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

Description of the study programme

Name of the higher education institution: University of Ss. Cyril and Methodius in Trnava
Address of the higher education institution: Nám. Jozefa Herdu 2, 91701 Trnava
Identification number of the higher education institution: 36078913
Name of the faculty: Faculty of Natural Sciences
Address of the faculty: Nám. Jozefa Herdu 2, 91701 Trnava

Institution body for approving the study programme: The Board for Internal System of Quality Assurance at UCM
Date of the study programme approval or the study programme modification: 28.5.2018
Date of the latest change[1] in the study programme description: 30.11.2018 ex offo
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.[2]:

1) Basic information about the study programme

a) Name of the study program and its number according to the register of study programmes.
Biotechnology
183412 (AN)

b) Degree of higher education and ISCED-F education degree code.
1 R
645

c) Place(s) of delivery of the study programme.

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[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.

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

Trnava

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/fields[3].
4. Biotechnology
2908R00

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.
Academic-oriented learning

f) Awarded academic degree.
Bachelor Bc.

g) Form of study[4].
Full-time

h) In the case of joint study programmes, cooperating institutions and the range of study obligations the student fulfils at each of the given institutions (§ 54a of the Act on Higher Education Institutions).
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i) Language or languages in which the study programme is delivered[5].
English 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.
Planed number of students 50
Real number of students

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 outcomes[6].

At the time of graduation, students of the biotechnology study program have the theoretical knowledge, practical skills and abilities in the basic natural science disciplines, especially biotechnology, biology and chemistry, as well as their border areas. Due to the fact that the program belongs to the study field of Biotechnology, these are mainly subjects emphasizing biotechnological aspects. An important part of the study, in addition to classical chemical and biological subjects, is emphasis - chemical (general, inorganic, organic, analytical, physical, biochemistry), biological disciplins (microbiology and molecular), genetics, biotechnology (microbial, agricultural, enzymatic and environmental), ecology, but also mathematics, physics and statistical analysis. In the bachelor's study, they also acquire knowledge from selected, specialized areas, such as virology, food quality, nutrition, toxicology, bioinformatics, scientific databases. They improve their knowledge and practice in science English. They acquire habits for defining scientific hypotheses, preparation of projects (experimental) for their verification, experimental solution, definition of outputs and their characterization, presentation, advocacy and implementation (even in practice).

Bachelor's degree graduates

- **have a theoretical knowledge of the structures of prokaryotic and eukaryotic biological systems and the nature of the processes (physico-chemical, biochemical and physiological) taking place in them, as well as the mechanisms of their regulation,**
- **gain an overview of them and know how to apply them in practice,**
- **know the basics of methods of interventions in the genome of prokaryotic and eukaryotic cells, the principles of genetic modification of organisms, basic methods of characterizing genetic changes and gain an overview of the use of genetically modified organisms in various areas of practice,**
- **are able to prepare biological systems for their practical use and independently solve (manage) partial operations related to their targeted use in the agri-food, pharmaceutical-medical and chemical-environmental areas,**
- **have sufficient theoretical knowledge and practical experience to carry out laboratory control and evaluation of the data obtained and are able to communicate with an equivalent level of management.**
- **have knowledge of economic, legal, ethical and environmental aspects of biotechnology, which enables them to apply at the intermediate level of functional activities in the scientific research, production and business sphere.**

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.

Educational objectives		Educational objectives description		
Study semester	Profile subject	Educational outcomes		
		Acquired knowledge*	Acquired skills*	Acquired competencies and transferable competencies*
Semester 1	Introduction to Biotechnology	x		
	Basics of Biology for Biotechnologists	x		
	Laboratory Exercise in Biology		x	
	Basics of Biotechnological Processes and Equipment			x
Semester 2	Advanced Biology for Biotechnologists	x		
	Laboratory Exercise in Advanced Biology		x	
Semester 3	Balance Systems in Biotechnological Processes			x
	Principles of Molecular Biology			x
	Laboratory Exercise in Molecular Biology		x	
Semester 4	Agricultural Biotechnology	x		
	Microbial Biotechnology	x		
Semester 5	Enzymology			x
	Laboratory Exercise in Enzymology		x	
	Methods and Techniques of Gene Manipulation			x
Semester 6	Enzyme Biotechnology	x		
	Regulation and Biosafety of Biotechnology			x
	Bachelor Project			x
	Experimental Activity for Bachelor Thesis			x

Attachment_13_Educational_objectives_and_outputs_Bc._Biotechnology

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.

The bachelor's degree graduate is already able to apply in the production sphere of economics their knowledge gained from chemistry, biotechnology, while these branches also have knowledge of mathematics, physics, but also in selected, specialized and related areas (especially microbiology, food quality, toxicology, material and energy balances in production processes).
The graduate is able to have a minimum of basic communication in scientific English. He can also work as a highly qualified worker (laboratory technician, operator) in industry (chemical, food), pharmacy and healthcare. As he also has practical habits and basics of analytical, inorganic chemistry, biochemistry, biology and biotechnology (especially using microbiology), he is also an optimally prepared worker for performing laboratory work in science, research and development. Thanks to biotechnological bases, it will also find application in the field of energy production from renewable sources and the use of secondary raw materials from such and similar productions. As he is already able to orientate himself in economic, legal and ethical aspects of biotechnology, design and marketing basics, he is able to move the implementation of experimentally confirmed scientific hypotheses to the level of business, especially small but special and production with higher added value (for example products with biotechnology processing but also in the provision of biotechnology services). He has the knowledge that enables him to apply at the middle management levels of related activities in production and business practice.
https://katedra-biotechnologii.webnode.sk/informacie-pre-uchadzacov/profil-absolventa/

Occupations from profesia.sk:
researcher,
laboratory diagnostician,
product specialist,
chemical production operator,
raw material intake worker,
yeast production distiller/distiller,
production technician,
quality controller,
research and development specialist,
technologist,
agronomist,
sanitation and hygiene specialist.

