

Description of the study programme – outline ¹

Name of the higher education institution: The University of Prešov in Prešov

Address of the higher education institution: 17. novembra 15, 08001 Prešov

Identification number of the higher education institution: 717000000

Name of the faculty: Faculty of Humanities and Natural Sciences

Address of the faculty: 17. novembra 1, 08001 Prešov

Institution body for approving the study programme: PU Council for Internal Quality System and FHNS PU Council for Quality

Date of the study programme approval or the study programme modification:

Date of the latest change² in the study programme description:

Reference to the results of the latest periodic review of the study programme by the institution:

Reference to the assessment report of the application for accreditation of the study programme under § 30 of Act no. 269/2018 Coll.³:

1. Basic information about the study programme

- a) Name of the study programme and its number according to the register of study programmes.
Theory of Physics Education UIPŠ code 1165V00 (code 183196)
- b) Degree of higher education and ISCED-F education degree code.
3rd (PhD.) ISCED2011 code 864
- c) Place(s) of delivery of the study programme.
717000000 The University of Prešov in Prešov / 717050000 Faculty of Humanities and Natural Sciences
- d) Name and number of the field of study in which higher education is obtained by completing the study programme, or a combination of two fields of study in which higher education is obtained by completing the study programme, ISCED-F codes of the field/fields⁴.
1160V00 Physics, ISCED-F code 0533 Physics
- e) Type of the study programme: academically oriented, professionally oriented; translation, translation combination study programme (listing the specializations); teaching, teaching combination study programme (listing the specializations); artistic, engineering, doctoral, preparation for regulated profession, joint study programme, interdisciplinary studies.
Teaching combination study programme; approbations: Biology, Physics, Geography, Pedagogy, Technology, English language and literature, History, Aesthetics, French language and literature, Musical art, German language and literature, Russian language and literature, Slovak language and literature, Ukrainian language and literature, Education to citizenship, Fine arts, Physical Education, Ruthenian language and literature, Romani language - literature and realities, Hungarian language and literature.
- f) Awarded academic degree.
PhD.
- g) Form of study⁵.
Full-time
- h) In the case of joint study programmes, cooperating institutions and the range of study obligations the student fulfills at each of the given institutions (§ 54a of the Act on Higher Education Institutions).
Study programme is not joint. No cooperating university.
- i) Language or languages in which the study programme is delivered⁶.
Slovak language
- j) Standard length of the study expressed in academic years.
3 years
- k) Capacity of the study programme (planned number of students), the actual number of applicants and students.
2/0/0

2. Graduate profile and learning objectives

- a) The institution defines the learning objectives of the study programme such as student's abilities at the time of completion of the programme and the main learning outcomes⁷.
<https://www.minedu.sk/slovensky-kvalifikacny-ramec-a-narodna-sustava-kvalifikacii/>
Successful completion of the 2nd level of university study is a necessary condition for admission to the doctoral study programme. As a rule, graduates of a master's degree study program in the field of Teaching Academic Subjects - Physics study programme can apply

¹ The institution compiles a description of the study programme as an annex to the application for accreditation of the study programme.

- When submitting an application pursuant to § 30 (1) of Act no. 269/2018 Coll. the higher education institution states in the description only the data available at the time of application.

- Once the accreditation (or the internal approval of the study programme by the institution programme approval authority with the right to design programmes within the given field and degree) has been granted, the institution permanently makes the description available to the stakeholders of the study programme.

- The institution may choose the form of processing, visualization, and publication of the description, suitable for students, teachers and another users.

- In individual parts of the description, the institution may refer to another internal document that sufficiently describes the relevant area and is publicly available.

- In individual parts of the description, the institution may refer to a place in the information system which contains the relevant up-to-date information.

- The institution ensures that the description is up-to-date (if the change in the description is in the nature of a modification of the study programme and the change is made in accordance with § 30 (9) of Act No. 269/2018 Coll., the institution makes the change and publishes it only after approval by the Agency).

² If the change is not a modification of the study programme according to § 30 of Act no. 269/2018 Coll.

³ It is stated only if the accreditation of the study programme has been granted according to § 30 of Act no. 269/2018 Coll.

⁴ According to the International Standard Classification of Education. Fields of Education and Practice 2013.

⁵ According to § 60 of Act no. 131/2002 Coll. on Higher Education Institutions.

⁶ It means the languages in which all learning outcomes are achieved and all related courses of the study programme as well as the state examinations are carried out. The institution independently provides information on the possibility of partial study parts/courses in other languages in part 4 of the description.

⁷ Learning objectives are achieved in the study programme through measurable learning outcomes in individual parts (modules, subjects) of the study programme corresponding to the relevant level of the Qualifications Framework in the European Higher Education Area.

The outline description of the study programme is used to process Annex 2 of the application for granting the accreditation of the study programme.

for the study. The application includes a preliminary project of possible dissertation thesis and an overview of applicant's current scientific and publishing activities.

Graduate profile and learning objectives in accordance with the Description of the Physics study field

The graduate's profile is based on the DECREE of the Ministry of Education, Science, Research and Sports of the Slovak Republic of 22nd July 2019 on the system of study fields of the Slovak Republic (Available from <https://www.slov-lex.sk/pravne-predpisy/Sk/ZZ/2019/244/20190901>). The required knowledge, skills and competences are defined for all profile learning areas in the annex to the above-mentioned document. Dissertation examination and Dissertation defence (final thesis) must meet the criteria for the student to demonstrate the ability to acquire theoretical and practical knowledge independently.

Specific graduate profile and learning objectives of the Theory of physics education study programme

Graduate of the study programme Theory of Physics Education (3rd level)

- provides scientific researches and comes with his/her own solutions to problems related to teaching physics as well as in evaluating and analyzing the knowledge of pupils and students
- learns the principles of scientific work, methods of pedagogical research focused on teaching physics, methods of creating pedagogical documents and the process of preparing study materials
- knows ethical and social aspects of scientific work and masters the techniques of presenting the research results. He/she is able to work and communicate in a scientific team

Study programme Theory of Physics Education is divided into two parts:

Study part (containing theoretical foundation, methodological apparatus, specialization):

- deepening of physics knowledge, basics of physics didactics and pedagogical research in physics teaching as well as in the use of modern technologies in physics teaching,
- study of modern pedagogical and psychological theories of teaching and learning,
- get to know computer-supported learning environments, internet and multimedia applications, platforms for e-learning etc.,
- the graduate is able to orientate in the field of advances in current physics science,
- specialization (according to the topic of the dissertation).

Scientific part:

- research conduction on a current open scientific problem in the field,
- mastering the principles of scientific work, methods of pedagogical research in the field, scientific problem formulation, social and legal aspects of education, ethical and societal aspects of scientific work,
- presentation of the results, development of the field of study and contribution to practice,
- the ability to formulate conclusions of scientific work and publish them at scientific conferences and in scientific journals.

The graduate will gain knowledge mainly in the Study part. Thanks to practical activities involving activities with aids, laboratory technologies and ICT, the graduate will acquire skills that will be used in the next stages of study. The graduate of the study program acquires competencies, thanks to which he/she is able to independently carry out research and applying the methods of data processing he/she can present the results on national as well as foreign level and, after professional discussion, he/she is able to formulate his/her own conclusions.

The graduate profiles him-/herself by completing courses that develop his/her theoretical knowledge and skills, practical skills as well as abilities and competencies as stated in the information sheets of courses available on the public portal of the MAIS system:

<https://student.unipo.sk/maisportal/studijneProgramy.mais>.

- b) The institution indicates the professions for which the graduate is prepared at the time of completion and the potential of the study programme from the point of view of graduate's employability.

Graduate of the study programme Theory of Physics Education:

- provides scientific researches and comes with his/her own solutions to problems related to teaching physics as well as in evaluating and analyzing the knowledge of pupils and students.

Graduate of the study programme Theory of Physics Education (3rd level)

- learns the principles of scientific work, methods of pedagogical research focused on teaching physics, methods of creating pedagogical documents and the process of preparing study materials.
- is able to work and communicate in a scientific team.

2310005 University teacher – lecturer

2359006 Teacher for Continuing Education

2310003 University teacher – assistant professor

2310004 University teacher – assistant

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2330001 Teacher of vocational (apprentice) subjects at secondary school
2330003 Teacher of academic (general education) subjects at secondary school
2341002 Teacher for the second stage of primary school
2351001 Inspector in the field of education (school inspector)
2351002 Methodologist in the field of education
2351003 Local government specialist in the field of education
2351999 Methodologist and inspector in the field of education
2359999 Other pedagogical and professional worker in education

We indicate the above mentioned professions on the basis of the Annex to Decree no. 516/2011 Coll. Statistical classification of occupations SK ISCO-08, which is available from: https://www.kvalifikacie.sk/sites/nsk/files/employers/sk_isco-08_0.pdf

- c) Relevant external stakeholders who have provided the statement or a favourable opinion on the compliance of the acquired qualification with the sector-specific requirements for the profession⁸. Professions mentioned in the previous b) point are indicated on the basis of the Annex to Decree no. 516/2011 Coll. Statistical classification of occupations SK ISCO-08, which is available from: https://www.kvalifikacie.sk/sites/nsk/files/employers/sk_isco-08_0.pdf.

