**IT 210:  Fundamentals of Programming**

**FALL 2013**

**Instructor Information**

Susan Schilling

242 Wissink Hall

Office phone: 389-5312

Office hours:

11:00 – 11:50 TWHF

12:00 – 12:50 W

3:00 – 3:50 TH

Other hours by appointment

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**Prerequisites**   
You must have passed MATH 112 or MATH 115 or MATH 121 or MATH 181 or their equivalents.

**Course Goals**   
This course is designed to give students in Information Systems and Technology a good basis in problem solving, algorithm development, and beginning programming. The Python language will be used in this course.  Python is a real programming language that has a very simple and clean syntax that will help you to learn the basics of programming without the language "getting in the way". You will study a number of data structures and algorithms that are typically used in programming real applications, and learn to apply these in new situations.  At the end of this course, you should be able to design and program solutions to problems of moderate complexity.  Do not consider this a course in Python.  This is a course in the fundamental aspects of programming and is designed to teach you the necessary programming and problem solving skills that you will be able to apply in other situations using other languages (such as Java in subsequent courses).

**Textbook and Other Materials**  
The course textbook is *Python for Everyone* by Cay Horstmann: Wiley Publishing: 2013.

You can download the Python software that you need and other supplementary materials from:

<http://www.python.org/> We will be using **Python 3** for this class. We’ll go through the installation process in one of the first class sessions.

An editor that I like to use is SciTE. It can be downloaded (free) from:

<http://scintilla.sourceforge.net/SciTEDownload.html>

**Testing**   
There will be three exams in the lecture portion of the course: two midterms and a final. The midterm exams will be given at approximately 1/3 of the way through the semester and 2/3 of the way through the semester. They will each be announced at least a week in advance. The final will be given on Tuesday, December 10 from 8:00 – 10:00, as scheduled by the university. **Students who leave campus before taking the final exam will fail the course.** Consider this if you are making travel arrangements for the end of the semester.

Finally, there will be a number of short quizzes throughout the course of the semester. These may or may not be announced in advance. The lowest one of these quizzes will be dropped.

**Grading**   
Your course grade will be based on a combination of your exams, programming assignments, homework, quizzes, lab activities and attendance (see below). Final letter grades will be assigned using the following guidelines: If you receive 90% or more of the possible points, you are guaranteed an ***A***, 80% a ***B***, et cetera (modulo the attendance policy cited below). You will generally not miss a grade by a fraction of a percent relative to another student because I always try to draw the line between grades where there is a significant gap in the distribution. This dividing line is generally drawn so that you will receive a higher grade (but never lower) than indicated by the criteria above. I do not use shaded grading in this class.

* 15%    Midterm 1
* 15%    Midterm 2
* 20%    Final Exam
* 15%    Programming Assignments
* 5%    Quizzes
* 30%    Lab exercises, miscellaneous

**Tutors**   
There will tutors available for your help. These tutors are hired to assist in several different courses, so they may not be aware of your particular programming assignment.  Please be prepared to show them a copy of your assignment sheet. The current schedule along with contact information will be announced in class and available on D2L as soon as it is available.

**Students with Disabilities**

Every effort will be made to accommodate qualified students with disabilities. If you are a student with a documented disability who will need academic accommodations, please see me during the first week of class to discuss what is appropriate. You should also contact the Disability Services Office at 389-2825 or 800-627-3529 (MRS/TTY). All documents, both printed and online, are available in alternate formats. Contact the Disability Service Office if an alternate format is required.

**Programming Assignments**   
There will be six to eight programming assignments that will be announced in class and be available on D2L.  Each assignment will include a date and hour when it is due.  There will typically be at least a week between the announcement of the assignment and its due date.  If you make multiple submissions for a particular assignment, the last submission will be the only one which is graded. Submissions must meet the following requirements:

1. Your program must be in a **.py** file.  If other files are required, the assignment will specify this.
2. The submissions must contain everything necessary for me to compile and correctly execute your program.  This means properly named python classes, et cetera.
3. Check to ensure that what you submit to me is indeed correct.  A mixture of tabs and spaces for indenting will sometimes cause difficulties.  Be consistent.  If you discover a difficulty, repair it and resubmit your assignment.  I will use the most recent submission and will not deduct points for multiple submissions that are on time.

**Grading Criteria for Programming Assignments**   
Your program **must** compile without errors for the grading process to commence.  **Non-compiling programs will rarely receive a grade above 20%.** If you begin your programming assignment promptly and seek help from me and/or from the tutors, this should not be a problem.

Note that if you near the deadline and your program is not compiling, you should probably comment out all the non-compiling sections of your code. At least then your program will compile and I will be able to see your intent. Programs that exhibit significant creativity (while still fulfilling the assignment specification) may receive some bonus credit (up to 10%).

**Class Policies**

**Attendance:** Attendance is required. You will not be allowed to make up any quizzes or other in-class activities. Up to 4 absences are allowed with no direct impact on your grade. For each absence beyond 4, your overall course percentage will be reduced by 1%. I will take attendance sometime during each class period.