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

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 profession[7].
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3.) Employability

a) Evaluation of the study programme graduates employability.
Graduates of the bachelor's study program in biotechnology are employed in chemical, pharmaceutical, medical, environmental research and operational facilities, in the production sphere in monitoring the natural environment, processing and use of databases. 90% of students continue their university studies at the 2nd level in the field of biotechnology or in one of the related fields.

b) If applicable, indicate the successful graduates of the study programme.
Assoc. Prof. RNDr. Miroslav Horník, PhD., Associate Professor in Analytical Chemistry
Assoc. Prof. RNDr. Miroslav Ondrejovič, PhD., Associate Professor in Biotechnology
Assoc. Prof. RNDr. Martin Pipíška, PhD., Associate Professor in the field of Environmental Engineering
http://fpv.ucm.sk/sk/o-nas/vyznamni-absolventi.html

c) Evaluation of the study programme quality by employers (feedback).
90% of the graduates of the bachelor's study program in biotechnology continue their university studies at the 2nd level in the field of biotechnology, but the selected employers commented positively on the designed study program.
Agramart Inc. (Attachment - Opinion-Agromart a.s.)
BioTech Ltd. (Attachment - Opinion-BioTech s.r.o.)
Celpo spol. Ltd. (Attachment - Opinion-Celpo spol. s.r.o.)
Envien Group (Attachment - Opinion-Envien Group)

Attachment_04_report_on_the_evaluation_of_SP_by_an_interested_part

4.) Structure and content of the study programme[8]

a) *The institution describes the rules for the design of study plans within the study programme.*
The process of creating, modifying, and approving study programs is governed exclusively by the standards for the SAAHE SR study program and the university guidelines created based on the standard for the internal quality assurance system.

https://intranet.ucm.sk/docs2/predpisy/ostatne/smernica_o_SP/Smernica_o_vytvarani,_uprave_a_schvalovani_studijnych_programov.pdf

The study plan fully takes into account the requirements set for the field of biotechnology in the system of study fields (core of knowledge, abilities and skills) and at the same time has ambitions to enable students, especially in the last, third year of study, to improve according to their choice in frontier biotechnology disciplines.
The main topics of the knowledge core (1st level) are fulfilled as follows:
1st year of study: Introduction to Biotechnology, Basics of Biology for Biotechnologists, Laboratory Exercise in Basics of Biology, Computational Seminar I, Basics of Biotechnological Processes and Equipment, Advanced Biology for Biotechnologists, Laboratory Exercise in Biology, Computational Seminar II
2nd year of study: Environmental Biotechnology, Balance Systems in Biotechnological Processes, Principles of Molecular Biology and Laboratory Exercise in Molecular Biology, Biochemistry, Laboratory Exercise in Biochemistry, Agricultural Biotechnology, Microbial Biotechnology, Semester Project
3rd year of study: Enzymology, Laboratory Exercise in Enzymology, Methods and Techniques of Gene Manipulation, Bachelor Thesis Theory and Methodology, Enzyme Biotechnology, Computer Assisted Modeling, Regulation and Biosafety of Biotechnology, Bachelor Project and Experimental Activities for Bachelor Thesis.
The study plan also includes subjects providing theoretical knowledge of chemical (General Chemistry and Laboratory Exercises in General Chemistry, Inorganic Chemistry and Laboratory Exercises in Inorganic Chemistry, Organic chemistry, Laboratory Exercises in Organic Chemistry, Separation Methods and Laboratory Exercises in Separation Methods), physical (Introduction to Physics, Biophysical Chemistry) of biological disciplines (Basics of Microbiology, Laboratory Exercises in Microbiology, Genetics, Plant Physiology, Animal Biology, Evolutionary Biology, General Virology, Natural Remedies) and environmental disciplines (Environmental Toxicology, Renewable Energy, Sustainable Development, Waste Management Environmental Monitoring and Bioindicators).
Other topics of the core of knowledge are filled with the subjects Professional Communication in English I to IV and within the elective subjects Sports Activities I to VI and Mathematics and Basics of Statistics.
At least 60% of the content of the study program in each year corresponds to the core topics of the core of knowledge, both in terms of the number of credits required and the number of teaching hours. Almost all subjects falling into this category are defined as compulsory subjects. Other subjects of the study program are focused on the profiling of the graduate in frontier disciplines. Such subjects are marked as compulsory elective subjects, so that the student can, to the maximum extent possible, realize his own interest in a special area or his own ideas about applying in practice.

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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.

b) *The institution compiles the recommended study plans for individual study paths[9].*
Attachment_12_Recommended_study_plan_Bc._Biotechnology

c) *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,*
- ***profile courses** of the relevant study path (specialization) within the study programme,*
- *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),*
- *prerequisites, co-requisites and recommendations for the design of the study plan,*
- *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,*
- *methods by which the educational activity is delivered – present, distant, combined (in accordance with the Course information sheets),*
- *outline/syllabus of the course[10],*
- *student workload ("extent" of individual courses and educational activities separately)[11],*
- *credits allocated to each part based on the learning outcomes achieved and the workload involved,*
- *the person responsible for the course (or a partner organization/person[12]) with an indication of the contact details,*
- *course teachers (or participating partner organizations/persons) (may also be mentioned in Course information sheets),*
- *places where the courses are taught (if the study programme is delivered at several workplaces).*

Attachment_11_Subject information sheets_Bc._Biotechnology

List of subjects

Compulsory subjects:

