

Doctoral Program in Mechanical Engineering University of Chile

The purpose of the Doctoral Program in Mechanical Engineering at the University of Chile is to educate highly qualified engineering scholars with solid scientific and technological foundations, capable of addressing complex research and applied engineering problems, and solving them independently, thus expanding the frontiers of knowledge in the field of Mechanical Engineering.

RESEARCH AREAS

- Reliability, Maintenance and Physical Assets Management.
- Mechanical Behavior of Materials, Advanced Manufacturing and Robotics.
- Fluid Mechanics, Energy and Heat Transfer.
- Solid Mechanics.

CORE COURSES

- Mechanical Behavior of Materials.
- Fluid Mechanics and Heat Transfer.
- Continuum Mechanics.
- Numerical Methods in Mechanical Systems.
- Thesis Project Workshop.
- Workshop on Teaching and Learning in Higher Education.

ELECTIVE COURSES

- Aerodynamics.
- Advanced Asset Analytics.
- Deep Learning in Failure Diagnosis and Prognosis.
- Combustion of Gaseous Reactive Systems.
- Structural Dynamics.
- Electromechanical Devices for the Conversion and Transport of Energy.
- Digital Manufacturing.
- Computational Fluid Mechanics.
- Advanced Materials for Energy Conversion Solid Cells.
- Advanced Methods in Computational Solid Mechanics.
- Generalized finite element methods.
- Finite Element Method in Applied Mechanics.
- Experimental Methods in Fluid Dynamics .
- Signal Processing and Machine Learning in Predictive Maintenance.
- Powder Metallurgy.
- Thermal Radiation.
- Advanced Topics in Elasticity.
- Wave Turbulence.

CONTACTS

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FACULTY

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Dr. University of Concepción, Chile 2013.

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Ph.D. University of Glasgow, Scotland 2007.

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Ph.D. University of Notre Dame, USA 2009.

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Dr. University of Poitiers, France 1989.

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Dr. University of Chile, Chile 2007.

ADMISSION REQUIREMENTS:

Academic degree of Bachelor of Science and / or Engineering Sciences.

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