The Senate of Michigan Technological University

PROPOSAL 3-78

APPLICATIONS PROGRAMMING OPTION

BACKGROUND:

The Applications Programming option is aimed at those students who desire to have a minor in some field of application of their particular interest under the guidance of the Computer Science Undergraduate Committee. This area of interest could be any area where computer applications are important such as engineering, physics, solical science, etc. This option is in conformity with the recommendations of the Association of Computing Machinery.

This 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, and by the Chairman of the Undergraduate Curriculum committee and the Dean of the School of Business and Engineering Administration.

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 3-77. If adopted, the current curriculum of the Bachelor of Science in Computer Science degree would become the General Computer Science option in the degree program.

PROPOSAL:

The Senate of Michigan Technological University approves the establishment of an Application Programming 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
CS400 Computer Sci. Problem	6
CS420 Programming Languages	3
Subtotal	32-33

General Core	
HU101 Frosh English I	3
HU102 Frosh English II	3

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
Approved Minor in Applications Area*	32
Technical Electives**	24
Free Electives	20-24
Grand Total	200

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
SS230	Amer. Gov. and Politics	4
HU-SS	Electives	21
	Subtotal	61-64

** This minor must be approved by the Computer Science Undergraduate Committee. This minor must include MA250, Calculus and Analytical Geometry IV (5 cr), and MA310, Introduction to Ordinary Differential Equations (3 cr), if the applications area is in engineering or certain sciences.*

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

Adopted to Senate: 19 October 1977
Approved by President: 2 November 1977