SOUTHEAST MISSOURI STATE UNIVERSITY

DEPARTMENT OF Computer Science COURSE NO. IS235

TITLE OF COURSE Introduction to COBOL NEW 12/99

I. CATALOG DESCRIPTION AND CREDIT HOURS OF COURSE: IS235 - INTRODUCTION TO COBOL. Fundamentals of structured computer programming using COBOL. Does not count towards a Computer Science or Applied Computer Science Major. Prerequisite(s): MA134 and IS130 or equivalent prior programming experience with grades of C or better. (3)

II. PREREQUISITE(S): MA134 College Algebra and IS130 Visual BASIC Programming I equivalent prior programming experience with grades of C or better.

III. PURPOSE OR OBJECTIVES OF THE COURSE:

A. To provide a basic understanding of business applications programming using the COBOL language.

B. To develop skill in business applications programming using external files with heavy emphasis on structured programming and modular design.

C. To introduce the student to standard batch-oriented algorithms used in business.

IV. EXPECTATIONS OF STUDENTS:

A. The student will be expected to demonstrate the basic skills of COBOL programming in a structured framework.

B. The students will be expected to analyze, design, and program solutions to business problems using the COBOL language.

V. COURSE CONTENT OR OUTLINE (Class periods):

A. Introduction to Cobol (3)
   1. History, Advantages, Disadvantages
   2. Orientation to the Software.
   3. Components of Cobol (Overview)

B. Identification and Environment Division (1)

C. Data Division (3)
   1. Independent vs. Group Items
   2. Five Types of Picture Clauses - Legal Moves
   3. Examples of Various Picture Clauses
   4. Usage Clause Efficiencies

D. Procedure Division (5)
   1. Read, Write, If...Then, Perform
   2. Arithmetic Statements
   3. Structured Programming, Modular Design, etc.

E. Business Applications Algorithms (20)
   1. Control Break Logic
   2. Sort Statements
   3. Table Handling and Search Statements
   4. Subroutine Statements
   5. Interactive Processing
   6. String Processing and Data Validation
   7. Debugging Technique

F. File Handling (10)
   1. File Organization (Sequential, Indexed Sequential, Direct)
   2. Sequential Files Update
   3. Indexed Sequential Files Updates

G. Hourly Exams (3)

VI. TEXTBOOK(S) AND/OR OTHER REQUIRED MATERIALS OR EQUIPMENT

A. Student textbook: Structured Cobol Programming, 2nd Ed., Gary B. Shelly, Thomas J. Cashman, Roy O. Foreman, Course Technology, 2000

B. Equipment:
   1. Personal Computer
   2. Fujitsu COBOL V3 Compiler

VII. BASIS FOR STUDENT EVALUATION:

A. Major unit tests (40-60%)

B. Programming exercises (10-30%)

C. Final Examination (20-40%)