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UNIVERSIDADE FEDERAL DE LAVRAS

COURSE GUIDE

2023

ufla.br

"EDUCATION DOES NOT CHANGE THE WORLD.
EDUCATION CHANGES PEOPLE.
PEOPLE CHANGE THE WORLD."

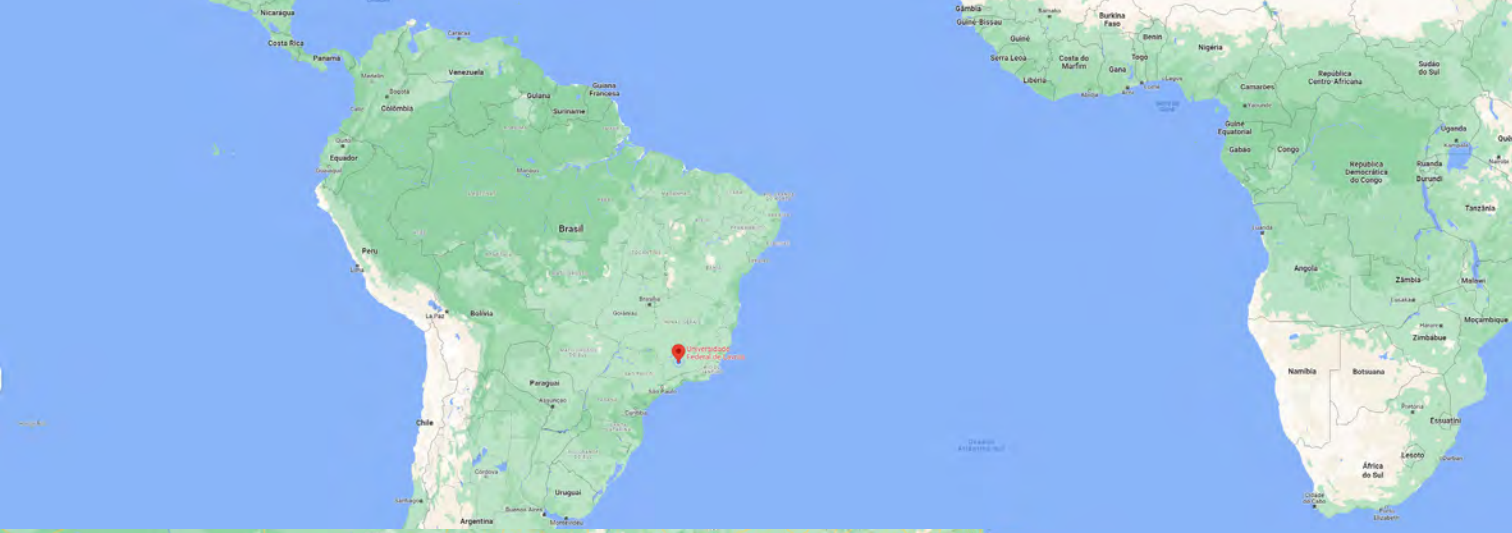
PAULO FREIRE

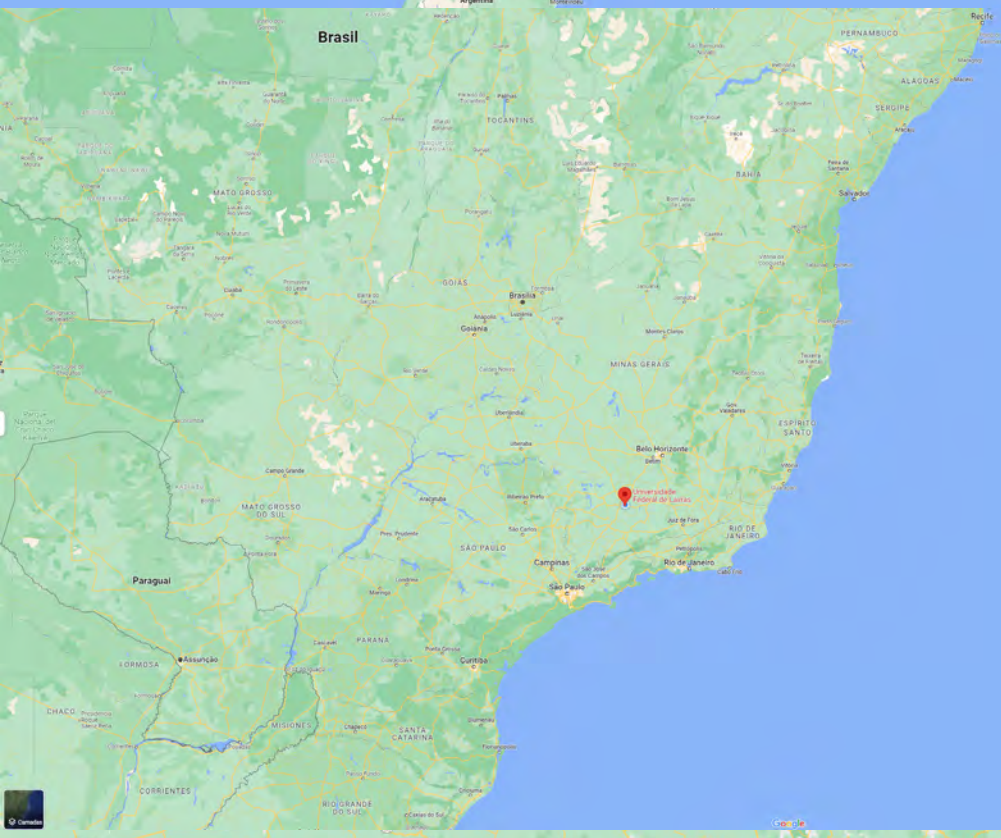
THE TOWN OF LAVRAS

Lavras is a Brazilian municipality in the Campo das Vertentes region, in the south of the state of Minas Gerais, and has an area of 564.744 km2. The University is located in this town, which is 230 km away from Belo Horizonte, the capital city of the state of Minas Gerais, 370 km from São Paulo, the largest city in Brazil, and 420 km from Rio de Janeiro, the most internationally known tourist destination. Therefore, UFLA is relatively close to the Brazil's main metropolises. The microregion of Lavras is composed of 8 counties, but the actions undertaken by UFLA, especially in undergraduate education, go beyond the regional dimension.