3. **Employability**

- a) Evaluation of the study programme graduates employability.

Based on data from the Slovak Centre of Scientific and Technical Information as well as from the National Institute of Education of the Slovak Republic, a very unfavourable situation can be seen in the science teaching sector, assuming an urgent shortage of science teachers, especially physics-, mathematics- and technology- teachers in several years horizon. This situation has not fundamentally changed for more than 10 years, which indicates a long-term shortage of physics teachers. The prospects for the employability of graduates are constantly improving, as based on the Analysis of Labour Market Trends (source: <https://www.trendyprace.sk/sk/trendy-trhu-prace/regio-trendy/presovsky-kraj>) it is assumed that by 2025 the number of university graduates entering the labour market does not cover the need for manpower at university positions in Prešov Region. The greatest shortage of graduates of teaching professions can be expected in science approbations. In conditions of secondary schools and primary schools, there is an urgent lack of quality science textbooks and methodology materials, which has an adverse impact on the attractiveness of science education. Graduates of the study programme Theory of Physics Education are prepared also for these challenging tasks.

- b) If applicable, indicate the successful graduates of the study programme.

Although there is a presumption of employment for graduates of the study programme Theory of Teaching Physics in the field of education, it can be expected that some graduates will be employed in other related fields (for example, Information and Communication). Data on the employment of graduates are not available, yet (due to the fact that as of 31st December 2021 we do not register any graduates of this study programme).

- c) Evaluation of the study programme quality by employers (feedback).

We asked the employers of our graduates to evaluate the quality of the submitted study programme Theory of Physics Education. Representatives of two grammar schools provided us with their evaluations and opinions through their employees, who are also graduates of the study program Physics teaching in combination, which is followed by the study programme Theory of Physics Education. One of the evaluators is also a representative of the grammar school management (in the position of deputy director) and the other evaluator is also a member of the Prešov City Council (member of the City Council Commission for Education and Physical Education). Documented results of the evaluation are presented in Part IV. 8 Additional annexes to the application for accreditation. Feedback focused on examining the quality of the study programme is provided in the following ways:

1. as inspections during student's pedagogical practices on the basis of structured interviews with practicing teachers, or on the basis of interviews with pedagogical staff and school management
2. individually, during working visits of physics teachers, for example when organizing different events on the campus or at schools (such as: Physics Olympiad, lectures for students and the public, competitions, and presentations)
3. as interviews of the Methodology and Pedagogy Centre staff as well as staff of the Centre for free-time activities with teachers responsible for the study programme, with a special focus on the quality of the study programme composition and the quality of profiling components of graduates teaching the subject of physics at schools
4. as informal meetings of teachers providing the study programme (continuously)

4. **Structure and content of the study programme⁹**

- a) *The institution describes the rules for the design of study plans within the study programme.*

The study programme considers the mission but also the objectives set by the Faculty of Humanities and Natural Sciences in the field of science and also those set by its long-term intention especially in the field of education. The study programme was created eventually innovated in the intentions of development trends of similarly focused study programmes in European countries and in the world, considering its attractiveness for secondary school students. The study programme was created in accordance with the needs of practice; therefore, one of the main aspects considered in courses designing was the aspect of knowledge- and competencies- applicability in real practice.

The main starting points for the creation of the study plan of the study programme *Theory of Physics Education* are:

- Description of the no. 13 field of study: Physics
- Graduate profile of the *Theory of Physics Education* approbation.
- Interconnection of the study and scientific part of the study programme
- Study credit system legislation

⁸ In the case of regulated professions in accordance with the requirements for the acquisition of professional competence pursuant to a special regulation.

⁹ Selected characteristics of the content of the study programme can be stated directly in the Course information sheets or supplemented by the information of the Course information sheets.

The outline description of the study programme is used to process Annex 2 of the application for granting the accreditation of the study programme.

- Rector's measure no. 10/2021 on aligning the study programmes (https://www.unipo.sk/public/media/37750/OR_x-2021_zosuladovanie.pdf)
- Internal regulations of PU in Prešov (<https://www.unipo.sk/vzdelavanie/vnutorne-predpisy/>)
- Long-term plan of FHNS PU: <https://www.unipo.sk/fakulta-humanitnych-prirodnch-vied/rozvoj/dlhodoby-zamer/>

Selected characteristics of the study programme content are listed directly in the Information sheets of the courses, which are available from: <https://student.unipo.sk/maisportal/studijneProgramy.mais>

⁹⁾ *The institution compiles the recommended study plans for individual study paths¹⁰.*

In the sense of §. 3 of Decree no. 614/2002 Coll. On the credit study system, courses included in the study programme Theory of Physics Education are, according to obligation to be successfully completed, divided into:

- compulsory - their successful completion is necessary for successful completion of part of the study or of the entire study programme,
- compulsory optional - the condition for successful completion of part of the study or the entire study programme is successful completion of a certain specified number of these courses according to student's personal choice from the courses structure determined by the study programme,
- optional - other courses student can enroll-in to complete his/her studies and to obtain a sufficient number of credits in the relevant part of the study [§ 51 section 4 letter i) of the Act].

Courses included in the study programme are, according to mutual continuity, divided into:

- courses conditioned by successful completion of other courses; enrollment in such a course is conditioned by successful completion of another course (conditional course) or other courses,
- courses without continuity; enrollment in such a course is not conditioned by completion of another course

State examination (§ 63 section 1 of the Act) is considered to be a course.

Available from: https://www.slov-lex.sk/pravne-predpisy/SK/ZZ/2002/614/vyhlase_znenie.html

Rector's measure no. 10/2021 on aligning the study programmes: https://www.unipo.sk/public/media/37750/OR_x-2021_zosuladovanie.pdf

Courses Information Sheets are available from the link: <https://student.unipo.sk/maisportal/studijneProgramy.mais>

PU Study Regulations: <https://www.unipo.sk/public/media/0190/STUD%2024.9.18%20pdf.pdf>

⁹⁾ *The study plan generally states:*

- *individual parts of the study programme (modules, courses, and other relevant school and extracurricular activities, if they contribute to the achievement of the required learning outcomes and allow to obtain credits) in the structure of compulsory, compulsory optional and optional courses,*

The condition for admission of an applicant to Theory of Physics Education study programme (PhD. study, full-time form) is the completion of master's study programme called Physics Teaching in Combination (Mgr. study).

Study plan of the study programme Theory of Physics Education (3rd level) with its courses composition in both, the study and scientific part, is based on the acquired knowledge and skills that students acquired at the 1st and 2nd level of university studies of the Physics Teaching in Combination study programme.

Recommended study plan of the Theory of Physics Education study programme (PhD. study, full-time form) consists of the study and scientific part. In the following tables, both parts of the study programme are divided into compulsory, compulsory optional and optional courses.

Recommended study plan:

Field of study:	Physics
Study programme:	Theory of Physics Education
Level:	3 rd (doctoral studies)
Form:	full-time (3 years)

A. Courses of the Study part

¹⁰ In accordance with Decree no. 614/2002 Coll. on the study credit system and Act no. 131/2002 Coll. on Higher Education Institutions and on Amendments to Certain Acts.

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Study area								
Compulsory courses								
Course code	Type	Units of study activity (study part)	Hrs	Credits	Completion form	Recom. Year of Study	Recomm. Term	Course provider
	C	* Dissertation Examination	-	16	S	2.	4.	Examination committee
	C	* Educometry	26	4	S	2.	3.	Dr. Majherová
	C	* Methodology of Educational Sciences	26	3	S	1.	2.	prof. Pasternáková, Mgr. Bozogánová
	C	* Final Thesis for the Dissertation Exam and Project of the Dissertation	-	4	PH	2.	3.	supervisor
	C	* Selected chapters from Physics	26	5	S	2.	3.	prof. Reiffers
	C	* Selected chapters from Didactics of Physics	26	5	S	1.	1.	doc. Šebeň
	C	* Introduction to University Pedagogy	26	5	S	1.	1.	prof. Pasternáková
Compulsory optional courses								
	CO	* Foreign language in Academic Discourse – English language	26	5	S	1.-2.	1.-4.	PaedDr. Kofritová
	CO	* Individual Study of Scientific Literature (semestral) ²	-	2	A	1.-2.	1.-4.	supervisor
	CO	Stay abroad (monthly)	m	4	A	1.-2.	1.-4.	supervisor
	CO	* Stay abroad (weekly)	t	1	A	1.-2.	1.-4.	supervisor
	CO	* Field specialization ¹ - Selected Chapters from Modern Physics - Technique of School Experiment - Development of Educational Tools - Selected Problems from Didactics of Physics - Computer-aided physics laboratory - Seminar from Selected Problems of Frontier Physics Fields	26	4	PH	2.	3.	Teachers of DFMT prof. Reiffers doc. Šebeň prof. Pavelka doc. Šebeň doc. Il'kovič doc. Csátáryová
Optional Courses								
	O	Co-authorship of Educational Texts and Tools	-	1	A	1.-2.	2.-4.	
	O	Professional pedagogical activity ³	-	1	A	1.-2.	2.-4.	
Number of credits from Study area:			60					

Notes:

- 1/ Student chooses the subject of the field specialization from the list of courses offered by the department in connection with the topic of his/her dissertation (the list can be updated)
- 2/ A maximum of 4 credits per study is included (into the completion of the study part)
- 3/ A maximum of 3 credits per study is included

B. Courses of the Scientific part

The outline description of the study programme is used to process Annex 2 of the application for granting the accreditation of the study programme.

