

College of Business
Department of Information and Management Science
Introduction to COBOL Programming for Business
Spring 1998

CGS 3403–Section 3 (Reference #07938)
8:00-8:50 MWF 209 RBA

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Office Hours: 3:30-5:00 MW and occasionally by appointment

COBOL is one of the most widespread commercial application languages in use today. The name COBOL is an abbreviation for COmmon Business-Oriented Language. As a business-oriented language, COBOL is designed specifically for commercial applications such as payroll and inventory, which typically process large volumes of data.

The Datapro Information Services Group estimates that programmers add about 5 billion lines of COBOL code a year to the 150 billion lines of COBOL source code currently in use. In addition, about 50% of all applications development in medium to large U.S. companies is done using COBOL. These facts suggest that COBOL is and will remain an important language in the years ahead for two reasons: 1) older, mainframe-based “legacy” systems will need to be maintained by maintenance programmers who know COBOL and 2) COBOL is still being used by many organizations for new applications development.

This course provides an introduction to basic and advanced COBOL programming for business applications. Structured programming techniques and common structured programming documentation are emphasized. The prerequisites for this course are CGS 3402 or CGS 3462.

Course Objectives

The general objective of this course is to introduce you to computer programming in a business environment and give you an opportunity to gain some practical experience in using the COBOL programming language. This course focuses on the general principles of structured programming that can be applied to most programming languages and systems development environments.

During this course, you will learn to use COBOL to design and implement programs following these widely accepted guidelines. The goal of the course is to enhance your understanding of basic structured programming concepts and your ability to apply them in solving various business problems. Upon completion of this course the student should:

- have a general understanding of the COBOL language
- understand the concept of structured programming
- know structured programming techniques
- be able to design and develop small-scale business applications using structured programming techniques and the COBOL language

Course Text

Stern, N. and Stern, R.A., *Structured COBOL Programming*, Eighth Edition, John Wiley & Sons, Inc., 1997.

Office Hour Policy

Office hours provide an opportunity for you to obtain specific guidance and help with your understanding of the course material. I expect you to use them as your needs demand. I tend to be unsympathetic toward individuals with grade problems at semester's end who have never attempted to get help via office hours.

If you cannot make regular office hours, I will be glad to make an appointment with you. However, appointments should be the exception. If you do not have an appointment to meet with me, please do not drop by my office and ask (or expect) to meet with me. (You do not need to make an appointment to see me during regularly scheduled office hours.) All appointments to meet with me must be submitted to me via e-mail. Oftentimes, I can adequately respond to questions through e-mail; hence, an appointment is not necessary.

When you come to see me during office hours regarding programming assignments, come prepared with as many of the following as applicable: hierarchy chart, pseudocode, printed copy of your .lst file, printed copy of your input file, and printed copy of your output file. At a minimum, you must have a hierarchy chart and pseudocode before I will provide any help for you. In other words, I want you to indicate that you have been working on the problem before you come to see me.

College of Business (COB) Computer Lab

The primary location for completing programming assignments is the College of Business (COB) Computer Labs or any other computer with access to the Florida State University garnet system. We will use the COBOL compiler located on the garnet computer system. Students may use other computers and/or compilers for their assignments; however, I will not provide support for debugging programs compiled with alternative compilers.

Students who opt to use alternate compilers are responsible for insuring that the chosen compiler has the same capabilities as the garnet compiler. A lack of capabilities or different configuration of the chosen compiler does not constitute a valid excuse for late or incorrectly completed programming assignments.

The COB computer labs have the following hours for the Spring 1998 semester: Monday through Thursday from 8:00 a.m. to 10:00 p.m. and on Friday from 8:00 a.m. to 6:00 p.m. The COB lab is not open on weekends, the first week of classes, spring break, and or finals week. Plan your use of the lab accordingly.

Grading and Course Requirements

The course requirements and evaluation of each student's work in the course are based upon performance in four areas. Grade contributions and letter grade determination are shown below.

Programming Assignments (5)	35%
Class Participation	5%
Mid-Term Exams (2)	40%
Final	<u>20%</u>
TOTAL	100%

Percent	Grade	Percent	Grade	Percent	Grade	Percent	Grade
94 - 100	A	84 - 86	B	74 - 76	C	64 - 66	D
90 - 93	A-	80 - 83	B-	70 - 73	C-	60 - 63	D-
87 - 89	B+	77 - 79	C+	67 - 69	D+	< 60	F

Programming Assignments. There will be five assigned programming assignments. Each assignment is worth 7% of the final grade. Programming assignments are designed to give you “hands-on” practice with COBOL programming techniques and to help prepare you for exams.

Programming assignments will require considerable *individual* effort. While students are not discouraged from discussing the problems and approaches to solutions, it is expected that programs submitted will represent the work and skills of the individual author. Failure to actually analyze and solve the assignments yourself will likely lower your chances to perform well on examinations.