1. Inorganic Chemistry
2. **Bachelor Project**
3. **Balance Systems in Biotechnological Processes**
4. Biophysical Chemistry
5. Biochemistry
6. Environmental Biotechnology
7. **Enzymology**
8. **Enzyme Biotechnology**
9. **Experimental activity for Bachelor Thesis**
10. Information and Communication Technologies
11. Laboratory Exercise in Inorganic Chemistry
12. Laboratory Exercise in Biochemistry
13. **Laboratory Exercise in Biology**
14. **Laboratory Exercise in Enzymology**
15. Laboratory Exercise in Microbiology
16. **Laboratory Exercise in Molecular Biology**
17. Laboratory Exercise in Organic Chemistry
18. **Laboratory Exercise in Advanced Biology**
19. Laboratory Exercise on Separation Methods
20. Laboratory Exercise in General Chemistry
21. **Methods and Techniques of Gene Manipulation**
22. **Microbial Biotechnology**
23. Molecular-Biological Databases
24. Professional Communication in English I
25. Professional Communication in English Ii
26. Organic Chemistry
27. Computer Assisted Modeling
28. **Advanced Biology for Biotechnologists**
29. **Agricultural Biotechnology**
30. **Principles of Molecular Biology**
31. **Regulation and Biosafety of Biotechnologies**
32. Semester Project
33. Separation Methods
34. Theory and Methodology of Bachelor Thesis
35. **Introduction to Biotechnology**
36. Introduction to Physics
37. General Chemistry
38. Computational Seminar I

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.

[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.

12We 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.

39. Computational Seminar II
40. Basics of Biology for Biotechnologists
41. Basics of Biotechnological Processes and Equipment
42. Basics of Microbiology

*** profile objects are marked in bold**

Compulsory optional subjects:

43. Biophysical Chemistry II
44. Animal Biology
45. Environmental Toxicology
46. Evolutionary Biology
47. Plant Physiology
48. Genetics
49. Mathematics
50. Environmental Monitoring and Bioindicators
51. Renewable Energy Sources
52. Professional Communication in English III
53. Professional Communication in English IV
54. Waste Management
55. Organic Chemistry II
56. Natural Remedies
57. Sustainable Development
58. introduction to radioecology
59. General Virology
60. Basics of Statistics

Optional subjects:

61. Sports Activities I
62. Sports Activities II
63. Sports Activities III
64. Sports Activities IV
65. Sports Activities V
66. Sports Activities VI

d) *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 composition of the commission for state examinations is in accordance with the Higher Education Act, pursuant to Section 63, Paragraph 3 of Act no. 131/2002 Coll. on Higher Education Institutions, and with the Study Regulations of the University of Ss. Cyril and Methodius, which was approved by the UCM Academic Senate on June 10, 2013. The State Examination Commission has at least 4 members. The Commission shall be able to act if the chairman of the commission and at least two other members are present. University teachers, acting as professors and associate professors and other experts, approved by the relevant scientific council, have the right to take the state exam in doctoral and master's degree programs. At least two members of the commission shall be university teachers in the capacity of associate professor or professor. In addition to university teachers working as associate professors or professors and other practitioners approved by the Scientific Board, assistant professors with a third-degree university degree also have the right to take state examinations in bachelor's degree programs. At least one member of the commission must serve as an associate professor or professor. The chairman of the commission for state examinations is appointed by the dean from among professors and associate professors at universities. The course of the state examination is managed, and the chairman of the commission is responsible for the activities of the commission.

e) *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,*
- *number of credits for compulsory optional courses required for the proper completion of studies/completion of a part of studies,*
- *number of credits for optional courses required for the proper completion of studies/completion of a part of studies,*
- *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,*
- *number of credits for the final thesis and the defense of the final thesis required for the proper completion of studies,*
- *number of credits for professional practice required for the proper completion of studies/completion of a part of studies,*
- *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,*
- *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.*

156 credits for compulsory subjects required for the proper completion of studies / completion of part of the study,
12 credits for compulsory elective subjects required for the proper completion of studies / completion of part of studies,
0 credits for elective subjects required for proper completion of studies / completion of part of study,
12 credits for the final thesis and the defense of the final thesis required for the proper completion of the study.

f) *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 and the evaluation of students and the possibilities of corrective procedures against this evaluation are clearly described in the study regulations of the university, which the Faculty of Natural Sciences follows.

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

https://www.ucm.sk/docs/legislativa/studijny_poriadok_ucm_2020.pdf

g) *Conditions for recognition of studies or a part of studies.*
FNS UCM students may apply to the dean of the FNS UCM, after the prior statement of the head of the department, for recognition of completed study program subjects during the previous study at the same level of study at FNS UCM or another university. The conditions and procedure are governed by the document
Smernica o uznávaní absolvovaných predmetov (effective from May, 1, 2021)
Smernica o uznávaní dokladov o vzdelaní na UCM (effective from May, 1, 2021)

h) *The institution states the topics of final theses of the study programme (or a link to the list).*
http://fpv.ucm.sk/sk/studium/zaverecne-prace.html
https://katedra-biotechnologii.webnode.sk/informacie-pre-studentov/zaverecne-prace/temy-zaverecnych-prac-2020-2021/

i) *The institution describes or refers to:*
- *rules for the assignment, processing, opposition, defense and evaluation of final theses in the study programme,*
  The proposals for the final theses are published by the training institutes through the academic information system (hereinafter referred to as "AIS") during the winter semester, no later than 31 January of the relevant academic year. The listed topics for the biotechnology study program are published on the faculty's website
  http://fpv.ucm.sk/sk/studium/zaverecne-prace.html
  The final thesis must be prepared according to the Rector's Directive on the requisites of final theses, their bibliographic registration, control of originality, storage, and access to the University of Ss. Cyril and Methodius in Trnava (valid since 2021)
  Smernica o náležitostiach záverečných prác, ich bibliografickej registrácii, uchovávaní a sprístupňovaní na UCM (effective from September, 1, 2021)