Scientific area							
Compulsory courses							
Course code	Type	Units of study activity (study part)	Credits	Completion form	Recom. Year of Study	Recomm. Term	Notes
	C	Active Participation at Conference Organising Committee	2	A	1.-3.	1.-6.	min. 1 per study
	C	Active Participation at Homeland Scientific Event ⁵	5	A	1.-3.	1.-6.	min. 1 per study
	C	Active Participation at Foreign Scientific Event	10	A	1.-3.	1.-6.	
	C	Dissertation Defence	30	A	3.	6.	
	C	Review and Research Paper Published in Journal/Proceedings	5	A	1.-3.	1.-6.	min. 1 per study
	C	Co-authorship of Scientific Study Published in Foreign Journal /Proceedings	5	A	1.-3.	1.-6.	min. 1 per study
	C	Co-authorship of Scientific Study Published in Homeland Journal /Proceedings	3	A	1.-3.	1.-6.	min. 1 per study
	C	Research Paper Published in Homeland Reviewed Journal / Proceedings	10	A	2.-3.	3.-6.	min. 1 per study
	C	Research Paper Published in Foreign Reviewed Journal / Proceedings	20	A	2.-3.	3.-6.	min. 1 per study
	O	Homeland Conference Poster	3	A	1.-3.	1.-6.	
	O	Foreign Conference Poster	5	A	1.-3.	1.-6.	
	O	Reduction and Editorial Activity (Proceedings)	2	A	1.-3.	1.-6.	
	O	Co-authorship of the Monograph	15	A	1.-3.	1.-6.	eventually the relevant share
	O	Participation in scientific grant solutions project (semester)	5	A	1.-3.	1.-6.	
	O	Scientific Monograph /Homeland	20	A	1.-3.	1.-6.	
	O	Scientific Monograph /Foreign	30	A	1.-3.	1.-6.	
	O	Leadership of Gained „PU Grant for PhD Students“ or Other Scientific Grant Projects	10	A	1.-3.	1.-6.	
Number of credits from Scientific area :			120				

- **profile courses** of the relevant study path (specialization) within the study programme,
In the Recommended Study Plan of Theory of Physics Education, profile courses are marked with * (asterisk).
- for each learning part/course the learning outcomes, related criteria, and rules of their assessment so that the learning objectives of the study programme are met (they can be stated only in the Course information sheets, in the Learning outcomes section and in the Course completion requirements),
Learning outcomes, criteria, and rules of evaluation for each course and educational section are presented in Course Information Sheets in the section called Learning Outcomes and Conditions of Completion of the Course. Information sheets are available at the link: <https://student.unipo.sk/maisportal/studiineProgramy.mais>
- **prerequisites, co-requisites and recommendations for the design of the study plan**,
Conditional courses, i.e. Prerequisites, the successful completion of which determines the enrollment and study of the follow-up courses are listed in the Course Information Sheets in the section called Prerequisites and are made available to students in the MAIS system of PU.
Courses forming mutual bonds (binding contexts), i.e. requiring continuity in the development of knowledge, skills and especially practical skills are complemented by prerequisites. Course prerequisites are listed in the MAIS system with reference to the Course Information Sheet. The obligation given by the prerequisite must be fulfilled before enrolling another subject. Course Information Sheet (in MAIS) lists the course, the successful completion of which is necessary for enrollment into the follow-up course.
Information Sheets are available from the link: <https://student.unipo.sk/maisportal/studiineProgramy.mais>
Study regulations of PU: <https://www.unipo.sk/public/media/0190/STUD%2024.9.18%20pdf.pdf>
- for each learning part of the study plan/course the applied educational activities (lecture, seminar, exercise, final work, project work, laboratory work, internship, excursion, field practice, professional practice, state exam, etc. or their combinations) suitable for achieving learning outcomes,
Educational activities, forms, and methods for each course and for each educational activity are listed in the Course Information Sheets in the section Type, scope and method of educational activities and are made available to students in the MAIS system of PU. Information Sheets are available from the link: <https://student.unipo.sk/maisportal/studiineProgramy.mais>
- methods by which the educational activity is delivered – present, distant, combined (in accordance with the Course information sheets),
Methods of educational activities implementation are listed in the Information Sheets available from the link: <https://student.unipo.sk/maisportal/studiineProgramy.mais>
- outline/syllabus of the course¹¹,

¹¹ During the assessment, teachers responsible for the course will allow the working group access to the study materials of the course and the content of individual educational activities.

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The syllabus of each course is given in the Course Information Sheet.

Teachers providing the courses will allow the work group to get the access to other study materials of the courses as well as to content of individual educational activities during the assessment of the study programme.

- *student workload ("extent" of individual courses and educational activities separately)¹²,*
Student's workload within individual courses and educational activities (contact and non-contact teaching and activities) according to Recommended Study Plan of the Theory of Physics Education study programme is presented in individual Course Information Sheets.
Recommended Study Plan of the Study Programme takes the credit system into account on the principle of assessing the learner's workload. It uses the recommendations of the ECTS system for the collection and transfer of credits, which is based on the principle of transparency of learning, teaching and assessment processes.

ECTS Users' Guide 2015: <https://op.europa.eu/en/publication-detail/-/publication/da7467e6-8450-11e5-b8b7-01aa75ed71a1>

Information Sheets are available from the link: <https://student.unipo.sk/maisportal/studijneProgramy.mais>

Study regulations of PU: <https://www.unipo.sk/public/media/0190/STUD%2024.9.18%20pdf.pdf>

Rector's measure no. 10/2021 on aligning the study programmes: https://www.unipo.sk/public/media/37750/OR_x-2021_zosuladovanie.pdf

- *credits allocated to each part based on the learning outcomes achieved and the workload involved,*
The number of credits allocated to individual subjects, to the achieved outputs and educational activities belongs to the student's workload. The number of credits and the student's workload are stated in each Course information sheet separately. The determination of the student's workload was based on the rule that 1 credit corresponds to 30 hours of student's work. Information Sheets are available from the link: <https://student.unipo.sk/maisportal/studijneProgramy.mais>
- *the person responsible for the course (or a partner organization/person¹³) with an indication of the contact details*
Prof. RNDr. Marián Reiffers, DrSc. e-mail: marian.reiffers@unipo.sk, Phone number: +421-51-7570264
Dr.h.c. doc. PaedDr. Vladimír Šebeň, PhD. e-mail: vladimir.seben@unipo.sk, Phone number: +421-51-7570681
Doc. RNDr. Sergej Ilkovič, PhD. e-mail: sergej.ilkovic@unipo.sk, Phone number: +421-51-7570251
Doc. RNDr. Mária Csátaryová, PhD., e-mail: maria.csataryova@unipo.sk, Phone number: +421-51-7570686
prof. PaedDr. Pasternáková Lenka, PhD., MBA, e-mail: lenka.pasternakova@unipo.sk, Phone number: +421-51-7570741
prof. PaedDr. Pavelka Jozef, CSc., e-mail: jozef.pavelka@unipo.sk, Phone number: +421-51-7570771
Mgr. Majherová Mária, PhD., e-mail: maria.majherova@unipo.sk, Phone number: +421-51-7570316
- *course teachers (or participating partner organizations/persons) (may also be mentioned in Course information sheets),*
The names of teachers providing the courses and educational activities in terms of Recommended Study Plan of the Theory of Physics Education study programme are given in the Course Information Sheets.
Information Sheets are available from the link: <https://student.unipo.sk/maisportal/studijneProgramy.mais>
- *places where the courses are taught (if the study programme is delivered at several workplaces).*

Apart from student internships performed within the implementation of stays abroad and mobilities, all other courses and educational activities of the Recommended Study Plan of the Theory of Physics Education study programme are carried out in classrooms, laboratories and specialized classrooms of the Department of Physics, Mathematics and Technology / Workplaces of PU in Prešov.

- 49 *The institution states the number of credits, the achievement of which is a condition for proper completion of studies and other requirements that the student must meet within the study programme and for its proper completion, including the requirements for state examinations, rules for re-study and rules for the extension, interruption of study.*

The student is obliged to obtain the required number of credits in the study programme, the distribution and total number of which is determined by the accredited study programme. The standard student workload for the entire academic year is expressed as 60 credits, and 30 credits per semester.

The number of credits, the achievement of which is a condition for the successful completion of studies, for a third-level study programme with a standard length of study is at least 180 credits. According to the study regulations, the study may not exceed its standard length by more than two years.

All information required in point d) is given in Articles 29 to 32 (for PhD studies) of the Study Regulations of the PU in Prešov from 2018.