The town will have approximately 110,000 inhabitants in 2023, and its Human Development Index (HDI) is 0.782, with the maximum being 1.0. The agricultural production stands out, especially for coffee and dairy cattle, although there are also several agricultural crops. The industrial sector is in development. The agro-industrial and metallurgical sectors are the main industrial branches of Lavras. The town is home to the 8th Military Police Battalion (8th BPM) and the 6th Military Police Regional Command (6th CRPM), also containing a Federal Police unit.

Lavras has always been recognized in the educational scenario, it has about 61 schools of basic education and four of higher education, among which is the Federal University of Lavras (UFLA).


Brasil
Universidade Federal de Lavras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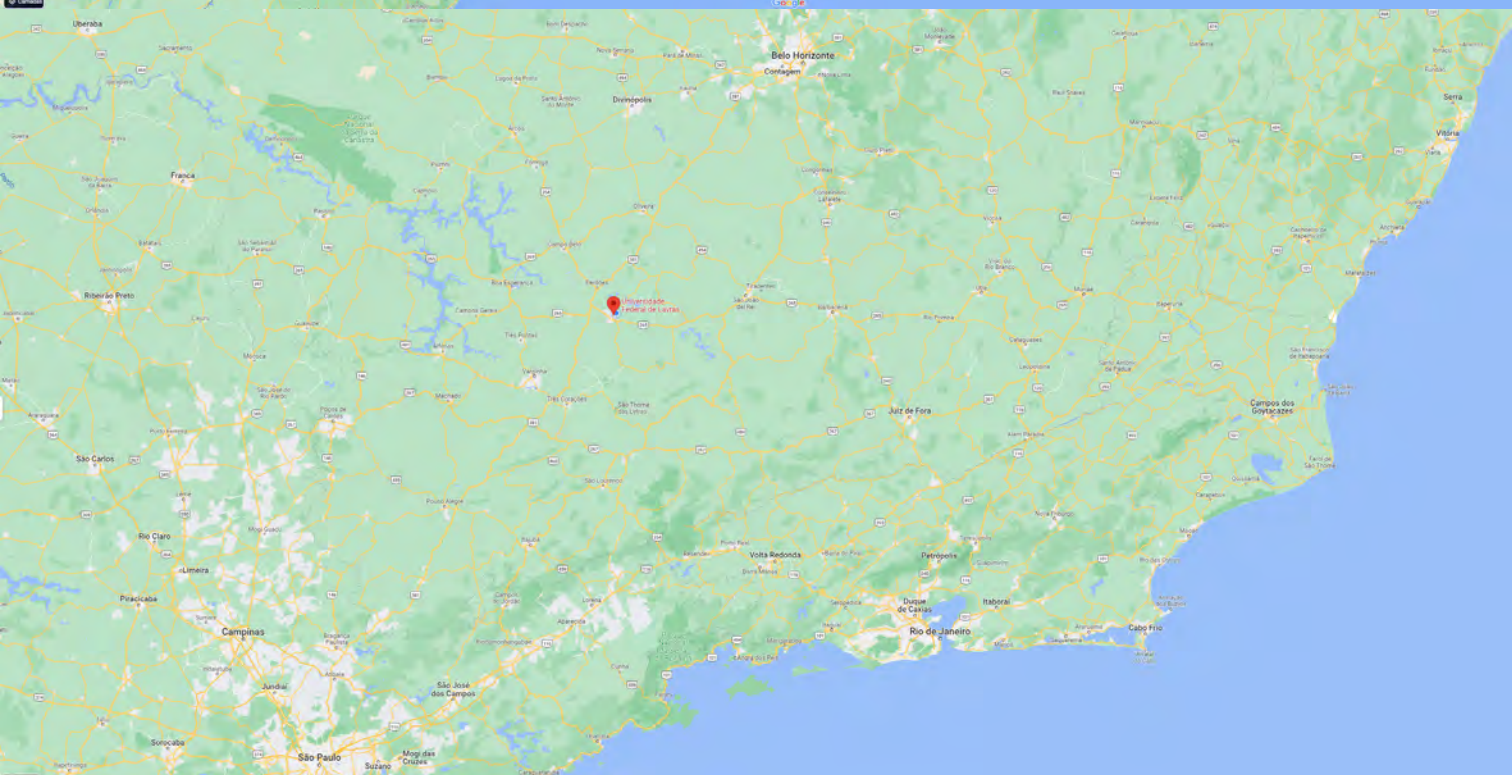

