**NORMS FOR POSTGRADUATE STUDENTS TO BE GRANTED A SCHOLARSHIP OF THE POSTGRADUATE STUDIES PROGRAM IN CHEMISTRY.**

**MASTER LEVEL:**

The scholarship committee will indicate the postgraduate student(s) that will be granted a scholarship by taking the classification of the candidates in the Exam for Admission to the Program, Master Level, into account.

Postgraduate students at the Master level that are not granted a scholarship can take the classification test again, up to three consecutive times including the first test.

The scholarship will be effective for **24 months starting from the day the postgraduate student enrolled in the Program.**

**PhD LEVEL:**

The scholarship committee will indicate the postgraduate student(s) that will be granted a scholarship by taking the classification in the written test described below into account:

a) The test will be offered every semester, in April and in September.

b) When the candidate enrolls for the test at the Office of the Department of Chemistry, they must provide:

- a copy of the proof of their enrollment in the Program at the PhD level;

- a copy of the *curriculum vitae* and the corresponding certificates (certificates of participation in congresses, published articles, etc., may be requested at any time)

- the form (appropriately completed with the student’s information) available at the Office of the Department of Chemistry or at <http://pgquimica.ffclrp.usp.br/>

c) The written test will consist of four compulsory questions about General Chemistry and twelve elective questions in the areas of Biochemistry, Biotechnology, Analytical Chemistry, Inorganic Chemistry, Organic Chemistry, and Physical Chemistry (two questions each), from which the candidate has to choose four questions.

d) **Contents:**

**Written test program:**

**General Chemistry**

Suggested reference: Loreta Jones e Peter Attikins – Princípios da Química: Questionando a vida moderna e o meio ambiente. Bruce M. Mahan, Rollie J. Myers: Química: Um curso Universitário. Edgard Blücher, 1995

* Chemical bonds
* Atomic theory
* Stoichiometry
* Periodic properties
* Gases, solids, and liquids and phase changes
* Chemical kinetics

**Specific areas:**

**Biochemistry:**

Suggested reference: D.L. Nelson e M.M. Cox. Lehninger - Princípios de Bioquímica. 4a. Ed. 2007. Editora Sarvier

* Enzymes
* Protein structure

**Biotechnology:**

- Gene expression and regulation

- Transcription

- Translation

- Recombinant DNA technology

**Suggested references:**

- James D. Watson; Tania A. Baker; Stephen P. Bell; Alexander Gann; Richard Losick; Michael Levine (2006). Biologia Molecular do Gene. Quinta edição, Artmed Editora.

- Harvey Lodish; Arnold Berk; Chris A. Kaiser; Monty Krieger; Anthony Bretscher; Hidde Ploegh; Angelika Amon (2014). Biologia Celular e Molecular. Sétima edição, Artmed Editora.

- Kinetics of fermentative processes

**Suggested reference:** BORZANI, W.; SCHMIDELL, W.; LIMA, U. A.; AQUARONE, E. Biotecnologia industrial – fundamentos. São Paulo: Edgard Blücher, 2001.

**Organic Chemistry:**

* Structure of organic compounds: physical properties, stereochemistry and spectrophotometric analysis.
* Organic functions: preparation of organic compounds and their reactions

**Physical-Chemistry**

* Thermodynamics

**Inorganic Chemistry:**

* Coordination Chemistry: Bond Theory and Electronic Spectroscopy.

**Analytical Chemistry:**

* Chemical Equilibrium: acid-base, redox, complexation, and precipitation.

e) The candidate will be allowed a minimum of 1.5 h and a maximum of 3 h to do the test.

Within 03 days after the final scores and the answer key are announced, the postgraduate student can request a review of the test at the Office of the Department of Chemistry. No requests will be accepted after the deadline. To request a review, the postgraduate student must hand in a written request containing their full name, USP identification number, and the questions they would like the examination board to review.

f) If the number of scholarships is enough, all the postgraduate students who score at least 5.0 will be granted a scholarship for a maximum of 48 months since the date of enrollment in the Program, PhD level.

g) If there is a tie, the candidate that scored the highest in the *curriculum vitae* analysis will be given preference according to the criteria described below. If a tie persists, the candidate that enrolled in the Program first will be given preference.

h) If any scholarships are still left after all the candidates who scored at least 5.0 are granted a scholarship, the candidates who scored less than 5.0 will be considered on the basis of the criterion depicted in item g).

i) To keep the scholarship, the candidate that scored less than 5.0 must sit another classification test, up to a maximum of three consecutive tests, including the first test.

The scholarship is granted for **a maximum of 48 months since the date of enrollment in the Program, PhD level.**

*Curriculum vitae* ANALYSIS – The following scoring criteria will be considered:

|  |  |
| --- | --- |
| ***Curriculum Vitae* Item** | Score |
| Number of received scholarships (Undergraduate research, Master level, Development)  | 02 points per level  |
| Number of publications in indexed journals. | A1 and A2: 10 pointsB1 and B2: 08 pointsB3 and B4: 05 points  C: 03 points  |
| Patents | 10 points |
| Full or expanded papers in national/ international congresses. | 02 points |
| Number of communications in national/international congresses. | 01 point |
| Number of activities in teaching assistance + Undergraduate Research without scholarship  | 01 point per activity |
| Holder of a Master degree.  | 03 points |

In the case there is a tie after the written test score and the *curriculum vitae* analysis score are added up, the candidate with the highest score in the written test will be given preference. If a tie persists, the candidate that enrolled in the Program first will be given preference

Within 03 days after the final scores and the answer key are announced, the postgraduate student can request a review of the test at the Office of the Department of Chemistry. No requests will be accepted after the deadline. To request a review, the postgraduate student must hand in a written request containing their full name, USP identification number, and the questions they wish to be reviewed.

**Indication for scholarships offered by the Program:** the indication for scholarships granted by CAPES and CNPq, PhD level, by the Postgraduate Studies Program in Chemistry is conditioned by presentation of proof that the postgraduate student applied for a scholarship to other funding agencies (e.g., FAPESP).

**REIMBURSEMENT OF SCHOLARSHIPS:**

According to CAPES Ordinance Nº 52, of 26 September 2002, recipients of scholarships must return all the values they have received during their studies if they quit the program.