

Field name	Description
University	Constantin Brâncuși University of Târgu-Jiu
Faculty	Medical and Behavioral Sciences
Department	Health and Motricity
Position Title List	3
Function	Professor
Disciplines in the Curriculum plan	The chemical bases of drugs; Analytical chemistry and instrumental analysis; The physical -chemical bases of drug preformulation
Scientific field	Pharmacy
Job description	<p>All disciplines from the job structure are included in the curricula of the undergraduate study programs of the faculty.</p> <p>The opportunity of opening this vacancy considered the prospect of re-evaluating the undergraduate program AF in the coming period in view of accreditation.</p> <p>Owing to the A.R.A.C.I.S. standards regarding the ratio of students / number of teachers and permanent teachers of the institution's share in total number of teachers in the functions of teaching staff it is necessary to have competitions for the job of Professor, position 3. At the same time, the opening vacancy for the job of a professor is justified by the need to develop a sustainable human resources policy aimed at strengthening research activities as a fundamental element of the teaching activity. Also, the disciplines in the structure of the above mentioned job are fundamental disciplines for the career development of future graduates of undergraduate degree programs, this being another reason why the teaching and laboratory activities should be carried out by a titular teacher of the institution, well prepared both from a didactic point of view and from the point of view of his/her scientific research.</p>
Tasks	<p>The teaching norm (the disciplines of the job): <i>The chemical bases of drugs</i> - 4 hours teaching activities + 4 hours laboratory; <i>Analytical chemistry and instrumental analysis</i> - 4 hours teaching activities + 4 hours laboratory; <i>The physical-chemical bases of drug preformulation</i> - 2 hours teaching activities; Research - according to Education Law no. 1/2011 and job description, which will be established as an annex to the working contract.</p>
Remuneration	5730 lei
Date of publishing the announcement in the Official Gazette	Official Gazette part a –III - no. 569 from April 28, 2017
Start and end time of application	April 28, 2017 - June 14, 2017
Date, day of week and hour of lecture	June, 30, 2017, Friday, 14:00 a.m
Lecture place	Faculty of Health and Behavioural Sciences, Youth, no. 4, Târgu-Jiu, Gorj
Dates of competition including lecture and courses	June 30, 2017

Date of results announcement	July, 03, 2017
Start and end time of exam appeal	July, 04-08, 2017
Themes of the competition samples	<p>For the candidates from the higher educational system it is checked the accomplishment of minimum standards for occupying the position of professor in agreement with the OMEN no.6560/27.12.2012 and with the Methodology for the tenure of the teaching and research positions of "Constantin Brâncuși" University of Târgu Jiu. Candidates that come from outside the higher educational system have to give an additional public lecture, with the following themes:</p> <p>Discipline: The chemical bases of drugs Themes:</p> <ol style="list-style-type: none"> 1. Classical and modern theories on the structure of the atom. Periodic system of elements. Chemical connections. 2. Aggregation states. Crystalline state. Coordinative compounds. 3. Chemistry of representative type elements „s”, „p” and „d” 4. Bioinorganic chemistry elements. 5. Structure of organic compounds. Electronic effects in organic compounds. Reaction mechanisms. 6. Spectral methods for the analysis of organic compounds 7. Hydrocarbons: alkanes, cycloalkanes, alkenes, alkanes, alkynes, aromatic hydrocarbons. 8. Halogenated compounds. 9. Hydroxyl compounds - alcohols, enols, phenols, ethers. 10. Carbonyl - monocarbonyl and dicarbonyl compounds. 11. Carboxylic compounds - saturated and unsaturated monocarboxylic acids; Dicarboxylic acids; Aromatic acids. 12. Functional derivatives of carboxylic acids: acid halides, acid anhydrides, esters, amides, hydrazides, azides, hydroxamic acids, nitriles, isonitriles. 13. Functional carbonic acid derivatives 14. Stereoisomer of organic compounds 15. Organic nitrogen compounds: nitroderivatives, nitrosoderivatives, amines, diazo compounds 16. Organic sulfur compounds 17. Mixed-function compounds: halogenated, hydroxy acids, phenolic acids, amino acids 18. Carbon Hydrates 19. Heterocyclic compounds pentaatomic and hexaatomic 20. Natural compounds with polyisoprene structure (Isoprenoids) <p>Bibliography:</p> <ol style="list-style-type: none"> 1. Shriver, D. F., ș.a., Chimie Anorganică, Ed. Tehnică, București, 1998. 2. Aldea Victoria, Uivaroși Valentina, Chimie Anorganică, Ed. Medicală, 1999. 3. Nacea, V., Boscencu, R., Chimie anorganică, Vol II, U.M.F. "Carol Davila", București, 2001. 4. Nenițescu D.C., Chimie Organică, vol. I și II, ed. a VIII-

- a, Ed. Didactică și Pedagogică, București, 1987.
5. Avram M., Chimie Organică, ed. a II-a, Editura Zecasin, București, vol.I, 1994, vol. II, 1995.
 6. Saramet I., Radulescu V., Bazele teoretice ale chimiei organice, vol. 1, vol. II, Editura Tehnoplast Company, București, 2006.
 7. Iovu M., Chimie organică, ediția a 5-a, Editura Monitorul Oficial, București, 2005.
 8. Yurkanis B. P., Organic Chemistry, 6th Edition, Prentice Hall, USA, 2011.
 9. Solomons G.T.W., Fryhle C.B., Organic Chemistry, 10th Edition, John Wiley & Sons, Inc., New York, 2011.
 10. McMurry J.E., Organic Chemistry, 8th Edition, Cengage Learning, Belmont, USA, 2012.

