

CALL FOR APPLICATION FULL TIME ACADEMIC POSITION "Critical Challenges for 21st century Engineering" COLLEGE UC

Pontificia Universidad Católica de Chile, one of the leading academic institutions in Latin America, number one in the **QS Latin American Ranking 2024**, invites outstanding candidates for a full-time academic position at the level of Associate or Assistant Professor in the area of Engineering or related sciences. This call is for a joint appointment, with a primary affiliation in **College UC** and a secondary one in a department to be defined by the candidate's profile.

College UC focuses on undergraduate-level teaching through three bachelor's degrees: Arts and Humanities, Natural Sciences and Mathematics, and Social Sciences. It promotes the construction of distinctive and interdisciplinary academic paths. Accordingly, College UC's faculty is the most diverse at Pontificia Universidad Católica de Chile.

Whoever is/are hired must fulfill the following duties:

1 · Demonstrate the ability to develop a high-quality undergraduate and graduate teaching track, and to conduct research (both independently and through interdisciplinary collaboration) from the perspective of engineering and related disciplines, focusing on one or more of the critical interdisciplinary challenges facing engineering in the 21st century.

Below is a list of suggested topics, although the call is open to other areas that are equally relevant and pertinent for addressing critical challenges for 21st-century engineering¹:

- Artificial intelligence, data science, and cybersecurity;
- Educational computing or the design of human-computer interaction systems;
- Earth sciences, climate change, and transitions toward sustainability;
- Biotechnology and bioprocesses;
- Bioengineering and health technologies.
- 2 · Facilitate interdisciplinary research that promotes bridges between the natural sciences, social sciences, the arts, and/or the humanities.
- 3 · Teach three (3) courses per year, two of which should be for College students. One of them will be a <u>first-year seminar</u> that contributes to the interdisciplinary training of students, preparing them to face the challenges

¹ From "NAE Grand Challenges for Engineering", US National Academy for Engineering (2017). Source: https://www.nae.edu/20782/grand-challenges-project



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of a changing professional world. The third course is expected to be a postgraduate seminar in the department of secondary affiliation. The selected candidate is also expected to develop new courses, carry out teaching innovation, and develop new Majors and Minors at College UC.

- 4 •To foster spaces for dialogue, knowledge creation, and dissemination through a multidisciplinary lens, with the purpose of making knowledge more accessible, engaging, and intellectually stimulating for the broader community.
- **5** Develop additional duties, including student mentoring of undergraduate and postgraduate students, knowledge transfer, outreach, professional education, academic management, and administrative duties.

Requirements

- Academic degree of Doctor (Ph.D.) in engineering or related sciences.
- Demonstrate experience in one or more of the identified challenges, whether through publications, research projects, teaching, and/or outreach activities.
- Demonstrate a strong commitment and interest in College UC's educational model and all aspects of academic life and the common good of the University.
- Applicants should demonstrate ability and enthusiasm to teach first-year College UC students with diverse disciplinary interests in courses that focus on developing cross-disciplinary skills.
- Applicants must be highly motivated to continuously improve their teaching skills and ability to develop autonomous and, ideally, interdisciplinary research.
- Applicants must demonstrate the capacity to develop and lead outreach actions.
- Respect the principles and mission of the Pontificia Universidad Católica de Chile, and uphold the ethics and values that define the UC identity.

Candidates do not need to be fluent in Spanish at the time of application but should be prepared to learn the language well enough to teach in Spanish in the short term (two years maximum).

Selection criteria

- 1 · Capacity and potential for interdisciplinary teaching at College UC.
- 2 · The quality of teaching already undertaken, as well as the ability to organize and innovate in teaching methodologies.
- **3** Trajectory and quality of the applicant's scientific production, demonstrating capacity and potential for interdisciplinary research.
- 4 · Academic references.
- **5** · Capacity and potential for outreach.

Instructions to apply



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Those interested in applying and who have questions regarding this call may direct their inquiries to the email address **newfaculty collegeuc@uc.cl**

Please include in the email subject line: Inquiry – Academic Call in Critical Challenges for Engineering.

This selection process will consist of **three phases**, which are described below.

