CALIFORNIA STATE UNIVERSITY, LONG BEACH
Policy Statement
April 9, 1982

Number: 82-03
File: Certificate

This curricular program recommended by the Planning and Educational Policies Council on February 4, 1982, reviewed by the Academic Senate in its meeting of March 4, 1982, was approved by the President on April 9, 1982.

SUBJECT: CERTIFICATE IN COMPUTER APPLICATIONS IN THE LIBERAL ARTS

This program gives students a broad background in applications of computers preparing them to be effective computer users. It involves 24 to 27 units of coursework covering a variety of areas of computer utilization. Among the skills to be acquired would be:

- Knowledge of computers and information systems sufficient to permit graduates to communicate effectively with computer experts.

- Ability to serve as a liaison between colleagues who lack computer expertise and technical computer personnel.

- Ability to run applications programs and explain the results to colleagues.

- Skills in the use of information systems.

- Ability to identify needs for and benefits derived from implementation of computer systems in an applications area.

REQUIREMENTS FOR THE CERTIFICATE IN COMPUTER APPLICATIONS:

1) A bachelor's degree (may be completed concurrently)

2) Completion of at least eight approved computer applications courses (with a grade of C or higher)

3) Approval from the Director of the Certificate Program for the student's course selections.
The coursework for this Certificate is organized into several categories which are listed below. The first four categories contain required courses. Students must complete all of the courses in the first four categories for a total of 15 or 16 semester units. The remaining categories include elective courses. Students must take four of these courses, including at least one from each category, for a total of twelve semester units. It is acceptable to substitute upper-division courses on computer applications which apply directly to the student's major area of study (or a directed studies course for this purpose) for one of the elective categories. Such substitutions require prior approval of the Director of the Program.

Most students will take nine courses (27-29 units) in order to obtain the certificate. Students entering the program with sufficient prior computer experience may omit the Introduction to Computers course if they receive approval from the Director of the Program. Thus, these students will only need to complete eight courses for the Certificate. Students seeking the Certificate in conjunction with a bachelor's degree may also count courses taken to complete the Certificate towards completion of their major (or the University general education requirements) where applicable.

**REQUIRED COURSE CATEGORIES**

(Students must complete all of the courses in these categories for a total of 15 or 16 semester units)

I. **Introduction to Computers and Computer Programming**
   
   CST 200   Introduction to Data Analysis (3) or equivalent, and  
   CST 280   Introduction to APL (3) or  
   MATH 272   Techniques of Programming (4) or  
   MATH 273   COBOL Programming (3)

II. **Social Impact of Computers**
    
    EE 345   Computers' Role in Today's Society (3)

III. **Seminar in Computer Applications**
    
    CST 493   Seminar in Computer Applications (3)

IV. **Information Systems**
    
    IM 440   Information Systems (3)
ELECTIVE COURSE CATEGORIES

(Students must complete four of the following courses, one of which must be from each category, for a total of 12 or 13 semester units.)

I. Human/Computer Interface
   CST 311  Human Interface Design (3)
   CST 312  Non-numeric Information Processing (3)
   ENGL 317  Technical Writing (3)
   IM 411  Self-Paced Instructional Design (3)

II. Data Analysis
   CST 210  Computer Statistics (3)
   CST 477  Advanced Data Analysis (3)
   ECON 380  Economic Statistics (3)
   GEOG 490  Quantitative Methods (3)
   PSY 310  Intermediate Statistics (3)

III. Specialized Applications
   ECON 486  Introduction to Econometrics (3)
   ENGL 498  Computational Linguistics (4)
   PSY 418  Computer Applications in Psychology (3)
   IM 441  Designing Computer Assisted Instruction (3)

EFFECTIVE: FALL 1982