

Helen Gries - Gee
Dr. Anne D. Doolittle

(Handwritten initials)



Announcement

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August 16, 2001

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Rowan University
201 Mullica Hill Road
Glassboro NJ 08028

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Dear Dr. Farish:

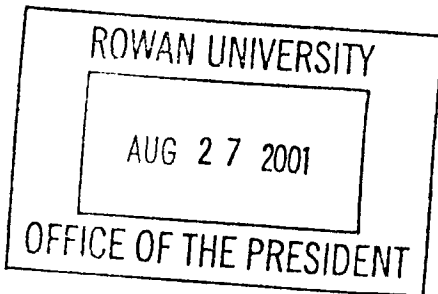
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I am pleased to transmit to you the findings of the Engineering Accreditation Commission (EAC) of the Accreditation Board for Engineering and Technology (ABET) with respect to the program evaluation conducted for Rowan University during 2000-01. Each of ABET's Commissions is fully authorized to take the actions described in the accompanying letter under the policies of the ABET Board of Directors.

Past President
LEE W. SAPERSTEIN
University of Missouri-Rolla

We are pleased that your institution has elected to participate in this accreditation process. This process, which is conducted by approximately 1,500 ABET volunteers from the professional community, is designed to advance and assure the quality of professional education. We look forward to our continuing shared efforts toward this common goal.

Sincerely,



Joe R. Fowler

Joe R. Fowler
President

Enclosure: Commission letter and attachments



ACCREDITATION BOARD FOR ENGINEERING AND TECHNOLOGY, INC.

Engineering Accreditation Commission
Technology Accreditation Commission
Computing Accreditation Commission
Related Accreditation Commission

Daniel B. Hodge, Ph.D., P.E.
Accreditation Director

August 16, 2001

Dianne Dorland
Dean
College of Engineering
Rowan University
201 Mullica Rd.
Glassboro NJ 08028

Dear Dr. Dorland:

The Engineering Accreditation Commission (EAC) of the Accreditation Board for Engineering and Technology (ABET) recently held its 2001 Summer Meeting to act on the program evaluations conducted during the 2000-01 academic year. Each evaluation was summarized in a report to the Commission and was considered by the full Commission before a vote was taken on the accreditation action. The results of the evaluation for Rowan University follow*:

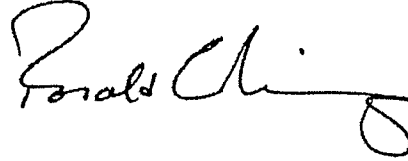
Accredit to September 30, 2007. A request to ABET by January 31, 2006 will be required to initiate a reaccreditation evaluation visit. In preparation for the visit, a Self-Study Report must be submitted to ABET by July 1, 2006. The reaccreditation evaluation will be a comprehensive general review.

**Civil Engineering (BS) b
Electrical and Computer Engineering (BS) b
Mechanical Engineering (BS) b**

This is a newly accredited program. Please note this accreditation action extends retroactively from October 1, 1999.

Please note that appeals are allowed only in the case of *not to accredit* actions. Also, appeals may be based only on the conditions stated in Section II.G.7.a. of the *2001-2002 Accreditation Policy and Procedure Manual*.

Sincerely,



Ronald L. Hinn, Jr., Chair
Engineering Accreditation Commission

Enclosures: Final Statement
2001-02 Accreditation Policy and Procedure Manual

cc: Donald Farish, President
Steven Chin, Associate Dean
Robert J. Simoneau, Visit Team Chair

* The following codes identify the type of program accredited:

- | | |
|----------------------------------|---|
| a - associate degree program | m - master's degree program, basic level |
| b - baccalaureate degree program | M - master's degree program, advanced level |

Accreditation Board for Engineering and Technology
ENGINEERING ACCREDITATION COMMISSION

ROWAN UNIVERSITY
Glassboro, NJ

FINAL STATEMENT
Evaluation under Engineering Criteria 2000
Dates of Visit: October 29-31, 2000

Introduction & Discussion of Statement Construct

The Engineering Accreditation Commission (EAC) of the Accreditation Board for Engineering and Technology (ABET) has evaluated the Chemical, Civil, Electrical & Computer, and Mechanical Engineering programs of Rowan University.