Phase 1: Initial Evaluation of Application Materials

To participate in this phase, applicants must submit the following documents in either English or Spanish, in PDF format, to the email address newfaculty_collegeuc@uc.cl

Please include in the email subject line: PHASE 1 / Academic Call in Critical Challenges for Engineering:

- 1. A **cover Letter (2 pages max.):** It should explain why the applicant should be considered for the specific position being offered. Particular consideration will be given to a compelling argument regarding the applicant's interdisciplinary profile and their potential contribution to undergraduate teaching at College UC.
- 2. An updated **curriculum vitae** that includes:
 - 1. Personal information: name, email address, web page (if any).
 - 2. <u>Education</u>: all academic and professional degrees, indicating the granting institutions and dates. Please attach copies of academic certificates.
 - 3. Teaching experience: Include:
 - a. List of courses taught, indicating: institution, course title, date, and role (e.g., main instructor, co-instructor, guest lecturer, etc.).
 - b. Teaching Portfolio that compiles evidence of key achievements, strengths, and innovations as an educator.
 - 4. <u>Professional experience</u>: employer, duties, dates.
 - 5. Research:
 - a. Complete list of publications (Web of Science, SCOPUS, and others), reports, books, book chapters, conferences attended, research projects participated in, patents, etc.
 - b. Participation in research projects specifying the level of involvement (PI, co-I, etc.), start and end dates, and institution.
 - 6. Other: awards, scholarships, computer skills, languages, and relevant background information, including service.
- 3. **One (1) example of a product** that effectively represents the applicant's interdisciplinary practice (e.g., article, thesis, catalog, artwork, innovation, course syllabus, etc.).

The deadline for submitting application materials is July 7, 2025. Based on the submitted documents, a selection will be made of applicants who will advance to the second phase.



Phase 2: In-Depth Evaluation of Interdisciplinary Profiles

Applicants selected for the second phase of the call will have a period of **30 calendar days** from the date of notification of their pre-selection to submit the following additional documents, in English or Spanish and in PDF format—to the same email address: newfaculty_collegeuc@uc.cl

Please include in the email subject line: PHASE 2 / Academic Call in Critical Challenges for Engineering:

- 1. A **teaching statement** (2 pages max.): The applicant must clearly explain why they should be considered for the teaching responsibilities at College UC. Therefore, the statement should be as specific as possible, including potential courses to be taught, proposals for new courses, the creation of new majors or minors (or modifications to existing ones), teaching innovations, and possible interactions with College students, among others.
- 2. A **research statement (2 pages max.)**: Applicants should outline their short- and long-term objectives for their research program, with an emphasis on interdisciplinary approaches and/or initiatives that build bridges between the arts and/or humanities, natural sciences, and social sciences. It is recommended that they detail potential collaborative networks with Chilean and international researchers, as well as plans for interactions with other scholars.
- 3. **Three letters of recommendation** from individuals who can provide an assessment of the candidate's profile and suitability for the position. These letters must be sent directly by the referees to the email address: **newfaculty collegeuc@uc.cl**

Once all documentation has been received, the applicants will be contacted within approximately one month and informed whether they will proceed to the third and final phase.

Phase 3: Public Lecture and Interviews

This phase will consist of a series of in-person meetings between the selected candidates and members of the College UC academic community, as detailed below:

- 1. Teaching demonstration (open class to faculty members).
- 2. Interview with the College UC's Academic Promotion and Admission Committee (APAC).
- 3. Interview with faculty members of College UC and of the secondary academic unit.
- 4. Interview with the Dean of College UC and his/her equivalent at the secondary unit.
- 5. Psychological Interview.

Exceptionally, some of these instances may be conducted online (via Teams). The time typically required from Phase 1 to the final decision is approximately two months.

The hiring and appointment process of one or more candidates as UC faculty members requires the following approvals:

1. Selection of the final candidate by the Academic Programs involved and the APAC.



- 2. Ratification of the selected candidate by the College UC Council and its equivalent at the secondary unit.
- 3. The selected candidate is informed (offer letter).

EEO/AAP Policy Statement

The Pontificia Universidad Católica de Chile welcomes and embraces diversity. It does not discriminate based on race, ethnicity, creed, religion, origin, disability, age, sexual orientation, or marital status.

Information on employment benefits can be found here:

- Foreign workers in Chile: https://www.dt.gob.cl/portal/1626/w3-article-93693.html
- Labor laws in Chile: https://www.dt.gob.cl/legislacion/1624/w3-propertyvalue-22764.html
- University rules and regulations: http://direcciondedesarrolloacademico.uc.cl/index.php?
 option=com content&view=article&id=286&Itemid=178

All members of the Pontificia Universidad Católica de Chile must subscribe to the Code of Ethics available here: https://www.uc.cl/codigodehonor

A foreign candidate who applies from abroad, if selected for the position, will have to obtain the corresponding visa at the consulate of the origin country to be incorporated into the academic staff of the University.