

Optimization of the pedagogical process at the Faculty of Arts

I. Goal of optimization of the pedagogical process at LF

Graduates of the Faculty of Forestry are mainly applied in forestry, nature and landscape conservation, game management, applied geoinformatics, but also in other fields. The aim of optimizing the pedagogical process at the Faculty of Forestry is:

- raising the level and harmonising the ratio of knowledge that reflects the level of knowledge in the relevant fields of study as well as the current and future needs of practice in these fields,
- improving the conditions for the successful course of studies at the Faculty of Arts, i.e. for the development and use of the study potential of students at the Faculty of Arts,
- facilitating the personal development of LF students,
- streamlining the time and effort of LF staff,
- intensifying the transfer of research and development knowledge into teaching and also into practice through integrally educated LF graduates in the medium and long term.

After completing and updating the knowledge of the current legislation and completing the appropriate practice, the graduate of LF should be able to successfully pass the OLH exam and be prepared to creatively and, if necessary, optionally solve tasks and challenges beyond this horizon, using the most progressive approaches, including experimental ones.

In line with the European standard, the pedagogical process at the Faculty of Arts is focused on building professional expertise and cross-cutting and transferable competences, especially in the areas of teamwork and communication, entrepreneurial approaches, creativity and innovation, as well as strategic planning and organisational skills. Creating the conditions for gaining the necessary experience and building professional expertise is a joint task of the faculty (in the form of operational, pre-diploma and optional internships) and the employer (e.g. by placing candidates as trainees).

This material will also form part of the basis for the development of an internal system for evaluating the quality of teaching and learning at the Faculty of Arts (e.g. study materials, implementation of innovations in teaching, student evaluation), taking into account current European trends in the evaluation of education at universities (e.g. Teaching Excellence Framework, <http://www.hefce.ac.uk/lt/tef/>).

II. Raising awareness of the importance of the pedagogical process and mutual support of students and teaching staff

A fully-fledged pedagogical process is of key importance for the holistic development of students, the achievement of the necessary level of knowledge and experience, and thus the prerequisites for their application in the professional field and in the development of their disciplines, especially forestry, hunting, as well as the complex protection and management of nature and forest resources. This requires a high level of awareness of the importance of the pedagogical process among its actors, i.e. students and teachers. Teaching can then naturally take place as an interactive process involving both students and teachers at the level of sharing values, mutual reinforcement of motivation and trust, knowledge transfer and cooperation.

Draft measures

- 1) To provide mathematics, chemistry, biology courses for 1st year bachelor's students, for all study programmes, before the beginning or during the 1st semester. The content of the courses will be mainly a rehearsal of the secondary school curriculum, which is a prerequisite for the Bachelor's courses.
- 2) At the beginning of the study, immediately after the opening of the academic year to organize for students of the 1st year. In the first half of the first year of studies, on the first day of the first year of studies, a series of events creating an informal "introduction to study at the Faculty of Arts" lasting at least three days, with the aim of motivating them to study, extracurricular activities and personal development, as well as to observe ethical and fair-play standards in the context of their studies. This will include information on the faculty's approach to ensuring a culture of fair-play, with an emphasis on the conscious renunciation of illicit methods and devices during the examination period, as a demonstration of acceptance of one's own responsibility and respect for the academic community.
- 3) As an introduction to the study, the faculty will provide a comprehensive lecture on forestry issues, the structure and continuity of courses at the Faculty of Forestry and the cross-section of knowledge that students will acquire, possibly in combination with an excursion to the University of Applied Sciences, for students of the first year of the bachelor's degree. The aim is to promote from the outset the students' perception of the connections to which they need to focus their attention during their studies.
- 4) At least once a semester, organize a lecture and discussion for students on the need, opportunities and prerequisites for achieving personal growth with an emphasis on an active learning approach with leading experts.
- 5) Participation of each LF scientific-teaching staff member in at least one officially announced student event (hanging of the matriculation bull, meeting with the best

students, St. Hubert's Day parade, May Day, May Day, Woodenworld, etc.).

