NOTICE OF FACULTY POSITION

PROFESSOR POSITION AT THE UNIVERSITY OF CAMPINAS

The Dean of the Institute of Mathematics, Statistics and Scientific Computing at the University of Campinas (UNICAMP) announces the opening of applications for a public selection process to fill one (01) position of Assistant Professor, in the area of Applied Mathematics and Public Policies, for the discipline(s) MS211 - Introduction to Numerical Analysis, MS512 - Numerical Analysis I, at the Department of Applied Mathematics of the Institute of Mathematics, Statistics and Scientific Computing of the University of Campinas.

1. POSITION RESPONSIBILITIES

1.1. This selection process is intended to fill the position of Assistant Professor, level MS-3.1, in the higher education career at UNICAMP.

1.2. Basic responsibilities of the Assistant Professor position include:

I - Teaching activities in higher education, at both undergraduate and graduate levels;

II - Research and extension activities;

III - Institutional management activities, such as direction, advisory, leadership, coordination, and other administrative duties of the university;

IV - Other responsibilities provided for in university regulations and related to the position.

1.2.1. The hired professor may be assigned other disciplines beyond those referred to in the preamble of this notice, provided they are related to the competition area or their field of expertise.

1.2.2. The professor may be assigned disciplines taught during daytime, evening, or mixed periods, including weekends.

1.3. The desired candidate profile combines academic and professional competencies:

I - Good research record in topics adherent to the area of the call

II - Potential for new theoretical, algorithmical or numerical contributions for research, teaching and outreach

III - Adherence to principles of academic freedom, search for excellence, intellectual plurality and diversity, nursing of creativity as well as free and critical thinking

1.3.1. The public exams will cover the following program:

MS211 - Introduction to Numerical Analysis

Syllabus: Floating point arithmetic. Zeros of real functions. Linear systems. Polynomial interpolation. Numerical integration. Linear least squares. Numerical treatment of ordinary differential equations.

MS512 - Numerical Analysis I
Syllabus: Choleski factorization. Orthogonal factorizations. Linear least squares. Singular value decomposition. Iterative methods for solving linear systems. Introduction to the resolution of nonlinear systems. Eigenvalues and eigenvectors computation.

2. WORK REGIME AND COMPENSATION

2.1. The Assistant Professor position will be filled under a partial shift regime - RTP (12 hours per week), with preferential option for the full-time teaching and research regime - RDIDP.

2.2. The preferential regime for UNICAMP faculty is the full-time teaching and research regime (RDIDP), which aims to stimulate and favor research in different areas of knowledge, as well as contribute to teaching efficiency and the dissemination of ideas and knowledge to the community.

2.3. By applying for this public selection, the candidate acknowledges and agrees that, if hired, they may be required, at the discretion of the Faculty Congregation, to submit a research plan to be evaluated by the Permanent Committee for Full-Time Teaching and Research (CPDI).

2.4. The initial compensation for the Assistant Professor position, MS-3.1, in the higher education career is as follows:

a) RTP (12 hours per week) – R$ 2.834,67

b) RTC (24 hours per week) – R$ 7.195,56

c) RDIDP – R$ 16.353,30

2.5. In addition to the initial compensation, the Assistant Professor will receive:

a) Food allowance of R$ 1,950.00 (one thousand nine hundred and fifty reais);

b) Meal voucher of R$ 43.00 (forty three reais) per working day for active employees with a schedule equal to or greater than 24 (twenty) hours per week;

c) Health allowance of up to R$ 900.00 (nine hundred reais);

d) Other specific benefits, as applicable.

3. APPLICATION PROCESS

3.1. Applications must be submitted exclusively through the "*inscricoes.unicamp.br*" portal during the period from September 26th to November 10th.

3.2. Candidates must complete the application form and upload an official photo ID and the documents described in item 3.1.2 of the competition notice.

4. SELECTION PROCESS

4.1. The public selection process for the Assistant Professor position will consist of the following tests, conducted in two phases, all classificatory (phase I eliminatory):

I - Written test (weight 1)

II - Work plan analysis (weight 1)

III - Credentials evaluation (weight 3)

IV - Teaching test (weight 2)

V - Oral examination (weight 3)

5. FINAL PROVISIONS

5.1. The selection process will be valid for one (01) year, from the date of publication of the results' approval by the Teaching, Research and Extension Chamber (CEPE) in the Official Gazette of the State of Sao Paulo (DOE), and may be extended once for an equal period.

5.2. During the validity period of the selection process, positions that become vacant may be filled by approved candidates in the discipline or set of disciplines in the competition.

5.3. This selection process will follow the provisions contained in CONSU-A-04/2025 Resolution and CEPE-A-24/2025 Resolution.

APPENDICES:

I - Relevant Schedule

II - Program of disciplines in the competition

III - Competition program – subjects of the tests

IV - Guidelines for preparing the work plan

V - List of 10 topics for the teaching test

APPENDIX I - Relevant Schedule

Application: 26/10 until 10/11/25

Public announcement of list of candidates, judging committee and final dates of the competition: 09/02/26

Phase 1 (documental): 19 and 20/03/26

Publication of results of phase 1 (eliminatory): 20/03/26

Phase 2 (documental): 26 and 27/03/26

Publication of results of the documental evaluations: 27/03/26

Phase 2 (in person): 11 to 14/05/26

Results: 14/05/26

APPENDIX II - Program of disciplines in the competition

MS211 - Introduction to Numerical Analysis

Syllabus: Floating point arithmetic. Zeros of real functions. Linear systems. Polynomial interpolation. Numerical integration. Linear least squares. Numerical treatment of ordinary differential equations.

MS512 - Numerical Analysis I

Syllabus: Choleski factorization. Orthogonal factorizations. Linear least squares. Singular value decomposition. Iterative methods for solving linear systems. Introduction to the resolution of nonlinear systems. Eigenvalues and eigenvectors computation.

APPENDIX III - Competition program – subjects of the tests

Theoretical and computational topics, under the context of Applied Mathematics to Public Policies, for:

- Linear systems;
- Nonlinear systems;
- Functional approximations;
- Ordinary Differential Equations.

APPENDIX IV - Guidelines for preparing the work plan

The Work Plan for this competition consists of the description of the research and mentoring activities proposed for the first five years of effective work in the Department. The file must contain a first page with title, date, author and abstract, followed by a textual description of the research and student mentoring desired activities with the following suggested structure:

a) Introduction: including the research goals, its importance and relation with the state of the art of the area according to the competition profile.

b) Development: including the description of the topics with details that clarify how the specific problems will be addressed.

c) Expected results and landmarks: pointing out the desired results and their feasibility.

d) Mentoring activities (graduate and undergraduate students), pointing out how the participation of students will help to target the proposed goals.

e) Bibliography.

It is desirable that the Plan has no more than ten pages, not counting title page nor bibliography.

APPENDIX V - List of 10 topics for the teaching test

1. Floating point arithmetics;
2. Newton method for zeroes of real functions;
3. Numerical solution of linear systems: direct methods;
4. Numerical solution of linear systems: iteractive methods;
5. Newton method for solution of nonlinear systems;
6. Polynomial interpolation and functional approximation;
7. Curve fitting: least squares method;
8. Numerical integration;
9. Numerical solution of ordinary differential equations: initial value problem;
10. Numerical solution of ordinary differential equations: boundary value problem.