  template for the elaboration of the final thesis is given https://katedra-biotechnologii.webnode.sk/informacie-pre-studentov/zaverecne-prace/) in accordance with the Study Regulations of the University of Ss. Cyril and Methodius,

  https://www.ucm.sk/docs/legislativa/studijny_poriadok_ucm_2020.pdf
  and by the Study Regulations of the University of Ss. Cyril and Methodius in Trnava, which was developed by § 15, para. 1, letter b of Act 131/2002 Coll. on Higher Education and approved by the Academic Senate of UCM on April 28, 2020. The final thesis is a bachelor's thesis, a diploma thesis and a dissertation. With the bachelor's thesis, the student demonstrates the ability to work creatively in the field of study in which he completed the study program. The bachelor's thesis will be prepared by the student under the guidance of the supervisor in accordance with the internal regulations of UCM and the relevant faculty. The bachelor thesis is assessed by the opponent. The supervisor and the opponent will prepare a written report for the bachelor's thesis. The student has the right to one copy of the supervisor's and the opponent's report no later than three days before the defense of the bachelor's thesis. The bachelor thesis together with the defense form one subject and belong to the state exams. The commission for state examinations negotiates the result of the defense of the bachelor's thesis by a closed vote. In the event of a tie, the chairman of the commission shall have two votes. The results of the bachelor thesis defense are evaluated with marks A - FX.
  Smernica o plagiátorstve (effective from February, 1, 2019)
- *opportunities and procedures for participation in student mobility,*
  The ANS students who are interested in a stay abroad can take advantage of the wide range of mobilities through the Erasmus + program or they can complete a stay abroad based on international bilateral agreements or take advantage of opportunities under other mobility and scholarship schemes and programs.
  The ANS UCM students apply to their department coordinator in the form of a written application, which contains the contact details of the applicant and a brief justification of the study stay, prospective benefits. The system of allocating places within the ERASMUS + program takes place in the form of a selection procedure at the faculty. The application deadline, the date of the selection procedure and the selection criteria for outgoing students are published on the faculty's website.
  http://fpv.ucm.sk/sk/studium/studijne-pobyty.html
  All information about study stays, the Erasmus + project, student mobility, the pedagogical and non-pedagogical staff is also on a separate page: erasmus.ucm.sk.
  The faculty, based on a transparent selection procedure, according to proposals from the departments, nominates students for mobility under the valid between departmental bilateral agreements.
- *rules for adherence to academic ethics and rules for drawing consequences,*
  The rules are determined by the UCM Code of Ethics in Trnava. The Code of Ethics is binding for all members of the academic community, pedagogical and non-pedagogical employees of UCM.
  https://www.ucm.sk/docs/legislativa/2021/7_21_eticky_kodex_studentov.pdf
  Smernica o vybavovaní sťažností na UCM (effective from May, 1, 2021)
  Smernica o vybavovaní otázok, vyjadrení, názorov, žiadostí, podnetov a návrhov na UCM (effective from May, 1, 2021)
- *procedures applicable to students with special needs,*
  Work with students with special needs at UCM is managed by the Support Center for Students with Special Needs. Its mission is to help and support students of all faculties and institutes of the University of Ss. Cyril and Methodius in Trnava in the following areas psychological counselling, social counselling, support for students with special needs, with sensory, physical and multiple disabilities, with chronic illness, with a disability, with mental illness, with autism, with learning disabilities, with social disadvantage.
  Responsible staff:
  - for UCM PhDr. Jana Polakovičová, MBA jana.polakovicova@ucm.sk
  - for ANS RNDr. Beata Vranovičová, PhD. beata.vranovicova@ucm.sk

  https://www.ucm.sk/sk/centrum-podpory-studentov-so-specifickymi-potrebami-01

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

Smernica na zabezpečenie všeobecne prístupného akademického prostredia pre študentov so špecifickými potrebami (effective from May, 1, 2019)

- *procedures for filing complaints and appeals by students.*
  The submission of suggestions by students is carried out through
  Black Box - for your opinions, comments and questions and follows the university guidelines
  Smernica o vybavovaní otázok, vyjadrení, názorov, žiadostí, podnetov a návrhov na UCM (effective from May, 1, 2021)
  The link to enter the Black Box is on the UCM website https://www.ucm.sk/sk/black-box/

5.) Course information sheets of the study programme

In the structure according to Decree no. 614/2002 Coll.
Attachment_11_Subject_Information_Sheets_Bc._Biotechnology

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

http://fpv.ucm.sk/sk/studium.html
FNS study schedule for academic year 2021/2022
http://fpv.ucm.sk/sk/rozvrh.html

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).
Assoc. prof. RNDr. Miroslav Ondrejovič, PhD. (miroslav.ondrejovic@ucm.sk)
https://katedra-biotechnologii.webnode.sk/struktura-katedry-biotechnologii/

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 and with contact details (they may also be listed in the study plan).
Assoc. Prof. RNDr. Michaela Havrlentová, PhD. (michaela.havrlentova@ucm.sk)
Basics of Biology for Biotechnologists
Laboratory Exercise in Biology
Advanced Biology for Biotechnologists
Laboratory Exercise in Advanced Biology

prof. RNDr. Ján Kraic, PhD. (jan.kraic@ucm.sk)
Introduction to Biotechnology
Agricultural Biotechnology

Assoc. Prof. Mgr. Daniel Mihálik, PhD. (daniel.mihalik@ucm.sk)
Principles of Molecular Biology
Laboratory Exercise in Molecular Biology
Methods and Techniques of Gene Manipulation

