

## **REVIEW**

**by Prof. Gabriela Nikolova Kirova, PhD  
from the Faculty of Educational Sciences and the Arts at the University of "St. Climent  
Ohridski"**

**regarding the competition for the academic position of "professor",  
in the field of higher education 1. Pedagogical sciences,  
professional direction 1.3. Pedagogy of teaching in... (Methodology of teaching  
mathematics in elementary grades)  
for the needs of "Konstantin Preslavsky" University of Shumen,  
Faculty of Pedagogy, Department "Preschool and Primary School Pedagogy",  
announced in the Official Gazette, p. 82 of 14.10.2022**

### **1. Compliance of the procedure and the submitted documentation with the current regulations**

In State Gazette No. 82 of 14.10.2022, a competition was announced for the selection of a "professor" in Professional field 1.3. Pedagogy of teaching in ... (Methodology of teaching mathematics in elementary grades) for the needs of the Faculty of Pedagogy (FP) at the "Konstantin Preslavsky" University of Shumen (SHU). Associate Professor Kalina Ivanova Alexieva, PhD is the only candidate in the competition. The present review was prepared on the basis of Order RD-16-293/05.12.2022, of the Rector of the "K. Preslavsky" - Prof. Georgi Kolev, DSc, in accordance with Art. 80, para. (1) and para. (2) of the Regulations for the development of the academic staff at "K. Preslavski", University of Shumen, Art. 57 and Art. 62 of the Regulations for the Implementation of the Law on the Development of the Academic Staff in the Republic of Bulgaria (LDASRB) Art. 29a, on the basis of a decision of the Faculty Council of the Faculty of Pedagogy of the SHU (Protocol No. FD-02-03/22.11.2022) and in connection with a report of the dean of the Faculty of Pedagogy at the SHU. The commission has unanimously found that all the necessary documents for participation in the competition are available and the candidate meets the conditions for eligibility and the commission allows him to participate in the competition. Based on the Minutes of the first meeting of the Scientific Jury dated 19.12.2022, a check was carried out for the admission of the candidate to assessment in accordance with the minimum national requirements and the additional requirements of the SHU. The scientific jury has verified the compliance of the reference submitted by the candidate with the minimum national requirements and with the additional requirements of the SHU. The scientific jury unanimously decided that the candidate meets the minimum national requirements under Art. 25, para. 2 and 3 of the Law on the Development of the Academic Staff in the Republic of Bulgaria (LDASRB) on the basis of all the documents submitted by the candidate. There is no proven plagiarism in the scientific works according to the law.

As a member of the Scientific Jury, I have not found any procedural violations. I got access to the documents and materials of the only candidate in the competition, Assoc. Prof. Kalina Ivanova Aleksieva, PhD, within the stipulated period of 3 days after the deadline for submitting the documents, which are precisely formatted and allow for an objective and complete assessment in accordance with the requirements of LDASRB and the Regulations for its application, as well as the Regulations for the development of the academic staff at the "K. Preslavsky" University of Shumen.

## **2. General presentation of the candidate**

I have known and actively cooperated professionally with my colleague Assoc. Prof. Kalina Alexieva, PhD since 2017. This fact gives me the reason to claim that I have a broad view of her biography in at least three directions - as a teacher, as a researcher and as an organizer of the learning process.

Kalina Alexieva graduated from the "Ivan Vazov" Mathematical High School in the town of Dobrich (Tolbukhin) in 1979 and has completed two master's degrees at the SHU: Master's degree in 1986, majoring in Mathematics (mathematics teacher) and Master's degree in 2014, majoring in Pedagogical rehabilitation of mental retardation (teacher of persons with special educational needs). Since September 28, 2018, she holds the educational and scientific degree "Doctor" in the Field of Higher Education 1. Pedagogical Sciences, professional direction 1.3. Pedagogy of teaching in ... (Methodology of teaching mathematics and informatics). Her dissertation is on the topic "The ideas of Alexander Madzharov in the context of modern mathematics education". In 2020, she was elected as an associate professor at the "K. Preslavsky" in the field of higher education 1. Pedagogical sciences, Professional direction 1.3. Pedagogy of teaching in... (Methodology of teaching mathematics in the initial stage of education).

