

Rua Mendeleyev, 200 - Cidade Universitária CEP: 13083-860 - Campinas-SP





## **CALL FOR APPLICATIONS** REGULAR STUDENT IN THE GRADUATE PROGRAM IN PETROLEUM SCIENCE AND ENGINEERING **MASTER'S AND DOCTORAL COURSES**

### 2<sup>nd</sup> SEMESTER OF 2025

The Coordination of the Graduate Program in Petroleum Science and Engineering, in accordance with its Regulations, announces the opening of the Selection Process for the Master's and Doctoral programs for entry in the 2<sup>nd</sup> semester of 2025. The Selection Call was approved by the Graduate Commission on April 8, 2025.

#### I – ELIGIBILITY REQUIREMENTS

Candidates eligible for the Graduate Program in Petroleum Science and Engineering must have a degree in one of the following fields: Petroleum Engineering, Mechanical Engineering, Electrical Engineering, Control and Automation Engineering, Chemical Engineering, Civil Engineering, Naval and Oceanic Engineering, Mining Engineering, Geology, Geophysics, Physics, or Mathematics. Other degrees will be analyzed by the Program Committee.

The candidate must contact a professor in the research area of interest and obtain acceptance from a Faculty Advisor in the Program before completing the application.

### **II – APPLICATION PROCESS**

Candidates must carefully read all the information in this call, as incorrect procedures may result in the invalidation of their application.

#### Applications must be submitted online through the FEM system.

In addition to the required documents, candidates must complete the "objective" field, clearly stating their reasons for their interest in the Graduate Program in Petroleum Science and Engineering.

## III – REQUIRED DOCUMENTS FOR APPLICATION

Applicants must submit the following documents:

Mandatory application form from the Academic Directorate (DAC): The candidate must access the following website, fill out the form, save it as a PDF and upload it to the FEM system:



Rua Mendeleyev, 200 – Cidade Universitária CEP: 13083-860 – Campinas-SP



https://www.fem.unicamp.br/index.php/pt-br/cpg-em +55 (19) 35213245 – 35213407 – 35213244 – cpgfem@unicamp.br

https://sistemas.dac.unicamp.br/siga/ingresso/candidato/efetuar login candidato.xhtm l?code=1497038006922

- Undergraduate Diploma or Certificate of Completion (for all applicants). Candidates without a diploma must upload a Certificate of Completion or a Declaration of Expected Graduation Date issued by their university, with an estimated completion date.
- Master's Diploma or Declaration of Expected Dissertation Defense Date (only for doctoral candidates).
- Official Undergraduate Academic Transcript (for all applicants).
- Official Master's Academic Transcript (only for doctoral candidates).
- Curriculum Vitae (preferably from the Lattes-CNPg platform).
- Letter(s) of Recommendation (specific template available in the application form).
- Research Plan Summary, developed in collaboration with the faculty advisor. The
  research plan summary must not exceed five pages and must include an objective and a
  timeline. It may be written in English.
- **GRE Graduate Record Examination** (mandatory for candidates applying for scholarships who will not take the entrance exam). The GRE score must be valid for up to five years.
- **Self-declaration form (ANNEX I)** for applicants applying for scholarships reserved for Black, Brown, or Indigenous (PPI) students.

All documents must be uploaded in PDF format to the FEM system strictly within the application period.

Failure to submit all required documents within the application period will result in rejection.

#### IV – SELECTION PROCESS CALENDAR

STAGE	DATE
Application Submission	
(SIGA/DAC and FEM Systems)	April 15 – May 12, 2025
Pre-Selection of Candidates	May 19 – May 28, 2025
Invitation Email for Entrance Exam	May 30, 2025, from 2:00 PM onwards
Entrance Exam (Remote)	June 6, 2025
Results Announcement via Email	June 23, 2025, from 2:00 PM onwards



Rua Mendeleyev, 200 – Cidade Universitária CEP: 13083-860 – Campinas-SP



https://www.fem.unicamp.br/index.php/pt-br/cpg-em +55 (19) 35213245 – 35213407 – 35213244 – cpgfem@unicamp.br

Deadline for Appeals	Until June 25, 2025, at 5:30 PM
Appeals Review and Results Announcement (if applicable)	June 26, 2025
Final Ranking Publication on Website (Entrance Exam)	June 30, 2025
Confirmation of Interest and Advisor Selection by Approved Candidates	June 27 – July 4, 2025
Enrollment (conducted by the Secretariat)	July 14, 2025
Course Registration (instructions via email)	July 14 – July 17, 2025
Supplementary Enrollment	August 4, 2025
Course Registration for Supplementary Enrollment Students	August 10 – August 13, 2025
Start of Academic Term	August 4, 2025

**Note:** Candidates who fail to complete any of the phases described above will be disqualified from the selection process.