Link: <https://www.unipo.sk/public/media/0190/STUD%2024.9.18%20pdf.pdf>

Rector's measure no. 10/2021 on aligning the study programmes: https://www.unipo.sk/public/media/37750/OR_x-2021_zosuladovanie.pdf

- 49 *For individual study plans, the institution states the requirements for completing the individual parts of the study programme and the student's progress within the study programme in the given structure:*

- *number of credits for compulsory courses required for proper completion of studies/completion of a part of studies,*

According to the Recommended Study Plan of the Theory of Physics Education study programme, it is necessary to obtain at least 60 credits from the Study part, of which 42 credits are for compulsory courses. Student has the opportunity to obtain the remaining credits for compulsory optional or optional courses.

¹² We recommend indicating the workload of contact and non-contact teaching in accordance with the ECTS Users' Guide 2015.

¹³ E.g. when providing the professional practice or other educational activities carried out outside the university.

The outline description of the study programme is used to process Annex 2 of the application for granting the accreditation of the study programme.

From the Scientific part, it is necessary to obtain at least 120 credits, of which 90 credits are for compulsory courses. Student has the opportunity to obtain the remaining credits for optional courses.

- *number of credits for compulsory optional courses required for the proper completion of studies/completion of a part of studies,*
According to the Recommended Study Plan of the Theory of Physics Education study programme, a student will receive at least 15 credits altogether for completing compulsory optional courses from both areas (study and scientific area).

- *number of credits for optional courses required for the proper completion of studies/completion of a part of studies,*
According to the Recommended Study Plan of the Theory of Physics Education study programme, a student will receive at least 30 credits altogether for completing optional courses from both areas (study and scientific area).
Study regulations of PU: <https://www.unipo.sk/public/media/0190/STUD%2024.9.18%20pdf.pdf>

- *number of credits required for the completion of studies/completion of a part of the studies for the common foundations and for the relevant specialization, in the case of a teaching combination study programme or a translation combination study programme,*

It is not a teaching combination study programme, nor is it a translation combination study programme.

- *number of credits for the final thesis and the defence of the final thesis required for the proper completion of studies,*
The total number of credits for the final thesis, including the defence, is 34 (4 credits for the subject called Final Thesis for the Dissertation Examination and the Project of the Dissertation; and 30 credits for the subject called Dissertation Defence).

- *number of credits for professional practice required for the proper completion of studies/completion of a part of studies,*
Professional practice is not a part of the study programme.

- *number of credits required for the proper completion of studies/completion of a part of the studies for project work with the indication of relevant courses in engineering study programmes,*
This is not an engineering study programme.

- *number of credits required for the proper completion of studies/completion of a part of the studies for artistic performances in addition to the final thesis in art study programmes.*
This is not a study programme of artistic specialization.

9) *The institution describes the rules for verification of learning outcomes, students assessment and the possibilities of appealing against the assessment.*

The rules for the verification of educational outcomes, the evaluation of students and for the possibilities of corrective procedures against the given evaluation are stated in:

- Art. 15 to 22 of the Study Regulations of PU in Prešov from 2018:
<https://www.unipo.sk/public/media/0190/STUD%2024.9.18%20pdf.pdf>
- Disciplinary Code of PU in Prešov - https://www.unipo.sk/public/media/files/docs/u/svk/disciplinarny_poriadok_08.pdf

10) *Conditions for recognition of studies or a part of studies.*

Conditions under which the study courses, event. credits are recognized are stated in Art. 20 of the Study programme. An Application for a course recognition and awarding of credits for the relevant course is submitted by the student at the Study Department of the core faculty or university.

Study regulations of PU in Prešov: <https://www.unipo.sk/public/media/0190/STUD%2024.9.18%20pdf.pdf>

11) *The institution states the topics of final theses of the study programme (or a link to the list).*

The Dean will announce the topics of the dissertation theses, which can be applied for within the admission procedure, at least two months before the last day set for the submission of applications for doctoral studies. The topics of final theses are approved by the study programme guarantor. When approving the topics, necessary conditions of final thesis supervisor must be fulfilled. The supervisor is supposed to have at least a level higher university degree or qualification than is the one of the final theses (the only exception is possible for professional workers). Moreover, the listed topic of the dissertation must correspond to the scientific-pedagogical profile of the supervisor.

Proposed topics of final theses:

Interactive methods and technologies in teaching primary-school physics

Analysis of the effectiveness of teaching laboratory physics measurements with the use of alternative measuring systems

The list of topics for dissertation theses is published on the faculty's website <https://www.unipo.sk/fakulta-humanitnych-prirodnych-vied/vzdelavanie/Doktorandske/Konanie/> and on the faculty departments' websites, eventually on teachers' websites.

12) *The institution describes or refers to:*

- *rules for the assignment, processing, opposition, defence and evaluation of final theses in the study programme,*

The university has developed a comprehensive system of processes ensuring the procedure for the preparation and organization of final theses at all levels of study. The basic document is the Directive on the requisites of final theses, their bibliographic registration, control of originality, storage, and access, issued by the Rector of PU in 2019. The Directive specifies general provisions, basic concepts, characteristics and formal arrangement of final theses, ethics and technique of citations and bibliographic references, structure of work, transmission, control of originality and access, competence of the university, its parts and competence of the final thesis author and on the competence of the Ministry as well as the university and final provisions.

Specific procedures for defining the final theses of bachelor's and master's study programmes, their processing, defence, and evaluation are set out in the PU Study Regulations in Art. 23. Procedures for processing rigorous theses and their defence are set out in Art. 25 of the PU Study Regulations. Procedures for defining dissertations of doctoral study programmes, their processing, defence, and evaluation are set out in the PU Study Regulations, Part III.

The outline description of the study programme is used to process Annex 2 of the application for granting the accreditation of the study programme.

The total number of credits for the dissertation thesis, including the defence, is 35 (5 credits for the subject called Final Thesis for the Dissertation Examination and the Project of the Dissertation; and 30 credits for the subject called Dissertation Defence).

Directive on the requisites of final theses is available from: <https://www.pulib.sk/web/data/pulib/subory/stranka/ezp-smernica2019.pdf>

Study regulations are available from: <https://www.unipo.sk/public/media/0190/STUD%2024.9.18%20pdf.pdf>

- opportunities and procedures for participation in student mobility,

The PU study regulations in the section on the organization of educational activities address the right of a student to complete part of his/her studies at another university in the Slovak Republic or abroad. The consent of the mobility is granted by the Dean/Rector, or eventually, the Vice-Rector for External Relations and Marketing. Part of the study is recognized in accordance with the contract, the European standard, and the European Credit Transfer System. The Rector's measure of "Procedure for the implementation of outgoing student mobility within the Erasmus + program" is issued at the University of Prešov in Prešov (PU) on the basis of the provisions of § 15 sec. 1 letter l) of Act no. 131/2002 Coll. on Higher Education Institutions and on Amendments to Certain Acts, as amended. With this measure of the Rector, the PU management determines the course of activities of individual actors related to the implementation of student mobility abroad within the Erasmus + program. Introductory provisions The Rector's action responds to the main ideas of the Bologna Process. In designing the quality of education, PU applies the approaches declared in the current concepts of determining and evaluating educational outcomes. The Rector's measure is in accordance with § 87a of the Higher Education Act.

For incoming students, credits are assessed on the basis of their acquisition, i.e. the guarantor of the study evaluates the level of conformity of the completed courses with the given study programme. In case of agreement, the credits are recognized, eventually the non-completed courses can be additionally completed within the requirements of the study programme.

Student mobility is provided and directed by the Rector, or coordinator appointed by the Dean. His/her task is to prepare and implement a program of international cooperation in the field of education, solving tasks related to the sending and admission of students, providing counselling services to students about the possibilities of studying at other universities in the Slovak Republic and abroad.

PU Study Regulations: <https://www.unipo.sk/public/media/0190/STUD%2024.9.18%20pdf.pdf>

PU website: <https://www.unipo.sk/search/?q=mobility>

FHNS PU website: <https://www.unipo.sk/fakulta-humanitnych-prirodnch-vied/vyzvy-mob-stud/>

Rector's measure: <https://www.unipo.sk/public/media/10602/Opatrenie-rektora-8-05-31.pdf>

- rules for adherence to academic ethics and rules for drawing consequences,

The rules of adherence to academic ethics and drawing consequences are set out in the document called Ethical Code of PU in Prešov. Scientific integrity and ethics is available from:

<https://www.unipo.sk/public/media/38250/Etick%C3%BD%20k%C3%B3dex%20Pre%C5%A1ovskej%20univerzity%20v%20Pre%C5%A1ove.pdf> and from the Complaints Act 2009: <https://www.slov-lex.sk/pravne-predpisy/SK/ZZ/2010/9/>

- procedures applicable to students with special needs,

Diversity of students' needs (special educational needs) is accepted within the scope of the Methodological Guide. Document in accordance with § 100 sec. 11 of Act no. 131/2002 Coll. on Higher Education Institutions and on Amendments to Certain Acts as Amended (hereinafter referred to as the "University Act") and Decree no. 458/2012 Coll. on the minimum requirements of a student with special needs creates a generally accessible academic environment and corresponding study conditions for students with special educational needs without reducing the requirements for their study performance.

Methodological Guide: https://www.unipo.sk/public/media/0190/METODIKA_%C5%A0%C5%A0P_april2017.pdf

- procedures for filing complaints and appeals by students.

In the submission of students' complaints and appeals, the procedures concerning:

- admission to university studies,
- exams,
- accommodation,
- crime

governed by the Complaints Act no. 9/2010 Coll. and his amendment no. 94/2017 Coll.