Assoc. Prof. Ing. Jana Moravčíková, PhD. (jana.moravcikova@ucm.sk)
Basics of Biotechnological Processes and Equipment
Balance Systems in Biotechnological Processes
Regulation and Biosafety of Biotechnologies

Assoc. Prof. RNDr. Miroslav Ondrejovič, PhD. (miroslav.ondrejovic@ucm.sk)
Information and Communication Technologies
Microbial Biotechnology
Enzymology
Laboratory Exercise in Enzymology
Enzyme Biotechnology
Bachelor Project
Experimental Activity for Bachelor Thesis

c) Reference to the research/art/teacher profiles of persons responsible for the profile courses of the study programme.
VTC
https://katedra-biotechnologii.webnode.sk/struktura-katedry-biotechnologii/vedecko-vyskumna-charakteristika-pedagogov-kbt/
http://fpv.ucm.sk/sk/pracovnici-bt.html

Assoc. Prof. RNDr. Michaela Havrlentová, PhD.
prof. RNDr. Ján Kraic, PhD.
Assoc. Prof. Mgr. Daniel Mihálik, PhD.
Assoc. Prof. Ing. Jana Moravčíková, PhD.

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

Assoc. Prof. RNDr. Miroslav Ondrejovič, PhD.

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).

1. assoc. Prof. RNDr. Iveta Dirgová Luptaková, PhD.
- Mathematics
- Basics of Statistics
2. assoc. Prof. Mgr. Renata Gašparová, PhD.
- Organic Chemistry
- Organic Chemistry II
- Natural Medicines
3. Ing. Miroslav Glasa, PhD.
- General Virology
4. assoc. Prof. RNDr. Michaela Havrlentová, PhD.
- Basics of Biology for Biotechnologists
- Laboratory Exercise in the Basics of Biology
- Advanced Biology for Biotechnologists
- Laboratory Exercise in Advanced Biology
- Semester Project
- Animal Biology
- Theory and Methodology of Bachelor Thesis
5. assoc. Prof. RNDr. Miroslav Horník, PhD.
- Environmental Toxicology
- Introduction to Radioecology
- Waste Management
- Environmental Monitoring and Bioindicators
6. assoc. Prof. Ing. Štefan Janeček, DrSc.
- Molecular-Biological Methods
7. prof. RNDr. Jan Kraic, PhD.
- Introduction to Biotechnology
- Agricultural Biotechnology
8. prof. RNDr. Juraj Krajčovič, PhD.
- Genetics
- Evolutionary Biology
9. RNDr. Barbora Legerská, PhD.
- Laboratory Exercise in the Basics of Biology
- Laboratory Exercise in Advanced Biology
- Semester Project
10. assoc. Prof. Ing. Tibor Maliar, PhD.
- Biochemistry
- Computer-aided Molecular Design
11. prof. Mgr. Alžbeta Marček Chorvátová, DrSc.
- Introduction to Physics
- Biophysical Chemistry
- Biophysical Chemistry II
12. assoc. Prof. Mgr. Ildiko Matušíková, PhD.
- Sustainable Development
- Environmental Monitoring and Bioindicators
13. assoc. Prof. Mgr. Daniel Mihalík, PhD.
- Principles of Molecular Biology
- Laboratory Exercise in Molecular Biology
- Methods and Techniques of Gene Manipulation
14. assoc. Prof. PaedDr. Juraj Miština, PhD.
- Professional Communication in English
- Professional Communication in English II
- Professional Communication in English III
- Professional Communication in English IV
15. assoc. Prof. Ing. Jana Moravčíková, PhD.
- Basics of Biotechnological Processes and Equipment
- Balance Systems of Biotechnological Processes
- Regulation and Biosafety of Biotechnologies
16. assoc. Prof. RNDr. Miroslav Ondrejovič, PhD.
- Computer Seminar
- Computer Seminar II
- Information and Communication Technologies
- Microbial Biotechnology
- Enzymology
- Enzyme Biotechnology
17. RNDr. Daniela Ondrejovič Chmelová, PhD.
- Laboratory Exercise in Biochemistry
- Laboratory Exercise in Microbiology

- Laboratory Exercise in Enzymology
- Laboratory Exercise on Separation Methods
18. assoc. Prof. Ing. Andrea Purdešová, PhD.
- Separation Methods
19. assoc. Prof. RNDr. Cyril Rajnák, PhD. PhD.
- Laboratory Exercise in General Chemistry
- Laboratory Exercise in Inorganic Chemistry
20. prof. RNDr. Jana Sedláková, PhD.
- Environmental Biotechnology
- Renewable Energy Sources
21. assoc. Prof. RNDr. Milan Seman, CSc.
- Basics of Microbiology
- General Virology
22. prof. RNDr. Ján Titiš, PhD.
- General Chemistry
- Inorganic Chemistry
23. RNDr. Zita Tokárová, PhD.
- Laboratory Exercise in Organic Chemistry
24. Mgr. Martin Valica, PhD.
- Waste Management
- Renewable Energy Sources
25. assoc. Prof. RNDr. Ľubica Uváčková, PhD.
- Plant Physiology
26. Ing. Eva Ürgeová, PhD.
- Sports Activities I
- Sports Activities II
- Sports Activities III
- Sports Activities IV
- Sports Activities V
- Sports Activities VI

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

The structure of the teachers of the academic workplace provides a sufficient guarantee of the adequacy of the number of university teachers for the number of final theses in a given level of university study. All final theses are supervised by teachers who have adequate teaching experience and an appropriate level of education.