Professionally, the candidate K. Aleksieva has been fully associated with work at the Shumen University since 1986, having successively held the positions of technical assistant, part-time assistant, coordinator, expert, assistant, chief assistant and associate professor (the latter from 2020 to the present). The area of her prominent and enduring scientific and teaching interests is the teaching of mathematics at primary school age, at preschool age, as well as children with special educational needs.

In her work in the positions she has held so far, Kalina Alexieva has established herself as an extremely capable organizer and leader. At the moment, she holds the position of head of the "Preschool and Primary School Pedagogy" department at the FP of the SHU. In this position, Associate Professor Alexieva shows her energy, responsibility and perseverance.

Assoc. Prof. Kalina Alexieva, PhD participated in 6 publishing teams of scientific publications, in an expert group for higher education in mathematics for the IV grade at the Ministry of Education and Science (2020-2021), was a member of scientific juries, author of reviews and statements. She has participated in the development of curricula, lecture courses, seminars and laboratory exercises in a face-to-face and electronic environment of postgraduate training. She also participated in the development of curricula for the "Bachelor's" and "Master's" courses administered by the "Preschool and Primary School Pedagogy" department. Assoc. Prof. Alexieva, PhD works actively and supervises diploma theses of students and doctoral students, specialists and teachers for the acquisition of a professional qualification degree (PQD). Currently, she supervises two doctoral students at the "K. Preslavsky" with working topics "Interactive resources in the mathematics education of 5-7-year-old children" and "Integration of multimedia resources in the creative work on text tasks in mathematics education (III - IV grades)".

### 3. Teaching activity

During her long teaching career at the “Konstantin Preslavsky” University of Shumen, Faculty of Pedagogy, Prof. Kalina Alexieva has had full academic classroom and extracurricular employment, leading the following scientific disciplines, which fully correspond to the profile of the current competition:

#### "BACHELOR's" degree

1. "Methodology of teaching mathematics in primary school" (Lectures (L), Seminar Exercises (SE)), specialty "Preschool and Primary School Pedagogy" and “Primary School Pedagogy with a Foreign Language”, III year, full-time study,
2. Observation and Current Pedagogical Practise in Primary Schools and kindergartens, specialty " Preschool and Primary School Pedagogy ", " Primary School Pedagogy with a Foreign Language " and "Preschool Pedagogy", full-time study,
3. "Internship practice in Primary Schools and kindergartens ", State Practical-Applied Exam - specialty " Preschool and Primary School Pedagogy ", " Primary School Pedagogy with a Foreign Language " and " Preschool Pedagogy ", IV year, full-time study,
4. "Theory and methodology of teaching mathematics for children with SEN" (L) - specialty "Special pedagogy", III year, full-time study.

#### Master's Degree

1. "Methodology of teaching mathematics in Primary Stage of Education (PSE)", (L and SE), specialty " Preschool and Primary School Pedagogy ", master's program "Innovations in primary education", part-time study,
2. "Teaching content of mathematics education in PSE", (L), specialty " Preschool and Primary School Pedagogy ", master's program "Innovations in primary education", part-time study,
3. "Current problems of teaching mathematics in PSE", (L, SE), specialty " Preschool and Primary School Pedagogy ", master's program "Innovations in primary education", part-time study,
- 4 Elective course "Elective training in mathematics in PSE" (L, SE), specialty " Preschool and Primary School Pedagogy ", master's program "Innovations in primary education", part-time study,
- 5 Elective discipline "Creative work on text tasks in PSE" (L, SE), specialty " Preschool and Primary School Pedagogy ", master's program "Innovations in primary education", part-time study,
6. "Current problems of teaching mathematics in kindergarten and primary school", (L and SE), II year, specialty " Preschool and Primary School Pedagogy ", master's program "Innovations in preschool and primary education", "Innovations in preschool education", distance learning,

