## About the course

**Lecture Time:**          Tuesday at 11-14:00 (2204) and Wednesday, 12:00-15:30 (2204)

**Lecture Room:**          2204 and 2204

**Lecturer:**              Amir Dirin

**Course Website:**        *Moodle*


### Textbook:

- *Interaction Design* by Sharp, Rogers & Preece 2$^{nd}$ Ed
- *Usability Engineering* by Nielsen
- *The Design of Everyday Things* by Norman


**Assessment:**          Project          80%

                         Assignments   20%

### Course Objective

The purpose of the User Centered Design (UCD) course is to help students to maximize the usefulness, productivity and safety of application development.

- Learn how to do requirements gathering
- Learn how to interpret and Analysis the gathered data.
- Learn how to do prototyping and iterative design
- Learn how to apply usability testing methods.
- Learn about the evaluation of user interfaces

### Learning Objectives

At the completion of the course, students will be able to

1. **Describe** the User Centered Design Process and usability engineering process and their roles in system design and development.

2. **Discuss** usability design guidelines, their foundations, assumptions, advantages, and weaknesses.

3. **Describe** basics of human subject's research.

5. **Design** a user interface based on analysis of human needs and prepares a prototype system.

6. **Assess** user interfaces using different usability engineering techniques.

7. Make an **oral presentation** that justifies design decisions.

### Course Assignments and Grading

This class is meant to be a hand-on course. This means that you will be required to work on group projects (3-5 person groups) and class-work.  This class will be very interactive, so the lecture participation is compulsory.

| Week | Date | Lecture Topics | F2F Session | Reports deadline |
|------|------|----------------|-------------|------------------|
| 3 | 19.1.2016 | Introduction | Yes | |
| | 20.1.2016 | Students activities / preparing the prese | Yes | |
| 4 | 26.1.2016 | Group Presentation | Yes | |
| | 27.1.2016 | Project topic, User study Methods | Yes | Lecture Questions |
| 5 | 2.2.2016 | Needs and User analysis / Interview | Yes | |
| | 3.2.2016 | User profile / Interview results present | Yes | Users profile |
| 6 | 9.2.2016 | Interview transcript coding / task analys | Yes | Needs and task Analysis report |
| | 10.2.2016 | Group activity / task analysis | Yes | |
| 7 | 16.2.2016 | Intensive WEEK | Yes | …. |
| | 17.2.2016 | Intensive WEEK | Yes | |
| 8 | 1.3.2016 | Concept design / Scenario, Storyboard | Yes | Design Document |
| | 2.3.2016 | Group activity / Concept design Concep | Yes | |
| 9 | 8.3.2016 | Group Activity / concep evaluation | Yes | |
| | 9.3.2016 | Project presentation | Yes | |
| 10 | 15.3.2016 | Finla Report | No | Test Report |
| | 16.3.2016 | | Yes | |

*Rules for Group:*

> a. *Each group member is expected to make an equal contribution to the project.*
> b. *All group members receive the same grades for their project work.*
> c. *Assignments that are too short will not receive passing grade.*
> d. *You have to select a group leader at project kick-off phase.*
>> a. *List all the team members and reveal their contributions at each of phase.*
> e. *Final Exam (individual exam)*

## Expectation:

Our time in the lecture will be used for lecturers, discussions and work in groups. Please do actively participate to all these activities.

## Phases of Project and Schedule

## Reports that each group should submit:
1. Answer to Lecture questions
   a. Each group after their presentation on week 37 must raise two questions and other students have more than a week to submit their answers via Moodle by 16:00 on 17.09.2015 (as a word document).

2. User Profile and User Analysis
   a. User Analysis
      - Characterize the users as a group-who are they?
      - How they currently use the (system, application, etc.)?
      - What skills do they have?
      - What important characteristics the users have?
      - What interview questions did you use?
      - How did you choose these people to be interviewed?
      - What were your criteria for picking your users?
      - What user studies method have you applied for your user study?
   b. Interview transcript
      -
   c. User Needs Analysis
      - Your assumption of the need
      - List of features that raised by users.

d. Task Analysis
    a. A task analysis is a hierarchical decomposition of the tasks that user need to complete to achieve their goals. You have to identify the users' goal through user analysis and initial feature list. (You do not need to design anything here)
        i. Level one task name that describes the use of the whole system/application from the users view
        ii. The second level is a list of the major subtasks that users perform.
        iii. Level 3 and 4 the major subtasks are decomposed.

e. Design Document
    a. Your group needs to develop a design document for your interface. The design document will be a record of the decisions you made about what the users will need to accomplish their goals. As with all parts of the project it is subjected to change later, but you must make a detailed record of your decisions so that you can refer to them later. In real world the design document would also be used to communicate with the customer.
        i. Conceptual Design: The conceptual design is about the things that the user will use and the actions the user will take with those things.
        ii. Concrete Design: In concrete design you show how you think you will put your design into practice. You need to make mock-up of the whole system with some details.

f. Testing Plan and Results (15%)
    a. Scenarios of activities for users to perform
    b. List of measures to use in your testing
    c. How you plan to test

g. Demonstrations (10%)

h. Final Report (40%)

    a. The full reporting, including a chapter improvement plan

**Project Topics**