

**DESCRIPTION OF THE MINIMUM QUALIFICATION REQUIREMENTS FOR TEACHING  
AND RESEARCH STAFF WORKING IN THE FIELDS OF NATURAL SCIENCES,  
TECHNOLOGICAL SCIENCES AND AGRICULTURAL SCIENCES AT VYTAUTAS  
MAGNUS UNIVERSITY**

1. The Description of the Minimum Qualification Requirements for Teaching and Research Staff at Vytautas Magnus University (hereinafter referred to as the “Description”), prepared in compliance with the Law on Higher Education and Research of the Republic of Lithuania, the recommendations of the European Commission on the European Charter for Researchers and on the Code of Conduct for the Recruitment of Researchers, the Labour Code of the Republic of Lithuania, the Order of the Chairperson of the Research Council of Lithuania on the Approval of the Description of Minimum Qualification Requirements for the Positions of Researchers of State Research and Higher Education Institutions, the Statute of Vytautas Magnus University, shall regulate the minimum qualification requirements mandatory for persons applying for teaching and research staff positions through an open competition and being attested for these positions in **the fields of Natural Sciences, Technological Sciences and Agricultural Sciences** at Vytautas Magnus University (hereinafter referred to as “VMU”).

2. Teaching staff positions shall be as follows: a professor, an associate professor, a lecturer, and an assistant.

2.1. The position of a professor may be held by a scientist or a recognized artist. A scientist holding the position of a professor shall prepare scientists, give lectures to students, carry out and lead research and experimental (social, cultural) development, and publish research findings.

2.2. The position of an associate professor may be held by a scientist. A scientist holding the position of an associate professor shall give lectures to students, carry out research and experimental (social, cultural) development, and publish research findings.

2.3. The position of a lecturer may be held by a scientist or a person who has at least a master’s degree or an equivalent higher education qualification. A lecturer shall give lectures to students and undertake didactic work.

2.4. The position of an assistant may be held by a person who has at least a master’s degree or an equivalent higher education qualification. An assistant shall supervise students’ practical activities (practical work, practicals, students’ practice, etc.), assist in conducting research and experimental (social, cultural) development work.

3. The research staff shall be researchers holding the positions of a chief research worker, a senior research worker, a research worker, a junior research worker and a scientist trainee.

3.1. The position of a chief research worker may be held by a scientist. A chief research worker shall prepare scientists, supervise research and experimental (social, cultural) development, publish research findings.

3.2. The position of a senior research worker may be held by a scientist. A senior research worker shall supervise research and experimental (social, cultural) development, publish research findings.

3.3. The position of a research worker may be held by a scientist. A research worker shall conduct research and experimental (social, cultural) development, publish results of this activity.

3.4. The position of a junior research worker may be held by a person who has at least a master’s degree or an equivalent higher education qualification. A junior research worker shall carry out or assist in carrying out research and experimental (social, cultural) development work, shall prepare to undertake doctoral studies.

3.5. The position of a scientist trainee may be held by a person who prepared a doctoral dissertation in another institution and defended it not earlier than 5 years before the day of being appointed to this position.

3.6. Qualification requirements for the position of a scientist trainee, the procedure for appointing to this position and internship funding procedures shall be determined by the Minister of Education and Science in line with the proposals of the Research Council of Lithuania.

4. The description of qualification requirements for positions in the fields of Natural Sciences, Technological Sciences and Agricultural Sciences at VMU has been drawn up taking into account the following:

4.1. the publication of research articles in publications refereed and with a Citation Index in the *Clarivate Analytics Web of Science database* (hereinafter referred to as “international indexed scientific publications”);

4.2. patents registered with the European Patent Office (EPO), the United States Patent and Trademark Office (USPTO) or Japan Patent Office, plant and animal varieties, cell lines, microorganism strains registered abroad (hereinafter referred to as “international certificates”);

4.3. monographs published by scientific publishers;

4.4. applied research and experimental development works;

4.5. preparation of PhD holders;

4.6. science popularization activities and other works important for the development of the country’s economy, culture, and society.