- 6) Adoption of the Memorandum on the pedagogical process by student and teacher representatives. The draft text of the Memorandum, which is attached as Annex 1, will be signed by the LF senior staff and student representatives in the LF AS at a formal meeting of the LF AO during the AR 2016/17).

III. Improving the material environment, equipment and time frame for students' study and leisure activities

However, the evolution of standards at universities, as well as the needs of students, many of whom do not even live in dormitories at the moment, raises an acute need for a solution for study and relaxation spaces directly in the building or in its surroundings.

Draft measures

- 1) Creating additional spaces and places for study and relaxation in the Faculty of Forestry (Block C):
 - Enlargement and adaptation of the study and relaxation area directly in Block C in the area where the cloakroom is currently located; a pilot procurement of Steelcase work capsules is being considered.
 - Increase seating in Block C by purchasing additional tulivacs that were placed in front of classroom B8 this past year.
 - Replacement of depreciated objects on the floors with places to sit or study and relax as required (in agreement with the Heads of Departments).
 - Introduction of wifi connection as standard on every floor (at least in the area between blocks B and C - in front of the main lift).
 - Guiding students on the use of the library where self-study facilities are available.
 - Construction of a shelter and workbenches in front of the entrance to Block C in the direction from the workshops and in the atrium area between the FEE - workshops - and the main building.
 - In coordination with the university, the creation and equipment of a space for sports activities based on the so-called "street workout", or climbing wall for training in high-altitude work (tree climbing, rescue forces).
 - In coordination with the University, updating the contents and renovating the display cases on the ground floor of the main building of TUZVO.
 - Installation of photo exhibitions with forestry themes and examples of the most progressive approaches in forest management (in cooperation with Forests of the Slovak Republic and subjects of non-state forests), or the theme of student life on the pre-installed area in front of B8.
- 2) Completion of state-of-the-art laboratories from the SF funds in case of approved projects with the participation of LF, with emphasis on their accessibility and creation of opportunities for use by students and their involvement in research.

- 3) Preparation of timetables and adherence to them by teachers so that students (especially in the 1st and 2nd year of the Bachelor's degree) have teaching events spread out from Monday to Thursday. In the upper years, Fridays should be reserved for optional practice (e.g. at the VŠLP). Form study groups taking into account the diversity of students and their high school backgrounds.
- 4) Additional areas will be identified in Block C for the placement of panels with profiles of our successful students and PhD students (partially implemented).
- 5) The financial and material support of the LF clubs will be maintained at the current level, but the monitoring of the needs and outputs of the clubs will be improved through regular meetings of the faculty management with the members of the clubs, at least 1-2 times per semester.
- 6) In coordination with the university, allocate a space with telephone, internet connection, etc. as a facility to support prospective student entrepreneurship and innovation activities (in connection with the start-up support schemes from the beginning of 2017).

IV. Measures for raising the level of the pedagogical process at the level of faculty, departments, individual staff and students

The pedagogical process is equivalent to scientific research activity, which is one of the prerequisites for its success. With the current trend in the number of students at HEIs, these areas of activity are not in a limiting competitive relationship, even in terms of the time available.

Draft measures

- 1) Motivate students with the opportunity to earn exam points during the semester by continuous assessment. It is recommended to use the upper limit according to the study regulations of up to 40% of the total grade. Use points for assignments, midterm papers. Micro-scoring can be (optionally) tested on selected timetable events to stimulate creative monitoring and processing of material during lectures and tutorials.
- 2) Increase the use of library resources in studies to a minimum of 20%, which should also include materials (e.g. articles) in a foreign language, with an increasing proportion in higher grades. Use an appropriate ratio of library resources in the mother tongue to those in the foreign language, possibly increasing this ratio in higher grades.
- 3) Ensuring regular checking and availability of up-to-date study materials in the Slovak Forestry and Woodworking Library.