If you miss a class, you are responsible for finding out (but NOT from me) about any announcements made during class.  Attendance on the days of exams is mandatory.  Make-up tests for exceptional cases will be given **only** by arrangement with me. Arrangements must be made prior to the missed exam.

Students who leave campus before taking the final exam will fail the course. Consider this as you are making travel arrangements for the end of the semester.

**Incompletes:** By departmental policy, incompletes are granted only in case of extended illness or death in your immediate family that will necessitate you missing many class meetings.  You must have a grade of "C" or better at the time that the incomplete is requested.

**Late Policy:** Programming assignments will be considered due at the date and time specified on the assignment. There is always ample time to complete the work if you get started on it promptly. D2L will reject late submissions.

**Cheating:**

Please be aware that the University's policy for Academic Honesty appears in the *Student Handbook*. Each student is expected to have read this material. If you do not understand what is meant by this policy, or if you are confused by terms such as plagiarism, cheating, or collusion, please discuss this policy with me, your advisor, or another faculty member as soon as possible. I absolutely require that each student in this class will fulfill his or her academic obligations in a fair and honest manner.

For the writing of papers and program design documents, it is quite easy to define cheating in terms of traditional definitions of plagiarism; however, for the writing of computer programs, the distinction is not as obvious to many students. It is easy to use the English paper comparison when thinking about what is appropriate and what constitutes dishonest academic work when writing computer programs. Like writing a paper, you may discuss general ideas with fellow students.

***Each program must be written exclusively by the student who will hand it in.*** It is acceptable to discuss logic and other strategies such as the number of variables, number of functions, et cetera, but it is NOT acceptable to show another class member any of your actual code. Obviously discussing code with me or with the tutors and using code that I provide is acceptable.

***Protect your code.*** If another student obtains a copy of your program even though you are unaware of the infraction, you are still guilty of collusion. Do not leave an ACC workstation unattended, even for a little while. Other students can monitor your patterns and, while you are out for even a few seconds, may walk up to your workstation and obtain a copy of your program. You should also be careful where you leave paper copies of your program. A trash receptacle anywhere near the ACC is likely to be rummaged.

I strongly suggest you consult your student handbook or talk with me if you are unsure as to what is acceptable academic behavior. The consequences are quite severe. Academic misconduct will automatically result in my informing Judicial Affairs, a division of Student Affairs, of the misconduct. Almost always this misconduct will also result in a failing grade for the course.

Specific items that will be considered cheating on programming assignments are:

1. Turning in work done by somebody else as your own (with or without that person's consent). This includes turning in a copy of something that can be mechanically transformed into a copy of someone else's work. Do not try to disguise cheating by simply modifying someone else's work and calling it your own.  I have access to software that can detect this type of cheating.
2. Allowing someone else to turn in your work as his or her own work. This includes allowing fellow students access to your electronic copy.
3. Using a solution developed by a student in a previous term or another section.

**Miscellaneous Additional Items**

As a student in this class, you will be expected to spend a substantial amount of time with reading assignments, lab activities, programming, and similar activities. As with every college class, you should plan on spending ***at least*** two hours outside of class for every hour in class.

If something has been graded incorrectly, or if a grade has been recorded incorrectly, you should request a correction as soon as possible.

Grades are based on the quality of your work and on how well you are prepared for class. While working hard is admirable, I cannot base a grade on how hard you tried or how much time you did or did not spend working on an assignment or preparing for an examination.

In the event inclement weather conditions or other problems cause class not be held on a given day, any work due for that day will be due at the next class meeting. It will ***not*** cause any other changes in the schedule. Weather-related closings will be made by the university and announced on the Twin Cities and local media.

**Contacting Me and Making Appointments**

If you need to contact me, the most efficient way of doing this is by using email. My address is:

Susan.Schilling@mnsu.edu

In addition, I will periodically use email to contact you, so it is important for you to check your mail *at least once each day.* Any email I send you regarding scores or grading information will ONLY be sent to your MSU account.

**SOME VERY IMPORTANT THINGS TO REMEMBER!**

* The three secrets to learning to be a good programmer are: 1) Practice, 2) Practice, 3) Practice! Write programs every day.
* There is no extra credit beyond what MAY be assigned in class. Do not ask for extra points. I will never give one student or a group of students an opportunity to gain points that are not available to the entire class.
* No late papers/programs are accepted.
* Grading and clerical errors should be brought to my attention within one week of posting.
* The MINIMUM penalty for a violation of the Academic Honesty policy is an F in this course.
* Current grades will be posted as available.
* You will be expected to behave as a responsible adult in class and with regard to your work for this class.  I will treat you with respect and I will not tolerate a lack of respect either toward myself or toward other students in the class.  Should problems develop, the student or students responsible for causing them will not be allowed to take the next exam until the situation has been resolved.
* If you have problems, such as starting to fall behind in your coursework or having difficulty with your living situation, it is best to deal with them as early as possible.  There is lots of help available on campus for a variety of situations.  Ask and we’ll help you find it.