

CS1002 – INTRODUCTION TO COMPUTING DISCIPLINES – SYLLABUS

Lecture Meeting Time: Monday, Tuesday: 12:00 - 14:00

Instructors: M. MEKONTSO Herman

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Office hours: Thursday: 12:00 - 14:00

Required Text: Invitation to Computer Science Java Version, Third Edition + additional material provided in class

Pre- / Co- requisite: None

Overview: This course examines the various aspects of Computing and the field of Information Technology disciplines in today's world. The students will become familiar with topics such as computer software, hardware, algorithms and number systems. They will also be exposed to what is expected in the fields of computing and the types of job opportunities that are available, as well as facilities and curriculum offered within PKFokam Institute of Excellence's Faculty of Science and Technology.

Objectives:

1. Accurately define various fields of computing disciplines.
2. Give basic knowledge of data, information, database, number system, operating system, software, hardware, internet, network, algorithm and programming.
3. Introduce the use of word processing, spreadsheets and presentation
4. Develop correct, efficient, and documented simple code.
5. Compile and run programs in the Windows environment.

| Grading Plan: | 1000 points | | Grading Scale: | These are minimums. The final grades will be determined by distribution. |
|----------------------|---------------------|--|-----------------------|--|
| 400 points | Assignments | | 900 + | A |
| 150 points | Quizzes | | 800 - 899 | B |
| 150 points | Midterm | | 700 - 799 | C |
| 200 points | Final | | 600 - 699 | D |
| 100 | Class Participation | | below 600 | F |

Tentative Class Calendar

| Wk | Monday | Tuesday |
|----|--------------------------------------|-------------------------------|
| 1 | History of Computing, part I | History of Computing, part II |
| 2 | Types of computers, part I | Types of computers, part II |
| 3 | TEST I | Hardware and Software |
| 4 | Operating systems | Boolean Algebra |
| 5 | Boolean Algebra, combinatory circuit | TEST II |
| 6 | Number System Representation | Number System Representation |
| 7 | MIDTERM EXAM | Algorithm |
| 8 | Algorithm | Algorithm |
| 9 | Introduction to C | Introduction to C |
| 10 | Introduction to C | TEST III |
| 11 | Database | Database |
| 12 | Intellectual Property, Ethics | REVIEW |
| 13 | FINAL EXAM | |

Class Rules:

1. Students are responsible for all announcements and assignments made in class.
2. Students are expected to do their own work for all assignments unless otherwise indicated by instructor. Group discussion and study of the assignments are permitted, but, when you begin to prepare your assignment to turn in, all collaboration must cease. If collaboration is suspected, the grade will be a 0. Multiple occasions of collaboration will earn you an academic dishonesty F for the course.
3. All assignments are due AT MIDNIGHT on the day indicated.
4. Late programs will be accepted UP TO ONE WEEK AFTER THE ORIGINAL DUE DATE.
5. Late programs will be penalized 5 points per day (including weekends, not including holidays), up to the final acceptance date. After that, the value of the program will be 1 point.
6. Early programs are rewarded 5 points per day (including weekends, not including holidays), up to 3 days early. Should you turn in an assignment a week early, you will still only earn 15 additional points. This is to encourage you to START EARLY and DO NOT PROCRASTINATE! Programs must compile and produce correct results for a majority of the test cases to get early bonus points.
7. If a class is cancelled for any reason, any assignment due that day will immediately be due the next scheduled class period. Any topic or test scheduled for that day will occur the next scheduled class period.
8. Class attendance and participation is expected. Meaningful and relevant class discussion is encouraged.
9. All current PKFokam Institute of Excellence policies will apply.

Assignment Policies:

When turning in your assignments, **it must start with a cover sheet** followed by the program listing (source code with comments), followed by the output. All assignments must be stapled, in a binder or otherwise fastened together. Program assignments will be graded heavily for correct results, but emphasis will also be placed upon accurate and neat documentation as well as effective and proper use of the C++ language.

All programming assignments must include the student's name and the assignment number.

For Lab Assignments, please add the following line to the end of your source program:

(“Coded by _____”); //enter your(s) name(s) here

Remember that everyone is working on the same lab...without your name, We don't know whose it is! We need the front page from your lab assignment, followed by what is required for each lab. For each set of partners We only need 1 copy of the lab.

Turning in Programs:

1. Turn in programs on the day of class, at the beginning of class. (preferred)
2. Turn in programs to the PKFOKAM front off, and ask that they be time/date stamped.
3. Drop your program in one of the designated CS drop boxes. Note that the drop boxes are usually only checked once a day at the beginning of the day on weekdays. Programs will be date/time stamped when retrieved.
4. You may email your assignments to me (source code and output). A printed copy **must** be turned in to me at the next class period or it will be counted late as when the printed copy is received. If the printed copy does not match the email, the printed copy will be graded and counted as received on that date.
5. You will be required to submit a hardcopy of the assignment. In addition, all students must submit an executable version of an assignment upon request.

Assignment Cover Sheet

When turning in your programming assignments (not labs), you must include a signed copy of the cover sheet. Basically in this course, the honor code pledge asserts that work which you submit as being your own really is your own. Closed lab work is expected to be done in pairs and is the time to ask for help...from anyone in the lab. Use the lab time to learn the material and gain the confidence to complete the programming assignments. The programming projects must be designed and coded by the individual student – if you need help, please see the instructor or lab assistant. You are not allowed to copy another student's work or have someone else do the assignment for you. Tests/quizzes must be taken by each individual student in a supervised classroom with no electronic devices available.

In the case of programs there is sometimes a gray area as to what constitutes "your own work." Clearly, taking someone else's code and permuting it by changing comments, procedure order, variable names, etc. is rampant plagiarism; it is not "your own work." Suppose instead that you talk with a friend about the algorithm, and then code up that algorithm, is that plagiarism? I would say no. The intellectual challenge of this course is to take abstract algorithms, objects, or ideas and make them work. You may freely get help understanding the algorithm, objects, or idea - but you must make it work. The line I draw is: "if you actually look at another person's code (or let someone look at yours) you are stepping over the line."

If you are found in violation of the honesty pledge, you will receive an academic dishonesty “F” for the course.

Cover Sheet:

Name: _____

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Assignment #_____

Instructor: (Instructor name)

Honor Pledge

On my honor as a student, I have neither *given* nor *received* unauthorized aid on this assignment.

Signed _____