Belo Horizonte
Universidade Federal de Lavras
Juiz de Fora
Rio de Janeiro
Campinas
São Paulo

UFLA's Undergraduate Education

In the early 1970s, UFLA offered only the Agronomy course, and expanded exclusively in the area of agricultural sciences until the early 1990s. In the 20 years in which it has offered undergraduate courses exclusively in this area, the institution has consolidated itself, in its rich history, as one of the most respected and recognized institutions in the Agricultural Sciences in the country, also gaining international recognition.

In the 90s, the university began to expand, including more areas of knowledge. As of 1997, it has started to diversify its operations with new courses in Engineering, Computer Sciences, and health related courses. In 2003, the institution started its first License courses, and with that began an important social role of teacher training for basic education. The year 2010 marked the definitive insertion of UFLA in the area of Applied Social and Human Sciences, with the introduction of the courses in Law, Philosophy and Creative Writing. In addition, with the implementation of the Open University of Brazil system (UAB), UFLA also started to offer undergraduate distance learning courses in Administration, Pedagogy and Languages.

In 2016, a new cycle of expansion was completed, with the creation of 5 more engineering courses and the Medicine course. In this year the institution began to offer 35 undergraduate courses, 30 in

person and five at a distance. Of this total, 23 were bachelor's courses and 12 were teaching (license) courses.

Lastly, in 2018, the Engineering Physics course was implemented, with 25 semester openings in the in-person modality, and the undergraduate courses in Philosophy and Languages/English in the distance modality were extinct. The last expansion occurred in 2019, with the implementation of a new university campus in the town of São Sebastião do Paraíso, also in the state of Minas Gerais, 250 km from Lavras. The new campus has an interdisciplinary bachelor's degree in Science, Technology, and Innovation (BICT) with three-year duration with the purpose of training professionals with the development of competencies that integrate, in an interdisciplinary way, scientific and technological knowledge concentrated in the area of Exact Sciences and in basic principles of Engineering, articulated with themes from the Humanities and Social Sciences. BICT is articulated with three complementary education courses: Electrical Engineering, Production Engineering or Software Engineering. With the new courses, UFLA now has 35 in-person courses and three distance learning courses, in a total of 38 courses. Of this total, 28 are bachelor's degrees and ten are teacher training.

Institutional Policy for Undergraduate Education

UFLA's pedagogical principles follow the concept of "open" university, where the set of scientific and cultural knowledge are articulated among themselves with the perspective of innovating in problem solving and needs that present themselves as challenges to researchers and professors of this institution. Although it is considered that there is a universe of scientific and cultural knowledge already constituted, and that it is the function of the university to socialize this cultural heritage, UFLA also aims at discovering new knowledge and solutions for the problems faced by society.

In this direction, the institution, especially through the Dean of Undergraduate Studies and the Academic Units, has sought to guide its actions conceptually and pedagogically in a policy based on the promotion of practices to ensure excellence in teaching activities. In this sense, UFLA's management actions guarantee:

- the articulation between undergraduate/graduate teaching and between teaching/research/extension, between university/society;
- the implementation of projects related to teaching;
- the professional initiation for the expansion of training opportunities;
- the discussion about the demands of curricular restructuring;
- more flexible curricula;

- the expansion/improvement of technological resources/tools for the implementation of active methodologies in all curricular components;
- the specific investments for student assistance for students with learning difficulties;
- the search for the insertion of evaluation practices in the formative processes;
- the continued training of professors and managers, supporting extracurricular activities;
- projects that value interdisciplinarity and transversality, aiming at interchanges for the diversification of training experiences;
- the expansion of the bibliographical collection;
- the creation of graduation forums so that institutional and pedagogical actions are constantly analyzed and revisited;
- the legal guidelines for a citizen formation, by means of curricular components that contemplate the issue of sustainability, cultural diversity, human rights and social inclusion;
- the discussion about innovative teaching practices that consider the ethical, aesthetic, and political dimensions in all academic practices and activities.

UFLA'S SOCIAL RESPONSIBILITY

UFLA undergraduate education, especially with regard to social inclusion, is committed to the public and free offer of courses of excellent quality; with economic and social development; with the defense of the environment, memory, cultural heritage, artistic production, philosophical production and diversity.

This responsibility is based on the multidimensional relations between students, professors, and administrative staff, in the instances of teaching, research, extension, and management, as well as in the relations that the university establishes with society in general, with the valorization of its public mission, promotion of democratic values, respect for difference and diversity, including, according to federal guidelines, the implementation of access by social and racial quotas.