5. Key terms and abbreviations used in the Description:

5.1. **Author’s sheet** – 40,000 characters (including spaces between words) of the text or 3,000 cm<sup>2</sup> of printed graphic material; if it is impossible to establish the volume in characters, 14 pages shall be considered as the equivalent of one author’s sheet. If scientific production is published online, the author’s sheet shall be calculated only in characters (including spaces between words).

5.2. **Book chapter** – a research paper corresponding to the nature of an original research article or scientific review article published in a non-periodical publication, except for conference proceedings. The book must have an ISBN number.

5.3. **Scientific publication of the source** – peer-reviewed publication providing archival documents, language monuments, works of art and other textual and audiovisual sources, which is characterized by the scientific selection, preparation and presentation of the material by reflecting its principles and providing an appropriate apparatus (commentaries, indexes, etc.). Objects published in scientific publications of sources may be presented by using facsimiles, transcriptions, translations, critical reconstructions, digital archives, digital databases, and other means provided for by source research and textological methodologies.

5.4. **Scientific dictionary** – a publication of linguistics consisting of a system of lexicographic resources newly collected and/or selected, classified and presented according to a new scientific methodology and intended for the needs of science and studies. The minimum recognized volume of a scientific dictionary is 8 author’s sheets.

5.5. **Review of a scientific work** – a critical analytical presentation and evaluation of a published scientific work, the content of which consists of the presentation, detailed and reasoned evaluation and critique of the work, where not only the concept of this work is discussed or a theoretical, methodological or interpretative problem is raised and discussed in an argumentative manner, but also conclusions are made and the literature used is indicated; the minimum volume must be 0.25 author’s sheet.

5.6. **Research monograph** – a peer-reviewed publication which provides a systematic and comprehensive investigation of one topic (subject), exhibits clear and significant elements of research novelty and originality peculiar to each area or field of science; the published monograph must have an ISBN number, and if it is published in Lithuanian or any other less widely spoken language, it must

also include a summary in English, French, or German. The minimum volume of a research monograph is 8 author's sheets. In Humanities and Social Sciences, at least 20% of the monograph must consist of unpublished and qualitatively new material.

5.7. **Research article** – an article published in a peer-reviewed publication with a scientific apparatus (footnotes and/or bibliographies, and/or formulas, and/or drawings, and/or methodological descriptions, and/or statistical tables, etc.) common for the relevant field of science and meeting the scientific criteria of that field of science. The minimum recognized volume of a research article in the fields of Humanities and Social Sciences is 0.25 author's sheet.

5.8. **Research study** – a peer-reviewed scientific work published in a separate publication, which provides a systematic and comprehensive investigation of one topic (subject), exhibits clear and significant elements of research novelty and originality peculiar to each area or field of science; the published study must have an ISBN number. At least 20% of a study must consist of unpublished and qualitatively new material. A publication can be prepared by one or more authors. The minimum volume of a study is 4 author's sheets. The smallest part of a study by the author is 2 author's sheets.

5.9. **Non-dissertation-based monograph** – a monograph consisting of at least 50% of qualitatively new materials in comparison with the dissertation.

5.10. **Affiliation** – the connection of an author with the Institution specified in a scientific work, in the presentation of a work of art or its performance, or in a declaration of scientific (artistic) works.

5.11. **Applied research work** – original research conducted with the aim to acquire new knowledge. However, they are oriented, first of all, to specific practical objectives or goals. Scientific dictionaries, reference books, scientific encyclopedias, scientific bibliographies, scientific atlases, scientific catalogs, scientific compendiums of monuments, scientific commentaries of legal acts are also considered to be applied research works.

5.12. **International scientific information database** – a database for international research audience containing scientific information that meets the publicly available criteria of scientific merit. The list of international scientific information databases shall be compiled and changed by VMU Committee of Experts in the fields of science and shall be approved by the Rector.

5.13. **Internationally recognized scientific publisher** – a publisher that regularly publishes and internationally distributes research works of scientists from many countries, internationally recognized periodicals and regular publications, and provides online information on the nature and international recognition of the publisher. The list of international (scientific) publishers shall be compiled and changed by VMU Committee of Experts in the fields of science and shall be approved by the Rector.