7. Elective course "Diagnostics of mathematical knowledge in kindergarten" (L, SE), specialty " Preschool and Primary School Pedagogy ", master's program "Innovations in preschool and primary education", "Innovations in preschool education", part-time study,

8. "Internship practice", State Practical-Applied Exam, specialty " Preschool and Primary School Pedagogy ", master's program "Innovations in primary education", part-time study.

#### **4. Scientific research activity**

An important professional characteristic of the candidate in the current competition is her active and extremely successful participation in research projects. She has participated in 8 national projects as a researcher and/or trainer, as well as a research scientist in 5 internal university projects (for the last 5 years), one of which she is the leader of. I could recommend that the candidate for the current competition engage in the management of scientific research projects in her future work, for which she has the necessary competencies.

##### National projects:

1. Project "Supporting the educational process of children with special educational needs in the municipality of Kazanlak" financed under the OP "Development of human resources" with contract BG051PO001-4.1.04-0027 - Municipality of Kazanlak and the Department of "Special Pedagogy" at the Faculty of Pedagogy of "Konstantin Preslavsky" University of Shumen, 2012. Participating trainer

2. Project BG051PO001-4.1.04-0131 "Training and instruction of teachers and specialists with pedagogical functions for assessing and meeting the educational needs of children with SEN" - Municipality of Veliko Tarnovo and Department of "Special Pedagogy" at the Faculty of Pedagogy of the "Konstantin Preslavsky" University of Shumen, 2012. Participating trainer

3. Training and qualification of teachers from the city of Dobrich under project BG051PO001-4.1.04-0019 "Come into my world", financed under the OP "Development of human resources" - Municipality of Dobrich and Department of "Special Pedagogy" at the Faculty of Pedagogy of "Konstantin Preslavsky" University of Shumen, 2012. Participating trainer

4. Project BG051PO001-3.1.03-0001 "Qualification of pedagogical specialists" on the topic: Training of pedagogical specialists from kindergartens and elementary schools to work with children with special educational needs, 2013. Participating trainer

5. Project BG051PO001-4.2.03-1010 "We invest in our future", implemented with the financial support of the Operational Program "Human Resources Development" 2007 - 2013, co-financed by the European Social Fund of the European Union. Participating Trainer

6. Project BG051PO001-3.3.07-0002 "Student internships" carried out with the financial support of the Operational Program "Development of Human Resources", co-financed

by the European Social Fund of the European Union, 2013-2014, Project manager: Prof. Margarita Georgieva, DSc, Team member - expert

7. Project BG05M2OP001-2.002-0001 "Student internships Phase 1", financed under the Operational Program "Science and Education for Smart Growth" 2014-2020, Project Manager: Prof. Georgi Velkov Kolev, DSc, project period: 2016-2018, Team member - functional expert

8. Project BG05M2OP001-2.013-0001 "Student internships Phase 2", financed under the Operational Program "Science and Education for Smart Growth" 2014-2020, Project manager: Prof. Georgi Kolev, DSc, project period: 2020-2023, Team member - functional expert

