Strategy of Faculty of Biology and Environmental Protection of University of Lodz

years 2024-2030





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we make the Faculty



FACULTY OF BIOLOGY AND ENVIRONMENTAL PROTECTION University of Lodz



About the Faculty

Scientific research in the field of biological sciences has been conducted since the establishment of University of Lodz in 1945. The first units within this discipline were established as a part of the Faculty of Mathematics and Natural Sciences. As scientific advancement unfolded, the Faculty systematically expanded the scope of its research, introducing increasingly diverse and specialized scientific fields. In 1951, the Faculty of Biology and Earth Sciences was formed through the integration of biological and geographical units.

By 2001, following the initiative of geographers, the Faculty of Biology and Earth Sciences split into the Faculty of Geographical Sciences and the Faculty of Biology and Environmental Protection (BaEP).

Currently, the BaEP Faculty of the University of Lodz stands out for its high scientific potential and holds a leading position among biological faculties in Poland. The BaEP Faculty has a modern scientific and educational infrastructure and is recognized internationally as a research center addressing contemporary global efforts in sustainable development, improving the quality of life of human and animals, and environmental well-being. Through its interdisciplinary educational programs and extensive collaboration with international partners, the BaEP Faculty actively shapes future leaders, and members of civil society, aware of the role of science in building a sustainable future based on knowledge, innovation, and respect for the natural environment.

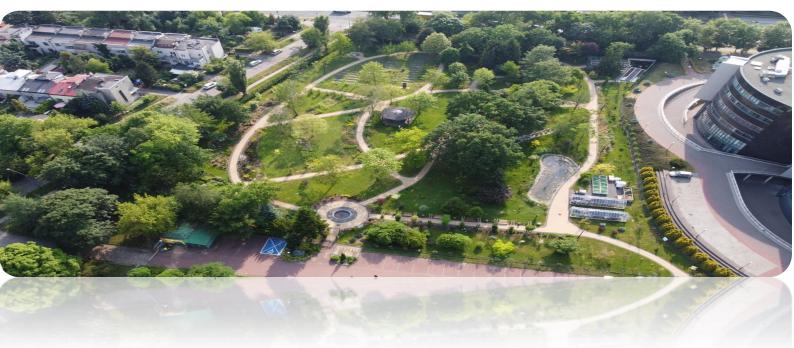


MISSION

- Educating students and experts equipped to meet the needs of modern science and the economy, with a strong commitment to face future challenges, with a special focus on climate change and environment protection,
- Identification and investigation of current environmental threats stemming from human impact on ecosystems,
- Conducting groundbreaking and interdisciplinary research through national and international collaboration,
- Actively promoting sustainable development and protection of biodiversity, both locally and globally,
- Shaping the Faculty Community based on the core values of the University of Lodz, which include: courage, curiosity, engagement, cooperation, and respect.

VISION

• Striving for scientific and educational excellence through ambitious, and bold research activities that address socially relevant challenges in a changing world.



AREAS OF OPERATION

The BaEP Faculty strategy at the University of Lodz is built upon five core values, which form the foundation for the Strategy of University of Lodz for 2021-2030. These values are:

- courage,
- curiosity,
- engagement,
- cooperation,
- respect.

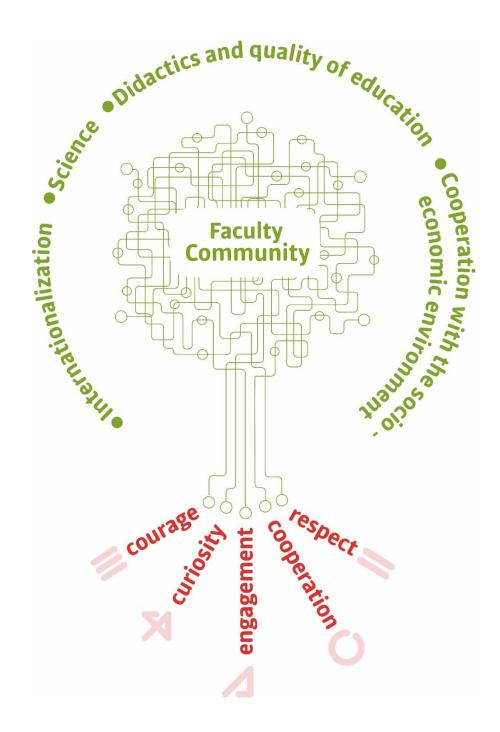
The Strategy of the BaEP Faculty encompasses five important and interconnected areas:

- Faculty Community,
- science,
- didactics and quality of education,
- internationalization,
- cooperation with the socio-economic environment.