## 6. Specific terms used in the Description:

6.1. **Plant variety** – a new variety created through applied research and experimental development and registered in accordance with the established procedure.

6.2. **Textbook for higher education** – an original (copyrighted) work specifically intended for studies, the publication of which has been approved by at least two higher education institutions; the minimum recognized volume is at least 8 author's sheets.

6.3. **Experimental (social, cultural) development work** – the result of systematic activities based on research and knowledge gained through know-how: the development of new materials, products and equipment, the introduction of new processes, systems and services, or substantial improvements made to the already introduced and developed processes, systems and services, as well as the development, implementation or substantial improvement of solutions to human, cultural and societal problems.

6.4. **Other research monograph** – a monograph published by other Lithuanian and foreign scientific publishers.

6.5. **Chapter in other book** – a chapter in a book published by other scientific publishers.

6.6. **Research and experimental development (R&D)** – systematic creative activity of cognition of nature, humanity, culture and society, and the use of its results.

6.7. **Research and experimental development project** – a complex of works combining research in the field (branch) of science aimed at obtaining new scientific knowledge to solve the problem under consideration or to create new products.

6.8. **National research and experimental development project** – a research project carried out under an agreement with a Lithuanian state institution (Research Council of Lithuania, ministries, agencies, municipal administrations, etc.).

6.9. **Patent** – an invention made through applied research and experimental development and registered in accordance with the established procedure.

6.10. **International research monograph** – a monograph published in an international scientific publisher.

6.11. **International book chapter** – a chapter in a book published by an international scientific publisher.

6.12. **International indexed scientific publications in the fields of Natural Sciences, Technological Sciences and Agricultural Sciences** – publications refereed in *Clarivate Analytics Web of Science (CA WoS)* databases with an International Citation Index (*Impact Factor*).

6.13. **International research and experimental development project** – a research project carried out in accordance with international research programs or financed by foreign natural or legal entities.

6.14. **R&D project of an economic entity** – a research project carried out under an agreement with Lithuanian or foreign economic entities (except for budgetary institutions).

7. VMU Admission Commission and Certification Commission, which perform the recognition and evaluation of research articles, research work and other research activity, shall have the following rights:

7.1. **In the field of Natural Sciences, Technological Sciences and Agricultural Sciences**, to recognize the following as one research article in international indexed scientific publications:

7.1.1. a part of an international research monograph or a chapter in an international book (the scientist's contribution must be at least 2 author's sheets);

7.1.2. supervision of research and experimental development projects with a total value of at least 30,000 euros;

7.1.3. five varieties of ornamental plants that have passed an international examination in European specialized centers (presented in the *Reports on Technical Examination of the DUS Testing*);

7.1.4. one plant variety, except for ornamental plants, and animal variety that has passed an international examination in European specialized centers (presented in the *Reports on Technical Examination of the DUS Testing*).

7.2. **By way of exception**, to apply other principles of the recognition of research articles, monographs or book chapters, dictionaries, scientific source publications by taking into account the specifics of fields of science and research topics. Also, in the fields of science in which VMU does not have the right of doctoral studies, to recognize other active participation in the preparation of scientists as a supervision of a doctoral student.

8. The following minimum qualification requirements shall be established for persons who participate in the competition for the position of *a professor*:

8.1. The applicant for the position of **a professor** must be a scientist who has at least 8 years of experience in pedagogical work at a university higher education institution, must have supervised at least 1 defended doctoral dissertation and must have fulfilled at least one of the following requirements:

8.1.1. published at least 15 research articles in international scientific publications, at least 10 of which must be published in international indexed scientific publications;

- 8.1.2. published an international non-dissertation-based research monograph (the scientist's contribution must be at least 4 author's sheets) or received a patent registered with the European Patent Office (EPO), the United States Patent and Trademark Office (USPTO) or Japan Patent Office (JPO); registered plant, except for ornamental plants, and animal varieties, cell lines, microorganism strains that passed an international examination in European specialized centers and published at least 7 research articles in international indexed scientific publications;
- 8.1.3. published a non-dissertation-based research monograph or a textbook for higher education (the scientist's contribution must be at least 8 author's sheets) and published at least 9 research articles in international indexed scientific publications.