This statement represents the final summary of the EAC evaluation, at the institutional and engineering program levels. It consists of two parts: the first deals with the overall institution and its engineering operation, and the second deals with the individual engineering programs. It is constructed in a format that allows the reader to discern both the original visit findings and subsequent progress made during the due process period.

A program's accreditation action will be based upon the findings summarized in this statement. Actions will be dependent on the program's range of compliance or non-compliance with the criteria. This range can be construed from the following terminology:

- **Deficiency:** A deficiency indicates that a criterion is not satisfied. Therefore, the program is not in compliance with the criteria and immediate action is required.
- **Weakness:** A weakness indicates that a criterion is satisfied but lacks the strength of compliance that assures that the quality of the program will not be compromised prior to the next general review. Therefore, remedial action is required to strengthen compliance with the criteria.

that they considered it a privilege to participate in supporting the engineering program, and felt it to be a sought after assignment in which they were true partners.

Institutional Strengths

1. The faculty, staff and administration, from the Dean of Engineering to the Rowan University President, all appear to understand and fully support the mission and objectives of the engineering programs. There is a clear sense across the campus that the Rowan Gift has not only created the College of Engineering, but that it has engendered a whole new excitement and commitment across the campus, as well as an enhanced base for funding.
2. The faculty, all of whom are very new to Rowan University, were specifically recruited to build this program. Each is highly qualified and committed to the program's success. They are very enthusiastic about Rowan University and their role in being part of something new.
3. The interdisciplinary Clinic Model, which is fully coordinated and which has a specific component in every semester, is considered to be highly innovative and a hallmark of all of the engineering programs. The clinics provide an excellent forum for interdisciplinary teamwork, an early introduction of engineering concepts and skills into the program, an integration of design and computer application throughout the curriculum, and for the development the student communication skills required for professional practice

Institutional Observations

The institutional observations cited apply to all engineering programs.

1. Each of the engineering programs is at a critical phase, transitioning from the energy and excitement of starting something truly new, to the challenge of institutionalizing and sustaining a steady state future that achieves the ambitious goals that have been established. This includes, but is not limited to, planning, budgeting, and managing the programs, especially being sure that those responsible for the outcomes have the means and authority to make it happen.

- 14-day response: The Plan of Action to address this weakness is acknowledged. The actions all appear to be long term and speculative.
- Due Process response: The near term remodeling to provide some faculty development space on the fourth floor and the long term plan for a technology park and a new engineering building are acknowledged.
- The weakness remains unresolved and will be the focus of the next review. In preparations for this review, the EAC expects a report which details how the weakness will be resolved, especially with regard to safety considerations, adequate instructional space, and space for meeting growth in the program objectives.

Program Concerns

1. Criterion 2b: Program Educational Objectives and Criterion 3: Program Outcomes Assessment While the internal data gathering and the use of these data in developing program educational objectives and processes for assessing the outcomes of the program are exemplary, there is a shortage of crucial external input in both of these processes. While there is concern for external constituencies (e.g., industry), no process exists for the periodic evaluation of program educational objectives based on the needs of this constituency. Criterion 2 requires that “a program must have in place a process based on the needs of the program’s various constituencies in which the objectives are determined and periodically evaluated.” The chemical engineering program needs more external input to the process in order to close this assessment loop. Criterion 3 requires that “Each program have an assessment process with documented results. Evidence must be given that the results are applied to further development and improvement of the program.” The Criterion further offers examples of such evidence, several of which are external sources.
- 14-day response: The Plan of Action to develop to develop external or industrial advisory boards for all programs to address concerns in program educational objectives and program outcomes and assessments is acknowledged.

Civil Engineering Program

Introduction

The civil engineering program at Rowan University emphasizes the areas of transportation, structural, geotechnical, water resources, and environmental engineering. Students choose to follow an environmental option or an infrastructure option. The program has 66 students, seven full-time faculty members, two adjunct faculty members, and one secretary. Four technicians are shared with the other programs in the college. Transfer students comprise less than 10% of the enrollment in civil engineering.

