

## **B.1. Students**

In this section we review the processes and procedures used to evaluate, advise and monitor our students including:

- B.1.1. Evaluation For Admission To The Program As Pre-Chemical Engineers (PCHE)
- B.1.2. Evaluation For Admission As Chemical Engineering Majors (CHEN)
- B.1.3. Efforts To Improve Diversity
- B.1.4. Evaluation-Performance In Chemical Engineering
- B.1.5. Advising, Monitoring And Mentoring
- B.1.6. Transfer Student Policies And Credit For Courses Taken Elsewhere
- B.1.7. Online Undergraduate Student Handbook

### **B.1.1. Evaluation For Admission To The Program As Pre-Chemical Engineers (PCHE)**

The Auburn University admissions office determines freshmen eligibility. However, since the requirements for engineering education necessitate high school preparatory work of high intellectual quality and of considerable breadth, the following program is recommended as minimum preparation to the College of Engineering: English, four units; mathematics (including algebra, geometry, trigonometry, and analytical geometry) four units; chemistry, one unit; physics, recommended; history, literature, and social science, two or three units; foreign language, recommended. Students admitted to Auburn University and the College of Engineering with primary interest in chemical engineering are assigned to Pre-Chemical Engineering. The Pre-Chemical Engineering program (PCHE) consists of a freshman program of studies to primarily prepare students for the chemical engineering curriculum.

### **B.1.2. Evaluation For Admission As Chemical Engineering Majors (CHEN)**

Pre-chemical engineering students are transferred to the curriculum of their choice in the college of engineering upon meeting the following requirements:

- Complete all appropriate freshmen courses in the Pre-Chemical Engineering curriculum.
- Have at least a 2.2 GPA on all required courses and approved electives.
- Recommendation by the curriculum admissions committee.

All of the above requirements must be met by the end of the student's fourth semester. Historically, almost all pre-chemical engineering students that achieve the grade point requirement above select chemical engineering as their desired engineering major.

### **B.1.3. Efforts To Improve Diversity**

The Department is strongly dedicated to the recruitment and retention of women and minority students in chemical engineering as is the College of Engineering. The BellSouth Minority Engineering Program (BMEP) provides a structured mentoring and retention program for the College of Engineering. Undergraduate program minority students are asked to maintain a weekly tutorial schedule with BMEP that consists of several one-hour tutorial sessions between their class times. The sessions provide assistance in math, science and engineering and include

both one-on-one tutoring and collaborative learning groups to allow students to learn from successful upper level engineering students. The number of minority students in this program that have a 3.0 grade point or better has doubled in the past four years. Mr. Dennis Weatherby, who directs the BMEP and has a master's degree in chemical engineering, is especially sensitive to assisting and helping to retain minority students in chemical engineering.

#### **B.1.4. Evaluation-Performance In Chemical Engineering**

To earn a bachelor's degree in chemical engineering, students must complete the subjects in the curriculum, have minimum GPA of 2.0/4.0 in all work attempted at Auburn University and have a cumulative GPA of 2.0/4.0 on all chemical engineering courses passed at Auburn. The Department of Chemical Engineering has a policy of requiring a C or better on a series of foundation courses in chemical engineering which include: CHEN 2100 and 2101 Principles of Chemical Engineering, ENGR 2010 Thermodynamics, CHEN 2610 Transport I, CHEN 3370 Phase and Reaction Equilibrium, CHEN 3620 Transport II, CHEN 3650 Chemical Engineering Analysis, CHEN 3660 Chemical Engineering Separations and CHEN 3700 Chemical Reaction Engineering. The requirement of a C or better was instituted so that the students have a satisfactory performance in previous foundation courses before attempting courses which build on the principles taught in both chemical engineering and engineering foundation courses.

The Department has recently instituted a two-course sequence (CHEN 2@@0 and CHEN 3@@0 Progress Assessment I & II) to provide specific assessment information about student proficiency and to ensure that students have the necessary breadth of professional skills in chemical engineering and related science and engineering areas. This matter is discussed in detail in section B.3.2 of this report. *Note: The university designation “n@@0” indicates a required non-credit course (0 credit hours).*

#### **B.1.5. Advising, Monitoring And Mentoring**

The Department has a fulltime Academic Advisor, Mrs. Jennifer Harris, for undergraduate students. She is the advisor for all chemical engineering majors as well as all pre-chemical engineering students. Mrs. Harris has a master's degree in counseling. Mrs. Harris reports to the Undergraduate Program Committee Chair, Dr. Timothy Placek.