8.2. **In the last 5 years**, such a scientist must have:

- 8.2.1. participated in the preparation of scientists (supervised doctoral students, prepared and taught courses of doctoral studies, supervised postdoctoral internships, reviewed doctoral dissertations, been a member of the Committee of Doctoral Studies and/or the Dissertation Defense Council);
- 8.2.2. given papers or plenary lectures in international and national scientific conferences;
- 8.2.3. conducted applied research, experimental, cultural or social development work;
- 8.2.4. engaged in educational and research dissemination activities;
- 8.2.5. fulfilled at least one of the following requirements:
  - 8.2.5.1. published at least 5 research articles in international scientific publications, at least 4 of which must be published in international indexed scientific publications;
  - 8.2.5.2. published an international non-dissertation-based research monograph (the scientist's contribution must be at least 4 author's sheets) or received a patent registered with the European Patent Office (EPO), the United States Patent and Trademark Office (USPTO) or Japan Patent Office (JPO); registered plant, except for ornamental plants, and animal varieties, cell lines, microorganism strains that passed an international examination in European specialized centers and published at least 2 research articles in international indexed scientific publications;
  - 8.2.5.3. published a non-dissertation-based research monograph or a textbook for higher education (the scientist's contribution must be at least 8 author's sheets) and published at least 3 research articles in international indexed scientific publications;
  - 8.2.5.4. supervised research and experimental development projects with a total value of at least 30,000 euros and published at least 3 research articles in international indexed scientific publications.

9. The following minimum qualification requirements shall be established for persons who participate in the competition for the position of *an associate professor*:

9.1. the applicant for the position of **an associate professor** must be a scientist who has at least 5 years of experience in pedagogical work at a university higher education institution and must have fulfilled at least one of the following requirements:

- 9.1.1. published at least 7 research articles in international scientific publications, at least 5 of which must be published in international indexed scientific publications;
- 9.1.2. published an international non-dissertation-based research monograph (the scientist's contribution must be at least 4 author's sheets) or received a patent registered with the European Patent Office (EPO), the United States Patent and Trademark Office (USPTO) or Japan Patent Office (JPO); registered plant, except for ornamental plants, and animal varieties, cell lines, microorganism strains that passed an international examination in European specialized centers and published at least 2 research articles in international indexed scientific publications;

9.1.3. published a non-dissertation-based research monograph or a textbook for higher education (the scientist's contribution must be at least 8 author's sheets) and published at least 4 research articles in international indexed scientific publications.

9.2. **In the last 5 years**, such a scientist must have:

9.2.1. given papers or plenary lectures in international or national scientific conferences;

9.2.2. conducted applied research, experimental, cultural or social development work;

9.2.3. engaged in educational and research dissemination activities;

9.2.4. fulfilled at least one of the following requirements:

9.2.4.1. published at least 3 research articles in international scientific publications, at least 2 of which must be published in international scientific publications;

9.2.4.2. published an international non-dissertation-based research monograph (the scientist's contribution must be at least 4 author's sheets) or received a patent registered with the European Patent Office (EPO), the United States Patent and Trademark Office (USPTO) or Japan Patent Office (JPO); registered plant, except for ornamental plants, and animal varieties, cell lines, microorganism strains that passed an international examination in European specialized centers;

9.2.4.3. published a non-dissertation-based research monograph or a textbook for higher education (the scientist's contribution must be at least 8 author's sheets) and published at least 2 research articles in international indexed scientific publications;

9.2.4.4. supervised research and experimental development projects with a total value of at least 30,000 euros and published at least 2 research articles in international indexed scientific publications.

10. The following minimum qualification requirements shall be established for persons who participate in the competition for the position of *a lecturer*:

10.1. the applicant for the position of **a lecturer** must hold a doctoral degree or a master's degree or an equivalent higher education qualification and 2 years of experience in pedagogical work at a university higher education institution.

