



UNIVERSITY "PROF. DR ASEN ZLATAROV"

Department of "Pedagogy of Teaching"

STATEMENT



Regarding the competition for the academic position of “Associate Professor”

Field of Higher Education: 1. Pedagogical Sciences

Professional Field: 1.3. Pedagogy of teaching (Pedagogy of Teaching Chemistry and Environmental Protection)

Candidate: Chief Assistant Professor, PhD Eng. Hristivelina Kostadinova
Zhecheva

Author of the Statement: Prof. Dr Rumyana Papancheva, University “Prof. Dr Asen Zlatarov”, Burgas. (According order No. RD-341 dated 22.10.2024 of the Rector of “Prof. Dr. Asen Zlatarov” University)

1. Description of the Competition Procedure

In the announced competition for the academic position of “Associate Professor” in professional field 1.3. Pedagogy of Teaching (Pedagogy of Teaching Chemistry and Environmental Protection), announced by the Department of “Pedagogy of Teaching” at the Faculty of Social Sciences for the needs of the Department of “Chemistry” at the Faculty of Natural Sciences, University “Prof. Dr. Asen Zlatarov”, Burgas, published in the Official Journal of Republic of Bulgaria, issue No. 70 of August 20, 2024, there is one candidate: Chief Assistant Professor Dr. Eng. Hristivelina Kostadinova Zhecheva.

The documents submitted by Chief Assistant Professor Dr. Eng. Hristivelina Kostadinova Zhecheva for participation in the competition demonstrate that the procedure for its announcement and opening was followed and that they comply with the requirements of the Law on the Development of Academic Staff in the Republic of Bulgaria and the related Regulations, as well as the Regulations for the Conditions and Procedures for Acquiring Academic Degrees and Occupying Academic Positions at the University “Prof. Dr. Asen Zlatarov”, Burgas.

2. Biographical Data of the Candidate

Hristivelina Zhecheva completed her secondary education at Ivan Vazov Secondary School, Burgas.

In 1992, she graduated in “Silicate Technology” at the Higher Chemical Technological Institute “Prof. Dr. Asen Zlatarov” with a qualification of “Chemical



Engineer". In 1997, she completed a master's program in "Chemistry" at the University "Prof. Dr. Asen Zlatarov" with a qualification of "Chemist. Chemistry Teacher".

In 2011, the Higher Attestation Commission awarded her the educational and scientific degree of "Doctor" in the scientific specialty 05.07.03. "Pedagogy of Teaching Chemistry and Environmental Protection".

From 1997 to 2013, she worked as a chemistry teacher at Technical School of Industrial Chemistry "N. Zelinsky" (now Profecional School of Chemical Technologies "Acad. N. D. Zelinsky").

Since 2013, Hristivelina Zhecheva has been working at the University "Prof. Dr. Asen Zlatarov" as an Assistant, and since June 2014, she has been a Chief Assistant Professor. She teaches core disciplines related to developing students' knowledge in the pedagogy of teaching chemistry and environmental protection: Methodology of Chemistry Teaching, Methodology of Chemistry Experimentation, Methodology of Teaching "Man and Nature", Interactive Technologies in Education, teaching practices, and others.

3. Scientometric Indicators

According to the Regulations for the Conditions and Procedures for Acquiring Academic Degrees and Occupying Academic Positions at the University "Prof. Dr. Asen Zlatarov," Burgas, the scientometric indicators of Chief Assistant Professor Dr. Eng. Hristivelina Kostadinova Zhecheva for the academic position of "Associate Professor" are as follows:

Indicator "A" – (Fulfilled – Ph.D.) – **50 points**

Indicator "B" is not required for this position.

Indicator "C" – monography submitted as habilitation work (Fulfilled – monographic work presented "Educational Design – from General Models to Specific Pedagogical Practices in Chemistry", 2021) – **100 points**

Indicator "D" –

- Published monograph not presented as the main habilitation work (100 points) – not presented – 0 points
- Published book based on a dissertation (for the award of the Ph.D. or Doctor of Science degree) (75 points) – not presented – 0 points
- Articles and reports published in scientific journals, referenced and indexed in global scientific databases (30 points each) – not presented – 0 points



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- Articles and reports published in non-indexed journals with scientific peer review or in edited collective volumes (10 points each) – **45 articles presented, 9 of which are co-authored – 401.7 points**
- Studies published in scientific journals, referenced and indexed in global scientific databases (45 points each) – not presented – 0 points
- Studies published in non-referenced journals with scientific peer review or in edited collective volumes (15 points each) – not presented -- 0 points
- Published chapter from a collective monograph (20 points each) – not presented – 0 points

Total points for Group "D": 401,7 points (minimum requirement – 400 points)

Indicators from Group "E":

- Citations or reviews in scientific journals, referenced and indexed in global scientific databases, or in monographs and collective volumes (15 points each) – **1 citation – 15 points**
- Citations in monographs and collective volumes with scientific peer review (10 points each) – **6 citations – 60 points**
- Citations or reviews in non-referenced journals with scientific peer review (5 points each) – **5 citations – 25 points**