In the context of social responsibility, UFLA reaffirms its experience with actions in the academic community, especially those related to the coordination, promotion and development of programs, projects and activities of assistance to guarantee health, psychosocial health, sports and leisure, culture, social inclusion and accessibility and inclusion of people with disabilities.

COURSE QUALITY

UFLA's performance has been excellent in all items of assessment. In 2022, the institution came in 11th place among the public universities throughout Brazil, being the 3nd best in the state of Minas Gerais, according to the General Index of Courses of the institutions (IGC), released by the country's Education Ministry (MEC / INEP).

Since 2003, the curricula are flexible and the most diverse activities undertaken by students, such as courses, conferences, basic scientific research, teaching and extension, as well as elective courses, are part of the curricula of all courses. Since 2010, UFLA adopted a curriculum aimed at developing humanistic and citizen education, as well as vocational training. There is also a new dynamic in the teaching-learning area with the use of cutting-edge virtual learning environments, such as interactive digital whiteboards.

UNDERGRADUATE COURSES

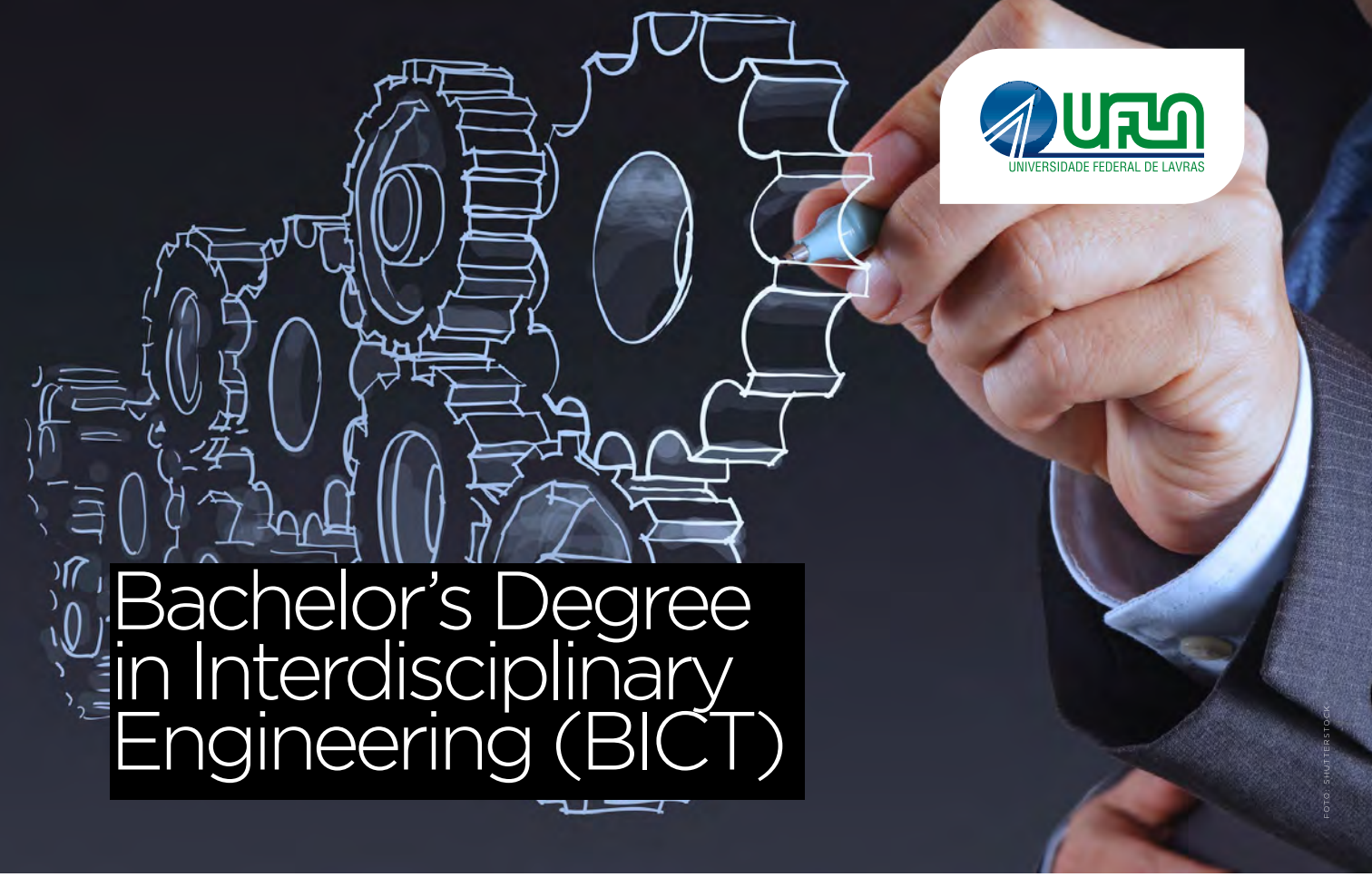
Agronomy
(Bachelor's Degree)

The bachelor in Agronomy graduate from UFLA must be a professional with the capacity to carry out scientific analysis, identify and solve problems, and make decisions with the purpose of operating, modifying, and creating agricultural and agroindustrial systems, always worrying about social and sustainability aspects within ethical principles. To this end, during the Agronomy course at UFLA, the student participates in activities for the development of theoretical knowledge and practical skills through expository, theoretical, and practical classes, quantitative and qualitative, visual, and instrumental analyses, in the field and in laboratories, in direct and constant contact with the universe of agricultural sciences.