(<https://www.aspi.sk/products/lawText/1/88314/1/2/zakon-c-94-2017-zz-ktorym-sa-meni-a-doplna-zakon-c-9-2010-zz-o-staznostiach-v-zneni-neskorsich-predpisov/zakon-c-94-2017-zz-ktorym-sa-meni-a-doplna-zakon-c-9-2010-zz-o-staznostiach-v-zneni-neskorsich-predpisov>)

Based on a justified case, the student has the opportunity to ask for correction of the evaluation results. In the academic year in which the course is enrolled, the student has the right for two corrective exam dates within the announced exam dates and the academic year schedule. At the student's request, the examiner will allow a re-examination even if the student passed the regular examination date successfully. The corrective date of the examination shall be entered in the MAIS system. If the student so requests, the Vice-Dean / Vice-Rector for Education may, in justified cases, allow the examination to take place in an adjustment period before a commission appointed by the Dean / Rector. The commission examination can be requested at the Study department of the faculty no later than five working days after the regular date or the first corrective date of the examination.

Students can submit suggestions through a "black box", i.e. in the form of an electronic anonymous form. Complaints are registered through representatives of the student part of FHNS Academic Senate, who then delegate them to the relevant departments according to the content of the complaint.

PU Study Regulations: <https://www.unipo.sk/public/media/0190/STUD%2024.9.18%20pdf.pdf>

FHNS Black box: <https://www.unipo.sk/fakulta-humanitnych-prirodnch-vied/informacie-pre-studentov/cierna-skrinka/>

The outline description of the study programme is used to process Annex 2 of the application for granting the accreditation of the study programme.

5. **Course information sheets of the study programme**

In the structure according to Decree no. 614/2002 Coll.

Information sheets of all courses of the study program Theory of Physics Education are stated in Part IV. 7. Additional information on the application for accreditation is available from the link: <https://student.unipo.sk/maisportal/studijneProgramy.mais>

6. **Current academic year plan and current schedule** (or hyperlink).

The current schedule of the academic year can be found on the FHNS PU website in the section - Students. Available from:

<https://www.unipo.sk/fakulta-humanitnych-prirodných-vied/vzdelavanie/harmonogram/>

Current schedule of the study program Theory of Physics Education (academic year 2021/2022) is in the MAIS information system - public portal, available from: <https://student.unipo.sk/maisportal/rozvrhy.mais>

7. **Persons responsible for the study programme**

- a) A person responsible for the delivery, development, and quality of the study programme (indicating the position and contact details).

Marián Reiffers, Prof. RNDr., DrSc., professor, e-mail address: marian.reiffers@unipo.sk, Phone number: +421-51-7570264, Ul. 17. novembra 1, 08001 Prešov.

- b) List of persons responsible for the profile courses of the study programme with the assignment to the course and provided with a link to the Central register of university staff (CRUS) and with contact details (they may also be listed in the study plan).

Person and contact	Profile courses	Hyperlink to the CRUS
Prof. RNDr. Marián Reiffers, DrSc. Email: marian.reiffers@unipo.sk Phone: +421-51-7570264 Address: Ul. 17. novembra 1 08001 Prešov	Selected Chapters from Physics Selected Chapters from Modern Physics	https://www.portalvs.sk/regzam/detail/6703
Dr.h.c. doc. PaedDr. Vladimír Šebeň, PhD. Email: vladimir.seben@unipo.sk Phone: +421-51-7570681 Address: Ul. 17. novembra 1 08001 Prešov	Selected Chapters from Didactics of Physics Selected Problems from Didactics of Physics	https://www.portalvs.sk/regzam/detail/6525
doc. RNDr. Sergej Il'kovič, PhD. Email: sergej.ilko@unipo.sk Phone: +421-51-7570251 Address: Ul. 17. novembra 1 08001 Prešov	Computer-aided physics laboratory	https://www.portalvs.sk/regzam/detail/6517
doc. RNDr. Mária Csátaryová, PhD. Email: maria.csataryova@unipo.sk Phone: +421-51-7570686 Address: Ul. 17. novembra 1 08001 Prešov	Seminar from Selected Problems of Frontier Physics Fields	https://www.portalvs.sk/regzam/detail/6473
prof. PaedDr. Lenka Pasternáková, PhD., MBA Email: lenka.pasternakova@unipo.sk Phone: +421-51-7570741 Address: Ul. 17. novembra 1 08001 Prešov	Introduction to University Pedagogy	https://www.portalvs.sk/regzam/detail/6520
prof. PaedDr. Jozef Pavelka, CSc. Email: jozef.pavelka@unipo.sk Phone: +421-51-7570771 Address: Ul. 17. novembra 1 08001 Prešov	Development of Educational Tools	https://www.portalvs.sk/regzam/detail/6511
Mgr. Mária Majherová, PhD. Email: maria.majherova@unipo.sk Phone: +421-51-7570316 Address: Ul. 17. novembra 1 08001 Prešov	Educometry	https://www.portalvs.sk/regzam/detail/6523

- c) Reference to the research/art/teacher profiles of persons responsible for the profile courses of the study programme.
Prof. RNDr. Marián Reiffers, DrSc., *Dr.h.c. doc. PaedDr. Vladimír Šebeň, PhD.*, *Doc. RNDr. Sergej Il'kovič, PhD.*, *Doc. RNDr. Mária Csátaryová, PhD.*, *RNDr. Jozef Kmec, PhD.*, *RNDr. Ivan Čurlík, PhD.*, [URL](#)

- d) List of teachers of the study programme with the assignment to the course and provided with a link to the central Register of university staff and with contact details (may be a part of the study plan).
The list is identical to that in point c)

- e) List of the supervisors of final theses with the assignment to topics (indicating the contact details).

prof. RNDr. Marián Reiffers, DrSc., e-mail: marian.reiffers@unipo.sk, Phone: +421-51-7570264, Address: Ul. 17. novembra 1, 080 01 Prešov

Defended dissertation theses:

The outline description of the study programme is used to process Annex 2 of the application for granting the accreditation of the study programme.

- RNDr. Natália Tomašovičová, rod. Hudáková: Experimental study of high-temperature Bi-Sr-Ca-Cu-O superconductors, defended 1997
- RNDr. Eva Kačmarčíková, rod. Bystrenová: Point-contact spectroscopy of selected metallic materials, defended 1999
- RNDr. Tatiana Saloňová, rod. Kačmárová: Study of electron-quasiparticle interaction in selected metallic materials using Point-contact spectroscopy, defended 2003
- RNDr. Sergej Il'kovič: Point-contact spectroscopy of selected metallic materials, defended 2006
- RNDr. Gabriel Pristáš: Emergent Behaviour in Correlated Matter Studied by Point-Contact Spectroscopy, defended 2008
- RNDr. Mariana Zapotoková, rod. Vasiľová: Study of ground state and interaction mechanisms in selected systems of type R (Ni, M) 5 (R - rare earth, M = Si, Ge, Cr), defended 2013
- RNDr. Ivan Čurlik: Study of the ground state and interaction mechanisms of strongly correlated electron systems in selected Yb-based intermetallic compounds, defended 2013
- Ing. RNDr. Andrea Džubinská: Experimental study of emergent ground state behaviour in RENi5 (RE = Ce, Yb, Gd) system, Cotutelle spolu s Universidad de Cantabria, Spain, defended Cum laude 2020.

Proposed topics of dissertation theses:

The use of experimental equipment QUANTUM DESIGN such as DYNACOL and VERSALAB in the teaching of physics at high school, respectively. primary school

Dr.h.c. doc. PaedDr. Vladimír Šebeň, PhD., e-mail: vladimir.seben@unipo.sk, Phone: +421-51-7570681, Address: Ul. 17. novembra 1, 080 01 Prešov

Defended dissertation theses:

- PaedDr. Ondrej Fečo. Implementation of elements of environmental education into the physical extra-curricular activities. UKF Nitra 2014
- Mgr. Peter Viktor. The effectiveness of teaching physics using ICT in primary school. UMB Banská Bystrica. 2007
- Mgr. Daniela Vasilíková. Effectiveness of alternative teaching methods in physical education. UMB Banská Bystrica. 2007

Dissertation theses under preparation:

- RNDr. Ing. Andrea Kľučárová. Research into the synergy of cognitive interest in physics and critical thinking of primary school students. PU in Prešov. Expected date of defense of the disser. thesis: 2022
- Mgr. Martin Šechný. Research methods and students' interest in physics. PU in Prešov. Part-time student. Expected date of defense of the disser. thesis: 2022

Proposed topics of dissertation theses:

Interactive methods and technologies in teaching primary-school physics

doc. RNDr. Sergej Il'kovič, PhD., e-mail: sergej.ilkovic@unipo.sk, Phone: +421-51-7570251, Address: Ul. 17. novembra 1, 080 01 Prešov

Dissertation theses under preparation:

- RNDr. Michal Choma: *Implementation of an alternative measurement system in a school physics experiment.* PU in Prešov. Expected date of defense of the disser. thesis: 2022

Proposed topics of dissertation theses:

- *Analysis of the effectiveness of teaching laboratory physics measurements with the use of alternative measuring systems*

f) Reference to the research/art/teacher profiles of the supervisors of final theses.