#### *Intra-university projects for the period 2018-2022.*

- "Contemporary aspects of the educational discourse", RD-08-130/07.02.2018, financed by the Scientific Research Fund of the "K. Preslavsky" University of Shumen; Department of Technical Training and Professional Education (TTPE) and Prechool and Primary School Pedagogy (PPSP) at the Faculty of Pedagogy. Project leader: Assoc. Prof. Svetla Petkova, PhD. Researcher Participant
- "Modern Aspects of Pedagogical Communication", RD-08-81/31.01.2019, financed by the Scientific Research Fund, Department of TTPE and PPSP at the PF of "Konstantin Preslavsky" SHU. Project leader: Assoc. Prof. Snezhanka Dobрева, PhD. Researcher Participant
- "Challenges to competence-oriented education" RD-08-153/05.02.2020, financed by the Scientific Research Fund, Department of TTPE and PPSP at the PF of "K. Preslavsky" SHU. Project leader: Assoc. Prof. Snezhanka Dobрева, PhD. Researcher Participant.
- "The competence approach in education - traditions and innovations" RD-08-120/03.02.2021, financed by the Scientific Research Fund of the SHU, Department of TTPE and PPSP at the PF of the "K. Preslavsky" SHU. Project leader: Assoc. Prof. Snezhanka Dobрева, PhD. Researcher Participant
- "The competence approach as an alternative to the challenges of the 21st century, RD-08-150/04.03.2022. PPSP Department at the SHU, financed by the Scientific Research Fund of the "K. Preslavsky" SHU. *Project manager: Associate Professor Kalina Alexieva, PhD, participant researcher.*

## **5. Scientific output**

### **5.1. Compliance with the scientometric indicators for occupying the academic position**

Evidence of scientific production, participation in scientific research projects, citations, supervision of doctoral students submitted by the candidate for participation in the competition fully meet and exceed the minimum national requirements required by the LDASRB and the Regulations for the development of the academic staff at "K. Preslavsky" University of Shumen. Thus, with a required total minimum of 550 points for all indicators, she presents evidence of over 800 points (865 points).

Group A, indicator 1 – candidate points 50 (with a minimum of 50).

Group B, indicator 3 – candidate points 100 (with a minimum of 100).

Group D, indicators 4-10 - candidate's points 220 (with a minimum of 200).

Group D, indicators 11-13 – candidate's points 335 (with a minimum of 100).

Group E, indicators 15-21 - candidate's points 160 (with a minimum of 100).

## **5.2. Content analysis of the presented scientific works for participation in the competition**

In total, the scientific output of Associate Professor Kalina Alexieva, PhD includes one dissertation, 3 monographs, one textbook for higher education institutions, 45 articles and reports, one study.

To participate in the competition for professorship, Assoc. Prof. Kalina Alexieva, PhD submitted an extensive list of scientific works, of which: one habilitation thesis (monograph), one monograph based on a defended dissertation, 15 articles and reports published in non-refereed journals with peer reviewed or published in edited collective volumes.

The applicability of the scientific publications of the candidate, Assoc. Prof. Kalina Alexieva, PhD, is also indicated by their numerous citations in various publications. For the competition, she has indicated one citation in scientific publications, referenced and indexed in world-renowned scientific information databases or in monographs and collective volumes, 29 citations in monographs and collective volumes with peer review and 6 citations in non-refereed journals with peer review.

With their thematic orientation and contribution nature, the publications of Associate Professor Kalina Alexieva, PhD enrich the theory and practice in the field of mathematics methodology in the initial stage of the primary state of education.

With the greatest weight among the scientific output of the candidate, Associate Professor Alexieva, is her habilitation thesis "Modeling and Visualization in Creative Work in Mathematics" from the year 2022. In it, first of all, an analysis of a number of theoretical developments, studied in methodological and pedagogical sources, related to modeling and visualization in the teaching of mathematics at the elementary stage is presented. An author's didactic model of experiential-experimental training was developed with students from the pedagogical specialties for applying the didactic modeling method in solving different types of tasks. The model was implemented sequentially, with different courses of learners. On this basis, objective conclusions are formulated, which are important for the successful preparation

of future primary teachers for working with models in teaching children of primary school age to solve elementary and compound text tasks. The author's work includes structural models, which are represented by an Euler-Venn diagram (13 tasks), structural-functional models, presented by box and arrow diagrams (21 tasks) and by a drawing (16 tasks), and mathematical-logical models, presented by tables (26 problems of Diophantine equations and 20 logic problems) and with a tree diagram (12 problems). Also valuable are the exemplary structural and structural-functional models presented by the author at the end of each paragraph. With its thoroughness, the research presented in this monograph has no analogue in modern methodological literature in our country and has a marked contribution regarding the application of modeling and its relationship with graphic visualization in mathematics education at primary school age.