In this environment, the student has the opportunity to learn to analyze and understand this universe in order to seek and adopt ways to establish a respectful and harmonious relationship between the human species and the existing natural resources, with the aim of contributing to the well-being of sustainable common living.

The curriculum is made up of mandatory and elective academic activities. Compulsory academic activities make up 70% of the total workload, in which the basic contents of subjects that provide the student with the necessary theoretical basis for the future professional to develop his learning are concentrated. The essential professional contents are also part of the mandatory academic activities, composed of subjects destined for the characterization of the professional identity. The elective academic activities make up 13% of the total workload and, together with the mandatory supervised internship and curriculum extension activities, form the flexible part of the curriculum.

The student must also undertake a supervised internship or guided project of at least 320 hours, as well as another 342 hours of university extension activities carried out with the external community, with the aim of exercising their profession and complementing the training received in the academic course through contact with the real world. The course can be completed in 4.5 years.



Bachelor's Degree in Interdisciplinary Engineering (BICT)

FOTO: SHUTTERSTOCK

The BICT (Bachelor's Degree in Interdisciplinary Engineering) at the Lavras School of Engineering is an undergraduate program aimed at interdisciplinary training in the field of engineering, with a focus on the integrated view of science and technology for innovation. This program constitutes the first cycle of education for various engineering courses at UFLA (Federal University of Lavras) and grants the graduate the title of Bachelor after 3 years, with a workload of 2400 hours. During the BICT program, students can choose their preferred engineering field while engaging in integrated activities such as research and extension projects. Upon completing the program, BICT graduates can continue their engineering education by enrolling in second-cycle courses, which have a duration of 2 years. The following engineering programs are linked to the BICT program at the Lavras School of Engineering:

