CISC 105 Course Information
Fall 1995

Course: *General Computer Science* MW 10:10-11:00 (KRB 206).
Sections: 010: F 8-8:50, 011: F 9:05-9:55, 012: F 10:10-11, 013: F 11:15-12:05 (WHL 009).
Prerequisites: none.

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1 Course Overview

This course is the introductory computer PROGRAMMING course for non-CIS majors, and those considering a CIS major but who are not ready for CISC 181. A primary objective of this course is to teach you how to program. In this course, we will be programming in the C language. This is NOT a course in word processing; this is NOT a course in learning canned software packages such as LOTOS 1-2-3. This course assumes NO prior programming knowledge.

By the end of the course, you should be familiar with:

- Design and implementation of small to medium sized programs in C. Compilation, testing, debugging and execution of these programs.
- Principles of software engineering including naming conventions, program structure and methodology.
- Familiarity of the Unix operating system for a variety of purposes including the creation, editing, transfer and printing of files.
- Use of the "X" window-based user interface.
- Use of local network and Internet resources.
- Basic ideas of computer science including program and data structures, file management, computer hardware components, algorithm development and analysis.

2 Required Texts

- *C How to Program* by Deitel and Deitel (ISBN 0-13-226119-7) (Chapters 1-7, parts of chapters 9 and 10).
- *Intro to UNIX*, UD CNS User Services, 1994
- *Intro to Pine: A Menu-driven Electronic Mail Program*, UD CNS User Services, 1994
- *Using the UNIX Electronic Bulletin Boards*, UD CNS User Services, 1994

3 Programming Environment and Computer Usage

The C language is available on a group of *composer* computers named Strauss, Bach, Brahms, and Chopin. You will primarily use Strauss for all programming that you do for this course. Strauss is a multiprocessor computer manufactured by Sun Microsystems running the Solaris Unix operating system. Access to Strauss is obtained via terminals located at various computing sites on the Newark campus and elsewhere. Additionally, dial-up access is available as described in Appendix C of the Intro to Unix handbook. For information about these computers and other University computing resources, contact the Computer Network Services (CNS) Consulting Desk, 002 Smith Hall, 831-1205.

4 Obtaining an Account - What YOU Must do NOW

In order to be able to participate in the first laboratory session this coming Friday, you need to do the following if you do not already have an account on the university systems (strauss) that you have been using actively:

1. Go to one of the computing sites or log on from any terminal at which you can obtain a strauss window, and take the Electronic Community Citizenship Examination interactively. If you do not already have instructions for taking this exam, you can obtain the instructions for the examination and a copy of the Responsible Computing Manuals from any of the computing sites. You need to take the exam repeatedly until you pass it.
2. Immediately after you pass the Ethics examination, you should obtain a password from the computing security office, in either Smith Hall basement (open this week until 8 PM Mon-Thurs), Student Services (open this week until 5 PM), or Harrington Hall (open Mon-Fri until 11 PM). Be sure to take your student id card with you. Your account will be activated overnight after you have obtained a password. Thus, in order to insure that you can get onto your account on Friday morning during lab, you need to be sure to pass the ethics exam AND obtain your password BEFORE this Thursday evening.

5 Requirements and Grading

In determining your final grade, the exams, homeworks, programs, laboratory assignments, and attendance are weighted as follows:

15%	Exam I: (tentatively) Wed,Oct 4
	(Oct 11 - general last day to drop)
	(Oct 25 - freshman last day to drop)
15%	Exam II: Dec 15 (during final exam period)
18%	Homeworks (3 % each)
24%	Programs (8 % each)
24%	Labs (total of about 14 labs)
4%	Attendance (2% lectures, 2% labs)
——	
100%	

Occasionally, mistakes occur in grading. After a graded item is returned, you have two weeks to submit a written request to have it regraded. These requests should be submitted directly to the Professor. After two weeks, no requests for grade changes will be considered. The request for regrading should include the original exam, homework, program or lab and the reason that regrading is requested.

The final course grade is related to your earned percentage g, as indicated in the table that follows.

A	$93 \leq g$
A −	$90 \leq g < 93$
B +	$87 \leq g < 90$
B	$83 \leq g < 87$
B −	$80 \leq g < 83$
C +	$77 \leq g < 80$
C	$73 \leq g < 77$
C −	$70 \leq g < 73$
D +	$67 \leq g < 70$
D	$63 \leq g < 67$
D −	$60 \leq g < 63$
F	$g < 60$

Special considerations may have a positive effect on final grades. These include class participation, a pattern of grade improvement, an isolated bad grade, etc. Such considerations will never have a negative effect on the final grade.

A **grades** program allows you to find out your current grade status any time during the semester. After you have successfully completed the first lab, you can examine your own grades in this course by typing `mygrade` at the Unix prompt on Strauss.

6 Class Meetings and Attendance

Each week consists of two lecture classes (Mon, Wed) and one laboratory class (Fri). All laboratory classes meet in 009 Willard Hall. You are expected to attend all scheduled course lectures and laboratory meetings. The attendance portion of your final grade is determined according to the following:

```
Lecture Attendance: total 27 lectures
    earn 2%  if <= 3 unexcused missed lectures
       1.5%  if 3 < missed lectures <= 5
         1%  if 5 < missed lectures <= 9
        .5%  if 9 < missed lectures <=13
         0%  if     missed lectures > 13

Lab Attendance: total 14 labs
    earn 2%  if <= 1 unexcused missed lab session
        1.5% if 1 < missed lab sessions <=3
          1% if 3 < missed lab sessions <=5
         .5% if 5 < missed lab sessions <=7
          0% if     missed lab sessions > 7
```

7 Homeworks

Homeworks normally consist of pencil-and-paper exercises designed to give you practice in applying information covered in the textbook and lectures. Homeworks do not require the use of a computer, although you can often check your answers by testing your answers on the computer. Homeworks will be handed out on Mondays, and are due at the beginning of lab session on Friday of the same week. Currently, there are 6 scheduled homeworks, roughly 1 every other week. These homeworks will cover the following material:
Chapter 2: simple input/output, expression evaluation, variables and assignment.
Chapter 3: if-else, while, increment and decrement.
Chapter 4: for, do-while, switch, break, continue, logical operators.
Chapter 5: functions.
Chapter 6: arrays.
Chapters 7 and part of 10: pointers.