Discipline: Analytical chemistry and instrumental analysis

Themes:

1. Reactions and analytical reagents. Analytical properties of ions. Classification and separation of ions.
2. Chemical balance. Protolytic balances. Ions or molecule transfer equilibria. Electron transfer equilibria. Balances in heterogeneous systems. Competitive Balances in Homogeneous Systems.
3. Errors. Statistical treatment of analytical data. Gravimetry.
4. Proton transfer-based titrimetry. Titrimetry based on precipitation formation reactions. Titrimetry by oxidation-reduction reactions. Titrimetry through complexation reactions.
5. Electrochemical methods.
6. Spectrometric analysis methods.
7. Thermal analysis methods.
8. Chromatographic methods of analysis.
9. Separation by extraction. Electrophoretic separations.

Bibliography:

1. Maria-Crina Monciu, Alexandra Neagu, Angela Nedelcu, Corina Aramă, Clementina Constantinescu, Analiză chimică în controlul medicamentului, Editura Medicală, București, 2005.
2. Mihaela Baniceru, Metode fizico-chimice de analiză, Editura Medicală Universitară, Craiova, 2010.
3. Țăntaru G, Apostu M, Bibire N. – Chimie Analitivă Vol. I - Bazele teoretice și practice în analiza calitativă a substanțelor medicamentoase, Ed. Performantica Iași, 2009.
4. Bibire N, Țăntaru G, Apostu M. – Chimie Analitivă Vol. II - Analiza Chimică Cantitativă a substanțelor medicamentoase, Ed. Performantica Iași, 2009.
5. Elizabeth Prichard, Victoria Barwick, Quality Assurance in Analytical Chemistry, John Wiley & Sons, Inc. 2007.
6. Skoog D. A., West D.M., Holler J.F., Crouch S.R.,

Fundamentals of Analytical Chemistry, 9th Edition, Brooks/Cole, CENGAGE Learning, USA, 2014.

7. Gary D. Christian, Purnendu K. Dasgupta, Kevin A. Schug, Analytical Chemistry, 7th Edition, John Wiley & Sons, Inc., 2014.

8. Veronica R. Meyer, Practical high-performance liquid chromatography Ed. John Wiley & Sons, 2000.

9. Skoog D. A., Holler J.F., Crouch S.R., Principles of Instrumental Analysis, 6th Edition, Brooks/Cole, CENGAGE Learning, USA, 2004.

Discipline: Physico-chemical basics of drug preformulation

Themes:

1. Structure and properties of molecules. Electrical, optical and magnetic properties of molecules.

2. Chemical thermodynamics. Elements of chemical thermodynamics applied to the study of the drug.

3. Solutions of non-electrolytes and electrolyte solutions. Transport processes.

4. Preformulation of drugs. The solubility of drugs. Factors who influencing the solubility

5. Relations chemical structure-biological activity. Relations chemical structure-pharmacodynamic properties

6. Reaction of kinetics. Applications for the evaluation of the disposal of pharmaceutical substances in pharmaceutical forms. The stability of the drugs.

7. Photochemical elements. Photophysical processes and photochemical reactions in the study of drugs.

8. Physico-chemistry of colloids and surfaces. Interface phenomena. Adsorption. Applications in preformulation and pharmaceutical formulation studies..

9. Systems dispersed. Colloidal systems. Applications for drug design and study.

10. Polymers and macromolecules. Biomacromolecule.

Bibliography:

1. P. W. Atkins, *Tratat de Chimie Fizică*, Editura Tehnică, 1996.

2. C.E. Dinu-Pîrvu – *Chimia fizică a medicamentului. Elemente de termodinamică chimică*, Editura Printech, București, 2013.

3. L. Popa, M.V. Ghica, *Chimia-Fizică a medicamentului, Vol. I – Cinetică Chimică, Sisteme Disperse*, Editura Printech, București, 2013.

4. M.V. Ghica, L. Popa, *Chimia-Fizică a medicamentului Vol. II – Fizico-chimia suprafețelor, Reologia sistemelor disperse, Elemente de fotochimie*, Editura Printech, București, 2013.

