OBJECTIVES:

The objectives of this course are: 1) to solve a problem and support it with a report explaining the criteria that governs the design; the plans to make possible its manufacturing, and the documents to validate decisions. 2) To determine the machine elements’ sizes, references, materials and efforts based on fault analysis, recommendations of manufacturers’ catalogues and engineering manuals, annexing the extracted information and bibliography according to the characteristics and pre-established constraints.

CONTENTS:

Contents include security factors, service and loading; materials; selection of function and use, properties for composition and characteristics of performance; faults due to static and dynamic loads (fatigue), criteria for calculus and expressions; the process of designing (constructive forms); function design according to purpose.

EVALUATION:

Semester project: (60%)
Theoretical projects (20%)
Final project (20%) or (problems like the book) (final consideration)

BIBLIOGRAPHY: