301 ("C" grade), PHY 2049C.	ECH 3101, ECH 3854, EGM 3512, CHM 4410.	X	---	---
ECH 3274L (3 hrs) (Junior)	Transport Phenomena Lab	ECH 3101, ECH 3266, ECH 3854, CHM 4410.	ECH 3418, ECH 4267.	---	X	---
ECH 3301 (3 hrs) (Soph)	Process Analysis	MAC 2312.	ECH 3023, MAC 2313.	X	X	* X
ECH 3418 (4 hrs) (Junior)	Separations Processes	ECH 3101, ECH 3266, ECH 3854, CHM 4410.	ECH 3274L, ECH 4267.	---	X	---
ECH 3854 (3 hrs) (Junior)	Chemical Engineering Computations	ECH 3023 ("C" grade), ECH 3024 ("C" grade), ECH 3301 ("C" grade), PHY 2049C.	ECH 3101, ECH 3266, EGM 3512, CHM 4410.	X	---	---
ECH 4267 (3 hrs) (Junior)	Transport Phenomena II	ECH 3101, ECH 3266, ECH 3854, CHM 4410.	ECH 3274L, ECH 3418.	---	X	---
ECH 4323 (3 hrs) (Senior)	Process Control	ECH 4504, ECH 4604.	ECH 4615.	---	X	---
ECH 4323L (1 hrs) (Senior)	Process Control Lab	ECH 4504, ECH 4604.	ECH 4615.	---	X	---
ECH 4404L (3 hrs) (Senior)	Unit Operations Lab	ECH 3274L, ECH 3418, ECH 4267.	ECH 4504, ECH 4604.	X	---	---
ECH 4504 (3 hrs) (Senior)	Kinetics and Reactor Design	ECH 3274L, ECH 3418, ECH 4267.	----	X	---	* X
ECH 4604 (4 hrs) (Senior)	Chemical Engineering Process Design I	ECH 3274L, ECH 3418, ECH 4267.	ECH 4404L, ECH 4504, ECO 2023.	X	---	---
ECH 4615 (3 hrs) (Senior)	Chemical Engineering Process Design II	ECH 4504, ECH 4604.	ECH 4323, ECH 4323L.	---	X	---

Table of Prerequisites, Corequisites, and Course - Term Availability – F-2009 Version (p. 2)

Prefix – Number	Course Title	Prerequisites	Corequisites	Term Taught		
				Fall	Spring	Sum.
ECH 4741 (3 hrs) (Senior)	Biomedical Engineering	ECH 3274L, ECH 3418, ECH 4267.	ECH 4404L, ECH 4504, ECH 4604.	---	X	---
ECH 4743 (3 hrs) (Senior)	Bioengineering	ECH 3274L, ECH 3418, ECH 4267.	ECH 4404L, ECH 4504, ECH 4604.	TBA	TBA	---
ECH 4781 (3 hrs) (Senior)	Chemical Engineering -- Environmental	ECH 3274L, ECH 3418, ECH 4267.	ECH 4404L, ECH 4504, ECH 4604.	TBA	TBA	---
ECH 4823 (3 hrs) (Senior)	Polymer Science and Engineering	ECH 3274L, ECH 3418, ECH 4267.	ECH 4404L, ECH 4504, ECH 4604.	TBA	TBA	---
ECH 4824 (3 hrs) (Senior)	Chemical Engineering -- Materials	ECH 3274L, ECH 3418, ECH 4267.	ECH 4404L, ECH 4504, ECH 4604.	TBA	TBA	---
ECH 4825 (3 hrs) (Senior)	Polymer Processing (new course)	ECH 3274L, ECH 3418, ECH 4267.	ECH 4404L, ECH 4504, ECH 4604.	TBA	TBA	---
ECH 4904 (1-3 hrs) (Jr/Sr)	Undergraduate Research Project	ECH 3101, ECH 3266, ECH 3854, CHM 4410; 3.0 GPA; permission of instructor.	ECH 3274L, ECH 3418, ECH 4267.	X	X	X
ECH 4905 (1-4 hrs) (Jr/Sr)	Directed Individual Study	Permission of Department Chair.	Permission of Department Chair.	TBA	TBA	TBA
ECH 4906 (1-3 hrs) (Jr/Sr)	Honors in Chemical Engineering	ECH 3101, ECH 3266, ECH 3854, CHM 4410; 3.2 GPA; permission of instructor.	ECH 3274L, ECH 3418, ECH 4267.	X	X	X
ECH 4937 (3 hrs) (Senior)	Special Topics in Chemical Engineering	ECH 3274L, ECH 3418, ECH 4267.	ECH 4504.	TBA	TBA	TBA
BME 4082 (3 hrs) (Senior)	Biomedical Engineering Ethics	Sophomore Standing in Engineering.	----	TBA	TBA	TBA
BME 4403C (3 hrs) (Junior)	Quantitative Anatomy and Systems Physiology I	ECH 3023 ("C" grade), ECH 3024 ("C" grade), ECH 3301 ("C" grade), CHM 2211, PHY 2049C, BSC 2010.	ECH 3101, ECH 3266, ECH 3854, EGM 3512, CHM 4410.	X	---	---
BME 4404C (3 hrs) (Junior)	Quantitative Anatomy and Systems Physiology II	BME 4403C, ECH 3101, ECH 3266, ECH 3854, EGM 3512, CHM 4410.	ECH 3274L, ECH 3418, ECH 4267.	---	X	---
BME 4904 (1-3 hrs) (Jr/Sr)	Undergraduate Research Project	ECH 3101, ECH 3266, ECH 3854, BME 4403C, CHM 4410; 3.0 GPA; permission of instructor.	ECH 3274L, ECH 3418, ECH 4267.	X	X	X
BME 4905 (1-4 hrs) (Jr/Sr)	Directed Individual Study	Permission of Department Chair.	Permission of Department Chair.	TBA	TBA	TBA
BME 4906 (1-3 hrs) (Jr/Sr)	Honors in Biomedical Engineering	ECH 3101, ECH 3266, ECH 3854, BME 4403C, CHM 4410; 3.2 GPA; permission of instructor.	ECH 3274L, ECH 3418, ECH 4267.	X	X	X
BME 4937 (3 hrs) (Senior)	Special Topics in Biomedical Engineering	ECH 3274L, ECH 3418, ECH 4267, BME 4404C.	ECH 4504.	TBA	TBA	TBA

* Summer courses are subject to change or cancellation; please consult the Department during the Spring Term advising period.