The strength of the Faculty lies in its community, comprising academic and administrative staff, doctoral candidates, and students. Their contributions ensure the dynamic development of the Faculty and fulfillment of its scientific and educational mission. As an academic community, we strive to create a friendly and supportive work and learning environment, grounded on the mutual respect, trust, and tolerance.



AREAS OF OPERATION









Faculty Community

DIAGNOSIS

STRENGTHS

- a broad community with diverse competencies,
- team leaders with well-established positions in the scientific community,
- creativity and openness to new challenges,
- collaborative relationship between young and experienced staff members of the Faculty.

WEAKNESSES

- criteria for professional promotions and periodic staff evaluations,
- uneven engagement among staff in the functioning of the Faculty,
- insufficient support for the individual development of early career staff members,
- communication between different employee groups,
- insufficient cooperation between the Faculty's staff and a lack of discussion and interaction, which is necessary for building a good team spirit.

OPPORTUNITIES

- Faculty-wide discussions regarding the scientific development of staff, teaching plans and administrative decisions,
- availability of programs and training focused on *health and well-being*,
- implementation of the university's *work-life integration* concept.

- increasing demands in both teaching and research activities,
- relatively low salaries,
- decreasing social prestige of the academic teaching profession.

Faculty Community

AIMS AND OPERATIONS

Fostering the development of all members of the Faculty Community

- supporting employees, doctoral candidates, and students in their individual development,
- clear criteria for promotions and awards across all employee groups,
- supporting academic staff in meeting the requirements of the "Employee Periodic Evaluation",
- providing training to enhance competences essential for administrative work,
- identifying professional needs for removing barriers to the development of early career researchers,
- engaging students in scientific research conducted at the Faculty.

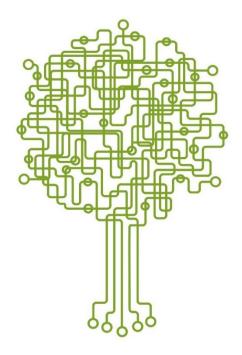
Enhancing Faculty communication

- implementing best practices to strengthen internal collaboration within the Faculty and evenly distributing responsibilities among the Faculty's staff,
- simplifying the processing and circulation of internal documents,
- improving the functionalities of the Faculty website, including the Intranet, as the key channel for information flow,
- expanding internet accessibility and introducing advanced solutions, while consistently upholding information security standards and ensuring the responsible use of networks and AI in compliance with best practices in science,
- increasing the influence of early career staff, doctoral candidates, and students to contribute the Faculty's development and promotion plans,
- creating a shared space to foster and strengthen the networking between Faculty staff, doctoral candidates, and students,
- organizing integration meetings for the Faculty Community.

Enhancing infrastructure to benefit Faculty community

- implementing information security standards and improving internet accessibility,
- continuously modernizing research and teaching infrastructure, including striving to obtain quality certifications for laboratories,
- organizing relaxation zones.







Science

DIAGNOSIS

STRENGTHS

- academic staff with recognized scientific achievements,
- state-of-the-art research infrastructure,
- interdisciplinary approach to scientific research,
- strong scientific partnership with external institutions.

OPPORTUNITIES

- growing global interest in environmental protection, quality of life, and sustainable development,
- development of new technologies supporting innovative research,
- possibility of extensive international collaboration,
- availability of external funding sources.

WEAKNESSES

- limited financial resources hindering the implementation of ambitious projects,
- low number of projects funded from external sources,
- uneven research activity among academic staff,
- insufficient support for projects leaders in project implementation.

- competition from other universities,
- legal barriers hindering research activities,
- uncertainty of external funding sources,
- reducing state spending on science,
- demographic decline and decreasing, interest in academic careers.

Science

AIMS AND OPERATIONS

Improving research efficiency and securing external grants

- establishing a project office to support employees in preparing and implementing research projects,
- providing up-to-date information on grant competitions and offering regular training on securing grants,
- developing a financial support system for grant applications that do not receive funding, despite positive reviews,
- launching interdisciplinary research projects that integrate various fields of study and utilize modern techniques,
- continuous adaptation of equipment and facilities to match evolving research techniques,
- ongoing identification and implementation of socially relevant topics in a changing world.

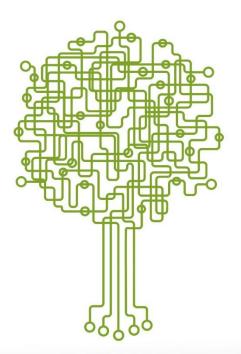
Enhancing the research competencies of academic staff

- organizing courses and training to improve the scientific skills of academic staff,
- collaborating with outstanding researchers to support the scientific development of academic staff,
- strengthening scientific networks and promoting internal teamwork that involves less-experienced researchers,
- organizing seminars and lectures featuring researchers from the University of Lodz and beyond.

