

Faculty Positions in Geosciences and Geoengineering

Introduction

The College of Engineering at the Pontificia Universidad Católica de Chile (UC) ranks among the top Latin American engineering institutions. Our undergraduate program is accredited by ABET (Accreditation Board of Engineering and Technology), and our graduate program is accredited by the Chilean Accreditation Commission. The undergraduate program offers admission to 480 students per year, who belong to the top 5.1% scores of the national higher education admission test taken by high school graduates every year. Currently our full-time academic staff includes 107 professors, 94% with PhDs at prestigious universities worldwide. Our professors are highly motivated for seeking innovative ways of teaching, performing state-of-the art research, and publishing in renowned international journals.

The Department of Structural and Geotechnical Engineering invites applications for four full-time tenure-track positions, three in the Geosciences areas of Andean Tectonics and Structural Geology, Andean Tectonics and Applied Geophysics, and Structural Geology and Microstructural Analysis, and one in the Geoengineering area. The successful candidates will join a select group of twelve full-time academics whose areas of expertise include, but are not limited to: geotechnical engineering, earthquake engineering, experimental analysis, structural analysis, structural design, structural dynamics, and computational methods applied to structural analysis.

General requirements

We are looking preferably for applicants with a PhD degree. However, for the Geoengineering position, exceptionally qualified PhD students and professionals with expertise in geotechnical engineering and documented success in teaching and research may also be considered. Proficiency in English and Spanish will be required. Applicants must have a special motivation for innovative teaching, developing state-of-the art research and publication in highly reputed international journals. Applicants must also exhibit excellent oral and written communication skills, an aptitude for teamwork, and a scholarly interest in high-quality engineering education.

Applicants must show strong motivation for continuously improving their teaching skills; an interest for becoming involved with our graduate programs, especially the doctoral program; and abilities for developing and maintaining an active research life. It is desirable that the latter be in topics of national or regional interest with the goal of strengthening our country's competitiveness and efficiency. It is also expected that the successful candidate will create new undergraduate and graduate courses, and will be able to teach traditional courses in related areas.

Applicants for the three Geoscience positions should be willing to interact with the host faculty members of the Department of Structural and Geotechnical Engineering and other university members to start a new Geoscience group in close collaboration with other groups of the College of Engineering and the University.

Specific requirements

Applicants for the Geoengineering position must be interested, and preferably experienced, in topics like analysis and design of geotechnical systems, soil and rock properties characterization, assessment of rock mass mechanical properties, stability of

large soil and rock slopes, design of tunnel support for static and dynamic conditions, engineering geophysics, applied geology and geophysics.

Applicants for the Andean Tectonics and Structural Geology position must show a substantial research record in the areas of Andean Tectonics and Structural geology, and on the interplay between crustal deformation and fluid flow processes. They should be particularly interested in bridging the gap between basic geological knowledge and theoretical/practical problems in other disciplines of science and engineering, specifically on rock deformation and seismic hazard assessment.

Applicants for the Andean Tectonics and Applied Geophysics position must be interested in topics like tectonics, geodynamics, geophysical research and related applications, and candidates must show a substantial research record in these areas. In addition, strong involvement in industry-academy applied research projects is expected, ideally in the fields of mining and/or energy resources. They must also be interested in the application of geophysical techniques in rock mechanics and geotechnical engineering. A relevant track-record on leading large-scale research projects is also a valuable asset.

Applicants for the Structural Geology and Microstructural Analysis position must show interest in topics like tectonic and geodynamic processes within the Andean framework, and candidates must have a strong background in Earth Sciences with emphasis in structural geology and microstructural analysis.

Application instructions

Candidates should submit electronically the following to vacantes-academicas@ing.puc.cl by November 15, 2009 (indicate in the subject of the email the position in which you are interested, for example, "Geoengineering" or "Andean Tectonics and Structural Geology" or "Andean Tectonics and Applied Geophysics" or "Structural Geology and Microstructural Analysis"; see note A):

1. Statement of purpose (in Spanish or English) indicating your merits for the vacancy, and your plans in the areas of research and teaching. Be as specific as possible, e.g., giving examples of how you aim to transfer your engineering knowledge to undergraduate and graduate students, and detailing potential collaboration networks with other researchers you may have developed or intend to develop in the future.
2. Up-to-date curriculum vitae (in Spanish or English, see note B).
3. If available, a copy of your five most recent ISI publications. In case you do not have ISI articles, include articles that you consider relevant in the context of your application.
4. Three letters of reference sent directly by the persons who sign them to vacantes-academicas@ing.puc.cl.

Note A:

From this e-mail address you will get an automated response confirming that your information has been received.

Note B:

The CV must be organized along the following lines:

1. Personal background: name, address, contact telephone (with country and city codes), e-mail address, web page (if available), age, nationality, marital status.
2. Educational experience (university or institution, courses taught, years).
3. Professional experience (company, tasks, years).
4. Education: list of all degrees or professional titles obtained with granting institutions and dates, starting from your secondary education degree. In case you are on the course of obtaining a PhD, indicate the date you expect to obtain such degree.
5. Research
 - a. List of ISI journal publications (see note C)
 - b. List of other publications such as: reports, books or book chapters, conferences attended, research projects where participated, patents, etc.
6. Other: prizes and awards, computing abilities, languages, other background information that you consider relevant.

Note C:

Please avoid crowding this list with other publications, such as non-ISI journal papers, conference papers, and similar. To see if a journal is included in the Information Sciences Institute (ISI) catalogue, visit the site: <http://www.isinet.com/cgi-bin/jrnlst/jloptions.cgi?PC=master>.

Once the complete set of application materials has been received, the applicant will be contacted, within two months, and informed whether or not his/her application has been found acceptable. If this initial screening is successful, the candidate will be asked to give a lecture about his/her current research topics and to hold interviews with faculty members of the Department of Structural and Geotechnical Engineering, with the Dean of the School of Engineering, and with the Selection Committee.

Further information

Further information can be obtained at <http://www.ing.puc.cl/ice/>. Applicants may also request more information on a specific topic by sending an e-mail to the Department Chairman Dr. Rafael Riddell (riddell@ing.puc.cl).