School:  Efi Arazi School of Computer Science B.Sc

Introduction To Computer Science

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Course Description

Objectives: The course presents computer science fundamentals and object-oriented programming, using a hands-on approach. Key elements of the theory and practice of computer science are presented in the context of programming examples and exercises. Through this experience, students develop an appreciation of the elegance and rigor of computer science, and become competent Java programmers. The course assumes no previous experience, except for high-school level mathematics.

Methodology: 13 weeks of instruction, each consisting of two 2-hour lectures, one 2-hour recitation (תורגול), One 2-hours workshop (סדנה) and a homework assignment. Of these course elements, the homework assignments are by far the most important. You should expect to spend about 5-10 hours a week working on the homework assignments.

The course grade is based on a midterm exam (20%), final exam (60%), and homework assignments (20%). In order to pass the course, you must get at least 60 in the final exam.

Textbook: Introduction to Programming in Java: An Interdisciplinary Approach by Sedgewick and Wayne (any edition is fine). Copies of this book are available at the IDC library, as well as in most online bookstores. The textbook is recommended, but not required.
**Advanced reading:** If you are an experienced programmer, we recommend *Effective Java*, by Joshua Bloch. The material covered in this book is *not* part of this course and is aimed at experienced programmers only.

**English** is the official written language of this course. The spoken language in the lectures is Hebrew in the regular tracks and English in the international track; in all tracks though, all written materials (lecture notes, homework, web site, etc.) are in English. The course provides an excellent opportunity to improve your English in an applied context.

**Questions and answers** are welcome and encouraged. Post your questions on the course's Questions and Answers (Q&A) forum, and they will be answered shortly by the course staff, or by students who know the answer and want to help out.

**The course website** and the Q&A forum are the hub of all the course activities. The lecture slides, homework assignments and course materials for every week will be uploaded to the course website ahead of time. The course website is the official repository of all the course's announcements, rules and regulations. If we say $x$ in a class meeting and the course website says $y$, you must ignore $x$ and do $y$. Each student is responsible for visiting the course website and Q&A forum daily and following the instructions listed there.

**Civilized behavior** in and out the class activities is expected. Please refrain from doing things that would irritate you if you were to teach this course. Examples include being late to class meetings, posting silly messages in the Q&A forum, not following instructor requests during class activities, and so on. Use your judgment.

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**Course Goals**

See the course description

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**Grading**

See the course description

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**Reading List**

See the course description