10.2. **In the last 5 years**, such a person must have published at least 1 research article in refereed scientific publications and must have fulfilled at least one of the following requirements:

10.2.1. gave papers or plenary lectures in scientific conferences;

10.2.2. conducted applied research, experimental, cultural or social development work;

10.2.3. engaged in educational and research dissemination activities.

11. the applicant for the position of **an assistant** must hold at least a master's degree or an equivalent higher education qualification.

12. The following minimum qualification requirements shall be established for persons who participate in the competition for the position of *a chief research worker*:

12.1. the applicant for the position of **a chief research worker** must be a scientist who has supervised at least 1 defended doctoral dissertation and fulfilled at least one of the following requirements:

12.1.1. published at least 20 research articles in international indexed scientific publications;

12.1.2. published an international non-dissertation-based research monograph (the scientist's contribution must be at least 4 author's sheets) or received a patent registered with the European Patent Office (EPO), the United States Patent and Trademark Office (USPTO) or Japan Patent Office (JPO); registered abroad plant, except for ornamental plants, and animal varieties, cell lines, microorganism strains that passed an international examination in European specialized centers and published at least 13 research articles in international indexed scientific publications;

12.1.3. published a non-dissertation-based research monograph or a textbook for higher education (the scientist's contribution must be at least 8 author's sheets) and published at least 15 research articles in international indexed scientific publications.

12.2. **In the last 5 years**, such a scientist must have:

12.2.1. participated in the preparation of scientists (supervised doctoral students, prepared and taught courses of doctoral studies, supervised postdoctoral internships, reviewed doctoral dissertations, been a member of the Committee of Doctoral Studies and/or the Dissertation Defense Council);

12.2.2. given papers or plenary lectures in international and national scientific conferences;

12.2.3. supervised or coordinated at least 2 international research or study projects, EU Structural Funds support projects, national research program projects or on-demand research and experimental development works;

12.2.4. engaged in educational and research dissemination activities;

12.2.5. must have fulfilled at least one of the following requirements:

12.2.5.1. published at least 8 research articles in international indexed scientific publications;

12.2.5.2. published an international non-dissertation-based research monograph (the scientist's contribution must be at least 4 author's sheets) or received a patent registered with the European Patent Office (EPO), the United States Patent and Trademark Office (USPTO) or Japan Patent Office (JPO); registered plant, except for ornamental plants, and animal varieties, cell lines, microorganism strains that passed an international examination in European specialized centers and published at least 2 research articles in international indexed scientific publications;

12.2.5.3. published a non-dissertation-based research monograph or a textbook for higher education (the scientist's contribution must be at least 8 author's sheets) and published at least 4 research articles in international indexed scientific publications;

12.2.5.4. supervised research and experimental development projects with a total value of at least 60,000 euros and published at least 4 research articles in international indexed scientific publications.

13. The following minimum qualification requirements shall be established for persons who participate in the competition for the position of *a senior research worker*:

13.1. the applicant for the position of **a senior research worker** must be a scientist who has at least 5 years of scientific research experience and must have fulfilled at least one of the following requirements:

13.1.1. published at least 10 research articles in international indexed scientific publications;

13.1.2. published an international non-dissertation-based research monograph (the scientist's contribution must be at least 4 author's sheets) or received a patent registered with the European Patent Office (EPO), the United States Patent and Trademark Office (USPTO) or Japan Patent Office (JPO); registered plant, except for ornamental plants, and animal varieties, cell lines, microorganism strains that passed an international examination in European specialized centers and published at least 5 research articles in international indexed scientific publications;

13.1.3. published a non-dissertation-based research monograph or a textbook for higher education (the scientist's contribution must be at least 8 author's sheets) and published at least 7 research articles in international indexed scientific publications.