Each homework will be described in a computer file that you can print on a laser printer. The name of the file is: `$CLASSHOME/Homeworks/homework.`*i*`.ps` where the final i is the Homework number.

8 Programs

Programming assignments consist of applying several of the concepts from homeworks and class towards writing your own computer program that is to be compiled, tested, and debugged on the Strauss computer. Currently, there are 3 scheduled programming assignments. Each assignment will be described in a computer file that you can laser print: `$CLASSHOME/Programs/program.`i`.ps` where the final i is the program number.

You will be given about 2 to 2 1/2 weeks to complete each programming assignment. Program grades will be based on: program design, correct execution with correct and properly formatted output, and proper program style. While working on a program, you may consult with the professor, TA, classmates, friends, etc., but the actual programming that you hand in MUST be your OWN work. (See Section **??** on Academic Dishonesty.)

9 Laboratory Assignments

These assignments will be started (and in some cases completed) during the scheduled Friday laboratory classes. Each laboratory assignment is due on the Tuesday following the lab session in which it was handed out. Most labs involve writing or modifying C programs that are then executed on Strauss. Each laboratory assignment is designed to focus on a particular concept discussed in the text or in the lectures and to help you to complete the programming assignments. Each lab assignment will be described in a computer file that you can laser print: `$CLASSHOME/Labs/lab.`i`.ps` where the final i is the lab number.

10 Exams

There are two scheduled examinations in this course, with the goal of assessing how each student is grasping each of the concepts in lecture, lab, homework, and programming assignments. Exams are modeled after the homework questions with some opportunity to write small program segments. Each exam is a closed book, in-class exam. The first exam is scheduled before the drop date, and the second exam is scheduled during the final exam period.

If an exam is missed because of an excused absence, it cannot be taken later. It will not be included in the computation of the final grade; the other exams will be weighted extra. If an exam is missed because of an unexcused absence, it cannot be taken later, and a grade of 0 will be included in the computation of the final grade.

11 Extra Credit

Extra credit is optional, i.e., you can earn an A grade in the course without doing any extra credit. Extra credit opportunities are given on each programming assignment and each exam. The extra credit on programming assignments provide the student with an opportunity to gain greater programming skill and to learn more advanced material while at the same time improving the course grade. Computer science majors and those students intending to continue taking computer science courses are strongly encouraged to do the extra credit assignments to facilitate transition into the next CIS course.

12 Late Submission of Assignments

Each assignment due date is specified in the assignment description. Do NOT miss class or lab in order to complete an assignment. NO *late* assignments will be accepted for FULL CREDIT without discussion with the instructor *prior* to the due date. If you can not reach me, leave a message on my voice mail by calling my office phone number.

My philosophy on late assignments is: (1) Everyone should try their best to complete all assignments by the specified due date. (2) People who work conscientiously to make the deadlines should be rewarded for their promptness and sacrifice of sleep. Thus, allowing others to hand in late assignments without some penalty is not fair to these people. However, there are various circumstances that may prevent you from completing an assignment by the due date. Allowing no late assignments would not give you much incentive to continue to work on the assignment, which is a major source of learning. Thus, I believe that late assignments are better than no assignment.

Late (homework, program, and lab) assignments will be penalized 5% per day (or fraction of a day) including weekends up to 25%. Late assignments will be accepted with penalty up to the Latest Submission Date indicated in the assignment description. **Assignments submitted at any later time without an approved excuse will not be accepted.**

It is best to hand in late assignments directly to the Professor's mailbox in 103 Smith Hall, or the Professor's office (406 Smith). An assignment is considered turned in when it is physically received by the TA or professor or placed in their mailbox. Late assignments should be time stamped, if possible, as to the day and time submitted. **Please do not ask the secretaries in 103 Smith Hall to witness your time stamps.**

13 Academic Dishonesty

For many students, this is the first time you will be programming a computer and the first time you will be "debugging" computer programs. Hence, you need to learn what is allowed behavior and what is not allowed behavior. When your program does not work, the first thing to do is use your book and notes to try and figure out the problem yourself. The second and third things to do are to try to figure out the problem yourself! At that point, you may ask for the assistance of a consultant, TA, Professor, classmate or friend to help you understand the specific problem.

You may also discuss in GENERAL terms the GENERAL approach to solving a programming problem. Once the discussion gets down to specific programming issues such as names and types of variables to use, control structures such as loops, if-then-else statements, you must end any collaboration.

Specifically, you may NOT:

- Copy, or allow another student to copy, a computer file that contains another student's assignment, and submit it, in part or in its entirety, as your own.
- Work together on an assignment, sharing the computer files and programs involved, and then submit copies of the assignment as one's own individual work.
- Edit a script file and then submit it as an original transcript of your computer session.

Any evidence of performing any form of academic misconduct will be appropriately handled as stated in the Official Student Handbook of the University of Delaware. If you are in doubt whether or not a behavior is permitted, then ask the Professor beforehand. If you are having difficulty with the course, then see the Professor or TAs for extra help.