CSCI 125: Beginning COBOL (II) (3 credits)

Course Description

This course is an introduction to the COBOL programming language. It will use structured design and top-down testing. The programming projects assigned will be business-oriented in nature. Students will write appropriate program documentation and adhere to rigid programming standards.

Instructor information

Instructor: Jeffory Watne
Office: Old Main 205
Telephone: 671-2311
Email: Jeffory.Watne@ndscs.edu

Text and References

Text Title: Structured Cobol Programming 2nd Edition
Text Author: Shelly, Cashman, Foreman
Publisher: Course Technology
Copyright: 2000

Students will need a 3-ring binder and some type of removable media like a flash drive.

Course Goals – The following goals will be addressed in the course.

1.   Identify the advantages and disadvantages of COBOL.
2.   Understand the difference between record input/output and stream input/output.
3.   List the steps required by the programming process.
4.   Name the login structures used in a structured program.
5.   Describe top-down design and top-down programming.
6.   Name the four divisions of a COBOL program.
7.   Specify the purpose of each COBOL division.
8.   Identify valid COBOL words.
9.   Describe the format of a line of COBOL source code.
10.   Describe the basic organization of the four COBOL divisions.
11.   Explain the difference between alphanumeric and numeric fields.
12.   Describe the purpose of the SELECT and ASSIGN entries.
13.   Describe the use of an FD level indicator.
14.   Identify valid level numbers.
15.   Explain the difference between group an elementary items.
16.   Understand the uses of switches, accumulators and work area fields.
17.   Differentiate between numeric and non-numeric literals.
18.   Explain the use of a picture clause.
19.   Identify a simple edit pattern with zero suppression and decimal insertion.
20.   Describe the purpose of the PERFORM statement.
21.   Identify the function of a STOP RUN statement.
22.   Explain the use of the MOVE statement.
23.   Describe the function of a PERFORM UNTIL statement.
24.   Explain the use of the OPEN, CLOSE, READ and DISPLAY statements.

25. Understand the function of the ADD and ACCEPT statements.
26. Identify the paragraphs in the CONFIGURATION SECTION.
27. Name the functions of the entries in the INPUT-OUTPUT SECTION.
28. Identify three types of file organizations used in COBOL.
29. Differentiate among the various data categories.
30. Identify and explain edit patterns.
31. Identify an independent data item.
32. Understand the reason for data name qualification.
33. Explain the use of a condition name.
34. Understand figurative constants.
35. Understand the uses of the REDEFINES clause.
36. Specify the purpose of the SCREEN SECTION.
37. Understand and code one-sided decision statements
38. Understand and code two-sided decision statements
39. Understand and code nested decision statements.
40. Recognize and understand combined and complex conditions.
41. Explain the function of the EVALUATE statement.
42. Explain a MOVE that uses alphanumeric fields.
43. Explain a MOVE that uses numeric fields.
44. Understand the use of the INITIALIZE statement.
45. Understand the additional uses of the ACCEPT statement
46. Describe the use of reference modification.
47. Explain the purpose of data validation.
48. Describe the types and uses of various data validation tests.
49. Explain the purpose of a WRITE statement.
50. Recognize and code a valid ADD statement.
51. Recognize and code a valid SUBTRACT statement.
52. Identify and code a valid MULTIPLY statement.
53. Identify and code a valid DIVIDE statement.
54. Describe and code a valid COMPUTE statement.
55. Describe the purpose and use of intrinsic functions.
56. Explain the function of the PERFORM statement
57. Define and code a PERFORM UNTIL statement.
58. Illustrate and code a THRU option on a PERFORM statement.
59. Explain and code a PERFORM VARYING statement.
60. Demonstrate and identify uses of the GO TO statement.
61. Recognize and understand the use of a SECTION.
62. Identify the use of a CALL statement and a subprogram.
63. Understand how to write to a report file.
64. Correct syntax errors.
65. Correct logic errors.

CIS Department Learning Outcomes:

The CIS Department has 4 student learning outcomes. These outcomes occur as a result of students taking all of the classes of a given CIS program. As such, all Programming students, all Web Developer students and all Computer and Network Support students will achieve these outcomes. Each CIS department graduate will:
1. Demonstrate communication skills as appropriate for the given curriculum.
2. Use computational skills to solve applied problems and/or logically analyze a variety of problems and select or create appropriate solutions.

3. Demonstrate competence with appropriate use of curriculum specific software and hardware.
4. Demonstrate competence in the use of appropriate resources.

Student contributions

Each student will spend at least 6 hours per week preparing for class. Attendance in lecture and lab is critical in this class. If you need special assistance in order to participate in this class, please consult with the instructor as soon as possible.

Course Evaluation

Each test, assignment and quiz is assigned a specified number of points. The points achieved by you are totaled. The number of points possible is then divided into your total, giving a percentage. The percentage is then converted into a letter grade based upon the following scale:

90% - 100%	= A
80% - 89%	= B
70% - 79%	= C
60% - 69%	= D
Below 60%	= F

Late assignments may not be accepted. Point deductions will be taken on accepted late work. If you have a good reason for missing class, it is to your advantage to contact me as soon as possible.

Cheating will not be tolerated. Cheating on any assignment, quiz, or test may result in, but is not limited to, a zero on that assignment, quiz or test, and F in the class and/or suspension or expulsion from NDSCS.

I will expect you to conduct yourself in a professional manner. Part of the mission of NDSCS is to prepare you to succeed in a working environment. One of the best ways to prepare for that environment is to develop professional habits now.

Please do not display any text, graphs, or pictures that you would not want your mother, father, sister, brother, grandmother, grandfather, husband, wife, children, preacher, priest, rabbi to see.

Revised 09/12/2012