Supporting publication efficiency

- establishing an advisory team to assist in publishing in top-tier journals,
- providing financial support for publications in leading journals,
- offering incentive bonuses for publications in highly ranked journals,
- developing and implementing a reward system for scientific achievements.







Internationalization

DIAGNOSIS

STRENGTHS

- a wide network of partnership agreements, including with universities as part of the *European University of Cities in Post-Industrial Transition (UNIC 2.0)* alliance and the Erasmus+ program,
- close collaboration with foreign research institutions,
- academic staff with experience in conducting research at internationals centers,
- participation in prestigious international research projects, including the European Union Framework Programmes - Horizon Europe.

OPPORTUNITIES

- growing importance of internationalization in collaboration with the socio-economic environment,
- opportunities to secure funding form national and international sources for research projects with and international partners,
- increasing international recognition of the city/region, partly due to collaboration with UNIC 2.0 and local authorities,
- availability of e-learning and digital tools for communication and education, supporting internationalization efforts.

WEAKNESSES

- insufficient number of courses and practical classes conducted in English,
- underutilized potential of the Erasmus+ program for mobility among students, doctoral candidates, and academic staff,
- insufficient visibility of the Faculty within the UNIC 2.0 alliance,
- unsatisfactory success rate in securing research funding from EU funding calls.

- growing competition from other universities for international students and researchers,
- changing migration regulations, including visa policies, which may hinder the recruitments and employment of international students, doctoral candidates and academic staff,
- political and economic instability in the region affecting the effectiveness of international collaboration and researcher mobility,
- insufficient financial resources for internationalization efforts.

Internationalization

AIMS AND OPERATIONS

Internationalization of the educational program

- developing and promoting degree programs in English,
- expanding the range of courses available for Erasmus+ program students,
- promotion of double-degree diploma programs in cooperation with foreign universities,
- enhancing the availability of online courses for students from partner universities within the UNIC 2.0 alliance through e-learning platforms, virtual labs, and remote collaboration tools,
- organizing a Mobility Day dedicated to promote mobility programs at the Faculty, i.e. Erasmus+, BioLab, and Mobility Direct,
- hosting events that integrate international students with Polish students to promote intercultural understanding.

Strengthening the international potential of academic staff

- increasing the number of foreign lecturers and researchers, including through the *External Scientific Fellow* initiative,
- providing support for grant applications for scientific trips, *Blended Intensive Programmes*, study visits, and delivering lectures and seminars at foreign universities under the *Erasmus+* program,
- maintaining the Faculty's internal competition to fund short-term international trips to leading research centers.

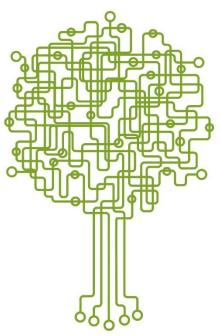
Enhancing the international research position of the Faculty

- establishing new partnerships with foreign universities and institutions while further developing existing collaborations,
- improving success in applying for international research grants by offering regular Faculty training sessions and informational meetings with the National Contact Point,
- supporting the organization of international conferences, seminars, and workshops at the Faculty with participation from foreign speakers.



Didactics and quality of education





Didactics and quality of education

DIAGNOSIS

STRENGTHS

- highly qualified research and teaching staff with strong scientific activity,
- modern scientific, research, and technical infrastructure that supports the educational process,
- adapting study programs to meet the needs of the socio-economic environment,
- a diverse educational program,
- a Criminal Biology program is popular among prospective students,
- well-developed system of evaluating the educational process.

OPPORTUNITIES

- access to national and international funding for innovative educational programs and support for academic teacher and student mobility,
- access to foreign educational programs through the University of Lodz's membership in the UNIC 2.0 alliance,
- geopolitical situation influencing an increase in the number of international students.

WEAKNESSES

- low admission requirements for candidates for most study programs,
- weak interest among students in international mobility opportunities,
- limited student engagement in the evaluation of educational quality,
- insufficient student engagement in participating in scientific clubs and the research and outreach activities of the Faculty.

- demographic decline and decreased interest among potential candidates for academic education,
- increasing competition from other universities for prospective students,
- rapid technological advancements requiring investment in modernizing didactic facilities,
- quickly implemented changes in the education system and the job market, complicating the issues of need for specific graduate competencies,
- increasing availability of educational programs in the field of medical sciences,
- high costs associated with providing practical classes.

