

Step 7 (Vice-President for Academic Affairs)

Received 2/6/85
Date

Approved Yes No

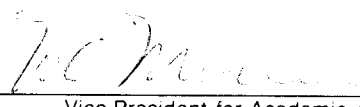
If no, reasons are as follows:

Student credit hours 4

Faculty load hours 4

Equalized credit hours 4

Official copy and approval sheet filed _____
Date

Signature 
Vice-President for Academic Affairs

Registrar

Approved course description received _____
Date

Hegis Taxonomy and Course Number assigned _____

Signature _____
Registrar Date

Notification forwarded: Senate Curriculum Committee Chairperson, Department Chairperson(s), Academic Dean(s), Registrar, Sponsor(s).

Change in Course Title, Catalog Description, and Credit Hours

1. Details

a. Existing Course Title and Description

0704.370

Principles of Digital Computer Design 3 S.H.

(Prerequisite: 0704.204 and 1703.150)

This course provides an introduction to the logical structure of digital computers. The topics include switching algebra, combinational and sequential circuits, the implementation of arithmetic operations, the control unit, microprogramming, buses, memory and addressing, interface design, and microprocessors.

b. Proposed Title and Description

0704.370

Principles of Digital Design (Lecture and Lab) 4 S.H.

(Prerequisite: 0704.204 and 1703.150)

This course provides an introduction to the logical structure of digital devices and computers. The topics include switching algebra, combinational circuits, the implementation of arithmetic operations, flip-flops, and sequential circuits. Students design and implement logic circuits in the lab.

c. Sponsors: Seth Bergmann, Mathematics & Computer Science
Khaled Amer, Mathematics & Computer Science

2. Rationale

a. The title change reflects the fact that this course deals not only with computer design, but with switching theory and the design of logic circuits in general. The increase in credit hours is to allow the addition of a lab to this course. Courses of this kind at other colleges usually include a lab so that students acquire the ability to work physically with digital devices, gates, and chips rather than learning only the theory in classroom lectures. The lab is to be scheduled for one 2 1/2 hour meeting each week.

b. This course is required for computer science majors. It is not part of any concentration or other major program. For computer science majors, the curricular effect of the change in credit hours will be to increase by one semester hour (from 53 to 54) the number of credits in the major. To keep the total number of credits required for graduation at 120, we propose to decrease by one semester hour (from 11 to 10) the number of credits in free electives.

The equipment to be used in the lab consists of Heathkit Digital Trainers which can be purchased easily with our current Program Improvement Funding. ~~We may also wish to use the~~

~~Health & Technology~~
~~Health & Technology~~ available in the Industrial Education and
Technology Department. As a laboratory text we recommend
Digital Techniques, published by Heath & Co.

It is hoped that these changes can be implemented for the
Fall 1985 semester.

3. Consultations

Leigh Weiss, Industrial Education and Technology
Dr. Sam Goldwasser, Computer Science, University of Pennsylvania
(Excerpt from Consultant Report attached)

CATALOG DESCRIPTION

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