Department 03 Mechanical, Automotive and Aeronautical Engineering

Course title Mechanical Engineering Capstone Design Project

Hours per week (SWS) 3

Number of ECTS credits 5

Course objective After completion of the course student will be able to realize their own theoretical developments, will be able to complete an open and complex project under self-guidance, will be able to plan a project and follow its realization, organize a team, be able to conduct modern methods of product development, are able to interpret tasks and formulate development processes, are skilled in identifying customer needs and its influence on the product development cycle, are able to methodically find concept alternatives, are able to apply acquired mathematical models, and are capable of applying computer aided design methods and physical analysis to open engineering problems.

Prerequisites All required modules of the bachelor mechanical engineering degree program or senior standing

Recommended reading

Teaching methods Senior Design Project Environment

Assessment methods Documentation of the Design Project, Oral Presentation, and Conformity Inspection

Language of instruction English

Name of lecturer John Larson

Email jlarso04@calpoly.edu

Course content Project Definition, Project Planning, Project Realization, Documentation and Compliance Verification, Design Methodology, Development Processes, Advancement Methods, Theoretical and practical solutions of complex problems including finding alternate solutions, Team organization and soft skills

Remarks