Workshop on Software Engineering Project
סדנא ליישום פרוייקט הנדסת תוכנה
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- **Course number:** 20215141
- **Mandatory**
- **Credits:** 3
- **Course site:** [http://www.cs.bgu.ac.il/~wsep172](http://www.cs.bgu.ac.il/~wsep172)
- **Prerequisites:**
  - Analysis and Design of Software Systems – 372-1-3401
  - Principles of Object-Oriented Programming – 202-1-1518
  - Foundations of Software Engineering – 202-1-5201

**Course Objectives**

This course is about implementing a software engineering project, using methodologies and principles taught in other courses, and using modern software technologies. The course aim is to let the students experience a disciplined software project development, understand and appreciate the value of following software engineering development principles, and master new software technologies.

**Course Content**

Project development is split into several short versions, each version having a planning and implementation parts. The planning part includes UML documents that specify the version analysis and design. The implementation part includes implementation and testing – unit, integration, regression and acceptance, for the version. At the end of each version the group produces a version document, that summarizes the version content, its properties (e.g., test coverage), and the modifications that were applied to the initial planning, following the implementation.

Project implementation uses technologies for communication, writing web applications, writing graphical desktop applications, project management, bug tracking, unit testing, and version control.

The students in the course are organized into small student groups. All groups implement the software project which is the course theme. Within a group, the members take alternating roles as version leader, developer, and tester. The course staff takes the role of the customers, providing an initial requirement document. Each group has a staff member that functions as its advisor. The group meets its advisor once in two weeks, for a 2 hours long meeting. In that meeting the group presents its development for the current version, and one group member presents a topic that is relevant for the next version.
In addition to group meetings, the course includes several plenary sessions, in which general topics that relate to the project development are discussed.

**Course Requirements**

- 5-6 2-hours group meetings with group advisors
- 4 plenary sessions
- One topic presentation during group meetings.
- Final grade rules:
  - Intermediate project versions = 40%
  - Final project version = 50%.
  - Participation in group meetings = 5%
  - Presentation in group meetings = 5%.

**References**

Material in the course site: [http://www.cs.bgu.ac.il/~wsep172/Main](http://www.cs.bgu.ac.il/~wsep172/Main)

3. Design Patterns: Elements of Reusable Object-Oriented Software, by E. Gamma, R. Helm, R. Johnson and J. Vlissides, Addison-Wesley, Reading (Mass.), 1995.