Program Strengths

1. In addition to the clinics, the civil engineering program emphasizes professional preparation of its students by introducing them to topics such as professional ethics, contractual relationships, construction estimating, job site safety, and value engineering. The Civil Engineering Practice course is particularly noteworthy in this regard.
2. Faculty licensure is emphasized with five of seven full-time faculty are currently licensed. Students are strongly encouraged to take the Fundamental of Engineering exam during their senior year. Faculty provide a refresher course for the exam; its success is demonstrated by the very high percentage of last year's senior class that successfully passed the test.
3. The program emphasizes communication skills throughout the curriculum. The emphasis on oral communication is particularly noteworthy.

Program Weakness

1. Criterion 8: Program Criteria, Curricular Topics Basic concepts of probability and statistics are addressed in Freshman Clinic I and in Civil Engineering Systems. Civil engineering students in a few other classes, such as laboratories, use these same basic concepts occasionally. The evidence suggests a lack of strength in compliance with the program

- 14-day response: The Plan of Action to develop industrial advisory boards for all programs to address concerns in program educational objectives and program outcomes and assessments is acknowledged.
 - Due process response: The Plan of Action to develop industrial advisory boards for all programs to address concerns in program educational objectives and program outcomes and assessments is acknowledged.
 - The concern remains.
2. Criterion 5: Faculty There are seven full-time civil engineering faculty members. They possess appropriate scholarly qualifications. Most are licensed, and have practitioner experience. Together, they have competency in all 5 recognized, major areas of CE practice addressed by the CE Program. However, with the innovative clinic sequence, faculty teaching loads must be monitored to assure program sustainability and avoid deterioration of faculty morale. Criterion 5 requires that there be sufficient faculty to meet all of the program objectives and maintain professional competence.
- 14-day response: The establishment of a College of Engineering faculty workload study in September 2000 and Plan of Action to address this concern is acknowledged.
 - Due process response: The plan to use adjuncts is acknowledged.
 - The concern remains.

Program Observation

1. Graphical presentation and interpretation skills are very important in engineering practice. Recent efforts to integrate more computer-aided design and drafting into the civil engineering curriculum are commendable and are highly encouraged.

Program Concerns

1. Criterion 2: Program Educational Objectives External industrial constituency is not being used to assess whether the program's educational objectives are appropriate for their needs. Although this has been mentioned in the minutes of at least one "assessment marathon" held by the program administration, there is no evidence of follow-up. At this point in the program, the reviewer acknowledges that the present objectives have only recently been established, and are probably on target; however, Criterion 2(b) requires that the program must have in place "a process based on the needs of the program's various constituencies in which the objectives are determined and periodically evaluated."
 - 14-day response: The Plan of Action to develop to develop external or industrial advisory boards for all programs to address concerns in program educational objectives and program outcomes and assessments is acknowledged.
 - Due process response: The plan to go beyond the college level Dean's Advisory Council to develop specific program related external input, although not yet implemented, is acknowledged and encouraged.
 - The concern remains.

as to whether any of this data has in fact been gathered and how it has been used for program improvement.

- The concern remains.
2. Criterion 4: Professional Component Satisfying the mathematics and basic science criterion requires categorizing the course Materials Science (0901.281) with at least 1 credit of basic science. It is currently shown as 2 credit hours. The criterion is satisfied by the course as taught by the current instructor. The faculty needs to be vigilant to ensure that this course is taught with this basic science emphasis in the future - independent of the instructor. Criterion 4 requires that the professional component must include “one year of a combination of college level mathematics and basic science (some with experimental experience) appropriate to the discipline.”
- 14-day response: EAC of ABET acknowledges that the symbol “C” was placed under the wrong criterion (Criterion 8) on the Program Audit Form left with the institution. The PAF has been corrected to place the “C” under Criterion 4. The Plan of Action to ensure that the basic science component remains in the course is acknowledged.
 - Due process response: The catalog description of the course, which is presented, and the assurance that whoever teaches the courses will follow is syllabus is acknowledged and accepted.
 - The concern is resolved.