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University of Chile



It is a national and public higher education institution. Founded in 1842, it is the first university in the country and one of the most prestigious and traditional in Latin America.

It's scope encompasses higher education and research, as well as creation and outreach in science and technology, humanities and the arts.

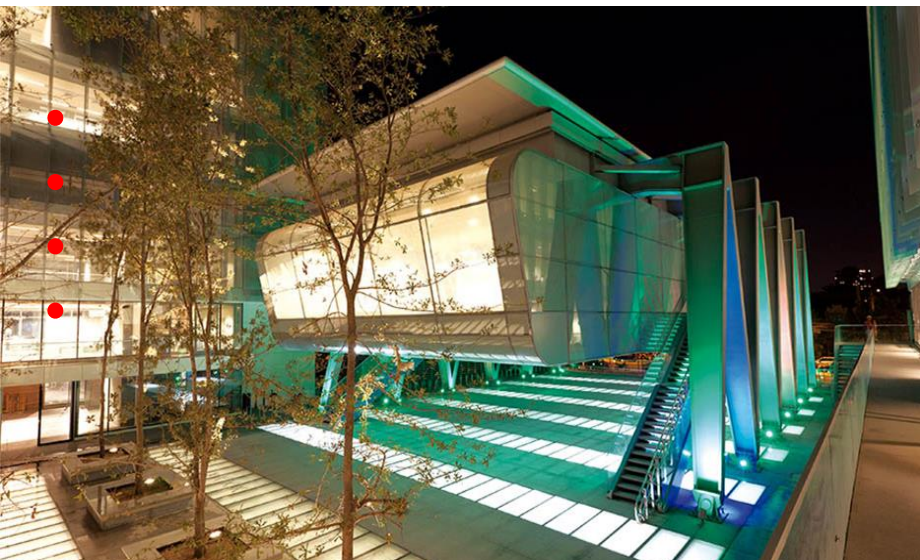
It is divided into 16 faculties, 3 interdisciplinary institutes, and one Clinical Hospital.

43,700+

Undergraduate and
graduate students

Among the world's **400**
best universities

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- **Faculty of Physical
and Mathematical Sciences**
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THE FACULTY WAS FOUNDED IN 1842 WITH THE UNIVERSITY OF CHILE

6,400+
Undergraduate
students

23
Master's
programs

2,000+
Postgraduate
students

13
Doctoral programs

450
Full-time and part-
time professors

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- **Faculty of Physical
and Mathematical Sciences**
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**5 Science
departments:**

- Astronomy
- Computer sciences
- Physics
- Geophysics
- Geology

**7 Engineering
departments:**

- Civil Engineering
- Mining Engineering
- Electrical Engineering
- Industrial Engineering
- Mathematical Engineering
- Mechanical Engineering
- Chemical Engineering,
Biotechnology and Materials

**Undergraduate
programs:**

- Astronomy
- Geology
- Geophysics
- Physics
- Chemical Engineering
- Biotechnology Engineering
- Civil Engineering
- Computer Engineering
- Electrical Engineering
- Industrial Engineering
- Mathematical Engineering
- Mechanical Engineering
- Mining Engineering



● Masters Programs

● Science and Engineering programs

- Astronomy
- Computer Engineering
- Geophysics
- Geology
- Physics
- Structural, Seismic and Geotechnical Engineering
- Electrical Engineering
- Applied Mathematical Engineering
- Mechanical Engineering
- Chemical Engineering
- Water Resources and Environmental Engineering
- Transport Engineering
- Data Science
- Applied Economics
- Operations Management
- Meteorology and Climatology



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- # Masters Programs
- ## Profesional oriented programs
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- Business Administration
- Public Management and Policies
- Business Engineering
- Innovation and Entrepreneurship in Science and Technology
- Mining
- Information Technologies

Faculty of Physical and Mathematical Sciences

PhD programs:

- Material Engineering
- Geology
- Astronomy
- Fluid-dynamics
- Engineering
- Mathematical Modeling Engineering
- Chemical Engineering and Biotechnology
- Physics
- Computing
- Civil Engineering
- Mechanical Engineering
- Mining Engineering
- Engineering Systems
- Electrical Engineering



Advanced Research Centers



Center for Mathematical Modeling, CMM



Advanced Mining Technology Center, AMTC



Energy Center, CE



Center for Climate and Resilience Research, (CR)²



Center for Excellence in Astrophysics and Associated Technologies (CATA)



Center for Biotechnology and Bioengineering, CeBiB



Solar Energy Research Center, SERC-Chile



Andean Geothermal Center of Excellence, CEGA



Complex Engineering Systems Institute, ISCI



Millennium Institute for Research in Market Imperfections and Public Policy, MIPP



Institute for Foundational Research on Data, IMFD



Millennium Institute for Research in Optics, MIRO



Centers for Technology Transfer And Information



National Seismological
Center, CSN



Center for Research, Development
and Innovation of Structures and
Materials, IDIEM



Network Information Center,
NIC Chile (.cl domain)



Information Technology Center,
Ucampus (Higher education)



Mining Technology
Testing Center, CNP



Construction's Technological
Innovation Center, CTec



Advanced Manufacturing
Innovation Program, IMA+



Innovation and entrepreneurship



OpenBeauchef is the innovation and entrepreneurship ecosystem at FCFM. It's mission is to promote a culture of innovation through activities and programs directed at students, faculty and researchers.

