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Approval Form

Proposal Title: 0704.401 Compiler Design restorative algebra

Sponsor(s) Nancy Tinkham Dept. Computer Science Ext. 7323

Check one: Course Specialization Concentration Minor Achievement Certificate
 Certification Program Major Program Minor Change Change in prerequisites
(Please name deletion or credit/title/catalog change)

Undergraduate Graduate _____ Credit Hours

| | | |
|--|---|--|
| <p>Step 1 (Department)</p> <p><input checked="" type="checkbox"/> Approved <u>1/27/93</u> Date</p> <p><input type="checkbox"/> Not Approved</p> <p><u>A. Michael Berna</u> Dept. CC Chairperson</p> <p><input checked="" type="checkbox"/> Reviewed <u>4-28-93</u> Date</p> <p><u>Dean C. Stinson</u> Dept. Chairperson</p> | <p>Step 2 (Receipt)</p> <p><input checked="" type="checkbox"/> SCC# <u>401.001</u></p> <p>Proposal Received _____ Date</p> <p><u>Nancy Tinkham</u> SCC Chairperson</p> | <p>Step 3 (School CC)</p> <p>Reviewed <u>4-28-93</u></p> <p><input checked="" type="checkbox"/> Approved <input type="checkbox"/> Not Approved</p> <p>Comments:</p> <p><u>J. Caldwell</u> School Curr Comm Chairperson</p> |
|--|---|--|

Step 4 (Academic Dean) **Comments:**

Recommend
 Not Recommend
 Conditionally Recommend (see comments)

Reviewed _____ Date _____

Signature, Dean of School _____

Step 5 (SCC)

Open Hearing 10/29/93 Approved by Senate Curriculum Committee 10/19/94
Date Date

Returned to sponsor(s) for the following reasons:

Step 6 (Senate)

Presented to Senate 10/26/94 Approved Not Approved
Date

Notification to Executive Vice-President/Provost 10/26/94 Arnold J. Eicher
Date Signature SCC Chairperson

Step 7 (Executive V.P./Provost)

Received 11/4/99
Date

Approved Yes No

If no, reasons are as follows:

Student credit hours _____

Faculty load hours _____

Equalized credit hours _____

Official copy and approval sheet filed _____
Date

David L. Copeland
Signature, Executive Vice-President/Provost

Registrar

Approved course description received 22 Nov 99
Date

Hegis Taxonomy and Course Number assigned no student election

M. Kelly
Signature, Registrar

21 Nov 99
Date

Notification forwarded:

- Senate Curriculum Committee Chairperson
- Department Chairperson(s)
- Academic Dean(s)
- Registrar
- Sponsor(s)

**Rowan College of New Jersey
Department of Computer Science**

Proposal for Course Revision

Compiler Design

1. Details

- a. Course Title: Compiler Design
- b. Sponsor: Nancy Tinkham, Computer Science Department
- c. Credit Hours: 3
- d. Course Level: Senior
- e. Curricular Effect: Compiler Design will be changed from a required course to a restricted elective for computer science majors.
- f. Prerequisites: Data Structures (0704.222), Programming Languages (0704.315), and Foundations of Computer Science; or permission of the instructor.
- g. Suggested Time, Implementation: Two sections per year, to begin as soon as possible.
- h. Resources: Faculty, equipment, and library resources are adequate

2. Rationale

The proposed changes are 1) to make Compiler Design a restricted elective for computer science majors, instead of a required course; 2) to revise the course content; and 3) to add Foundations of Computer Science to the list of prerequisites for Compiler Design.

Compiler Design has been a required course in the curriculum because it provides an introduction to automata theory and formal grammars. This introductory material is now being moved to the new course "Foundations of Computer Science". Hence, it is no longer necessary for Compiler Design to be a required course.

3. Essence of the course

a. Objectives in relation to student outcome

Students will learn about the theory of compiler design, syntax-directed translation, and code generation. By the end of the course, students will be able to write a compiler for a subset of a high-level programming language.

b. Topic outline

The objectives in (a) reflect the exact content of the course.

c. Evaluation of students

Students will be graded on the basis of homework (including programming projects) and exams.

d. Course evaluation

The course will be evaluated as part of our department self-study every 5 years.

4. Consultants

Seth Bergmann, Computer Science Department, Rowan College of New Jersey

Existing catalogue description:

0704.401

Compiler Design

(Prerequisites: 0704.315 and 0704.222 or permission of the instructor)

This course presents theory of compiler design, finite-state recognizers, pushdown machines, context-free grammars and languages, syntax-directed translation. Students design a compiler for a subset of BASIC.

New catalogue description:

0704.401

Compiler Design

(Prerequisites: Foundations of Computer Science, 0704.315, and 0704.222 or permission of the instructor)

This course presents theory of compiler design, syntax-directed translation, and code generation. Students design a compiler for a subset of a high-level programming language.