

The Senate of Michigan Technological University

PROPOSAL 2-78

INFORMATION SYSTEMS OPTION

BACKGROUND:

The information systems option is aimed at those Computer Science students who wish to orient themselves primarily toward business applications as opposed to mathematical or scientific applications and at those students who wish to orient themselves toward graduate computer science programs which emphasize business applications.

This option is in conformity with the recommendations of the Association for Computing Machinery for a program in Data Processing Applications Programming. The option differs from the existing Computer Science curriculum in that a core of Business Administration courses is substituted for several mathematics and simulation courses.

The option has the unanimous approval of the Computer Science Undergraduate Committee, the approval of the Department Head and the Director of the Simulation Laboratory, and it is supported by an overwhelming majority of the Department Faculty. It has been reviewed and endorsed by the College Council and the Dean of the College of Sciences and Arts and by the Engineering Council and the Dean of the College of Engineering.

It has been reviewed by the Chairman of the Undergraduate Curriculum committee and the Dean of the School of Business and Engineering Administration. Several of their suggestions have been incorporated into this option. The proposed option does not duplicate any Business Administration program. The Computer Based Management Information Systems track in the Business Administration Management Science option involves 102-108 credits of BA courses and only 6-12 credits of CS courses whereas the proposed Information Systems option in the Computer Science program involves 39-40 credits of CS courses and only 36 credits of BA courses (42 BA201-202 from the General Core are included).

The Senate Curricular Policy Committee has reviewed the proposed option as required by Senate Proposal 10-70, Procedures for Developing Significant Changes in the Academic Program. The Committee determined that the proposed option is useful and needed, that the curriculum does not violate University policies, and that the program does not duplicate in a detrimental manner any other University programs. The Committee recommends adoption of Proposal 2-77. If adopted, the current curriculum of the Bachelor of Science in Computer Science degree would automatically become a General Computer Science option in the degree program.

PROPOSAL:

The Senate of Michigan Technological University approves the establishment of an Information Systems option in the Bachelor of Science degree program. A description of the program follows:

Computer Science Core

CS110 Basic FORTRAN	2
CS211 Adv. Prog. Techniques	3
CS200 Intro. Computer Sci.	3
CS210 Intro. Discrete Struc.	3
CS240 Intro. Computing Sys.	3
CS280 Computer Organization	3
CS310 Data Structures	3
CS370 or MA459 Linear Algebra	3-4

Business Administration Core

BA121 Princ. Accounting I	3
BA122 Princ. Accounting II	3
BA217 Fund. of COBOL Prog.	3
BA218 Adv. COBOL and MIS	3
BA312 Bus. Data Base Mgmt.	3
BA318 Operations Research I	3
BA319 Operations Research II	3
BA328 Managerial Accounting I	3

CS400 Computer Sci. Problem	6	BA343 Engineering Economy	3
CS410 Data Structures II	3	BA361 Princ. Management	3
CS415 Database Systems	4	BA414 Systems Appr. to Bus. I	3
CS420 Programming Languages	3	BA415 Systems Appr. to Bus. II	3
Subtotal	39-40	Subtotal	39-40

General Core

HU101 Frosh English I	3
HU102 Frosh English II	3
HU103 Frosh English III	3
HU333 Tech. & Sci. Writing	3
PE Physical Ed. Electives	6
BA201 Princ. Economics I	3
BA202 Princ. Economics II	3
Lab Science	12-15
SS230 Amer. Gov. and Politics	4
HU-SS Electives	21
Subtotal	61-64

Mathematical Core

MA150 Calculus & Anal. Geo. I	5
MA151 Calculus & Anal. Geo. II	5
MA152 Calculus & Anal. Geo. III	5
MA207 Princ. Stat. Methods	4
Subtotal	19

Technical Electives* 21

Free Electives 20-24

Grand Total 200

**Technical Electives must be approved by department advisor.*

Adopted to Senate: 19 October 1977

Approved by President: 2 November 1977