Prof. RNDr. Marián Reiffers, DrSc., e-mail: marian.reiffers@unipo.sk, Telefón: +421-51-7570264

Dr.h.c. doc. PaedDr. Vladimír Šebeň, PhD., e-mail: vladimir.seben@unipo.sk, Telefón: +421-51-7570681

Doc. RNDr. Sergej Il'kovič, PhD., e-mail: sergej.ilkovic@unipo.sk, Telefón: +421-51-7570251

[URL](#)

g) Student representatives representing the interests of students of the study programme (name and contact details).

Representatives of the Student part of FHNS Academic Senate:

Bc. Daniel Kamenský - daniel.kamensky@smail.unipo.sk

Mgr. Katarína Fogašová - katarina.fogaso@smail.unipo.sk

Mgr. Vladislava Košová - vladislava.kosova@smail.unipo.sk

Mgr. Monika Lörincová - monika.lorincova@smail.unipo.sk

Ing. Július Varga - julius.varga@smail.unipo.sk

Representative of the Student part of PU Academic Senate:

Ing. Hedviga Vašková - hedviga.vaskova@smail.unipo.sk

Members of Academic Senates represent the students' interests regardless of their affiliation to the study programme.

h) Study advisor of the study programme (indicating contact details and information on the access to counseling and on the schedule of consultations).

All issues are discussed in cooperation with the supervisor and with the staff of the Study Department.

Dr.h.c. doc. PaedDr. Vladimír Šebeň, PhD., e-mail: vladimir.seben@unipo.sk, Phone: +421-51-7570681 - [URL](#)

doc. RNDr. Sergej Il'kovič, PhD., e-mail: sergej.ilkovic@unipo.sk, Phone: +421-51-7570251 - [URL](#)

Mgr. Anna Boldižárová, Study department clerk, e-mail: anna.boldizarova@unipo.sk, Phone: +421-51-7570621

i) Other supporting staff of the study programme – assigned study officer, career counselor, administration, accommodation department, etc. (with contact details).

Ing. Jana Kleščová, *Head of Study Department*, Phone: (+421)0517570620, e-mail: jana.klescova@unipo.sk

Mgr. Anna Boldižárová, *Study department clerk*, Phone: (+421)0517570621, Email: anna.boldizarova@unipo.sk

Ing. Miroslav Ganaj, *Head of Computer Technology Centre*, Phone: (+421)0517570610, Email: miroslav.ganaj@unipo.sk

Mgr. Ľudmila Zofáková, administrative worker, Phone: (+421)0517570670, Email: ludmila.zolakova@unipo.sk
Ing. Peter Haľko, Director of University Library, Phone: (+421)0517570144, Email: peter.halko@unipo.sk
Mária Husárová, accommodation clerk, Phone: (+421)05177 22 851, fl. 101, Email: maria.husarova@unipo.sk

s. **Spatial, material, and technical provision of the study programme and support**

- a) List and characteristics of the study programme classrooms and their technical equipment with the assignment to learning outcomes and courses (laboratories, design and art studios, studios, workshops, interpreting booths, clinics, priest seminaries, science and technology parks, technology incubators, school enterprises, practice centres, training schools, classroom-training facilities, sports halls, swimming pools, sports grounds).

Spatial provision of the study programme

The University of Prešov in Prešov ensures activities of individual parts of the university in its own premises or in rented premises. The largest faculties of the university, the Faculty of Arts and the Faculty of Humanities and Natural Sciences, are located in the largest building, namely in the University Campus at Ul.17.novembra 1, Prešov. The whole complex of buildings consists of five interconnected parts in which the teaching take place and facilities of the faculties, lecture halls, classrooms and professional workplaces are situated. The building provides all the activities necessary to ensure quality teaching of all study programmes. The total usable area of the building is 25,060 m². It was built in the 1980's. The premises are continuously repaired for the actual needs of fields of study and faculties. The building also includes laboratories and Centres of excellence for science and research.

Provision of library services at the place of spatial provision of the study program

The PU University Library is a scientific-information, bibliographic, coordination and advisory department of the university, which provides mainly university students and employees but within its capabilities, provides also other experts with library and information services. UK PU develops its activities on the historical basis of educational development and library culture of the region and builds on the traditions established by the Collegiate Library as well as the Eparchial Library. The main mission of the library is to ensure free access to information; to help meet the cultural, information, scientific research and educational needs and interests of the university; to support the lifelong learning and spiritual development of the university. For this purpose, the library provides the following basic and special library information services: lending services, bibliographic information services, consulting services, reprographic services and other services (processing of records of publishing activities of university staff; bibliographic registration of final and qualification theses; operation of PU Digital Library; organization of exhibitions of scientific literature, exhibitions of works of art, concerts, presentations, professional library events, etc.). The library fund contains a total amount of almost 225,000 library units (annual increase of the library fund is about 4,000 books and 250 titles of periodicals, while the purchase of documents is carried out on the basis of faculty requirements for equal purchase for the needs of all study programs at PU). Since 2004, the library has been building the Digital Library (a database of electronic full-text publications created by university staff, which contains more than 800 publications. Since 1997, it has been building a database of PU publishing activities in which it registers more than 66,000 documents. The total area of the library is more than 2,600 m², of which 1,150 m² is for users, 303 study places are available in 6 study rooms (2 of which are databases), more than 70,000 readers visit the library every year, and more than 70,000 visit websites. 500,000 readers. The library has its own computer network (PULIBnet) with 4 servers, 84 computers, of which 45 are reserved for users. An annual edition publishes a bibliography of PU publishing activities. The library provides access to 9 paid full-text database centres (EBSCO, Gale, ProQuest, Science Direct, Scopus, Springer, Taylor and Francis, Web of Knowledge, Wiley).

Material and technical support of the study program

Since 2008, the University of Prešov has undergone an extensive modernization of classrooms. The new equipment was installed in a total of 165 seminar-, lecture- and professional classrooms. Specifically, there were 136 computers for lecture- and seminar rooms, other 406 computers for computer- and professional classrooms, as well as 132 data projectors and electric screens, then 17 interactive whiteboards and other small equipment. In 2020, another modernization of 25 largest classrooms at the university took place, ICT equipment and video-presentation technologies were innovated.

Since 2008, modern metallic and optical computer wiring in 14 university buildings, including primary wiring in students' dormitory rooms, have been built and expanded as part of projects from the SF. A total of 1,694 computer sockets were installed. In all buildings, there are high-speed networks, which typically operate at 1 Gbit per second, but are also ready to introduce 10 Gbit per second in the future. From 2017 to 2020, the university has undergone a complete replacement and reconstruction of a centrally managed WiFi network worth of EUR 154,000, and a total number of 298 new access points were installed in all university buildings altogether.

Department of Physics, Mathematics and Technology has extensive technical support for students, which currently serves primarily for teaching and research activities within the study programme Theory of Physics Education. Physics Division of Department of Physics, Mathematics and Technology has classrooms and laboratories with rich material and technical equipment, which serves both for research purposes as well as for teaching students of all study programmes provided by the Physics Division.

Science and research area:

- Versalab research laboratory launched in 2013-2015, where it is possible to study electrical-, magnetic- and thermal properties of solids at low temperatures. The laboratory was built with the funds of the EU SF ITMS 26220220003 (Development of thermometers and magnetic sensors based on chalcogenides for practical applications)
- Dynacool research laboratory after temporary operation on the premises of University Campus, was relocated to the newly built premises of the Unipolab Scientific Research Centre in 2018, which was ceremoniously put into operation in 2018. The laboratory was built from the EU SF ITMS 26220220182 (As part of building the UVP Technicom building)
- DSC calorimetry laboratory was put into operation in 2019 on the premises of the Unipolab Scientific Research Centre. The laboratory was built with the funds of the EU SF ITMS 26220220182 (within the construction of UVP Technicom building)
- a seminar room (shared within the FHNS) on the premises of the Unipolab Scientific Research Centre
- sample preparation rooms and technical rooms in the premises of the Unipolab Scientific Research Centre.

Education and study area:

- specialized laboratory enabling experiments in Mechanics, Molecular Physics, Electricity, and Magnetism (no. 352, University Campus building)
- specialized laboratory enabling experiments in Optics and Nuclear Physics (no. 355, University Campus building)
- specialized laboratory of school experiments enabling primary- and secondary- physics school experiments (no. 357, University Campus building)
- specialized Edukolab classroom (open in 2018) focused on preparing students for the effective use of information technologies in the educational process. The funds of the KEGA project were used to build it (Classroom no. 356, University Campus building)

Information on the material and technical support of the workplace is available from the link: <https://www.unipo.sk/fakulta-humanitnych-prirodnch-vied/katedry/kfmt-fhvp/fyzika/vybavenie>.

- b) Characteristics of the study programme information management (access to study literature according to Course information sheets, access to information databases and other information sources, information technologies, etc.).