5. A.T. Florence, D. Attwood, “*Physicochemical principles of pharmacy*”, 5th Edition, Pharmaceutical Press, 2011.

6. *Martin's Physical Pharmacy and Pharmaceutical Sciences: Physical Chemical and Biopharmaceutical Principles in the Pharmaceutical Sciences*, Lippincott

	<p>Williams & Wilkins, 2006.</p> <p>7. L. Popa, M.V. Ghica, Șt. Moiescu, Biodisponibilitatea medicamentului – Proprietăți moleculare, procese fizico-chimice și fiziologice care controlează absorbția/biodisponibilitatea medicamentului, Editura Printech, București, 2013.</p> <p>8. Remington: The Science and Practice of Pharmacy, Lippincott Williams & Wilkins; Twenty first Edition, 2005.</p>
<p>Competition description procedure</p>	<p>The framework methodology of the contest to apply for teaching and research positions in the higher education approved by Government decision No. 457 of 04.05.2011, with all further corrections, the National Education Law no. 1/2011 and Methodology to apply for teaching and research positions within "Constantin Brâncuși " University of Tîrgu-Jiu. and research of University "Constantin Brâncuși" from Târgu-Jiu</p>
<p>List of documents</p>	<p>In order to take part in the contest and to apply for a teaching position, the candidate must supply a detailed file containing the following documents:</p> <p>A1. The application for entry in the contest, signed by the candidate accompanied by a statement on his own responsibility regarding the veracity of the information submitted in in the file.</p> <p>A2. Proposal of university career development of the candidate both from teaching and scientific research point of view; the proposal shall be drawn up by the applicant, shall include up to 10 pages and is one of the main criteria to separate candidates.</p> <p>A.3. Curriculum vitae of the applicant, should include information on:</p> <ul style="list-style-type: none"> a) informations about studies carried out, and the diplomas obtained; b) informations about professional experience and relevant workplaces; c) informations about projects of research and development on which he has run as a director of project in which he was a member, by specifying for each source of funding; d) informations about awards or other items for the recognition of the applicant's scientific contributions. <p>A4. List of scientific papers of the candidate in print format (signed by every page):</p> <ul style="list-style-type: none"> a) list of no more than 10 works considered by candidate to be the most relevant for his/her own professional achievements, which are included in electronic format in the file and that can be found in the other category of works provided by the present article; b) doctoral thesis or theses; c) patents and other intellectual and industrial property rights; d) books and chapters in books; e) articles/studies in extenso, published in magazines from main international scientific flow; f) publications in extenso, published in the works of the main specialized international conferences;

g) other works and scientific contributions or, as appropriate, creative artistic works.

It recommends giving all useful information for identification of the publication in question, such as journal title (including ISSN), rated (Factor Impact on last year), volume, page, the name and place of publisher, hyperlink ISI indexed, hyperlinked work ISI, hyperlink BDI indexed journal, indexed BDI hyperlink paper indicating those databases, etc. This information is absolutely necessary for the candidate selected works in (a) and the supporting performance by candidate minimum standards, CBU and national specific to each position.

A5. Statement of standards fulfillment requirements for the contest of job position, fill up and signed by the candidate, in printed form (original, signed by each page);

A6. Documents relate to the degree of doctor (certified copy of doctoral diploma and if the original doctoral diploma is not recognized in Romania, the certificate of its recognition or equivalence, in authenticated copy or the copy of Ministerial Order confirming award of PhD);

A7. The summary of doctoral thesis in Romanian and in a foreign language (maximum one page for each language);

A8. Other diplomas certifying the candidate's studies: copies of other diplomas attesting the applicant's studies (degree, Bachelor, Master/Postgraduate, certificate attesting phsiho-pedagogical study if original diplomas are not recognized in Romania, the certificates of recognition or equivalence; copies of other diplomas attesting the applicant's studies. The copies are signed by candidate for certification "according to the original";

A9. Transcripts of records, supplements of diploma papers or school situations issued for each cycle of studies;

A10. Copy of the identity card;

A11. Copies of documents evidencing the change of name, if is applicable (certificate of marriage or proof for the change of name);

A12. Personal statement of the applicants that they are not in any circumstances of incompatibility laid down in Law 1/2011, the Law of National Education and the Framework Methodology issued at national level.

A13. Medical certificate attesting that the candidate is able to carry out educational activity;

A14. The referrers list with contact details of their (for associate professor and professor positions): at least 3 personalities in the same subject, from Romania or abroad, outside CBU, who agreed to write letters of recommendation regarding the candidate's professional qualities;

A15. The proof of the fee payment to apply for the position;

A16. Statement of assuming full responsibility, in original, (holograph) signed by the candidate (the declaration must to assume correctness of the data included in the file and the fact they refer to his /her own activities and achievements, otherwise the candidate facing the consequences of false statements, according to the law);

	<p>A17. The portofolio including maximum 10 of the candidate's papers considered to be the most representative, scanned on electronic support (CD). Besides, the electronic support will include, also, the list of candidate's papers according to A4, in Word format. The application file must have cover page and contents.</p> <p>In the case of the contest shall be attached a CD/DVD, or other electronic format, with all its contents scanned, including the portfolio with the 10 most representative papers, for transmission to the Commission of the contest.</p>
Address where the competition file will be sent	"Constantin Brâncuși" University of Târgu-Jiu, no.36, Unirii Street , Târgu-Jiu, Gorj County
Commission	
Methodology	Uploading files .doc, .docx or PDF . The maximum accepted size of file is 10MB .