The monograph of K. Aleksieva, published in 2022, which was not presented as the main habilitation work with the title: "Didactic-methodological technologies for the formation of elementary mathematical concepts", is also distinguishable.

This book presents a large-scale comparative study of didactic technologies for the formation of basic mathematical concepts, which are of key importance for the formation of mathematical competence. Following the scientific achievements of Alexander Madzharov on this problem, the author develops a comprehensive concept of didactic-methodological technologies for the formation of basic mathematical concepts in the light of the current educational reform. The book presents a complete and in-depth content analysis of the educational documentation for the teaching of mathematics in the 1st - 4th grades. Important conclusions related to the mathematical preparation, readiness for school and measuring the achievements of modern seven-year-old children are outlined - problems related to the realization of continuity of the transition from preschool to school education.

Some of the scientific publications of Assoc. Prof. Kalina Alexieva have a practical and applied nature. They are dedicated to the application of specific methods in solving creative, developmental and logical tasks - an element of the current educational content in Bulgarian textbooks and learning aids in mathematics for the elementary stage. There are such publications dedicated to the method of inversion or the method of inverse actions (for solving the so-called "crab" tasks), and the author offers the development of a wide range of her own tasks, illustrated with the corresponding graphic models.

In the scientific production of the candidate, we find a marked interest in the topic of creative work with text tasks and especially in the composition of tasks by students in direct and indirect form. There are 12 options for composing text tasks by: graphic model, abbreviated record, schematic model, mathematical model, data from a table, etc., which are extremely diverse in content and plot. It is also worth noting the studies of Assoc. Prof. Alexieva, popularized in scientific publications, on the key topic of the 3rd and 4th grade mathematics curriculum - the indirect text tasks. Her comparative studies of current mathematics textbooks and proposed methodological approaches for working with this particular educational content have no analogue in modern methodological developments in our country.

In one of her scientific publications, Kalina Alexieva comparatively analyzes the system of creative exercises on text tasks through the prism of the current curriculum and the seven active mathematics textbooks for the fourth grade.

Another of the publications presented at the contest is dedicated to the system of text tasks in the mathematics curriculum. This is a representative and in-depth comparative study, based on which significant and objective conclusions and recommendations are formulated.

The topic of visualization and more specifically of graphic models in solving text problems is one of the leading ones in the scientific research of Kalina Alexieva. One of the emblematic publications in the documents of the competition "The drawing as a means of visualization in the creative work on textual tasks" is dedicated to graphic models and working with them. The article presents nine sample tasks that illustrate different options for visualizing mathematical and practical tasks set using a drawing, as well as the visualization of their solutions and answers.

In another of her publications, K. Alexieva examines and presents examples of working with models such as: establishing correspondence between a model and a text task; compilation of tasks according to a given model; discovering new connections between what is given and what is sought after building a model of a given task and its solution; assembling the individual components of the tasks and relating the resulting tasks to a schematic and mathematical model; according to a given model and from several formulated tasks to determine the one that corresponds to the model, etc.

One of the studies of a practical-applied nature is the possibility presented by the author to model and visualize mathematics tasks in different ways - tabular, with Euler-Venn diagrams, graph-tree diagram, square and arrow diagram, drawings, graphs, "magic segments" and other graphical and symbolic means.

Another of Assoc. Prof. K. Aleksieva's publications is devoted to Euler-Venn diagrams and their application in solving four types of problems. The methodical development of this topic was done with the aim of improving the preparation of students - future elementary teachers for working with graphic models.