Topics of final theses:

Abiotic forms of stress with emphasis on drought stress in cereals
Antibacterial activity of flavonoid reaction products with AlCl3 *in vitro*
Antimicrobials isolated from spruce bark
Antioxidant active substances of spruce bark
Biotic stress and its effect on metabolism in oat
Enzyme-catalyzed decomposition of azo dyes
Genetic modification of plants as a tool to change the content of essential fatty acids
Heavy metal hyperaccumulators and their use in the process of environmental decontamination
Domestic Rabbit - A model for genomic studies
Qualitative and quantitative changes in the lipid composition of transgenic plants
Microbial production of ligninolytic enzymes
Molecular possibilities of increasing the content of total proteins and selected microelements from wheat grain
Low molecular weight inhibitors of plant protein origin
Optimization of the reproductive process of rabbits by adjusting the conditions of the breeding environment
Sarcomlaslasic reticulum calcium ATPase (SERCA) damage due to oxidative / nitrating stress: protective effect of flavonoids
Damage to calcium homeostasis due to carbonyl stress
Potential human nutrition in oat grain
Preventive-therapeutic properties of vegetable oils
Preparation and use of substances labelled with positron emitters in their PET analysis in model organisms
The process of simulated digestion, as a determinant of the intake of biologically valuable substances of the Chilean lizard, comparison with other crops
Producers of bioplastics based on polyhydroxyalkanoates
Bioethanol production from lignocellulosic materials
Production of recombinant laccases
Production of xylanases and their industrial use
Double grain wheat (*Triticum turgidum* subsp. *Dicoccum*) for food and sustainable agriculture
Endoplasmic reticulum stress in pancreatic beta cells: flavonoids as a possible intervention

Supervisors:
Assoc. Prof. Ing. Jana Moravčíková, PhD.
Assoc. Prof. Ing. Tibor Maliar, PhD.
Assoc. Prof. Mgr. Daniel Mihálik, PhD.
Assoc. Prof. RNDr. Ján Rafay, PhD.
Assoc. Prof. RNDr. Michaela Havrlentová, PhD.
Assoc. Prof. RNDr. Miroslav Ondrejovič, PhD.
prof. RNDr. Ján Kraic, PhD.

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. Daniela Ondrejovič Chmelová, PhD.
Assoc. Prof. RNDr. Miroslav Horník, PhD.
Assoc. Prof. Ing. Ildikó Matušíková, PhD.
RNDr. Zuzana Gerši, PhD.
RNDr. Vanda Adamcová, PhD.

f) Reference to the research/art/teacher profiles of the supervisors of final theses.
https://katedra-biotechnologii.webnode.sk/struktura-katedry-biotechnologii/vedecko-vyskumna-charakteristika-pedagogov-kbt/
http://fpv.ucm.sk/sk/pracovnici-bt.html

g) Student representatives representing the interests of students of the study programme (name and contact details).
RNDr. Šarlota Kaňuková (sarlota.kanukova@gmail.com)
Mgr. Veronika Gregusová (veronika.gregusova93@gmail.com)
RNDr. Barbora Legerská (legerskab@gmail.com)

h) Study advisor of the study programme (indicating contact details and information on the access to counselling and on the schedule of consultations).
RNDr. Daniela Ondrejovič Chmelová, PhD. e-mail: daniela.ondrejovic.chmelova@ucm.sk
The information on access to counselling is published on the faculty's website

i) Other supporting staff of the study programme – assigned study officer, career counsellor, administration, accommodation department, etc. (with contact details).
Study Department of the Faculty of Natural Sciences
Ing. Gabriela Jančovičová e-mail: gabriela.jancovicova@ucm.sk

Head of the UCM Student Home:
Mgr. Soňa Krahulcová e-mail: sona.krahulcova@ucm.sk

8.) 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).
The pedagogical The pedagogical process of the bachelor's study program in biotechnology is carried out in classrooms in the UCM central buildings on J. Herda Square, on Hajdóczyho Street and in the UCM building in Špačince (4 km from the University Headquarters in Trnava), where suitable rooms for lectures and seminars are available. All classrooms are equipped with video projection technology. Laboratories used for teaching laboratory exercises (general, inorganic, organic chemistry, biochemistry), biology (basics of biology, advanced biology, microbiology, molecular biology), biotechnology (separation methods, enzymology) are equipped with basic tools (chemicals, laboratory scales). , smaller laboratory equipment) needed for each exercise. In addition, there are 5 special laboratories for work on bachelor's and master's theses.
http://fpv.ucm.sk/sk/o-nas/fakulta-v-obrazoch.html
The laboratories in which the research activity is carried out have the following equipment:
Equipment for all work in the field of fermentation technologies, protein biochemistry (isolation and characterization) and molecular biology (cloning, gene expression, mutagenesis, bioinformatics analysis). State-of-the-art instrumentation and computer technology is also available. Examples are BIOSTAT A plus Sartorius fermenter, comfort thermomixer, IKA MS3 BASIC, Bandelin Sonopuls UW 2200 sonicator, Astell autoclave, microscopes, Biotek El800 and MRX / (Dynex) microplate counters, HPLC (Waters, Pye Unicam, Young Lin and Philips with UV / Vis and DAD detectors, Shimadzu FTIR-8000 infrared spectrophotometer Shimadzu, CHNS / O Elemental Analyzer FLASH EA2000, UV-Vis spectrophotometers VARIAN CARY 50 and M350 Camspec, laboratory centrifuge UNIVERSAL 320 R, orbital shaker PSU-20 (Biosan), ES-20 environmental shaker, Buchi vacuum evaporators, HETTICH UNIVERSAL 32 centrifuge, HETTICH MIKRO 22 R refrigerated centrifuge, Eppendorf Minispin microcentrifuge, HOEFER SE 245 electrophoresis, MPLC preparative chromatography system (also gradient) laboratory Flow and PCR boxes centrifuges, thermostats, apparatus for agarose and polyacrylamide gels, shakers, DGGE) and has the extensive software needed for bioinformatics research.

