

UNIVERSITY OF RHODE ISLAND

The Graduate School

Curricular Report from the Graduate Council to the Faculty Senate

Report No. 2003-2004 -1A

Proposal for a Post-baccalaureate Certificate Program in Polymers

At Meeting No. 389 held on 5 September, 2003, the Graduate Council approved the following proposal that is now submitted to the Faculty Senate.

SECTION I

BACKGROUND INFORMATION

ABSTRACT

The Graduate Council approved a proposal from the College of Engineering for a Post-baccalaureate Certificate program in Polymers. The program is designed to address a perceived gap in polymer specific education by offering a focused experience that

usually is unavailable in the formal training of an engineer. Because no new resources are required for the implementation of the proposal, and because the proposal was deemed to be of significant merit, it is forwarded at the Class C level.

BACKGROUND

The Post-baccalaureate Certificate Program in Polymers aims to provide opportunities for students to improve their knowledge of polymers and to develop skills that can be used to develop the polymer industry in Rhode Island. The workforce recruited by the polymer industry in the state is made up mainly of engineers who have had a traditional chemical engineering background that often does not include specific training in polymers. In the past, this training had to be acquired out of state. With the Victor J. Baxt Endowed Chair in Polymer Engineering, the Department of Chemical Engineering has recognized the need to provide more educational opportunities for the polymer industry in Rhode Island. This certificate program is part of that effort.

The proposal was reviewed under the process established by the Faculty Senate in which the Graduate Council serves as the Coordinating and Review Committee. Announcements of the receipt of the proposal were sent to the Provost and the Council of Deans, the Budget Office, and Department Chairs and Directors. Recommendations were sought from each of these. The Budget Office reviewed the proposal and found that no additional resources would be required for its implementation. The Council of Deans unanimously supported the program. Comments remain on file in the Graduate School.

SECTION II

RECOMMENDATION

The Graduate Council approved the proposal for the Post-baccalaureate Certificate Program at its meeting number 389 on 5 September, 2003, and forwards it to the Faculty Senate at the Class C level.

CERTIFICATE PROGRAM IN POLYMERS

Program Goals and Objectives

This post baccalaureate certificate program in Polymers is designed to provide opportunities for students to

... Improve their knowledge of polymers

... Develop skills that can be used in industry to develop the polymer industry in Rhode Island

The Department of Chemical Engineering recently appointed an Endowed Chair in Polymer Engineering, the Victor J. Baxt Chair of Polymer Engineering. This recognized the need to provide more educational opportunities for the polymer industry in Rhode Island. This certificate program goes some way to provide these educational opportunities. It also permits students to go beyond their undergraduate program while not enrolling in an M.S. degree program.

Program Level

The level of instruction is for engineers or scientists with a baccalaureate degree. A large number of polymer companies exist in Rhode Island. The workforce they recruit is mainly engineers who have had a traditional chemical engineering background and require more education in the polymer area to understand the chemical processes of the industry. In the past this was achieved by sending people out of state. This program would reduce the need for companies to send workers out of state.

Linkage to Degree Programs.

All courses in the Graduate Certificate Program would be drawn from existing courses that are presently being taught. The credits from this program could be transferred into a graduate degree program in the Department of Chemical Engineering provided the student met the requirements of the MS program.

Admission Criteria

Admission requirements will be the same as for M.S. degree program in Chemical Engineering.

Curriculum

Four Courses will be required for the Certificate in Polymers:

CHE 530 &endash; Polymer Chemistry

CHE 531 &endash; Polymer Engineering

CHE 537 &endash; Advanced Materials

CHE 513 &endash; Thermodynamics

Over time it is expected that more courses with a significant polymer content may be available to substitute for one of the courses listed above, leading to some flexibility. CHE 537 and CHE 513 are mandatory courses for an MS in Chemical Engineering, so it would offer some advantage to take these if the intent is to transfer to the MS program.

At all times, the Graduate School regulations will apply to students in the Certificate program.

Administration.

The Polymer Certificate program will be administered by the Chemical Engineering department as part of its Graduate Program and will follow all the regulations of the University of Rhode Island Graduate School.

Tuition Levels

The cost of the program will follow those established by the University of Rhode Island for Graduate Study.

Approval Process

This certificate program was approved by the Faculty of the Department of Chemical Engineering the Faculty of the College of Engineering and the Graduate Council.