Total points for Indicator "E": 100 points (minimum requirement – 100 points)

Indicators from Group "F":

- Acquired scientific degree "Doctor of Science" (40 points) – not presented – 0 points
- Supervision of a successfully defended doctoral student (40/n points) – not presented – 0 points
- Participation in a national scientific or educational project (15 points each) – **information for 1 project presented – 15 points**
- Participation in an international scientific or educational project (20 points each) – not presented – 0 points
- Leadership of a national scientific or educational project (30 points each) – not presented – 0 points
- Leadership of an international scientific or educational project (40 points each) – not presented – 0 points
- Published university textbook or textbook used in the school network (40 points each) – **information for 1 textbook presented – 40 points**



- Published university teaching aid or teaching aid used in the school network (20 points each) – not presented – 0 points

Total points for Group "F": 55 points (minimum requirement – 50 points)

Total points from indicators A–F: 706,7 points, with a minimum requirement of 700 points.

The presented scientific output by Chief Assistant Professor Dr. Eng. Hristivelina Kostadinova Zhecheva corresponds to the scientometric criteria established by the Regulations for Acquiring Academic Degrees and Academic Positions at the University "Prof. Dr. Asen Zlatarov," Burgas.

4. Research Areas and Scientific Contributions

The candidate highlighted contributions in four thematic areas of her research, summarized in two main contributions:

1. Theoretical-applied – educational design in teaching chemistry in secondary schools.
2. Practical-applied – experimental work in chemistry and environmental protection at the lower and upper secondary levels.

The monographic study addresses the topic of educational design. A thorough theoretical analysis and historical review of the development of educational design and its models have been conducted. A detailed presentation and comparative analysis of two models – those of M. David Merrill and Robert Gagné – are provided. Based on these models, the candidate developed and experimented with a chemistry teaching design for the 10th grade. In the monographic study, the candidate transitions from general theoretical research to specific pedagogical practices.

The presented scientific output reflects the precise work of a scholar capable of utilizing scientific sources, systematizing and summarizing information, and drawing scientifically substantiated and validated conclusions. The monographic study cites 192 sources, over 80% of which are in foreign languages.

The second major focus of the candidate's work is the chemistry experiment, examining various aspects of its implementation, including methodological guidelines, health and environmental aspects, and the development of personal competencies in learners. In the university textbook submitted by Chief Assistant Professor Dr. Zhecheva, specific experiments in general and inorganic chemistry are proposed. The methodological resources emphasize sparking interest in science, creating emotional engagement with learners, and enhancing motivation to learn. The experiments focus on minimizing health and environmental risks. The practical outcomes have been applied



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in practice through the training of students – future teachers – and through professional development courses for teachers.

The candidate's theoretical and practical contributions have been published in 45 articles, 15 of which were published abroad in Russian or English.

Chief Assistant Professor Dr. Eng. Hristivelina Kostadinova Zhecheva has participated in 10 projects during the period 2013–2024, six of which were conducted within the framework of the meticulous at the University "Prof. Dr. Asen Zlatarov", Burgas.

The candidate stands out for her extensive experience in the methodology of teaching chemistry and environmental protection, evidenced by positive feedback on Dr. Zhecheva's work from school teams, her involvement in organizing numerous scientific forums and practical seminars, the development of curricula, and her active teaching activities.

5. Critical Remarks, Recommendations, Questions

The literature used includes a rich collection of authors and fundamental pedagogical studies. However, it is noteworthy that approximately 70% of the sources are from before the year 2000, and less than 15% of the cited sources are from the last 10 years.

A recommendation to the candidate is to increase both the quantity and quality of her publication activity. None of the presented articles have been published in sources referenced and indexed in global scientific databases. The publications are limited to a few journals where the candidate traditionally publishes – 7 of the articles are from conferences at Sofia University "St. Kliment Ohridski", and 6 are from conferences organized by the Institute for Knowledge, Science, and Innovation in Veliko Tarnovo. Ten of the foreign publications are from participation in the same international conference in Moscow.

6. Conclusion

Based on the materials submitted for the competition, I believe that the candidate Chief Assistant Professor Dr. Eng. Hristivelina Kostadinova Zhecheva meets the criteria for the academic position of "Associate Professor" as defined by the Law on the Development of Academic Staff in the Republic of Bulgaria and the related Regulations, as well as the Regulations for the Conditions and Procedures for Acquiring Academic Degrees and Occupying Academic Positions at the University "Prof. Dr. Asen Zlatarov," Burgas.

I propose to the esteemed members of the Scientific Jury to vote positively and recommend to the Faculty Council of the Faculty of Social Sciences at the University



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"Prof. Dr. Asen Zlatarov", Burgas, to elect Chief Assistant Professor Dr. Eng. Hristivelina Kostadinova Zhecheva to the academic position of "Associate Professor" in professional field 1.3. Pedagogy of Teaching (Pedagogy of Teaching Chemistry and Environmental Protection)

Date: 02.01.2025

Burgas

Member of the Scientific Jury:

Prof. Dr. Romyana Papancheva