

*Curriculum Proposed*

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OF PROFESSIONAL STUDIES

UNIVERSITY OF MARYLAND  
F. Paul Johnson, Chairman

DEPARTMENT OF INFORMATION SYSTEMS  
UNIVERSITY OF MARYLAND

- I. Department: Administrative Studies  
Key Personnel: Mr. Derrick B. Owles
  
- II. A. Position of Course in Curriculum -- The Administrative Studies curriculum provides for a junior year in-depth study to prepare students for career opportunities in various fields of business and public administration. Normally, the in-depth study consists of twelve to eighteen credits of courses in the field selected by the student. One of the fields of concentration originally planned for Administrative Studies is Information Processing. At the time the Administrative Studies Program was approved, resources were not available to implement study in this area. Now that resources have been increased, the Administrative Studies Department is prepared to start offerings in Information Processing. The two courses listed above are the first in a series of six that are being prepared by the Administrative Studies Department. The course proposals for the remaining four courses will be prepared for submission to the Curriculum Committee later this spring.
  
- B. Suggested Time and Scale of Implementation -- The two proposed Information Processing courses will be offered both day and evening commencing Fall semester, 1973.
  
- C. Adequacy of Present Staff and Resources -- Mr. Derrick B. Owles, who has had many years experience with I.B.M. World Trade Corporation, has a high degree of competency in the field of information processing.
  
- D. Specific Additional Needs of Staff and Resources -- It is anticipated that about twenty percent of the Administrative Studies majors will specialize in the field of Information Processing. This will require the appointment of one additional full-time faculty member commencing Fall, 1973. Library facilities in the field of Information Processing are currently inadequate to support the new courses. However, the collection of books, periodicals, and reference materials is being expanded substantially this spring to meet the needs of the Information Processing courses.
  
- III. A. Essence of Proposal
  1. Course Titles
    - a. Principles of System Design
    - b. Concepts of Programming a Computer

2. Semester hours: 3 credits for each course
3. Course Level -- Junior year 3rd-year study.  
Prerequisite: an introductory course in information processing.
4. Current curriculum pattern -- Intended to provide sound knowledge of principles that will (a) form part of a group of courses assigned for students specializing in information processing, or (b) stand alone as necessary studies for students planning to enter general management.

### B. Details of the Proposal

1. Statement as to Uniqueness of the Courses -- Principles of System Design does not conflict with any other course offered at Glassboro State College. There is no course at present which will help a student to design a system or give any criteria by which the merit of a system may be judged.

Concepts of Programming a Computer is also different from any other programming courses in that it is intended to stress general principles and to give students some knowledge of how programming relates to business organization. Other programming courses at Glassboro State College stress individual programming languages only.

2. Specific Objectives - To give students knowledge of how they should go about designing business systems, how they can earn a living in the information processing field, and how they can communicate with specialists.

#### 3. Scope of the Courses

##### a. Principles of System Design

- (1) Designing and installing a system: study existing situation, determine requirements of new system, design new system, describe new system, implement new system.
- (2) Machines and techniques: Machines: key board, punched card, computers, paper handling, other office equipment; Techniques: Fact finding, forms design, flow charts, data capture.

##### b. Concepts of Programming a Computer

Definition of software and environment in which programs work. Converting information. Converting instructions. Machine, symbolic, assembly languages. Compilers. Review of Fortran, Cobol, ALG, P/i. How to choose a program. How to learn a language. Practice in problem solving. Operating systems. Flow charts and block diagrams.

#### 4. General Statement of Teaching Methods

Minimum Lectures -- Group work in class on problems. For assignments individual students will design systems on facts supplied by instructor. Class evaluation of such systems. Presentations by students in class on systems in use in business and government organization.

#### 5. Methods of Evaluation

Basically, multiple choice tests administered once weekly. Mid-semester and final examinations also partly on multiple choice questions, but also calling for essay type solutions to problems. Considerable use of college computer facilities to enable students to show they can use computer.

#### C. Rationale

Courses are necessary to complete the education of students in a broad sense. Nobody today should be ignorant of the part played by computer in everyday life, and a knowledge of how systems can be designed will be useful to correct tendency of computer to control all aspects of life. Many employment opportunities are available in the information processing field, but even those not employed in the field need to communicate with those who are.

#### IV. Statement from Department Chairman

There is an increasing demand for college graduates having a broad background in information processing as related to the fields of business and public administration. Employment opportunities in this field are growing substantially and present an excellent opportunity for Administrative Studies graduates. Mr. Owles having a broad background in the field of information processing has designed the courses for the in-depth specialization and will oversee the development and implementation of this portion of the Administrative Studies program. We expect that information processing will become one of the major fields of study within the Administrative Studies Program.