The focus of the candidate's scientific pursuits is the content provision of the elective mathematics lessons, as well as the application of Diophantine equations in solving creative tasks in the elective mathematics lessons. In the publication, a system of six groups of exercises is structured and an author's system of twelve types of problems, which can be successfully solved using Diophantine equations, is presented. These are tasks with a direct impact on the development of creative and logical thinking of students of primary school age.

In the only co-authored publication "Games with mathematical content for children with special educational needs according to the method of M. Montessori", presented by Assoc. Prof. Alexieva, emphasises the application of didactic games in teaching children with SEN, which games are in a certain system and their impact on the various aspects of the development of these children is monitored.

In two of the presented publications on the competition, the leading topic and of a contributing nature is the measurement of mathematical knowledge, skills and competences at the end of a preparatory preschool group and, moreover, at the beginning of the first grade. Used and tested twice, it is an author's diagnostic toolkit that proves its effectiveness and applicability in practice.



## **6. Scientific-theoretical, experimental-research and practical-applied contributions**

The contributions of the author publications proposed for the competition for the academic position of "professor" can be summarized as follows:

### **Scientific and theoretical contributions**

A competent, in-depth and methodologically sound analysis of theoretical statements and concepts of Bulgarian and foreign scientists on problems related to the formation of elementary (basic) mathematical concepts was made. General and special issues are analyzed, didactic-methodical technologies and solutions are proposed in the context of modern educational concepts;

In a comparative historical-pedagogical plan, a comparative description of well-established methodological systems for the formation of initial mathematical concepts (number, arithmetic operations with numbers, properties) and the structuring of the educational content in mathematics in grades I-IV from the 1970s until the last educational reform in Bulgaria is presented. The trends for the improvement of the mathematical educational content in terms of volume and content in the initial stage of the basic educational degree have been deduced;

A theoretical analysis of concepts and views of a number of researchers regarding the modernization of elementary mathematics education through the method of mathematical modeling was made. A broad comparative analysis of the author's theoretical positions on the relationship of mathematical modeling with the principle of visualization in mathematics education was made;

The basic requirements, principles and rules that must be followed in the construction of any system of tasks in order to contribute to the development of mathematical thinking as an element of mathematical abilities have been derived;

The application of didactic modeling is theoretically justified as the main and leading method of knowledge in mathematics education with a key role in increasing the mathematical competence of learners.

Based on the results of the theoretical-systemic research, an author's concept for the experimental-research work was developed, the structural components of which are reflected in the published scientific works. This concept has been tested in a real educational process. As a result, the content of the university course on the elective subject Current problems in the teaching of mathematics at the initial stage of education and the Elective training in mathematics at the initial stage of education for "Bachelor's" and "Master's" degrees was updated and enriched.

### **Contributions in experimental research plan**

Systems of tasks have been created on 6 main topics in the field of structural and structural-functional modeling in creative work in mathematics: modeling with Euler-Ven diagram; modeling with a box-and-arrow diagram; modeling with sections and graphs; modeling Diophantine equations by matrix diagram; modeling logical tasks using a matrix diagram (table) and modeling combinatorial tasks using a tree diagram (graph-tree).

### **Contributions in a practical-applied plan**

For the development of mathematical abilities and the intellectual development of students of primary school age, various systems have been developed and tested in the learning process with the students – future teachers: creative exercises for working on ready-made models of text tasks; creative exercises on building text problem models; variant tasks for composing text tasks by: abbreviated record, schematic model, graphic model, by data from a table, by mathematical model, etc. On the basis of these developments, the content of the university course on the Methodology of teaching mathematics in elementary school has been updated, and in particular the section Creative work on text problems in mathematics in I - IV grades for "Bachelor's" and "Master's" degrees;

In order to update the curriculum, the elective lesson in the initial stage of education, systems of variant tasks have been developed for the application of modeling and visualization as leading innovative approaches: when applying the inversion method and the properties of mutually invertible arithmetic operations; when solving Diophantine equations; when solving set theory problems with Euler-Venn diagrams;

