Introduction To Statistics B

Lecturer:
Prof. Yaniv Kanat-Maymon  ykanat@idc.ac.il

Tutors:
Dr. Michal Kanat-Maymon  kanat.michal@idc.ac.il
Dr. Moran Aliman  aliman.moran@idc.ac.il
Dr. Karin Zohar Cohen  zckarin@idc.ac.il

Teaching Assistant:

Course No.: 8911  Course Type: Lecture  Weekly Hours: 2  Credit: 3.5

Course Requirements: Final Exam
Group Code: 212891110  Language: English

Prerequisites

Prerequisite: 8910 - Introduction To Statistics A
Students who took one of the courses listed below will not be allowed to register to the course Introduction To Statistics B (8911):

8004 - Introduction To Statistics

Course Description

The course will focus on basic concepts of Statistical Inference and the ways researchers generalize findings from a specific sample to the population from which this sample is drawn. Students will learn to perform and analyze simple statistical tests, such as Chi Square test, Z test, T test, and one-way analysis of variance.

Course Goals

<table>
<thead>
<tr>
<th>Semester B</th>
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<tbody>
<tr>
<td>1-2</td>
<td>Sampling methods, the sampling distribution, random sample, central limit theorem</td>
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<tr>
<td>3-5</td>
<td>Hypothesis testing (one-tailed and two-tailed), type I &amp; type II errors (a,b), power, effect size, a priori and a posteriori alpha, one sample Z test</td>
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<td>6-7</td>
<td>One sample T test; biased (S) and unbiased estimation ($\hat{S}$)</td>
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<td>8-10</td>
<td>Independent and dependent samples t-test</td>
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<td>11-12</td>
<td>One-way Analysis of Variance (ANOVA), Post-hoc tests</td>
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<td>13</td>
<td>Summary: inferential statistics</td>
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Grading

10% - Weekly homework assignments: passing grade on at least 9 assignments.

15% - 3 quizzes.
75% - Final exam.

Reading List
