Faculty of Forestry at Warsaw University of Life Sciences-SGGW - its structure, staff and management

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Abstract
The study presents the structure, organization, resources and main activities (in various fields) of the Faculty of Forestry at Warsaw University of Life Sciences - SGGW. All the resources and activities have been described in the context of the requirements and needs of the educational process, assuming that they are significant contributors to the efficiency of that process.

Keywords: forestry, faculty of forestry, organization, structure

Streszczenie
W pracy przedstawiono strukturę, organizację, zasoby oraz główne działania (na różnych płaszczyznach) Wydziału Leśnego SGGW w Warszawie. Zasoby i działalność zostały przedstawione w kontekście wymagań i potrzeb procesu dydaktycznego przyjmując założenie, że są one istotnym elementem wpływającym na efektywność tego procesu.

Celem strategicznym Wydziału Leśnego SGGW, jest takie kształcenie studentów, by byli wyposażeni w kompetencje, które pozwolą im na realizację karier zawodowych na konkurencyjnym rynku pracy. Realizacji tak postawionego celu podporządkowano organizację i wszystkie zasoby Wydziału.


Od roku 2003 Wydział Leśny funkcjonuje w nowym budynku na kampusie SGGW na warszawskim Ursynowie. Obecnie Wydział funkcjonuje na powierzchni ponad 6,5 tys. m² i dysponuje m.in. 35 laboratoriami, 12 pomieszczeniami biblioteczными, 28 własnymi salami dydaktycznymi, 1 aulą wykładową na 220 miejsc. Wydział posiada również bazę dydaktyczną w Leśnym Zakładzie Doświadczalnym (LZD) w Rogowie. LZD stanowi miejsce ćwiczeń terenowych dla studentów kierunku leśnictwo.


Warunki do pracy, jakie znajdują na Wydziale studenci (infrastruktura, kadra akademicka, dostęp do najnowszych osiągnięć nauki, techniki i kultury) oraz ich wszechstronna działalność pozwala mieć nadzieję, że po skończeniu studiów osiągną oni sukces na rynku pracy, choć rzeczywistość pokazuje, że nie musi to być koniecznie zajęcie związane z leśnictwem i jego otoczeniem.
Introduction
The mission of the Warsaw University of Life Sciences - SGGW (WULS-SGGW), an internationally recognized university center for research and teaching, is to serve society through the implementation of quality education and multidisciplinary research in the field of environmental sciences, with particular respect for the principles of sustainable development. This particularly implies the following:
1. education of students, while maintaining standards and quality assurance, in order to equip them with necessary skills and to prepare them to compete in contemporary labor market and the functioning in the knowledge based society,
2. conducting research and development activities and provision of research services, dissemination and multiplication of scientific achievements,
3. education and promotion of scientific staff,
4. training to acquire and supplement knowledge, supplying various opportunities to continue education (postgraduate studies, courses, etc.).

The strategic goal of the WULS-SGGW, including the Faculty of Forestry, in the scope of education, is training of students in a way that guarantees that graduates are equipped with skills and competencies in accordance with the highest European standards and are fully prepared to carry out professional careers in a competitive labor market, both domestic and foreign. Although the Warsaw University of Life Sciences has a quality assurance system for education, the University’s strategic goal is to further develop and improve that system, including in its framework both the experience of the accreditation and activities of other academic centers as well as teams of experts within the recognized national and international organizations such as e.g. Euroleague for Life Sciences (ELLS) or Association of European Life Science Universities (ICA).

Resources and organization
The basic pillars of the Faculty are the four departments:
- Silviculture,
- Forest Management, Geomatics and Forest Economics,
- Forest Utilization, and
- Forest Protection and Ecology.

Two of them, i.e. Department of Forest Management, Geomatics and Forest Economics and Department of Forest Protection and Ecology, are further divided into chairs. There are 3 chairs in the first of them (namely Forest Management, Geomatics and Spatial Planning, and Forest Economics) and 2 chairs in the second one (Forest Mycology and Phytopathology, and Forest Protection, Ecology and Ecotourism). Moreover, there are 3 divisions (smaller independent units acting as departments): Forest Botany, Dendrometry and Forest Productivity, and Forest Zoology and Game Management.