### V – SELECTION AND CLASSIFICATION

The selection process consists of an analysis of the candidate's curriculum, academic transcript, research plan, and performance on the entrance exam administered by UNICAMP or the GRE (for candidates applying for a scholarship). The final ranking will be published on the Program's website according to the calendar.

Approval does not guarantee a scholarship.

### **VI – NUMBER OF AVAILABLE POSITIONS**

The Graduate Program in Petroleum Science and Engineering offers approximately 15 vacancies, subject to change depending on faculty availability.



Rua Mendeleyev, 200 – Cidade Universitária CEP: 13083-860 – Campinas-SP



https://www.fem.unicamp.br/index.php/pt-br/cpg-em +55 (19) 35213245 – 35213407 – 35213244 – cpgfem@unicamp.br

There will be no additional selection rounds or candidate recalls after the process is completed.

#### **VII – AFFIRMATIVE ACTION POLICIES**

The Graduate Program in Petroleum Science and Engineering, in compliance with Resolution CONSU-A-017/2023 of 01/08/2023, establishes, a fraction of the CAPES-funded scholarships will be reserved for self-declared Black, Brown, or Indigenous (PPI) candidates at the time of application. As item VIII of this Notice describes, the available scholarships will be distributed based on the candidates' classification in the Entrance Exam.

#### **VIII – SCHOLARSHIPS**

Candidates must indicate their interest in a scholarship when applying. Scholarship applicants must take the entrance exam or submit the GRE. A minimum score of 40% is required to qualify for a scholarship.

Scholarships are awarded based on final rankings and availability from funding agencies. The scholarship assignment follows this order:

- 1. First available scholarship awarded to the highest-ranked general candidate.
- 2. Second scholarship awarded to the highest-ranked self-declared PPI candidate.
- 3. Third scholarship awarded to the second-highest general candidate.
- 4. Fourth scholarship awarded to the third-highest general candidate.
- 5. Fifth scholarship awarded to the fourth-highest general candidate.
- 6. Sixth scholarship awarded to the second-highest PPI candidate.
- 7. This sequence continues until all scholarships are assigned.

Candidates who do not receive a scholarship may apply again in the following semester.

#### IX – ADMISSION EXAM

The entrance exam is mandatory for candidates seeking a scholarship, even if already enrolled. It will be conducted remotely, and instructions will be sent via email.

The entrance exam may be replaced by the GRE. Scores from both exams will be normalized for ranking purposes.



Rua Mendeleyev, 200 – Cidade Universitária CEP: 13083-860 – Campinas-SP



https://www.fem.unicamp.br/index.php/pt-br/cpg-em +55 (19) 35213245 – 35213407 – 35213244 – cpgfem@unicamp.br

The entrance exam will consist of a test with questions covering basic knowledge in the areas of Physics, Mathematics, and Geology. The topics of each area and the bibliography are listed below:

#### **Physics:**

- Systems of Units and Dimensions;
- Newton's Laws;
- Statics and Dynamics;
- Work and Energy;
- Conservation of Energy;
- Linear Momentum and Conservation;
- Angular Momentum and Conservation;
- Rotation of Rigid Bodies;
- Linear Oscillations;
- Waves in Elastic Media;
- Fluid Mechanics;
- Temperature and Heat;
- Laws of Thermodynamics.

#### **Mathematics:**

- Differential and Integral Calculus;
- Ordinary Differential Equations;
- Laplace Transform;
- Fourier Series;
- Partial Differential Equations.

