

ENGINEERING CRITERIA 2000 SELF-STUDY QUESTIONNAIRE

Bachelor of Science Program in Chemical Engineering
(B.S.Ch.E.)

Submitted by
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A. Background Information

A.1. Degree Titles

The Department of Chemical Engineering at Auburn University (Samuel Ginn College of Engineering) offers one undergraduate degree, Bachelor of Chemical Engineering. Although the program does not offer official options, there are six informal program specializations that are formed by students taking specified sequences of technical electives. Students who do not elect these program specializations are free to select technical electives from those approved by the department according to the career needs of the student.

A.2. Program Modes

Chemical Engineering is a day program. For the most part courses and laboratories are offered during the day. In the case of lengthy laboratories, courses are offered during the afternoon and early evening. The Department encourages its students to participate in co-operative education, summer internships and summer professional experiences. Students who participate in co-op or internship programs meet the same graduation requirements as those who do not. No academic credit is earned for participation in the co-op program.

A.3. Actions to Correct Previous Shortcomings

There were no program deficiencies identified in our previous ABET visit (1998). There were two observations made in the report for that visit:

Observation (1)

The head of the department and most of the faculty feel that communication with the administration is good and that they receive good support for their instructional programs. However, some of the chemical engineering faculty would like more communication of departmental policies, such as the allocation of teaching loads, and more discussion of program goals. The upcoming redesign of the curriculum to fit a semester calendar provides an ideal opportunity for the faculty to reach consensus on program goals and the educational approach to achieve those goals.

Response (1)

A series of faculty meetings were held in which teaching loads were discussed. As a result of the series of meetings, a teaching workload algorithm was developed with input by the entire faculty. An individualized teaching workload algorithm has been available for discussion with each faculty member at his or her annual review every year since 1999. That workload algorithm includes credit for teaching lecture courses, directing graduate and undergraduate students in research, developing new courses, teaching laboratory and design courses, making major course changes, and providing other instructional development activities, as well as credit for the faculty member's responsibilities in research, outreach and service. Discussion of instructional program goals was a major emphasis in the department-wide program of curriculum study and attendant curriculum subcommittees that developed the new semester curriculum (effective Fall 2000) and the more recent establishment of the Undergraduate Program Committee and its program of educational improvement.

Observation (2)

The curriculum in the university bulletin (1998-99) indicates that chemical engineering students may take either of the general chemistry series: CH 103, 104 or 105 or CH 111, 112, 113. Chemical engineering program criteria require that chemical engineers take the same general chemistry courses as chemistry majors, namely the 111 series. Volume II prepared for this (1998) visit and the transcripts of most students indicate that the chemical engineering students take the 111 series. It is recommended that the current bulletin and student advising be revised to include only the 111 series for chemical engineering.

Response (2)

At the next opportunity to do so (after receiving the 1998 ABET Statement), the university bulletin was corrected showing that the (semester) courses CHEM 1110 and CHEM 1120 (General Chemistry I and II) are required for chemical engineering students. These are the same general chemistry courses required by students in the chemistry curriculum. It should be noted that since that change was made, the chemistry department has allowed its students to enroll in either the CHEM 1110/20 sequence or the CHEM 1030/40 sequence. In addition, the ABET program criteria specified for Chemical Engineering programs by the American Institute of Chemical Engineers (AIChE) no longer requires that chemical engineers take the same chemistry as chemistry majors. Therefore, in the latest revision of the curriculum and university bulletin (to become effective Fall 2004) we will recommend students take the CHEM 1110/20 sequence but will accept the CHEM 1030/40 sequence.

A.4. Contact Information

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