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.).
Every student of the faculty has secure internet access. ANS UCM students have the opportunity to work in computer laboratories outside the program-organized training according to their own interests and the needs of solving tasks from seminars and exercises. They have computer classrooms with computers connected to the Internet and an internet room with free access with adequate software in the main UCM buildings. Another terminal classroom is in the premises of ANS UCM in Špačince.
Computer classrooms are periodically supplemented with more powerful computers and new computer and chemical software (Dragon 6, IBM SPSS Statistics 19, Analysis, QC Expert 3.1, Statistica 10.2 Base and Statistica 10.2 DataMiner). All teachers as well as internal doctoral students have an assigned computer connected to the Internet. The faculty uses the Academic Information System (AIS2).

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.
Study in accredited study programs in full-time and part-time study is carried out at UCM using the full-time method. The method of distance education is used in times of unfavourable epidemiological situation, or in other situations that seriously limit the implementation of full-time teaching, according to § 108e par. 2 of the University Act, in times of crisis, educational activities carried out by the full-time method can be carried out by the distance method. This form of education is governed by the directive:
https://www.ucm.sk/docs/legislativa/2021/8_21_distancna_vyucba.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.

d) Institution partners in providing educational activities for the study programme and the characteristics of their participation.
Slovak Academy of Sciences - cooperating workplace, performance of experimental activities of part of dissertations focused on plant and pharmaceutical biotechnologies
National Agricultural and Food Centre, Research Institute of Plant Production, Piešťany - cooperating workplace, performance of experimental activities of part of dissertations focused on plant biotechnologies
National Agricultural and Food Centre, Research Institute of Animal Production, Nitra - cooperating workplace, performance of experimental activities of part of dissertations focused on animal biotechnologies
Research Institute of Brewing and Malting, Prague, Czech Republic - cooperation within foreign projects, cooperation within dissertations
International Laser Centre, Bratislava - cooperating workplace, performance of experimental activities of part of dissertations
ICARST, n.o., Bratislava - joint laboratory in the building in Špačince, ANS, UCM

e) Characteristics of the possibilities for social, sports, cultural, spiritual and social activities.
In the bachelor study program of biotechnology, the offer of selected subjects Sports Activities I to Sports Activities VI is intended for students. University of Ss. Cyril and Methodius in Trnava supports the extracurricular activities of its students in the form of financial contributions to ensure sports and cultural events. Every year, in addition to the earmarked contribution from the Ministry of Education, Research and Sports, a part of the funds is allocated within the university budget.
The procedure for submitting and approving applications for contributions to students' sports and cultural events is regulated by the university's internal regulations. Application for a financial contribution (https://www.ucm.sk/sk/sportove-a-kulturne-aktivity-studentov/).
Students can participate in activities:
Folklore ensemble Trnafčan
UniTTy University Choir
THE.ART.RE University Theater
Hit UCM Trnava - University Women's Premier League Women's Volleyball Team
Student magazine FF - Parazol
Student magazine Atteliér
Student Radio Aetter
FMK TV
FMK student project gaudeo.sk

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.
The possibilities and conditions of students' participation in mobility are published on the faculty's website.
http://fpv.ucm.sk/sk/studium/studijne-pobyty.html
The system of allocating places within the ERASMUS + program takes place in the form of a selection procedure at the faculty.
Smernica o administrácii programu Erasmus+ (effective from June, 1, 2021)
The rules for the recognition of this education are governed by the UCM Study Regulations and the document
Smernica o uznávaní absolvovaných predmetov (effective from May, 1, 2021)

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

a) Required abilities and necessary admission requirements.
Requirements for applicants and the method of their selection are specified in §56 to 58 of Act no. 131/2002 Coll. on Higher Education Institutions, they are regulated in more detail by the UCM Study Regulations in Trnava and the UCM Admission Procedure Regulations in Trnava.
Poriadok prijímacieho konania UCM (effective from September, 1, 2021)
Študijný poriadok UCM v Trnave (effective from September, 1, 2020, with the exception of § 28 par. 3, which enters into force on 28 April 2020)
The basic condition for admission to a bachelor's degree or a study program according to § 53 par. 3 of the Act is the acquisition of a complete secondary education or a complete secondary vocational education.
A candidate for a Bachelor's degree is able to demonstrate knowledge and skills at the level of completed secondary education. It is necessary to demonstrate a sufficient level of knowledge of the subject in question in relation to the content and performance standards defined in the ISCED 3A State Curriculum or the Target Requirements for the Baccalaureate Examination in Profile Subjects for the programme of study in question. In deciding on admission to study, the results of studies at secondary school are taken into account, as well as the applicant's other activities, such as successful completion of a subject Olympiad or participation in a secondary school vocational activity. Admission to the bachelor's programme is without an entrance examination. In assessing the results of secondary education, the grades in the profile subjects in each year of secondary school and the overall result of the final school-leaving examination are decisive. The profile subjects for the biotechnology study programme are chemistry, mathematics, biology and a foreign language.

b) Admission procedures.
Poriadok prijímacieho konania UCM (effective from September, 1, 2021)
The admission procedure at FNS UCM is carried out in accordance with Act no. 131/2002 Coll. on Higher Education Institutions and on Amendments to Certain Acts, Sections 56 to 58. The admission process will enable an applicant who proves the fulfillment of the specified conditions for admission to study to become a student of the chosen study program. An applicant who does not prove the fulfilment of the basic conditions for admission to the study at the time of verification of the fulfilment of the conditions for admission may be admitted to the study conditionally provided that he/she is obliged to prove the fulfilment of the basic conditions of admission to the study no later than on the day determined for enrolment.