Debugging your programs is part of your learning process. Although I will provide you some direction on debugging as a last resort, I will not guarantee that I can fix your problems. Since helping others to fix their bugs facilitates the learning process, students are encouraged to seek debugging help from one another. Debugging help consists of interpreting error messages and identifying logic errors.

Follow these guidelines as you solve each programming assignment:

1. Read and analyze the program carefully.
2. Prepare a hierarchy chart and pseudocode
3. Enter (type) the program and test data into the computer.
4. Test, debug, and successfully run the program.
5. Turn in the documented program on or before the due date and time.

Students should make every effort to complete assignments early. Those who wait until the last minute risk delays with the computer facilities (i.e., down time, printer jams, computer crashes, etc.). Work turned in late will be discounted by 25% no matter what the reason.

A due date and time will be specified for each programming assignment. A programming assignment turned in one second after the specified time (as determined by the instructor’s watch) will be considered late. Programming assignments turned in more than 72 hours late will not be graded (i.e., the student will receive a zero grade for the assignment).

For the 48 hour window preceding the time a programming assignment is due, the instructor will be unavailable for student consultation. This is to encourage students to complete their programming assignments early.

Requirements for each programming assignment will be described at a later time.

Class Participation. Students are expected to contribute to classroom discussions and activities. I will periodically give unannounced quizzes and/or in-class assignments. Your performance on these assignments and quizzes will be used in determining your class participation grade.

The quizzes and assignments will typically cover material that has been covered in prior class discussions or from the assigned reading for the current class period. Completion of the self-tests and chapter review questions are strongly recommended as preparation for each class period.

No make-ups will be allowed for missed in-class activities. There will be enough of these activities that missing one or two will not significantly impact your final grade.

Exams. There are two midterm exams and a final. Each exam including the final is worth 20% of your final grade. While the exams are not comprehensive per se, the material covered in the later chapters of the text build upon the material covered in earlier chapters. Exams will cover the assigned readings, class discussions, and programming assignments. Exams will emphasize interpretation and application of course material, not rote memorization.

If, due to emergency or illness, you know you will miss a scheduled exam, it is your responsibility to let me know ahead of time (or, worst case, within 24 hours of the exam you missed). Make-up examinations may be significantly more difficult than the regularly-scheduled exams (since it means that I must do more work and you receive more time to prepare than your colleagues had). Make-up exams may be oral, essay, or another format, as determined by the instructor.

Electronic Course Activities

As we will be using the COBOL compiler located on garnet, *each student is required to obtain a garnet account*. To obtain a garnet account, you will need your FSU card number and your social security number. You can register for a garnet account by following instructions found at the following URL. In addition, I have set up an e-mail distribution list for the course through ACNS. Each student should add his or her *garnet* e-mail address to this list by following the instructions found at the following URL.

<http://register.acns.fsu.edu/>

You must obtain a garnet account before adding yourself to the course distribution list. If you do this, your garnet e-mail address will be added to the list. I will remove all non-garnet e-mail addresses from the distribution list. You may forward all e-mail messages from your garnet account to any other account. The instructions for doing this are found at the preceding URL.

Although the preceding URL is supposedly active and operational 24 hours a day, for best results, I would suggest that you only use it to register for an account and the distribution list during normal business hours. It has been known to not work at other times, even though the student followed all directions as specified. There is a 24 hour waiting period before your account becomes active.

The **deadline** for registering with the course distribution list is **January 16, 1998**. After this time, each student will be responsible for all messages sent to the distribution list by the instructor.

I will periodically post messages to this list concerning the course schedule, course materials, or course administrative details. This includes information regarding preparation for upcoming class periods. All

messages regarding upcoming class periods will be posted to the list at least 24 hours in advance. You are responsible for the information distributed on this list. All students are expected to check their e-mail at least once within 24 hours of an upcoming class period.

I will not resend messages that have been previously posted to the distribution list. If you misplace or miss an important message, it is your responsibility to ask someone else in the class for a copy.

You may use the list as a forum for on-line discussions about the course. This forum is to be used by you as an additional learning resource. Feel free to post questions about issues, concerns, and/or clarifications regarding course material. Personal messages are not appropriate for this list and should be sent directly to the concerned individual. The address for the mailing list is:

CGS-3403-03@garnet.acns.fsu.edu

In addition, links to a copy of the syllabus and course grades can be found at the following URL: <http://garnet.acns.fsu.edu/~jjasper/Spring98.html>

Students With Disabilities

Students with disabilities requiring academic accommodation should: 1) register with and provide documentation to the Student Disability Resource Center (SDRC) and 2) Bring a letter to the instructor from the SDRC indicating you need academic accommodations. This should be done within the *first week of class*.

Class Policies

Florida State University has an Honor Code that governs student academic performance both in and out of the classroom. The Honor Code appears in both the Student Handbook and in the FSU Catalog. The responsibilities of students, instructors, and judiciary personnel are spelled out in the Honor Code, as are potential penalties for plagiarism and cheating.

As a student at FSU, you are expected to abide by the Honor Code for this class and for all others in which you are enrolled. Please understand that portraying others' work as your own will result in appropriate sanctions.