Didactics and quality of education

AIMS AND OPERATIONS

High quality of education

- improving the internal quality assurance system for education,
- obtaining international accreditations,
- linking education with the needs and expectations of the socio-economic environment,
- developing innovative methods and forms of education,
- implementing academic tutoring in the educational process,
- securing educational grants to support academic staff and students in the learning process,
- enhancing the significance of employee activity in improving the educational process and the quality of teaching in performance evaluations and motivation systems,
- providing methodological support for academic teachers who are starting their teaching career,
- monitoring and evaluating the advancements of learning outcomes,
- collaborating with student government to enhance educational quality,
- streamlining the documentation management system for study programs.

Attractive program offer

- updating the program offering in response to advancements in biological sciences and needs of the job market,
- creating innovative study programs in collaboration with others faculties, universities, institutions, and practitioners,
- developing the program offer in English,
- securing external funding to enhance the current program offer and implement new educational projects.

Scientific, social, and professional development of students

- improving the support system for securing funding for student research projects,
- conducting diploma projects in collaboration with the socio-economic sector,
- engaging students in research teams and the organization of scientific conferences,
- supporting student associations and student science clubs,
- expanding the provision of professional internships and increasing opportunities for students to participate in internships domestically and abroad,
- supporting student initiatives in the areas of science, social activities, arts, and sports,
- organizing activities to meet the social, educational, and scientific needs of students,
- strengthening relationships between students and all members of the academic community in the Faculty, built on dialogue and mutual respect.



Cooperation with the socio-economic environment





Cooperation with the socio-economic environment

DIAGNOSIS

STRENGTHS

- experts in the discipline of biological sciences,
- state-of-the-art research infrastructure,
- adapting research areas and study programs to meet the needs of the socio-economic environment,
- potential for expanding collaboration with the socio-economic environment.

OPPORTUNITIES

- environmental threats that pose new challenges in the scientific world and create opportunities for building new socioeconomic relationships,
- increasing public awareness of the benefits of a healthy environment and healthy lifestyle,
- economic development of Lodz and adjacent regions.

WEAKNESSES

- low employee engagement in science popularization and commercialization of research,
- untapped potential for collaboration with the industrial sector,
- low number of patents and implementations,
- insufficient promotion of the Faculty in the media (*science communication*).

- growing competition from other scientific and educational institutions,
- technological progress requiring constant investment in modernizing and maintaining equipment,
- low interest from businesses in utilizing the Faculty's expert potential,
- availability of programs that allow for funding pro-ecological and pro-health social and economic activities.

Cooperation with the socio-economic environment

AIMS AND OPERATIONS

Establishing the Faculty of BaEP as an entity that consciously cares for the environment and actively implements and promotes sustainable development goals

- development and implementation of the Faculty's sustainable development policy, along with a catalog of best practices,
- incorporation of climate and sustainable development content into the curricula of all study programs offered by the Faculty,
- implementation of educational initiatives aimed at raising social awareness regarding environmental protection and health-promoting activities,
- initiating collaboration between the University and the socio-economic sector to carry out actions related to climate and environmental policy, with a focus on local and regional levels.

Strengthening cooperation between the Faculty of Biology and Environmental Protection and the socio-economic environment

- support in the process of obtaining and implementing projects in cooperation with businesses representatives,
- assistance in activities leading to the commercialization of research results, patents and implementations,
- monitoring the process of research commercialization and implementations,
- development of research and expert services for public, private and non-governmental sector organisations,
- involvement of practitioners in research activities and scientific research projects,
- enhancing the recognition of the Business Council.

EFFECTIVENESS INDICATORS

Science

- Number of publications in top-ranked journals relative to the number of employed academic staff,
- Number of employees in the TOP2% ranking,
- Number of projects and the amount of funding obtained,
- Number of the most prestigious grants (e.g. ERC).

Internationalization

- Number of foreign students pursuing education at the Faculty,
- Number of students/PhD candidates going abroad under the Erasmus+ program and for internships,
- Number of academic staff going abroad for research internships,
- Number of submitted and successful international projects.

Didactics and quality of education

- Position of the study programs in national and international rankings,
- Number of applicants per available place during the recruitment process,
- Number of quality assurance certificates awarded by the Polish Accreditation Committee,
- Number of top candidates admitted to first year of studies,
- Points obtained by candidates during the recruitment process,
- Number of academic teachers and students participating in international exchanges,
- Number of student research projects funded by external sources.

Cooperation with the socio-economic environment

- Number of initiatives related to raising awareness of sustainable development,
- Number of participants in science popularization events,
- Financial value/number of research and expert services provided by the Faculty at the request of public, private and non-governmental sector organisations,
- Financial value/number of projects carried out jointly with external stakeholders,
- Number of patents granted and commercialization agreements concluded,
- Number of theses completed in cooperation with external stakeholders.

Graphic designs were created using free photos of the portal freepik.com

"A human never looks back at what has been done, but focuse on what lies ahead to be accomplished." Maria Skłodowska-Curie



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