Civil Engineering

Mechanical Engineering

Agricultural Engineering

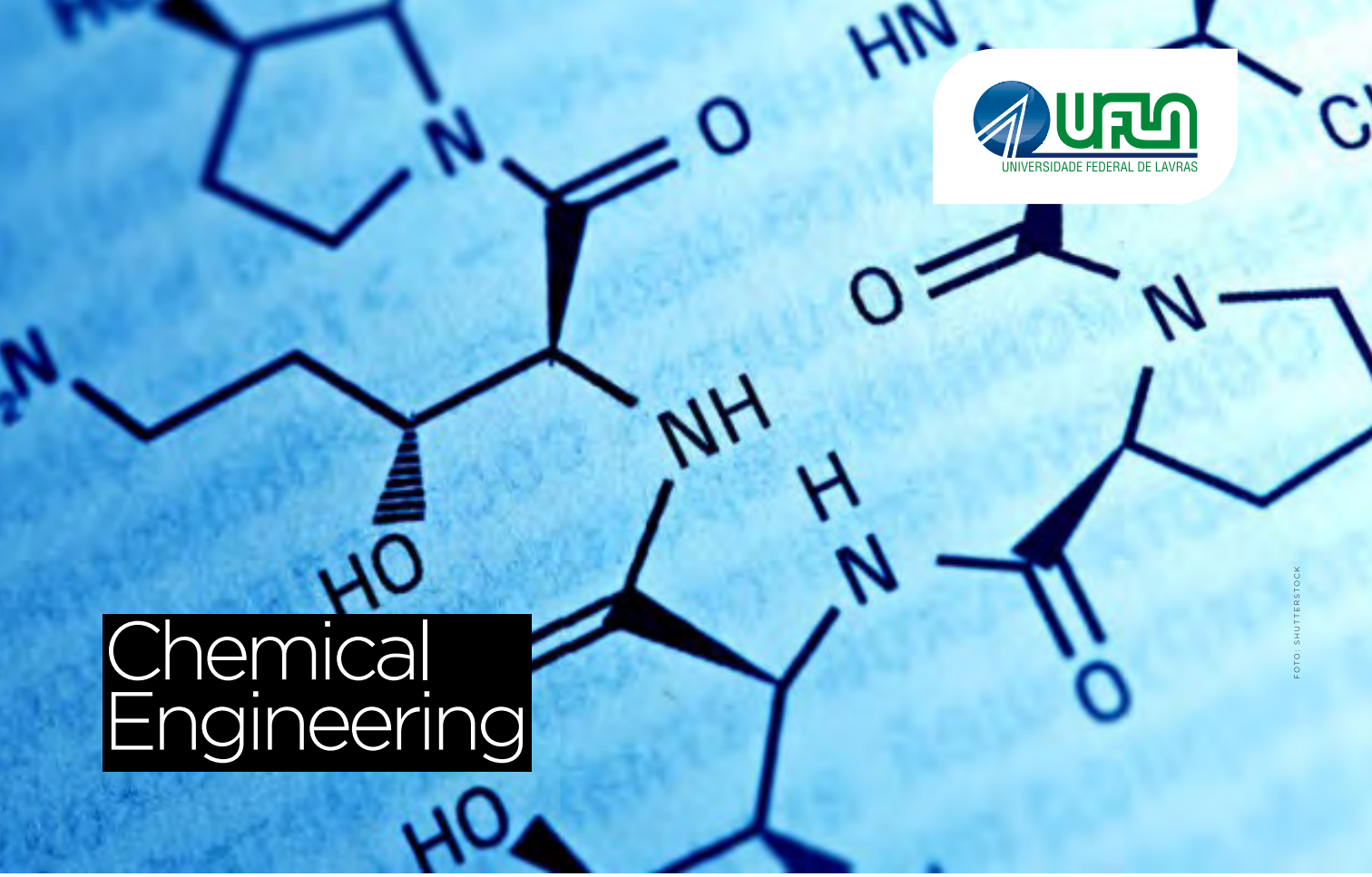
Chemical Engineering

Materials Engineering

Physics Engineering

In addition to serving as a gateway to second-cycle engineering courses, the BICT program itself, when completed, allows graduates to pursue careers in the financial market, intermediate management positions in companies, public organizations and institutions, industries, technology companies, or further academic studies, always with a focus on process and product innovation.

Structure: Semester-based
Period: Full-time
Duration: 6 semesters
Number of spots per semester: 180 (starting from the 2023/1 academic semester)

