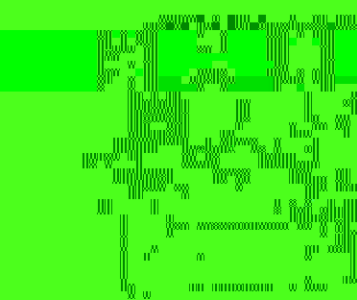


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Part II. Description of Curriculum Change

1. New Syllabus of Record

See Attachment A the new syllabus of record.

2. Summary of the proposed revision

courses. The number of credit hours has been increased from 3sh to 4sh.

3. Justification for the revision

Due to the increase of topics and subject area in the conventional discipline of

Course Revision

COSC 220 - Applied Computer Programming

I. Catalog Description

COSC 220 Applied Computer Programming

4 credits  
0 lab hour  
4 lecture hours  
4c-0l-4sh

Prerequisites: COSC 110 or equivalent.

### III. Detailed Course Outline

1. Introduction to Structured Programming. (3 hours)  
An insight into the process of designing and writing computer programs; the four phases of program development; the use of pseudocode and flowcharts.

program development; use of structure charts in program design; modularization

statements. A study of the basic reference modification principles.  
8. Table Processing (4 hours)  
Table definition and description of table use in COBOL programming.  
Distinguishing between fixed and variable length records. Differentiating  
between a subscript and an index. Distinguishing between sequential table  
lookup, binary table lookup, and direct access to table entries.

9. Multilevel Table Processing (3 hours)  
A conceptual view of multidimensional tables. Implementation of

multidimensional table. Searching a multidimensional table.

10. File Sorting and Merging (4 hours)  
Distinguishing between an internal sort, a utility sort, and the COBOL SORT  
statement. Differentiating between ascending and descending sorts; between

major, intermediate, and minor keys. Defining a collating sequence. Explanation  
of the use of INPUT PROCEDURE and OUTPUT PROCEDURE routines in the  
SORT statement. Distinguishing between a sort and a merge.

15. **Interactive Program Design in COBOL** (4 hours)  
Discussion of the concept of interactive screen I/O versus the batch I/O approach. Description of the SCREEN Section and a discussion of how its use may be preferable to the individual ACCEPT and DISPLAY statements. Application of ergonomics in interactive program design. Explanation of the beneficial features of data validation using interactive programming as opposed to batch-oriented programming

#### IV. Evaluation Methods

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Project #5:

(duration: Two weeks)

~~A COROL control break program. Project would consist of 1. 1. 1.~~

a multi-level control break program (preferable a two-level control break)



## VII. Bibliography

1. Abel, Peter, COBOL Programming: A Structured Approach, Prentice Hall Inc.

Englewood Cliffs, New Jersey 1988.

2. Baroundi, Carol, Mastering COBOL, Sybex Inc., San Francisco, California, 1999.

3. Brown, Gary, D. Advanced Cobol for Structured and Object-Oriented Programming, John Wiley & Sons, New York, NY, 1998.

4. Collopy, David M., Introduction to Cobol : A Guide to Modular Structured Programming, Prentice-Hall Inc. Englewood Cliffs, New Jersey 1999.

5. Doke, E. Reed & Hardgrave, Bill B., An Introduction to Object COBOL, John Wiley & Sons, New York, NY, 1998.

6. Gleason, Gary M. and Horn, L. W., Comprehensive Structured COBOL, 3<sup>rd</sup> Edition, Course Technology, Cambridge, MA 1997.

7. Grosse, Robert T. and Villan, G. V., COBOL: From Micro to Mainframe