Almost **40%** of the Licenses generated in The U. Of Chile are Transfers from the FCFM.

2018
22 disclosure
19 Licencies
2 Spin offs

+40 projects supported to date

+2.000
Thousand participants in the various OB initiatives

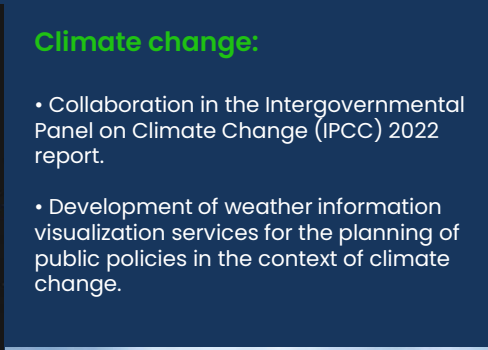


Some of our Research



Astronomy:

- The development of a distance measurement system for the Calán Tololo Project, foundation of the Nobel Prize in Physics 2011.
- Participation in the design and construction of ALMA Band 1, using advanced astronomical instrumentation.



Climate change:

- Collaboration in the Intergovernmental Panel on Climate Change (IPCC) 2022 report.
- Development of weather information visualization services for the planning of public policies in the context of climate change.



Mining:

- Development of world-class technology for sustainable, efficient and modern mining.
- Over 20 technology transfers to the mining industry in the last three years.



Clean energy:

- Investigation of the solar potential in the Atacama Desert, the energy development pole of America.
- Part of the Clean Energy Institute working on critical projects for the energy transition: solar energy, green hydrogen, electromobility and green mining.



Some of our Research

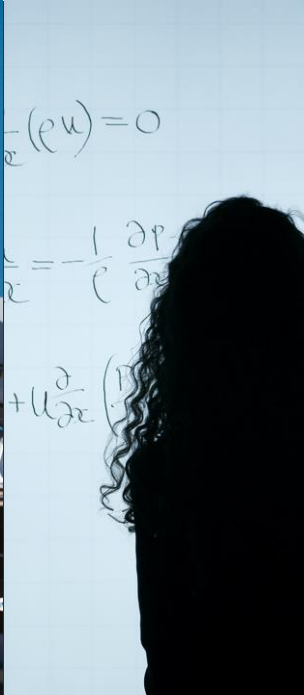


Mathematical modeling:

- International leader in mathematical modeling in fields such as mining, bio and health, mathematics education, resource and data management, as well as high performance computing.
- Sequencing of the genome of different organisms such as dessert grapes, salmon and several copper and wine bacteria, all products of relevance in the Chilean export market.

Biotechnology and bioengineering:

- The discovery of bacteria in the Atacama Desert that produce new and original antibiotics and anti-carcinogenics.
- The development of a mathematical model to predict the red tide phenomenon.



Seismology:

- Leader in seismic engineering, infrastructure monitoring and seismic resistance regulations.
- The creation of the National Seismology Center, the country's official body in charge of monitoring and classifying earthquakes.
- It offers a network of seismological stations across the country, all communicated in real time and capable of delivering Preliminary data within 5 minutes and final data within 20 minutes, from the origin of each event.

Complex engineering systems:

- The resolution of complex social challenges through the use of Engineering, Data Science and Economics tools.
- Knowledge transfer, innovative applications and the development of spin offs in areas such as health, cities, energy, public services and transport.

Some of our Research



Geothermal:

- The development of pilot projects that directly employ geothermal energy in the benefit of communities.
- The development of regional subsoil heat maps promoting the use of geothermal energy and helping with the decontamination of cities in southern-central Chile.



Space development:

- Creation of the first Chilean nanosatellite, placed in orbit in 2017.
- Managers of the first proposal for Chile's space program, bringing together universities and government agencies.



Computer sciences:

- Forerunners in Internet development in Chile.
- Leaders in the creation of the first Millennium Institute for research in data science.

More than 50
courses in
general
formation and
sports



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- # Apply for an exchange period at the University of Chile!



- ## Academic calendar:

- Autumn semester:
 - From mid march to mid july

- Spring semester:
 - From august to mid december

- ## Requisites:

- Spanish level at least B1

- ## Course Catalogue:

- https://ucampus.uchile.cl/m/fcfm_catalogo/



See you in Chile!

*Where engineering, science and
technology are at the service of society*