The Department advises their students from the freshmen year through the senior year. The departmental academic advisor sees the freshmen during the summer prior to the beginning of the fall semester at Camp War Eagle. At that advising session the students are given copies of the curriculum and courses that they are expected to take during their first semester. The curriculum is explained to them, and they are given a chance to ask questions before they plan their first semester schedule. At this advising session, individual situations are taken into account since all students do not enter at the same level. Many students will enter with advanced placement test scores; some will have taken college courses through dual-enrollment programs through their high schools; and some will have taken courses at a community college. The departmental academic advisor works with each student to meet individual academic needs. Students very much appreciate knowing that throughout their college career they have a single point of contact for help with advising questions and problems.

All students are required to obtain advisor approval during departmental pre-registration before

they can register on-line for courses. A hold is placed on the student's on-line registration account so they will not be able to register before obtaining advisor approval. The academic advisor lifts this hold after the student's schedule plan is approved. Students are emailed notices in advance when pre-registration occurs for each group of students. Students make appointments to meet with the academic advisor to discuss their progress, plans and courses for the next semester, and longer range plans. Records are maintained in the student's folder indicating the courses that have been approved. Advisor approval is also required for all student course additions and course drops.

The academic advisor routinely monitors each student's progress towards the degree and works carefully to identify any deficiencies. A record is maintained in the academic advisor's office indicating the courses in which the student is currently enrolled, which courses have been taken and the course plans for the next several semesters along with the student's grades and notes regarding advice to the student. The student's grades and current registration status are also available on the Online Auburn Student Information System (OASIS) that also includes transfer transcripts. An official student file, including all information on transfer credits, is maintained by Engineering Student Services in the College of Engineering. All requests for special consideration relative to a specific course must be signed by the academic advisor, the Undergraduate Program Committee Chair and, if necessary, the Department Chair. Course substitutions routinely allowed are limited to honors courses for regular courses.

The academic advisor monitors the progress of co-op students since they need to plan their schedules carefully to ensure that they remain on-track with regard to course scheduling and course prerequisites. The academic advisor monitors the academic performance of all undergraduate students by reviewing their grades at the end of each semester and communicates the need for changes in schedule plans via email and official letters.

The faculty of the department are very involved in mentoring students. Career counseling and professional development mentoring from our faculty occurs in curriculum advising, academic course settings, advising of student professional organizations, and other departmental activities.

Chemical engineering career counseling and professional development mentoring occurs in curriculum and program specialization faculty advising and academic course settings. Students in the Pre-Medicine specialization also meet with the Director of Pre-Health Professions Program who serves as liaison between Auburn University and the health professions schools. The faculty's role in advising and mentoring is presented in detail in section B.5 of this report.

In order to better serve those students with special needs the department regularly makes use of the academic support services in the university. The academic advisor and faculty assess the situation of the student and, when appropriate, guide the student to the University Student Success Center which provides counseling on emotional, personal or family troubles, academic support services including free tutoring and peer-facilitated supplemental instruction in selected undergraduate subjects and career development services including career counseling and job search assistance services. The university-wide Students with Disabilities Program is available to assist students with documented physical and learning disabilities. An individual plan is made for each student with respect to the necessary modifications in the classroom, in testing situations, etc. The faculty are sensitive to the needs of these students and follow the guidelines from the Students with Disability Program. The College of Engineering provides free tutoring

services for engineering students, utilizing top engineering students as tutors. Students in chemical engineering are encouraged to use these services whenever needed.

#### **B.1.6. Transfer Student Policies And Credit For Courses Taken Elsewhere**

For students who transfer into chemical engineering at Auburn from another university or community college, their records will be evaluated first by Engineering Student Services to determine which courses will be accepted by the College of Engineering. Alabama students follow an approved State of Alabama Articulation Agreement indicating which courses will transfer between schools for any given major and the academic credit for that course. Any chemical engineering courses that were taken at another university must be approved by the Department of Chemical Engineering for credit. For these chemical engineering courses the course description, course content and student's performance is evaluated by the Undergraduate Program Committee Chair and, if necessary, by the Department Chair, to determine if the course taken at the other institution is appropriate to substitute for a required or elective chemical engineering course at Auburn. Transfer students meet with the Academic Advisor at a Successfully Orienting Students (SOS) Session, which is held by the university several times each semester. Transfer students work with the Academic Advisor to plan the student's first semester as well as plan the necessary courses needed for graduation and when those courses should be taken.

#### **B.1.7. Online Undergraduate Student Handbook**

The Department of Chemical Engineering is in the process of preparing an online undergraduate student handbook that will contain comprehensive information about advising, registration, career information, and academic success. This document will be updated annually and serve as the sole source of all departmental rules and policies regarding undergraduate matters. This document will be completed during Summer 2004. The web link for the document is:

<http://www.eng.auburn.edu/departments/cbe/UGStudentHandbook.pdf>