- 4) Further increase the share of practical teaching also during the semester in the form of optional internships, e.g. at VŠLP. This form of internship, i.e. "shadowing" of individual positions within the VŠLP, was introduced in AR 2015/2016. The capacity for optional internships will be increased in cooperation with the Vice-Dean for Teaching, the SP supervisors and the Heads of Departments. Introduction of optional internship at the VŠLP as an elective course (3 credits) in the 1st and 2nd year of engineering studies.
- 5) Regular communication with potential employers or partner institutions (Forestry SR, NLC) regarding the provision of current topics from practice for the solution of bachelor and diploma theses of students.
- 6) Introducing collaborative teaching by joint delivery of selected lectures by two lecturers of closely related or dependent courses, requiring the cooperation of the course tutors. Examples of possible combinations of subjects are: pedology - climatology - phytocenology, typology - silviculture - forest protection, silviculture - harvesting and transport technologies (in terms of practical solutions to the approaches taught), HUL - forest economics, forest protection - nature and landscape protection, etc., whereby the two teachers would participate in the timetable actions together, in a dialogical or interactive form. At least 10% of the teaching to be carried out in a collaborative way.
- 7) From the faculty level, organize a meeting for students of 1st and 2nd level of studies on thesis writing (demonstration and explanation of the template for the thesis, methods of citation or the content of individual parts of the thesis). Inclusion of the subject "Semester Project", which is taught at the UŠP, in the elective courses in the study programmes at the Faculty of Arts (5th semester of the 1st cycle of studies, 3rd semester of the 2nd cycle of studies).
- 8) Populate databases of video presentations of lectures (see e.g. www.lesnickeprednasky.sk) or exercises, replacing attendance at lectures with confirmation of web viewing. The creation of interactive learning blocks (e-exercises, etc.) is an urgent need given the current irreversible trend of virtual identity, also to increase the attractiveness of learning for current as well as potential students.
- 9) Test the possibilities of increasing student engagement in selected courses (optional) by using twitter, facebook, or blogging platforms. For more on this see: <http://blog.reyjunco.com/publications>
- 10) Re-evaluate or transform the fixed prerequisite system into a student-recommended system. Abolish or communicate between course tutors who are in a prerequisite relationship. Motivate students to take prerequisites by using collaborative learning in the prerequisite-subject combination by subsequently counting in the course, e.g.,

10% of the required number of points for taking the prerequisite (because the course was taught partly in combination with the prerequisite).

- 11) Set up 8 point spacing for student grading on exams. The grading scale currently set is quite strict especially for A grades. Increasing the spacing and making it more uniform may help to assess students more fairly and, in theory, improve overall study averages, making our students' results more comparable to other universities using these spacings.
- 12) Apply the option of compulsory attendance at lectures, or the option of positively bonused student attendance at lectures (or depending on the course tutor). Following on from the previous point, test the possibility of increasing the proportion of modular teaching. In practically every subject, at least part of the exercises can be conducted in a modular way, i.e. instead of 2-3 weeks of exercises, prepare one modular exercise, linked to a predefined project and necessary data, e.g. via the Internet.
- 13) Motivate and support faculty staff towards participation in foreign mobility (CEEPUS, ERASMUS+) in order to gain experience, especially to identify and transfer innovations into the teaching system.
- 14) Find other ways to motivate students to prepare for the exam (these approaches are surprisingly implemented Also more qualitative universities, e.g. ETHZ, https://www.ethz.ch/content/dam/ethz/associates/services/News/life/ausgaben/englisch/eth_life_16_2_EN.pdf, s. 6) and the creation of a positive atmosphere by individual teachers and entire departmental teams.
- 15) Developing the level of psychological, communicative and pedagogical knowledge and its application in practice in the framework of courses and trainings with invited specialists from the field of psychology and cognitive sciences (bias, discussion management, forms of communication, neuro-linguistic programming, etc.), as well as self-study of the literature on new knowledge of cognitive and pedagogical-didactic-psychological sciences.
- 16) Continuous review of the content of courses within the results of comprehensive accreditation so that the content of the course in a balanced ratio reflects the level of knowledge in the discipline, as well as the current and future needs of practice. Use of discussion of current issues in forestry by educators in relation to the subject, cross-curricular links and cross-cutting themes.
- 17) Maintaining and, if necessary, increasing the number of joint lectures with practitioners (including HEIs) in profile subjects. The need will be assessed by the course coordinators, heads of departments or the Vice-Dean for pedagogical work.
- 18) Guarantee of the quality and availability of study material: review by heads of