My expectations of you are summarized below: (This is a representative, but not exhaustive list.)

- *Do not engage in disruptive behavior in the classroom.* Interfering with your fellow students' ability to learn will not be tolerated.
- *Attend class.* If you must miss class, it is your responsibility to find out what material, homework assignments, schedule changes, etc. you missed. Do not come to my office a week later and ask, "Did I miss anything?" (Assume that I would answer "yes" to this question.) Do not expect me to keep track of what handouts you do or do not have, or to keep extra copies of handouts in case you lose yours.
- *Arrive on time and stay for the duration of each class.* If you must be late to or leave early from class, please let me know and be as unobtrusive as possible. It is very disruptive to have students walking in and out of class during class time.

- *Turn assignments in when they are due.* I will gladly accept assignments early. Furthermore, it is the student's responsibility to ensure that posted grades represent the grades reported on returned programming assignments.
- *Take exams during the scheduled time.* If, due to emergency or illness, you know you will miss a scheduled exam, it is your responsibility to let me know ahead of time (or, worst case, within 24 hours of the exam you missed). Make-up examinations will be significantly more difficult than the regularly-scheduled exams (since it means that I must do more work and you receive more time to prepare than your colleagues had). Make-up exams may be oral, essay, or another format, as determined by the instructor.
- *Let me know, as early as possible, if you have problems with the material, homework, etc.* Ask questions during class. Come see me during office hours. Send e-mail messages. In short, if you are doing the work and need help, get it. I cannot help you if I am not aware of the problem.
- *Incomplete grades.* Incomplete grades will not be assigned.
- *Privacy of grades.* Scores and grades will be posted in the glass case with wood trim outside 333 RBB and on the world wide web (see Electronic Course Support section for the URL). These scores will be posted according to a four digit numeric id provided by you unless you request me to do otherwise. Scores will only be posted after I have received a signed copy of the attached student information sheet. Scores and final grades will not be discussed over the phone with any student.
- *Syllabus changes.* The topics and dates as outlined in the course schedule are subject to change. All necessary changes will be announced and discussed in class. You are responsible for making sure you are aware of any such changes.

Daily Schedule--CGS 3403, Section 3, Spring 1998

Week	Date	Topic	Stern
1	7-Jan	Introduction to course and instructor	
	9-Jan	Introduction to COBOL/Overview of divisions	1
2	12-Jan		
	14-Jan	IDENTIFICATION and ENVIRONMENT DIVISIONS	2
	16-Jan	DATA DIVISION	3
3	19-Jan	Martin Luther King, Jr. Holiday	
	21-Jan	Structured Programming Techniques	5
	23-Jan		
4	26-Jan		
	28-Jan	PROCEDURE DIVISION	4
	30-Jan		
5	2-Feb		
	4-Feb		
	6-Feb	Exam I (covers chapters 1-5)	
6	9-Feb	Data Manipulation	6
	11-Feb		
	13-Feb		
7	16-Feb	Arithmetic and Intrinsic Functions	7
	18-Feb		
	20-Feb		
8	23-Feb	IF and EVALUATE Statements	8
	25-Feb		
	27-Feb		
9	2-Mar	PERFORM Iterations	9
	4-Mar		
	6-Mar		
10	9-Mar	Spring Break--No Class	
	11-Mar	Spring Break--No Class	
	13-Mar	Spring Break--No Class	
11	16-Mar		
	18-Mar		
	20-Mar	Exam II (covers chapters 1-9)	
12	23-Mar	Data Validation	11
	25-Mar		
	27-Mar		
13	30-Mar	Control Break Processing	10
	1-Apr		
	3-Apr		
14	6-Apr	Arrays and Tables	12
	8-Apr		
	10-Apr		
15	13-Apr	Sequential File Processing	13
	15-Apr		
	17-Apr		
16	20-Apr	Miscellaneous Topics	
	22-Apr		
	24-Apr		
17	1-May	Final Exam (10:00 am - 12:00 noon) (covers chapters 1-13)	

Individual Information Sheet

Please fill in the requested information. I will use the information on this sheet to get to know you a little better. The information will also give me an idea of the background and experience of the members of the class.

Full Name: _____

Preferred Name: _____

Social Security Number: _____

What is the name of the geographic location you refer to as home?

What grade do you expect to get from this class?

What do you expect the workload to be in this class? (study hours/week)

How many hours per week do you estimate you will devote to this class?

What types of business work experience do you have?

Tell me a little about yourself (what you like to do and plan to become, where you would like to live, etc.).

List any special interests or hobbies that you have:

What do you want to learn from this class?

According to federal law, I must have signed permission to post individual grades using some sort of identification number. Please circle one of the following options and sign below.

- a. I do not give Mr. Jasperson permission to post my grades using any form of personal identification.
- b. I give Mr. Jasperson permission to post my grades using the following identification number (please

specify four **numeric** digits you will surely remember): _____

Signature: _____