13.2. **In the last 5 years**, such a scientist must have:

13.2.1. participated in the preparation of scientists (supervised doctoral students, prepared and taught courses of doctoral studies, supervised postdoctoral internships, reviewed

doctoral dissertations, been a member of the Committee of Doctoral Studies and/or the Dissertation Defense Council);

- 13.2.2. given papers or plenary lectures in international or national scientific conferences;
- 13.2.3. supervised or coordinated at least 1 international research or study project, EU Structural Funds support project, national research program project or on-demand research and experimental development work;
- 13.2.4. engaged in educational and research dissemination activities;
- 13.2.5. fulfilled at least one of the following requirements:
  - 13.2.5.1. published at least 5 research articles in international indexed scientific publications;
  - 13.2.5.2. published an international non-dissertation-based research monograph (the scientist's contribution must be at least 4 author's sheets) or received a patent registered with the European Patent Office (EPO), the United States Patent and Trademark Office (USPTO) or Japan Patent Office (JPO); registered abroad plant, except for ornamental plants, and animal varieties, cell lines, microorganism strains that passed an international examination in European specialized centers and published at least 1 research article in international indexed scientific publications;
  - 13.2.5.3. published a non-dissertation-based research monograph or a textbook for higher education (the scientist's contribution must be at least 8 author's sheets) and published at least 3 research articles in international indexed scientific publications;
  - 13.2.5.4. supervised research and experimental development projects with a total value of at least 60,000 euros and published at least 3 research articles in international indexed scientific publications.

14. The following minimum qualification requirements shall be established for persons who participate in the competition for the position of *a research worker*:

14.1. the applicant for the position of **a research worker** must be a scientist who has at least 3 years of research experience and in 5 years must have fulfilled at least one of the following requirements:

- 14.1.1. published at least 3 research articles in international indexed scientific publications;
- 14.1.2. published an international non-dissertation-based research monograph (the scientist's contribution must be at least 4 author's sheets).

14.2. **In the last 5 years**, such a scientist must have:

- 14.2.1. given papers or plenary lectures in international or national scientific conferences;
- 14.2.2. carried out at least 1 international research or study project, EU Structural Funds support project, national research program project or on-demand research and experimental development work; or published at least 2 research articles in international indexed scientific publications;
- 14.2.3. engaged in educational and research dissemination activities.

15. The applicant for the position of **a junior research worker** must hold at least a master's degree or an equivalent higher education qualification.

16. The following minimum qualification requirements shall be established for persons to be attested during their term of office:

16.1. For certification during the term of office, **a professor** must have fulfilled minimum qualification requirements specified in Clause 8.2 of this Description.

16.2. For certification during the term of office, **an associate professor** must have fulfilled minimum qualification requirements specified in Clause 9.2 of this Description.

16.3. For certification during the term of office, **a lecturer** must have fulfilled minimum qualification requirements specified in Clause 10.2 of this Description.



16.4. For certification during the term of office, **an assistant** must have fulfilled the following minimum qualification requirements:

16.4.1. supervised students' practical activities (practical work, practicals, students' practice, etc.);

16.4.2. assisted in conducting research and experimental (social, cultural) development work;

16.4.3. published at least 1 research article in peer-reviewed scientific publications or a paper in scientific conference proceedings.

16.5. For certification during the term of office, **a chief research worker** must have fulfilled minimum qualification requirements specified in Clause 12.2 of this Description.

16.6. For certification during the term of office, **a senior research worker** must have fulfilled minimum qualification requirements specified in Clause 13.2 of this Description.

16.7. For certification during the term of office, **a research worker** must have fulfilled the following minimum qualification requirements:

16.7.1. published at least 3 research articles in international indexed scientific publications or published an international non-dissertation-based research monograph (the scientist's contribution must be at least 4 author's sheets);

16.7.2. **In the last 5 years**, such a scientist must have:

16.7.2.1. given papers or plenary lectures in international or national scientific conferences;

16.7.2.2. carried out at least 1 international research or study project, EU Structural Funds support project, national research program project or on-demand research and experimental development work; or published at least 2 research articles in international indexed scientific publications;

16.7.2.3. engaged in educational and research dissemination activities.

16.8. For certification during the term of office, **a junior research worker** must have fulfilled the following minimum qualification requirements:

16.8.1 carried out or was involved in at least 1 international research or study project, EU Structural Funds support project, national research program project or on-demand research and experimental development work;

16.8.2 published at least 1 research article in international indexed scientific publications.

17. The VMU Certification Commission shall evaluate and recognize only those research and other scientific works of the person being attested that were published during the certification period with the University affiliation.

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