Software Design and Development
CPSC 2100 (45179)
Fall 2013

COURSE: CPSC 2100, 45179 – 1

TITLE: Software Design and development

CLASS HOURS: TR (12:15 PM – 1:30 PM)

CLASS LOCATION: EMCS 306

CREDIT: 3 credit hours

FACULTY: Dr. Farah Kandah

OFFICE LOCATION: EMCS 313A

OFFICE PHONE: (423) 425 - 4395

OFFICE HOURS: As posted Or by appointment via email

E-MAIL: Farah-Kandah@utc.edu

ADA STATEMENT:

Attention: If you are a student with a disability (e.g. physical, learning, psychiatric, vision, hearing, etc.) and think that you might need special assistance or a special accommodation in this class or any other class, call the Disability Resource Center (DRC) at 425-4006 or come by the office, 102 Frist Hall **http://www.utc.edu/disability-resource-center/ .**

If you find that personal problems, career indecision, study and time management difficulties, etc. are adversely affecting your successful progress at UTC, please contact the Counseling and Career Planning Center at 425-4438 or **http://www.utc.edu/counseling-personal-development-center/index.php.**

PREREQUISITES:

CPSC 160 or **CPSC 1110** with a grade of **C** or better.

Anyone who takes a course without the required prerequisites can be dropped from the course, and may forfeit the fees.

COURSE DESCRIPTION:

A study of the analysis, design and implementation phases of software systems development using a phased life cycle approach. Process, data and object oriented development models. Introduction to modeling tools and CASE software. Team approaches to software development. Project management concepts.

COURSE OBJECTIVES:

1. Understand the basic processes used in developing a large software product.
2. Demonstrate knowledge and use of analysis techniques for software problems to identify and describe the Software Development Life Cycle activities and phases.
3. Learn how to analyze a software problem.
4. Learn how to formulate use cases and scenarios with UML Diagrams.
5. Learn how to produce specification documentation for a software product.
6. Learn how to design an object-oriented solution to a software problem.
7. Learn how to create class, object, use case, interaction, and state machine diagrams in UML notation.
8. Learn how to build and test implementations of software designs. Specifically, learn how to use Java in these processes.
9. Learn how to create Graphical User Interface (GUI) and GUI Diagrams.
10. Learn to work as a member of a software project team.

ATTENDANCE POLICY:

- You are expected to attend all class meetings, as it will be counted towards your final grade.
- If you must miss a test, for any reason, **it is your responsibility to notify the instructor BEFORE the test is given.**

MAKE-UP TESTS:

- In general there will be no Makeup tests.
- If you are unable to take a test, the grade of your final exam will be substituted for that grade.
- Failure to take the **FINAL EXAM** will result in a zero.
- There will be no make-up for quizzes or in-class assignments.

GRADE WEIGHING SCHEME:

Component	Weight towards the final grade
Midterm Exam	20%
Final Exam	20%
Assignments	20%
Project	30%
Quizzes	5%
Attendance	5%
Total	**100%**

GRADE DISTRIBUTION:

Grade	Range
A	90 - 100
B	80 - 89
C	70 - 79
D	69 - 60
F	Below 60

TEXTBOOK:

1. **Required:**
   - **Object-Oriented Design and Patterns**, 2nd Edition, Horstmann, Wiley,
     ISBN: 978-0-471-74487-0
2. **References:**
   - **Big Java, 4th edition**, Horstmann, Wiley,
     ISBN: 970-0-470-50948-2
   - **System Analysis and Design**, 4th edition, Dennis, Wixom and Tegarden, Wiley,
     ISBN: 978-1-118-03742-3

COURSE WEBSITE AND COMMUNICATION:

- We will be using **utcOnline** system. You may access lecture notes, labs, and your grades through this system. Also **utcOnline** system will be used to communicate with you via email. Therefore, it is very important that your UTC email address is current. If you do not read your UTC email, please have it go to the address you do read. **Failure to read an email will not relieve you of the responsibility of knowing the information.**
- If you have a problem with accessing your UTC email account, contact the Help Desk at (423) 425-4000.

MATERIAL:

Your **utcOnline** (Blackboard) account login information. I highly recommend a flash drive (2GB or higher) to store your assignment and labs.

COURSE OUTLINE:

The course outline will be available at **utconline** (Blackboard) and will be updated weekly.
It is the student responsibility to follow up with the course outline.

GRADING POLICIES:

- Almost every week there will be an assignment. Exam and assignment questions will be extracted from the material covered from both the lectures and labs.
- It is important that you come to class regularly since there will be class assignments, and pop quizzes that might not be announced earlier.
- All home assignments will be announced in class and posted on utcOnline. If you miss class for any reason, it is your responsibility to find out what assignments you missed.
- Assignments must be turned in through utcOnline. You will have at least 1 week to complete each assignment. **The lowest assignment grade will be dropped**.
- **HOME ASSIGNMENTS ARE NOT INTENDED AS A GROUP WORK UNLESS SPECIFIED BY THE ASSIGNMENT**. **Group or copied work will be construed as plagiarism**.
- Cheating on an exam or plagiarizing others' work will result in a zero grade, and possibly further disciplinary action (grade "**F**" for this course).
- **LATE SUBMISSIONS** (Home or Lab Assignment) will be docked 50% during the next week after the due date. Assignment will not be accepted after one week from the due date.
- **utcOnline** submissions are time-stamped.

- If you cannot make an exam/test period for any reason, you must notify the instructor as far in advance as possible.
- If you dispute the grading of any material, you have **TWO WEEKS** from the date the grade is recorded to request a change in the grade. After this time, no alterations will be considered.
- Discussion of concepts and ideas with others is encouraged. However, **ALL ASSIGNMENTS ARE INDIVIDUAL AND MUST BE DONE ON YOUR OWN.**
- There will be quizzes during the semester.
- The lowest quiz grade will be dropped from the final consideration.

BEHAVIOR POLICY:

Disruptive behavior in the classroom will not be tolerated.
Cell phones will not be tolerated during lecture or lab. **Cell phone usage will result in a 0 for the lab or exam**.

HONOR CODE:

Please uphold the academic honor code
(http://www.utc.edu/faculty-senate/pdfs/ch5handbook.pdf).
Violations will be reported to the office of Student Development for investigation and penalties.