The Faculty of Forestry at WULS-SGGW has the right to award doctoral (PhD) and postdoctoral (habilitation) degrees in the field of forest sciences, discipline of forestry, and the academic title of professor of forest sciences.

The most important changes which took place at the Faculty of Forestry in recent years include:

1. moving the Faculty to a new building on the campus of WULS-SGGW in Ursynów, which resulted in substantial improvement of conditions for scientific work and teaching,
2. preparation and improvement of degree programs according to the rules of the Bologna process and currently - working on adapting curricula to the provisions of the new Polish Act on Higher Education of 2011,
3. starting education in English; the first step was the establishment of 4-semester stationary MSc major program „Forest Information Technology” (based on the agreement between WULS-
SGGW and University of Sustainable Development in Eberswalde, Germany, signed on 15 September 2005).

The Faculty of Forestry staff are academic teachers who are engaged in teaching primarily in the scope of forestry and research related to the teaching process. Currently the Department employs (as of 15 December 2011) 89 full time faculty, including 15 with the academic title of professor, 15 with the academic degree of doctor habilitated, 55 with PhD degree, and 4 with the professional title of MSc. Among the employees of the Faculty, the vast majority of the employment relationship is provided by virtue of nomination, and only a little bit more than 20% have an employment contract. Besides academic teachers, the Faculty employs 20 technical and 5 administrative staff workers. Administrative staff support the Dean’s office and provide services to students.

The current state of staff provides a high level teaching process in forestry as well as for other majors such as: spatial management, biology, tourism and recreation, environmental protection, landscape architecture and wood technology.

In the human resources policy, particular emphasis is put on the following issues:
1. development of young academic staff,
2. creating conditions for development and promotion of staff,
3. introducing mechanisms to bring staff to intensive self-education and encourage them to interact with professionals of other disciplines,
4. rewarding people applying for various grants and performing research to implement solutions into the economic practice,
5. strengthening links between academic staff and the practice, and additionally adaptation of research problems into the teaching process.

Faculty of Forestry conducts studies at all levels of education (studies of I, II and III degree; full-time and part-time). The percentage of doctoral students in reference to the total number of students is twice higher than the average in the WULS-SGGW.

Offering high-quality teaching services requires such a number of academic staff which allows easy access to a person engaged in educational activities. The teacher’s availability can be measured by a number of students per one teacher. For forestry this relationship oscillates around 1:25 in relation to teachers representing a minimum academic staff complement. The current regulations require that this ratio should be not lower than 1:60. In practice, this proportion is even more favorable for students, because after taking into account all other teachers conducting classes in forestry, this ratio is approximately 1:16.

Following the recommendations of University authorities, the number of students in laboratory groups (most classes are conducted at the Faculty in that way) should not exceed 20 while in the seminar groups 40 people. Besides teaching, the availability of teachers is implemented in the form of consultations conducted at scheduled times, minimum 4 hours per week.

**Infrastructure**

In 2003, the Faculty of Forestry moved to a new building in Ursynów, which caused a significant enrichment of educational and scientific base. Currently the Faculty occupies over 6.5 thousand m² and has, among others, 35 laboratories with a total area of 1237 m², 12 library rooms with a total area of 630 m², and 28 teaching classes with a total area of 2056 m². The Faculty building is equipped with a computer network providing access to local network resources, Internet as well as distance-learning platforms Moodle and Ilias.

Education of students at the Faculty of Forestry is conducted not only on the basis of its own teaching base (i.e. the building located on the Ursynów campus). There are also other rooms made available (auditorium, lecture halls and classrooms) and administered by the University. All classrooms are equipped with audiovisual equipment. The Faculty of Forestry possesses its own lecture
auditorium with 220 seats. Laboratory exercises and seminars are held in the auditorium halls and laboratories. Those include, among others:

1. 5 computer labs - each with an average of 18 networked computers with access to the server and the Internet, equipped with office, statistical and other specialized software,
2. computer lab for State Forests Informatics System - with 20 networked computers and 16 complete sets used by State Forests administration (field computer, printer, docking station) having access to the main server of State Forests,
3. GIS computer lab - consisting of 20 networked computers with access to the server and the Internet, equipped with various geomatics software, used mainly for teaching on GIS, remote sensing, and digital image processing,
4. zoological and game management labs - designed to study forest zoology and game management, with dry exhibits of skeletons of birds and mammals, wet exhibits of amphibians and reptiles, a collection of skulls and faces of mammals, etc.,
5. dendrochronology lab - equipped with 2 computers with a specialized software for tree radial increment studies (EPD increase, DPL, CooRecorder, CDendro) and statistical data analysis, electronic dendrometer BEPD-4 with software and sample preparation chamber. The lab facilitates classes for a specialty and supports research, also for diploma thesis,
6. biology and physiology lab - equipped with 16 optical microscopes, spectrophotometer, permanent and semi-permanent preparations of vascular plants and herbs,
7. seed science and forest tree selection lab - collection of exhibits of the seeds of forest trees and shrubs,
8. forest raw materials lab - rich collection of exhibits of wood samples from European trees and the defects of wood raw material. It is also equipped with air-conditioned chamber, sets of equipment and machinery for destructive (static and dynamic) and non-destructive (ultrasonic and resonance) testing of wood properties, a micro-ripper and equipment for determining the properties of selected forest fruits,
9. GIS and remote sensing lab - 11 computer stations with specialized software (Idrisi 32, ArcGIS and VSD station) with access to specialized equipment such as 2 digitizers, 1 cartometer (A2), 2 skanners, 1 Plotter (A0),
10. entomology lab - collections of insects and their feeding grounds, equipped with microscopes to determine insects,
11. phytopathology lab - collections of fungi,
12. Forest and Nature Information lab - Faculty’s reading room for students and staff, having a collection of periodicals (professional forestry and environmental protection journals), materials from national and international symposia, books and scripts and other publications on forestry and environment,
13. a few classrooms with up to 40 seats.

The Faculty also supervises didactic facilities in Forest Experimental Station in Rogów, which consist of a dormitory with 160 beds in double and triple rooms, lecture auditorium for 200 seats, three general-purpose teaching rooms, computer lab and a library. There are also other didactic properties, such as the forest and wood museum, arboretum, alpinarium and forest nursery.

Forest Experimental Station in Rogów was established in 1919 when under the Regulation of the Ministry of Agriculture and Public Goods, dated 15 July 1919, WULS-SGGW acquired the Forest District in Skierniewice. Based on the regulation of the Ministry Council, dated 1 January 1955, forests managed by the University were excluded from the Ministry of Forestry and transferred to the Ministry of Higher Education for educational purposes of SGGW. Since then they have been called „Experimental Forests of the Warsaw Agricultural University”. The final organizational and legal form the forests obtained is based on the Ministry of Higher Education regulation of 12 February 1960. Currently Forest Experimental Station in Rogów creates suitable conditions to perform the research work by the University scientists and provides a place for practical training and
field exercises for students.

Foreign language teaching is conducted in laboratories of the Center of Foreign Languages, where students are provided with basic audio-visual equipment and SITA laboratory.

Sport activities are carried out in the sport complex located on the Ursynów campus. Students can take advantage of sports halls, indoor swimming pool and open sports fields.

Students can use onsite book and journal collections held in various units of the Faculty. They can also benefit from faculty reading room with collections of publications, magazines and scientific documentation. Above all, students can take advantage of the Main Library and libraries operating in various faculties of the University. The university library and information network comprises of the Main Library and libraries of Faculty of Civil and Environmental Engineering, Veterinary Medicine and Human Nutrition and Consumer Sciences. WULS-SGGW library network resources include over 430,000 volumes - books, periodicals and special collections (dissertations, master theses, cartographic collections, norms and standards, microfiche). A large part of the collection (about 30 thousand books and current periodicals) is open to general access. The library is computerized, with 115 stations working in a local area network. Readers can use 55 computer stations for searching Polish and foreign computer database directories and bibliographic databases on biological sciences, agriculture, nutrition, biotechnology, ecology, etc., as well as Internet resources. The most important convenience is on-campus access to the major full-text bibliography databases containing the most important scientific journals. Reading rooms, information center and a room with directory and textbook rental options are equipped with modern computers and xerographic devices, which facilitates the use of library collections and bibliographic databases.

