

Master of Science degree in Mechanical Engineering

University of Chile

The objective of the program is the formation of high-level graduates, specialized in Mechanical Engineering Sciences, with sufficient knowledge of the discipline and prepared to carry out teaching and research. The program is academic in nature, with a strong commitment in research in Mechanical Engineering Sciences. The thesis provides specialization and methodological ability to conduct research in some of the essential areas of mechanical engineering.

AREAS OF RESEARCH

- Reliability, Maintenance and Management of Physical Assets.
- Materials.
- Fluid Mechanics and Heat Transfer.
- Solid mechanics.
- Robotics and Manufacturing.

CORE COURSES

- Continuum Mechanics.
- Mechanical Behavior of Materials.
- Heat and Mass Transfer.
- Mathematical Methods in Engineering.
- Numerical Methods in Mechanical Systems.

ELECTIVE COURSES

- Aerodynamics.
- Exergy Analysis.
- Deep Learning in Failure Diagnosis and Prognosis.
- Structural Dynamics.
- Design and Analysis of Solar Thermal Systems.
- Electromechanical Devices for Energy Conversion and Transport.
- Applied Elasticity.
- Applied Physical Asset Management.
- Advanced Materials for Solid Cells in Energy Conversion.
- Computational Fluid Mechanics.
- Advanced Methods in Computational Solid Mechanics.
- Generalized Finite Element Methods.
- Finite Element Method in Applied Mechanics.
- Powder Metallurgy.
- Thermal Radiation.
- Advanced Topics in Elasticity.

ADMISSION REQUIREMENTS

Academic degree of Bachelor of Science is required.

CONTACTS

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