

PONTIFICIA UNIVERSIDAD CATÓLICA DE CHILE
SCHOOL OF ENGINEERING
DEPARTMENT OF INDUSTRIAL AND SYSTEM ENGINEERING
ABET COURSE SYLLABI

ICS3163 MATHEMATICAL ENGINEERING PROJECT SEMINAR

Credits and contact hours:	10 UC Credits /10 hours (2:40 hours lectures; 1:20 hours recitation assistantship and 6 hours individual work hours per week)
Instructor's name:	To be defined
Course coordinator's name:	None
Textbook:	Course references will be determined according to the topics covered in specific semesters, as well as the projects developed by students.
Course Catalog Description:	In this course students will develop an applied project using mathematical and computational modeling, and they will review applied industrial cases from the literature.
Prerequisite Courses:	MAT380I Probabilities Theory And EYP2114 Statistics Inference And MAT280I Numeric Methods And MAT353I Applications Of Functional Analysis.
Co-requisite Courses:	None
Status in the Curriculum:	Required Crr2013
Course Learning Outcomes:	<ol style="list-style-type: none">1. Critically and creatively participate in the discussion of the alternatives of mathematical models for a particular situation.2. To be able to apply analytical, numerical or statistical methods towards the solution of the model, and to analyze the results.3. To be able to suggest improvements and / or extensions to the model according to potential limitations.4. To be able to present and discuss results in front of an audience.
Relation of Course to ABET Criteria:	<ol style="list-style-type: none">a. Knowledge of mathematics, science and engineeringb. Design and conduct experiments: analyze and interpret datad. Multidisciplinary teamse. Identify, formulate, and solve engineering problemsg. Effective communicationk. Techniques, skills, and modern tools for engineering practice.

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Topics covered:

The course uses the format of a seminar in which students, organized in groups, work in a real industrial project related to a diversity of topics in Engineering, using the knowledge of previous courses.

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