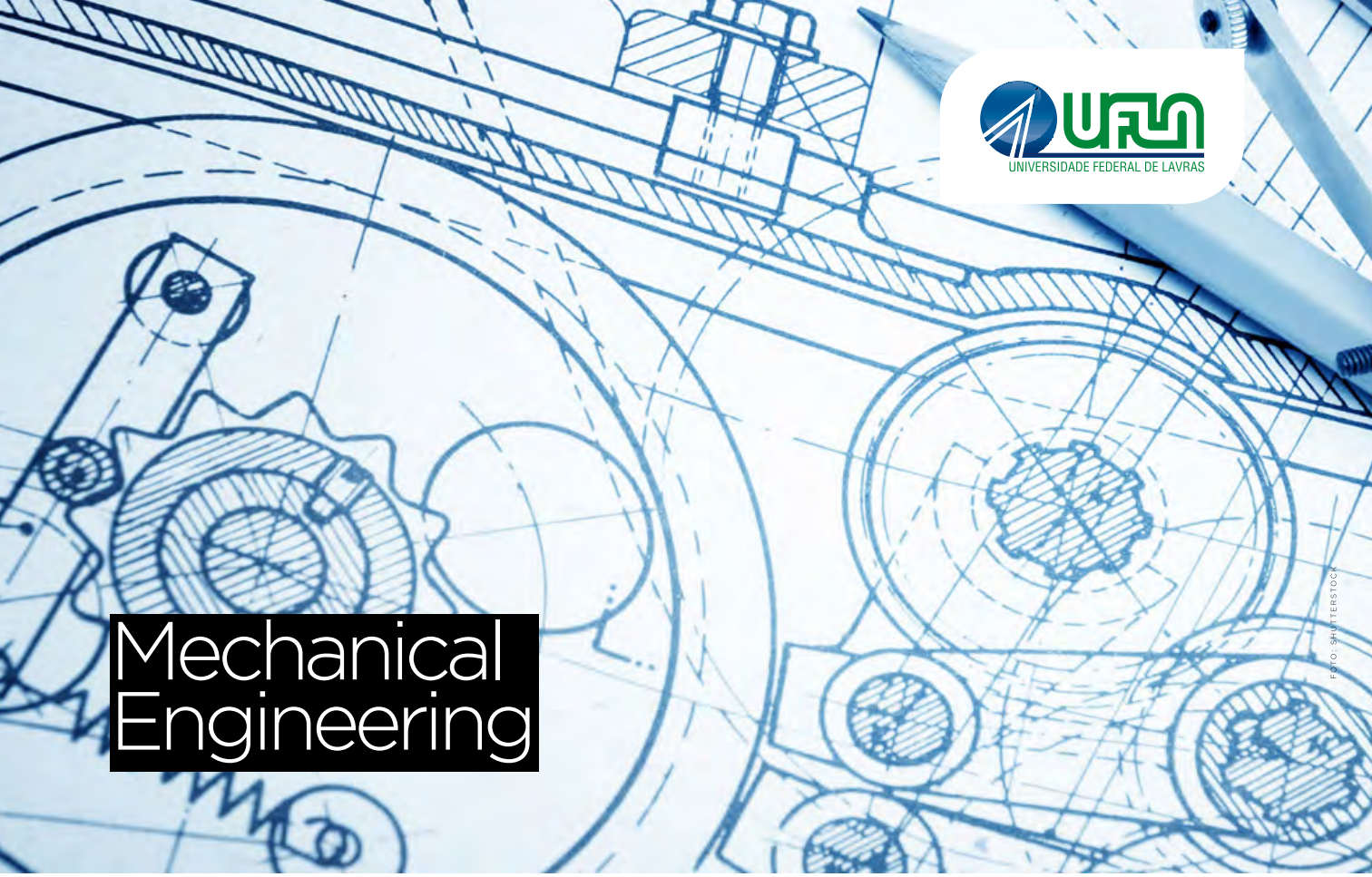


Chemical Engineering

FOTO: SHUTTERSTOCK

The Chemical Engineering course aims to form professionals dedicated to the design, installation, and operation of industries, as well as the development of new physical-chemical transformation processes. The Chemical Engineer has a professional profile that enables him to competently perform different positions in various industrial sectors, consulting and project companies, planning, research and teaching institutions, whether public or private, as well as managing his own enterprise. The Chemical Engineer can work in the areas of Research and Development of Chemical Processes; Design of Chemical Industry Equipment; Implementation and Operation of Chemical Facilities; Chemicals Production Control; Quality Control of Chemicals; Analysis and Management of Chemical Processes; Consulting in Design and Chemical Processes; Sales and Technical Assistance; Teaching and Research. The academic education of this professional is based on a pedagogical proposal that prioritizes the insertion of students in academic and professional training projects. These projects aim to develop student autonomy with a focus on "learning to do" and have the character of Synthesis and Integration of Knowledge built during the course. These activities focus on the practice of the engineer's activity, involving the elaboration and development of engineering projects and experience in the world of work.

Integrated into the Interdisciplinary Bachelor's Degree in Science and Technology
Program Type: Bachelor's
Title: Bachelor of Chemical Engineering
Study Mode: Full-time
Duration: 10 semesters
Number of available spots per semester: 50



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Mechanical Engineering

FOTO: SHUTTERSTOCK

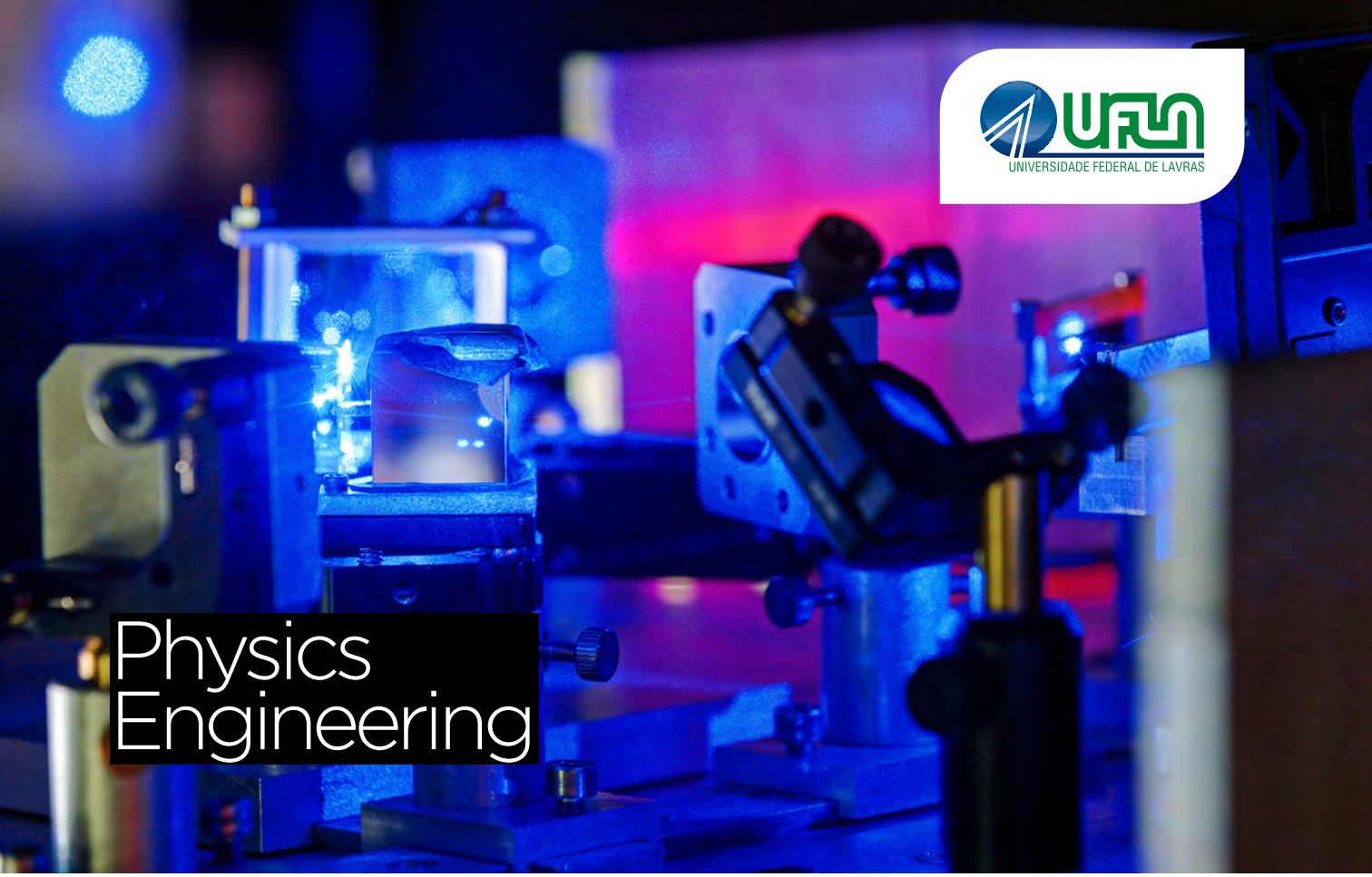
In this undergraduate course, the students receive a solid foundation on mathematics, physics and chemistry, besides the complementary and specific disciplines, such as programming, logic, dynamics of mechanical systems, solid mechanics, fluid mechanics, hydraulic and pneumatic systems, heat exchangers, materials, structural analysis, manufacturing processes, industrial maintenance, among others. Even though the course is biased to the metal-mechanics/metalworking industry, it delivers mechanical engineers with a holistic and generalist professional profile which enables them to consistently act in different positions at different companies or institutions (private or public). This professional will be able to carry out activities related to: mechanical design; machinery in general; mechanical and industrial installations; mechanical and eletro-mechanical equipment; automobiles and vehicles in general; transmission and powertrain systems; heating and cooling systems (HVAC) and the like. Such activities comprise the study, design, execution, operation, management and maintenance of a component or mechanical system, among others.