The proposed technologies include a rich systematized set of tasks accompanied by an innovative teaching and learning methodology in an accessible mathematical language suitable for solving real-world problems;

The author's comparative content analyzes of the new mathematics textbooks for the 1st - 4th grade of the various collectives and publishing houses were made in relation to the individual components of the educational content - the text tasks in the initial stage; the creative exercises on text problems in mathematics in the 4th grade; learning indirect word problems in grade III. As a result, the content of the university course on the subject Methodology of teaching mathematics in primary school for "Bachelor" and "Master" majors has been updated and enriched;

A wide-ranging study was carried out with an author-constructed toolkit and indicators for checking key elements of mathematical competence in the preparatory period for school. Relevant conclusions and recommendations have been drawn, for guidance in building a correct methodology for the formation of basic mathematical concepts and optimal structuring of the educational content in first grade.

## **7. Personal impressions**

I have known the candidate, Assoc. Prof. Kalina Alexieva, PhD, since 2017, but my communication with her is very intense. I have participated in the learning process with students from "master's" degree at the Faculty of Pedagogy together with her. During this period, I was always impressed by her energy, professionalism and organizational skills. Her teaching work with the students - bachelors, masters and specialists - is distinguished by a high academic level. At the same time, she is very popular with her students. As the head of the department, Assoc. Prof. Alexieva, PhD impressed me with her strategic thinking, excellent communication skills and clear vision for the development of the department and the faculty. Another important characteristic of hers is her willingness to self-sacrificingly undertake official commitments, which she brings to a successful conclusion. Her scientific interests are permanent and in-depth, which is evident from the monographs, textbooks and scientific articles presented at the competition. I have always found a competent colleague and like-minded person in Assoc. Prof. Kalina Alexieva, PhD, since we share the same views on many topics in our scientific field and

often conduct in-depth professional discussions. I have repeatedly shared my regret that she and I do not work in the same scientific unit.

### **8. Notes, recommendations and questions**

I have no objections to the scientific-applied and teaching activity of Assoc. Prof. Kalina Alexieva. I recommend that she continue to tirelessly impart her knowledge, skills and competences in the field of mathematics teaching methodology to teachers and student-to-be teachers in primary grades. I believe that in the near future my colleague Alexieva will take over the management of scientific projects and of more PhD students.


### **9. Final assessment**

From the above, it can be seen that Associate Professor Kalina Ivanova Alexieva, PhD is a proven specialist in the methodology of teaching mathematics in elementary grades with a very rich research and teaching experience in this field. Her scientific production fulfills the minimum national requirements under Art. 25, para. 2 and 3 of LDASRB for the field of higher education 1. Pedagogical sciences, professional direction 1.3. Pedagogy of teaching in ... (Methodology of teaching mathematics in primary grades). She presents evidence for over 800 points (865 points), with a minimum requirement of 550. Her works have been repeatedly cited. There is no reason to believe that they are not her personal work, which excludes plagiarism. This gives me the reason to conclude that the scientific, scientific-applied, teaching activity and its qualities satisfy the requirements of LDASRB, the Regulations for its implementation, as well as the Regulations for the development of the academic staff at the "K. Preslavsky" University of Shumen, presented to candidates for obtaining the academic position of "professor". Therefore, in conclusion, I give a positive assessment regarding the selection for "professor" and allow myself to suggest to the honorable members of the Scientific Jury to support this candidacy and to make a proposal to the Faculty Council of the Faculty of Pedagogy of the University of Shumen to elect Associate Professor Kalina Ivanova Aleksieva, PhD, as a "professor" in mathematics teaching methodology in primary grades with the conviction that she fully deserves it.

04.01.2023

Sofia

Reviewed:

  
/Prof. Gabriela Kirova, PhD/