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 method of admission is governed by the general conditions approved by the academic senate of the faculty for the relevant academic year, and these conditions must be published together with the offer of study programs and the planned number of admitted applicants no later than two months before the last application deadline. General conditions of admission to study in accordance with Act no. 131/2002 Coll. about universities and university duties are published on the website of the faculty and university.
Applications for university studies are accepted by the deadline, which is usually published, usually by the end of April of the respective academic year. The admissions process takes into account the benefits achieved by the applicant during secondary school and in the first half of the final year. The condition for inclusion in the decision-making of the admission procedure is the delivery of a school-leaving certificate.
The admission procedure for bachelor's study programs takes place without an entrance examination. For the admission of an applicant to the bachelor's study program, the decisive marks are from the profile subjects in the individual years of secondary school and the overall result of the school-leaving examination. The profile subjects in the bachelor's study program in biotechnology are chemistry, mathematics, biology, foreign language.
For the evaluation of study results in four profile subjects during the study, the student can get a maximum of 80 points. Points are awarded for a mark from a profile subject on the annual report card: For a mark 1 five points, for a mark 2 three points and a mark 3 1 point. 20 points can be obtained for the evaluation of the overall result of the school-leaving examination. The maximum number of points is 100. According to the number of points obtained, students are ranked.

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

10.) Feedback on the quality of provided education

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

Quality assurance of pedagogical staff and control and monitoring of the pedagogical process in the form of observations are defined by the directive
Smernica o hodnotení tvorivej činnosti na UCM (effective from July, 1, 2021)

The faculty ensures that the university teacher is the bearer of knowledge and experience for the transfer of knowledge in the subject he / she teaches. As part of the selection process, the faculty ensures compliance with the requirements of the minimum criteria related to education and the field, while the faculty defines additional criteria by which the teacher checks the carrier of professional knowledge and experience with regard to the subject he teaches. Emphasis is placed on the fact that university teachers use effective methods, methods and procedures for transferring knowledge in the subjects they teach. The function of monitoring the pedagogical process is to monitor and regularly evaluate the quality of the pedagogical process. The faculty declares its support for the professional growth of teachers.
The faculty thus strives to eliminate the risk of low quality and content focus of the study program in order to concentrate and process information from implemented questionnaire events and observations or other evaluations, review the pedagogical documentation of the study program and compare it with the concept of analogous study programs at renowned foreign universities.
The function of the survey of opinions of relevant target groups is to find out their opinions on various aspects of educational activities in order to obtain information that will lead to its improvement and to the adoption of effective measures to promote quality in all areas of faculty activities. The relevant target groups are the internal target groups of the respondents (students, teachers and other staff) and the external target groups of the respondents (especially graduates, employers and practitioners).
Získavanie relevantnej spätnej väzby od zainteresovaných strán (effective from May, 1, 2021)

Monitoring and quality evaluation in the field of international relations and cooperation:
UCM offers students and teachers the opportunity to complete a study stay abroad through the ERASMUS program at one of the partner universities. In addition, it supports students and teachers in completing international mobility in other academic cooperation and exchange programs.

b) Results of student feedback and related measures to improve the study programme quality.

Monitoring and evaluating the quality of information and promotion is a key area for eliminating information inequalities and raising the profile of the faculty and its study programmes among students, applicants, teachers, employers and other members of the public. Evaluation is carried out through a comprehensive report or through a quality measurement and evaluation information system.
The risk of dropping out for students who do not acquire the necessary knowledge, skills and abilities during their studies:

- **risk of insufficient understanding of the subject (insufficient preparation from previous studies, lack of understanding of the connection with the subject of the prerequisite, student passivity...)**
- **risk of insufficient scope of understanding,**
- **risk of unequal treatment of students,**
- **risk of inappropriate choice of the study programme by the student in terms of his/her abilities and interests,**
- **risk of lack of employability of graduates in practice.**

Ways the faculty will eliminate these risks:

- **individual approach to students,**
- **assigning appropriate tasks and projects to support the active work of each student in seminars and workshops,**
- **offer of consultation hours,**
- **small groups for exercises,**
- **an offer of compulsory optional subjects fixing the substance to be taken over,**
- **incentive scholarship for excellent fulfilment of study obligations,**
- **the effective application of the above guidelines in the study program will also contribute to eliminating the risks.**

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

c) Results of graduate feedback and related measures to improve the study programme quality.

The feedback results are published in the ANS Quality Report. The report contains an evaluation of the questionnaire surveys as well as proposed measures to eliminate the shortcomings.
http://fpv.ucm.sk/sk/o-nas/system-kvality-fakulty.html
The evaluation of the Biotechnology study program by current students and graduates is presented here:
https://katedra-biotechnologii.webnode.sk/informacie-pre-studentov/dokumenty/monitoring-kvality-sp/
As part of the evaluation of the questionnaires, problematic subjects that previously studied students' knowledge in the field of chemistry and biology were removed as part of the modification of the study program, while the field of biotechnology went to the background. In the 3rd year, students created more space for the implementation of the bachelor's thesis. Within the various subjects, the offer has expanded, from which the student can choose from the field of chemistry, biology or environmental studies.
The evaluation of the new study program is here:
https://katedra-biotechnologii.webnode.sk/informacie-pre-studentov/dokumenty/monitoring-kvality-sp/

11.) References to other relevant internal regulations and information concerning the study or the study programme student

a) study guide

ANS study schedule for the academic year 2020/2021 http://fpv.ucm.sk/sk/studium.html

b) accommodation regulations

Accommodation regulations of the UCM student dormitory Ubytovací poriadok študentského domova UCM (effective from September, 1, 2021

c) fee directive

Directive on tuition fees and fees associated with the UCM study Smernica o školnom a poplatkoch spojených so štúdiom UCM (effective from November, 1, 2020)