All FHNS workplaces and classrooms are connected to the university network. Due to the ICT research grant project, the faculty has a newly built computer network based on manageable switches with a speed of 1 GBit per second, the new structured UTP cabling enables data transition to a speed of up to 10 Gbit per second. All classrooms are equipped with a data projector, an electric screen and a computer connected to a computer network, the computers in classrooms are centrally managed, the computer centre is equipped with new powerful servers. This creates technical conditions for the use of modern information technologies by FHNS staff and students. Students must log in to the faculty network, each student has his/her own password and access rights. FHNS has 4 faculty classrooms of computer technologies. One of them is used by student to get free access to the internet. Moreover, FHNS has 6 departmental classrooms and laboratories equipped with computer technologies. The university-wide information systems include the Modular Academic Information System (MAIS), which is used for study management. All necessary information is available to students on the faculty website, or on each department website. Teachers also provide students with teaching materials in digitized form, communicate and consult with students through electronic communication, or through the website chat application.

Teaching at FHNS PU in Prešov is carried out in well-equipped classrooms and laboratories for teaching and professional activities of students and doctoral students. The faculty has 32 classrooms equipped with a computer connected to the network, a data projector and an electric screen, 4 classrooms with an interactive whiteboard and one room is soundproofed. All workplaces and all classrooms are connected to the university network, special software is available (statistical software, e-learning systems, Internet media, resources allow the disabled to participate in the proper teaching process.) Within the educational activities are used several specialized tools such as microscopes, stereomicroscopes, optical instruments, analyzers, sampling equipment, GNSS instruments, UAV equipment, sound level meters, luxometers, multimeters measuring various physical and chemical variables, GPS, wood, and metalworking equipment, etc. They all cooperate (control, communicate and transmit data) with the use of computer technologies.

Scientific – Pedagogical Workplace of Department of Physics, Mathematics and Technology is equipped with the following information systems:

- laboratories in the field of science and research are equipped with computer-aided measuring systems, some of which can be controlled remotely
- specialized laboratories in the field of education and study (classrooms no. 352 and 357) are equipped with laboratory desks with 9 computers (per each laboratory). In addition, each laboratory is equipped with a multimedia computer connected to data projector and a screen.
- specialized Edukolab classroom is a fully equipped multimedia classroom, which is equipped with a multimedia computer and an interactive whiteboard. In addition, the classroom has a visualizer, presentation equipment and other teaching aids.
- Computer Science Laboratory (classroom no. 348) is the workplace for computer-aided teaching. It is equipped with 9 Pentium multimedia computers and another computer for teachers. The workplace is equipped with a laser printer and scanner as standard. An LCD data projector is installed in the classroom for quality projection. From the software point of view, classroom meets the requirements for teaching, a network-based operating system is installed on computers, and all computers are connected to the Internet. In the network version, freely distributable graphics software is available in the laboratory
- all classrooms and laboratories are equipped with the Internet connection. Wireless Wi-Fi is available in all the places. From computers used by students, it is possible to connect to the university Intranet or Internet services (such as MAIS, Moodle, Teams, etc.)

Material, spatial and IT provision of the study program Theory of Physics Education belonging to the scientific-pedagogical workplace of Physics Division of the Department of Physics, Mathematics and Technology FHNS PU in Prešov, has been built for a long-time but purposefully for doctoral study programme Theory of Physics Education, in which it is currently used the most.

- c) Characteristics and extent of distance education applied in the study programme with the assignment to courses. Access, manuals of e-learning portals. Procedures for the transition from contact teaching to distance learning.

The University of Prešov in Prešov uses the e-learning system to support online teaching through the Moodle environment. Moodle is available at <https://elearning.unipo.sk/> and contains basic information, courses, and manuals. The electronic e-learning system in the Moodle environment is available to all students, teachers, and employees of the University of Prešov in order to improve the quality of education. University-wide e-learning provides courses for PU Faculty of Health Care, PU Faculty of Orthodox Theology and PU Faculty of Sports. Other faculties, including Faculty of Humanities and Natural Sciences, run their own e-learning server.

In case of negative unfavourable pandemic conditions for the full-time form of education, we plan to implement a partial transition to distance form of education of the study program. From the internal university studies of previous Covid pandemic period, we consider the most effective form of teaching the following one: Interactive lectures through MS Teams combined with students' feedback from didactic tests in MS Forms or LMS Moodle. Courses having the educational content of a practical mature, are implemented in accordance with current epidemiological measures.

Moodle PU: <https://elearning.unipo.sk/>

Moodle FHNS: <https://e.fhvp.unipo.sk/>

The outline description of the study programme is used to process Annex 2 of the application for granting the accreditation of the study programme.

- d) Institution partners in providing educational activities for the study programme and the characteristics of their participation. In the study programme, we plan to participate in providing and improving the study programme and educational activities:
- with sister departments at the following universities: UKF Nitra, UMB Banská Bystrica, UPJŠ in Košice or FMFI UK in Bratislava
 - with several similar university workplaces in the Czech Republic, Italy, Portugal, Spain or Ukraine

We plan to implement university cooperation e.g. in the form of exchange of final thesis opponents, in joint and transnational student competitions and mutual participation in research grant projects.

- e) Characteristics of the possibilities for social, sports, cultural, spiritual and social activities. PU students are accommodated in four separate facilities (Students' Dormitory at Ul. 17. novembra no.11; Students' Dormitory at Ul. 17. novembra no.13; Students' Dormitory at Nám. Mládeže no. 2; Students' Dormitory at Exnárova no. 36) and in 2 specialized workplaces (Orthodox Priestly Seminary or Greek Catholic Priestly Seminary). Each Students' dormitory creates conditions for independent study and rest of accommodated students, for the development of cultural, social and sports life and for the development of hobby activities of accommodated students. Accommodation of PU students is done in double - quadruple rooms with complete sanitary facilities in the cellular system. In 2018, the reconstruction of Students' Dormitories at 17. novembra Street no. 11 and 13 began. It was completed at the end of 2019. In 2021, the reconstruction of Students' Dormitory at Nám. Mládeže no. 2 started. All dormitories are equipped with Internet connection accessible directly from students' rooms. There is a TV lounge, laundry facilities and a kitchen on each floor. The University Pastoral Centre is available for students on the 11th floor. University Campus offers also hairdressing, cosmetics and a health centre. There are vending machines for coffee and sweets.

University students have several opportunities for leisure sports activities in PU sports facilities such as a swimming pool, gym, multi-purpose sports complex or multifunctional playground. In both semesters of 2019 calendar year, Faculty of Sports organized the University Mix-Volleyball League and the PU Football Mini league for university students, which are of constant interest. The University Sports Days, organized by Faculty of Sports, also have a long tradition, in which almost 600 students were actively involved in 2019. University students can also develop their sports interests in several sports branches and clubs of TJ Slávia PU Prešov. Its membership basement consists of about 300 athletes every year. In addition, every year, Faculty of Sports organizes several periodic and non-periodic sports and sports-educational activities not only for students, but also for the general public of various ages (Spring Run; Children's Sports Olympics of Kindergartens; Olympic Pentathlon for Seniors;). In the implementation of these activities into practice, Faculty of Sports organizationally cooperates with its students, as well as with Prešov Olympic Club and the City of Prešov.

There are 11 art ensembles at the PU in Prešov, which are also members of the Council for Artistic Activities of the University. They operate at those university faculties, which professional guarantors are artistic leaders. The members of the ensembles are mostly university students. The university's art ensembles are an example of university students' leisure time, they represent the university at homeland and foreign art events such as: academic competitions, shows, festivals, television- and radio- performances, recordings. They also significantly affect cultural and social life at the university ceremonial events, represent and create the image of the university within the city of Prešov, Prešov region, on a national and international scale.

University Pastoral Centre of Dr. Štefan Hések in Prešov (hereinafter UPC) <http://upc.unipo.sk/> is a part of the nationwide network of university pastoral centres. Its main task is to take care of the spiritual needs of university students and teachers. UPC uses a chapel in Students' Dormitory at Ul. 17.novembra, also TV room in Students' Dormitory at Exnárová no. 36 and a University Hall no. 100 at FHNS PU. The Greek Catholic Youth Pastoral Centre (GMPC) www.gmpc.grkatpo.sk, founded by the Archbishop's Office in Prešov, is also active in the spiritual field at PU. GMPC cooperates very intensively with the Greek-Catholic Theological Faculty of PU and offers various leisure-time activities. The aim of this centre is to offer mostly young people working and studying in the city of Prešov a space for meeting together, establishing dialogues, a fuller experience of their faith as well as reciprocity between themselves and the world. Everything is based on friendship attitude, conversations, discussions, invited lectures, spiritual and leisure-time activities.