There are 3810 beds located in 11 dormitories in Warsaw and 1 in Rogów available for WULS-SGGW students. There are also 3 student canteens and 11 buffets on the campus. Besides, students have an opportunity to use a swimming pool (payable tickets) with recreational part, four sports halls, a tennis hall (4 courts), sauna, solarium, an aerobics room and a gym.

In the teaching process of many subjects (information technology, informatics in forestry, forest economics, business management in forestry, statistics, forest productivity, dendrometry, experimental design and planning, forest management planning, GIS, remote sensing, and others) ICT is applied. Teaching with the use of novel information technologies is enabled by the technical infrastructure, supported by the Computer Center, Multimedia Education Center and Faculty of Applied Informatics and Mathematics. Classroom equipment allows to use most of the available types of teaching materials (multimedia presentations, training films, transparencies, simulation computer programs, etc.).

In order to facilitate teaching and learning, Faculty staff develop scripts and academic textbooks. A lot of information is published in teaching materials continuously developed and presented to students, in many cases through an electronic platform. Individual units the Faculty, including the Reading Room, provide their own specialized collections of books, containing a total of over 10 thousand books and journals in forestry and related fields. There is also a repository of maps, including topographical ones, covering the entire country. In the departments, there are also numerous support materials in the form of herbaria, collections of fungi, insects, amphibians, reptiles, birds, mammals, wood samples and other, which are an important source of information to help students gain detailed knowledge of plants and animals. Current information, essential to maintain effective teaching relations, is provided on the teacher-student line with the use of email and Faculty web site (http://wl.sggw.pl).

**Student activities**

Student self-government is an organization of all the students of the Warsaw University of Life Sciences. Its main field of activity is to represent and protect student’s rights in educational, social
and living issues. Elected annually in a democratic way, Self-government representatives form collective body through which they represent the students in contacts with university authorities, participate in the work of the University Senate and Faculty Boards. Furthermore, the WULS Student self-government organizes recreational and cultural events (including University Days Ursynalia), national and international conferences of young foresters and wood technologists, foresters and loggers competitions, etc. The Student Government also represents students in contacts with other Faculties of Forestry in Poland and abroad.

There is also active Foresters Scientific Association with 9 operating sections: Forest Botany, Entomology, Biometrics, Geomatics, Forest Management, Forest Utilization, Game Management, Ornithology and Falconry. In the frame of the Association students realize their scientific interests, conduct research (including field investigations), publish results and present them at national and international conferences. At the annual reviews of Student Scientific Associations from various university faculties, forestry students hold leading positions. Besides, there are other organizations actively working at the Faculty such as: Youth Branch of the Association of Foresters and Wood Technologists, Hunting Music Group „Akteon” (multiple Polish champion, winner of prestigious awards), Hunting Association and Association of Nature Photography.

**Summary**

For young people the time of university studies should be a period of intensive development in many fields. One of the most important areas is probably the one that is called intellectual development, understood both generally and professionally as a specific fund of knowledge and skills. This intellectual development is realized through a number of stimuli, tools and processes. The most important of them seem to be the following: current contact and the opportunity to exchange opinions with academic and moral authorities, the opportunity to cooperate and work in teams, participate in research, the possibility of international cooperation, the opportunity to conduct social activities, contact with culture, etc. All the above-mentioned factors and many others, not mentioned in this study, must be supported by infrastructure in order to make their existence possible and have a real impact on shaping knowledge, personality and skills. The infrastructure should not be understood only as a technical element (buildings, equipment etc.), but also as the intellectual fund. One could therefore say, that those shaping factors can exist if grounded in different kinds of resources belonging to three major groups: human, technical and financial ones.

Thus, the question worth asking is: which institutions, organizations or educational entities are able to ensure the presence of all those conditions? There is basically one possible answer to that question. That challenge can be met only by entities with vast experience, resources (in all three dimensions) built in decades, and located in large cities or in their vicinity, having also access to the place for feld classes. Only such an arrangement of elements can provide full realization of the basic goal of higher education, which is educating humans optimally prepared for the labor market and for the development of the society in many dimensions.

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