## Geology:

- Introduction to Geology: Minerals and Rocks;
- Structure of the Earth and Main Geological Phenomena Acting on the Earth's Crust;
- Origin, Properties, and Classification of Rocks;
- Igneous, Sedimentary and Metamorphic Rocks;

- Global Tectonics;
- Origin and Evolution of Sedimentary Basins;
- Concept of Sedimentary Facies;
- Depositional Environments and Systems;
- Brazilian Sedimentary Basins.

### **Bibliography:**

- Sears, Zemansky; Physics, Vols. 1 and 2, 12th Edition, Pearson, 2008.
- Halliday, Resnick, Walker; Fundamentals of Physics, Vols. 1 and 2, 8th Edition, L.T.C., 2009.



Rua Mendeleyev, 200 – Cidade Universitária CEP: 13083-860 – Campinas-SP



https://www.fem.unicamp.br/index.php/pt-br/cpg-em +55 (19) 35213245 – 35213407 – 35213244 – cpgfem@unicamp.br

- Alonso, Finn, Physics A University Course, Vols. 1, Edgard Blucher, 1972.
- Leithold, L.; Calculus with Analytic Geometry, Vols. I and II, Harbra, 3rd Edition, 1994.
- Kaplan, W.; Advanced Calculus, Vol. I, Edgard Blucher, 1972.
- Guidorizzi, H.L.; A Course in Calculus, Vols, III, L.T.C., 5th Edition, 2002.
- Boyce, W.E; di Prima, R.C.; Elementary Differential Equations and Boundary Value Problems, L.T.C., 8th Edition, 2006.
- Allen, P. A. & Allen, J. R. Basin Analysis Principles and Applications. Blackwell Science Ltd., 451p. 1990.
- TEIXEIRA, W., TOLEDO, M.C.M., FAIRCHILD, T., TAIOLI, F. Deciphering the Earth. Organizers: Wilson Teixeira...[et al]. São Paulo, Oficina de Textos, 568 p., 2000.
- Suguio, K. Sedimentary Geology. Ed. Edgar Blucher, 460p. 2003.
- Moran, Shapiro, Munson, and Dewitt, "Introduction to Thermal Systems Engineering", L.T.C., 2005
- Fox and McDonald, "Introduction to Fluid Mechanics", 5th ed, L.T.C. Editora, 1998.
- Incropera and DeWitt, "Fundamentals of Heat and Mass Transfer, 4th ed, John Wiley, 1996.
- BIZZI, L. A. SCHOBBENHAUS, C., VIDOTTI, R. M. & GONÇALVES, J. H. (Editors.) Geology, Tectonics and Mineral Resources of Brazil. CPRM-SGB Brasília, 2003, 674p.

#### **X – RESULTS ANNOUNCEMENT**

Candidates will receive selection results via email according to the calendar.

#### XI – ENROLLMENT

Successful candidates must complete their enrollment through the SIGA/DAC system.

#### **XII – INTERNATIONAL STUDENTS**

International students must provide the following documents for enrollment:

- Passport (ID page and entry visa stamp).
- Consularized/apostilled Undergraduate and Master's diplomas (if applicable).
- Official Portuguese translation of diplomas.
- CRNM (National Migration Registration Card) or appointment confirmation with the Federal Police.
- CPF (Brazilian Taxpayer ID), obtained after arriving in Brazil.



Rua Mendeleyev, 200 – Cidade Universitária CEP: 13083-860 – Campinas-SP



https://www.fem.unicamp.br/index.php/pt-br/cpg-em +55 (19) 35213245 – 35213407 – 35213244 – cpgfem@unicamp.br

## ANNEX I – ETHNIC-RACIAL SELF-DECLARATION FORM

Ι, the u	indersigned,				Passport	nº
			MYSELF		(E	Black,
Notice for regularized semester of the Affirmative be false, the coption for sch	genous - PPI), for the slar students for the f 2025, of the Scho Action Policies. I also also also be colorship reservation the Brazilian Penerood.	e Graduate Proof of Mechanics declare that e rendered inches, in addition	ogram in Petrole cal Engineering of the lam aware that effective, which is to which I wi	um Science a of UNICAMP, t if this declar will imply ca Il be subject	and Engineer which estab ration is prov ancellation o to the pen	ring — lishes en to of the alties
			(place),	of	:	2025.
				Signatur	e of the cand	lidate