Students' Dormitory and canteen of PU: <https://www.unipo.sk/sdj>

PU Annual Report(2020):

<https://www.unipo.sk/public/media/9653/Vyrocn%C3%A1sprava%20o%20cinnosti%20Presovskej%20univerzity%20v%20Presove%20za%20rok%202020.pdf>

- f) Possibilities and conditions for participation of the study programme students in mobilities and internships (indicating contact details), application instructions, rules for recognition of this education. Participation of study programme students in student mobility and traineeships (with indication of contacts), instructions for registration, rules for recognition of this education, etc. is organized and legally provided by Department of Foreign Affairs and External Relations of the PU (<https://www.unipo.sk/zahranicne-vztahy/erasmus/studenti>) as well as Department of External Relations of the FHNS PU (<https://www.unipo.sk/fakulta-humanitnych-prirodnch-vied/zahranicne-vztahy/oddelenie>). The study program enables adequate education out-of-university environment in other homeland or foreign institutions, especially through the mobility support. The results of this education are recognized by the university. Mobility is regulated by the Study Regulations in the section on the Organization of educational activities. The consent of the mobility is granted by the Dean / Rector, or Vice-Dean / Vice-Rector for External Relations. Part of the study is recognized in accordance with the contract, the European standards, and the European Credit Transfer System. The Rector's measure "Procedure for the implementation of outgoing student mobility within the Erasmus + program" is issued at The University of Prešov in Prešov (PU) on the basis of the provisions of § 15 sec. 1 letter I) of Act no. 131/2002 Coll. on Higher Education Institutions and on Amendments to Certain Acts, as amended. For seconded students, credits are assessed on the basis of their acquisition, i.e. the guarantor of the study evaluates the degree of conformity of the completed teaching with the given study program. If interested, the student can enroll in courses at the home institution and complete it in the distance method, if the nature of the course allows it. Motivational videos, processes, procedures and instructions for registration, selection, and implementation of mobilities are published on the following websites:

https://www.unipo.sk/public/media/15742/outgoing_student_mobilita_uvv.jpg,

<https://www.youtube.com/watch?v=ZRmnQ08NMfg>, https://www.unipo.sk/public/media/15172/Var%C5%A1ava_E+.mp4,

<https://www.facebook.com/Presovskauniverzita/videos/1143643639391766>.

PU study regulations: <https://www.unipo.sk/public/media/0190/STUD%202024.9.18%20pdf.pdf>

The outline description of the study programme is used to process Annex 2 of the application for granting the accreditation of the study programme.

Rector's measure: <https://www.unipo.sk/public/media/10602/Opatrenie-rektora-8-05-31.pdf>

9. **Required abilities and admission requirements for the study programme applicants**

a) Required abilities and necessary admission requirements.

Long-term intention and strategic goal of the university is to prepare quality graduates in accredited study programmes. Necessary assumption for achieving this goal is to admit the study those students who meet demanding quality criteria. The university has developed a system of procedures for admitting students, developed in the PU Study Regulations in Art. 3 to 9 and in the Rector's Measures Admission Procedure.

Each faculty has elaborated specific conditions of the admission procedure, corresponding to the specifics and peculiarities of study programmes. At FHNS PU, applicants for all bachelor's study programmes are admitted without any entrance examination based on the results obtained during their secondary school studies (average of year-end certificates and graduation certificate). If the number of applicants exceeds the capacity of the faculty, preference will be given to those applicants with a better grade point average. When determining the order of admission, the resulting average will be multiplied by the coefficient for the secondary school type: grammar school 0.6, secondary vocational school 0.8 and apprentice school 1.0. An applicant whose average (1st-3rd year of secondary school) does not exceed the limit of 1.70 at a grammar school, 1.40 at other secondary schools (without multiplication by the coefficient for a secondary school type) obtains an extraordinary possibility of admission.

The admission procedure for the applicant begins with the delivery of his/her written application for study to the faculty or university that implements the relevant study programme. In addition to the written application, which is mandatory, the faculty will allow to deliver the application in electronic form without a guaranteed electronic signature, using an information system that allows the applicant to verify its registration in the information system from the date of submission to the end of the admission procedure. The Dean may decide whether the admission procedure will include an entrance examination or whether the applicants will be admitted without an entrance examination. In justified cases, the Dean of the faculty may announce the second round of the admission procedure. In case of a study programme carried out at a university not a faculty, the Rector is the one who decides on matters in which the Dean usually decides. The course and schedule of the entrance examination will be determined by the dean of the faculty. The faculty will determine the form and content of the entrance exam. The Dean appoints the chairmen of the examination commissions and admission commissions. Entrance exam takes place on a specified date, but the faculty may also set an alternative date. Applicants who complete secondary school education abroad in the relevant year may ask for a special date for the entrance examination. The Dean then decides on admission to study. The Dean's advisory body is the Admissions Committee, whose members are appointed by the Dean. The Rector decides on admission to the study program carried out at the university. The Rector's advisory body is the Admissions Committee, whose members are appointed by the Rector. The decision on the result of the admission procedure must be made in written form within 30 days of the verification of the fulfillment of the conditions for admission to study. The decision must contain an opinion, a statement of reasons and an indication of the possibility of requesting a review of the decision. An applicant who does not prove the fulfillment of the basic conditions for admission to the study at the time of verification of the fulfillment of the conditions for admission may be admitted to the study conditionally provided that he/she is obliged to prove the fulfillment of the basic conditions of admission to the study no later than on the day determined for study programme enrollment.

Rector's measure no. 5/2021 Admission Procedure: https://www.unipo.sk/public/media/0190/OR_prijimacie_konanie-2.docx.pdf

b) Admission procedures.

Admission procedures for study at the PU in Prešov are organizationally and legally anchored in the Rector's Measure no. 5/2021 and are available from: https://www.unipo.sk/public/media/0190/OR_prijimacie_konanie-2.docx.pdf in Sec. 5.1. Information on the admission process. Specific and detailed information on the admission procedure for FHNS study programmes are available at: <https://www.unipo.sk/fakulta-humanitnych-prirodných-vied/informacie-pre-uchadzacov/pk/>.

c) Results of the admission process over the last period.

	Full-time		
	No.students	No.applicants	No. Enrolled applicants
2016/2017	0	0	0
2017/2018	0	0	0
2018/2019	0	0	0
2019/2020	2	2	2
2020/2021	2	0	0
2021/2022	2	0	0

10. **Feedback on the quality of provided education**

a) Procedures for monitoring and evaluating students' opinions on the study programme quality.

The organizational and legal aspects of the procedures for monitoring and evaluating students' views on the quality of the study programme are published at:

<https://www.unipo.sk/search/?q=sp%C3%A4tn%C3%A1+v%C3%A4zba>

<https://www.unipo.sk/rozvoj/MIKT/dotaznik/>

The outline description of the study programme is used to process Annex 2 of the application for granting the accreditation of the study programme.

Feedback on the quality of education provided is done regularly (each semester) through an online questionnaire in the MAIS system.

- b) Results of student feedback and related measures to improve the study programme quality.
The results of student feedback are presented and consulted at the FHNS Dean's Board meeting.
Evidence: Minutes from the FHNS Dean's Board meeting.
- c) Results of graduate feedback and related measures to improve the study programme quality.
The results of the graduates' feedback on the study programme submitted for accreditation carried out at the university level were presented and consulted at FHPV Dean's Board meeting. The results of the graduates' feedback on the study programme are provided by the minutes of the meeting with the graduates, namely RNDr. Ing. Andrea Džubinská, PhD. and RNDr. Michal Rajňák, PhD. Results of feedback from employers' representatives Mgr. Slavomír Tall, and PaedDr. Slávka Čorejová are given in the form of Evaluation Reports to the study programme submitted for accreditation.
Measures related to improving the quality of the study programme in accordance with students' comments will be considered at the staff meeting of the FHNS PU Department of Physics, Mathematics and Technology and in accordance with documents of Basic Principles of Quality Assurance and Evaluation of the University of Prešov in Prešov:
<https://www.unipo.sk/public/media/37750/Opatrenie%20rektora%20%C4%8D%201%202021%20V%C3%BDchodiskov%C3%A9%20principy%20zabezpe%C4%8Dovania%20VSK%20PU.pdf>
Directive on the creation, modification, approval, cancellation of study programmes and submission of applications for accreditation of study programmes and departments of the habilitation procedure and inauguration procedure at The University of Prešov in Prešov:
<https://www.unipo.sk/public/media/38257/Smernica%20%C5%A0P%20HK%20IK%20PU.docx.pdf>.
11. **References to other relevant internal regulations and information concerning the study or the study programme student** (e.g study guide, accommodation regulations, fee directive, guidelines for student loans, etc.).
Relevant internal regulations and information regarding the study or the student of the study programme are available from:
<https://www.unipo.sk/>
<https://www.unipo.sk/vzdelavanie/>
<https://www.unipo.sk/fakulta-humanitnych-prirodných-vied/>
<https://www.unipo.sk/fakulta-humanitnych-prirodných-vied/hlavne-sekcie/vz/>
<https://www.unipo.sk/fakulta-humanitnych-prirodných-vied/hlavne-sekcie/VSK/>
<https://www.unipo.sk/fakulta-humanitnych-prirodných-vied/AS-FHPV/>
<https://www.unipo.sk/informacie-o-univerzite/ouniverzite/dokumenty/>
<https://www.unipo.sk/vsk/dvsk/>
<https://www.unipo.sk/fakulta-humanitnych-prirodných-vied/katedry/biologia/>
<https://www.unipo.sk/fakulta-humanitnych-prirodných-vied/katedry/ekologia/>
<https://www.unipo.sk/fakulta-humanitnych-prirodných-vied/katedry/kfimt-fhvp/>
<https://www.unipo.sk/fakulta-humanitnych-prirodných-vied/katedry/geografia/>
<https://www.unipo.sk/fakulta-humanitnych-prirodných-vied/katedry/upap/>