departments at least once a year (as an input to the report on teaching activities). The vice-dean for pedagogical work ensures that the opponents of the teaching texts express their views in addition to

the professional level and the scope and didactic level of the presentation of the material. It is recommended that lecturers conduct their own questionnaire survey of student satisfaction with the didactic level and clarity of the study materials, including recommended readings, electronic resources, videos, animations, etc., and that the outputs of these evaluations are discussed within departments as an inspiration for all creative staff.

- 19) Diversification of teaching materials based on the continuous availability of updated lists of links to recommended reading (library resources), Internet resources, videos, animations, games, etc. Teachers should continuously monitor and draw students' attention to the available resources, including applications for use in teaching, and select, recommend or apply the most valuable ones from a pedagogical and didactic point of view. These may be approaches presenting alternative perspectives on the material in order to maximise the likelihood of understanding it.
- 20) Creation of groups of very good and excellent performing upper year students who will provide mentoring and tutoring as needed for very low performing students identified during the first two-thirds of the semester. Tutors will be motivated through exceptional scholarships.
- 21) Communicating with students and securing support from the dean's office level to obtain both course and teacher evaluations through an appropriate end-of-semester questionnaire.
- 22) Motivation of teachers through the incorporation of the criterion of the quality of teaching as one of the bases for determining the incentive component of the salary. Although several types of criteria could be considered, in the specific situation of the LF, the use of progressive and effective approaches in teaching may be considered necessary.
- 23) Motivation of students through active promotion of benefit scholarships, enabling the creation and assistance in the completion of a professional CV and career profile of the student and graduate, e.g. on the LinkedIn platform. Involving students in research projects.
- 24) Supporting students of higher years in their further employment by presenting successful graduates, mentoring and training in entrepreneurship, obtaining support from subsidy schemes and building a graduate's career profile.
- 25) Introduction of elective courses in foreign languages for students of the 1st year of bachelor studies, in addition to the standard obligations of students to pass an examination in a foreign language (English - professional communication) by the end of bachelor studies.

Draft text of the Memorandum

- Teachers and students of the Faculty of Forestry of TU Zvolen jointly declare that the primary outcome of the faculty is a graduate with a balanced ratio of specialization, transversal skills, empathy, creativity, ability to think analytically and critically in order to ensure the applicability of graduates on the labour market and the role of the graduate as a carrier of scientific and technical progress and ethical values.
- The pedagogical process is based on the most up-to-date knowledge of international and own research and practice in the field of forestry and related disciplines, but also in selected areas of humanities and social sciences, especially psychology, pedagogy and cognitive sciences, thus defining research-based teaching.
- A combination of bottom-up and top-down approaches is needed to achieve success in the pedagogical process, i.e. full involvement of both students and teachers, their mutual respect, support for each other and for each other in achieving the goals of the pedagogical approach.
- Mutual support of teachers and students is to be manifested by creating conditions and setting clear expectations for the relationship between teachers and students; these expectations are based on mutual respect, awareness of the irreplaceable role of each participant in the pedagogical process, as well as the application of all tools to achieve both an understanding of the importance of the subject and the issue in relation to other subjects, and an appropriately defined level and structure of knowledge, while recognizing the need for further education in the subject after graduation from the course.
- Students and faculty alike are committed to upholding and uncompromisingly adhering to ethical and fair-play standards of study at LF. As part of a culture of fair-play, they will eliminate actions that undermine a level playing field in the achievement of learning outcomes as a demonstration of acceptance of their own responsibility and respect for the academic community.