Integrated into the Interdisciplinary Bachelor's Degree in Science and Technology
Program Type: Bachelor's
Title: Bachelor of Mechanical Engineering
Study Mode: Full-time
Duration: 10 semesters
Number of available spots per semester: 50

Civil Engineering

Civil Engineering is the branch of the area of technological sciences that brings together the knowledge and techniques applied to the construction of houses, buildings, roads, tunnels, viaducts, dams, canals, ports, airports, as well as other types of infrastructure. The Bachelor of Civil Engineering, or Civil Engineer, can work in the areas of Structural Engineering; Geotechnics; Transport; Hydraulics and Sanitation and Materials and Civil Construction, in a generalist way, in the conception, planning, design, construction, operation and maintenance of various works. The professional prepares budgets, ensures standardization, performs measurement and quality control, monitors installation, assembly, operation, repair and maintenance. Executes technical drawings and is responsible for analysis, experimentation, testing, disclosure and specialized technical production. Coordinates and supervises work teams, carries out scientific and technological research and technical-economic feasibility studies; executes and supervises works and technical services; carries out inspections, technical expertise and evaluations, issuing reports and technical advice. In its work, it considers ethics, safety, economics, legislation and socio-environmental impacts. others.

Integrated into the Interdisciplinary Bachelor's Degree in Science and Technology
Program Type: Bachelor's
Title: Bachelor of Civil Engineering
Study Mode: Full-time
Duration: 10 semesters
Number of available spots per semester: 50



Physics Engineering

The Engineering Physics program aims to educate professionals with a strong understanding of physics and mathematics, integrated with traditional engineering. These professionals will be capable of meeting the demands of the technological and innovation sectors, which require a solid foundation in modern physics.

Engineering physicists will be able to design, manage, and execute advanced projects in companies, industries, research institutes, or universities, aiming to add technological and innovative value to society. Throughout the course, competencies are developed to stimulate creative problem-solving in the technological sector, using knowledge of physics, mathematics, and computing. The main objective of the program at UFLA is to equip engineering physicists to work in the instrumentation sector, which is fundamental for Brazil's technological development.

With a solid scientific and technological foundation, engineering physicists will be prepared to apply their knowledge of basic sciences to investigate and solve problems in the science, technology, and innovation sectors. The course covers contemporary topics such as quantum mechanics, solid-state physics, electromagnetism, materials science, computing, robotics, electronics, and optoelectronics.

The training of engineering physicists enables them to work in a multidisciplinary manner, developing high-tech instrumentation, exploring the field of optics, and contributing to the development of new materials in engineering, bioeconomy, and nanotechnology. In summary, engineering physicists are professionals with the capacity to tackle current technological challenges.

Integrated into the Interdisciplinary Bachelor's Degree in Science and Technology
Program Type: Bachelor's
Title: : Bachelor of Engineering Physics
Study Mode: Full-time
Duration: 10 semesters
Number of available spots per semester: 30

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Material's Engineering

FOTO: SHUTTERSTOCK

Material's Engineering studies structure, properties, project, processing and use of all classes of materials, including metals, ceramics, polymers semiconductors, composites and biological originates materials. Among it's applications, we underline traditional industry such as steel making, construction, oil industry, automobil, white ceramic ware, ink, clay materials, thermoplastic transformations and rubber technology. The undergraduate corse in Materials Engineering also studies advanced areas such as nanotechnology, biomateriais and biotech, biodegradable materials, electronic ceramics, aerospacial composites, forensic sciences, special niobium alloys, reate-earth elements and military applications. Materials Science and Engineering is a paramount field of study for the development of humankind in many economic and environmental aspects. The corses of the major includes corses in the following areas: chemistry, physics, mathematics and computer science . The materials engineering major of the Federal University of Lavras has a generalistic approach, focusing on the many material classes, its properties, characterization and processing techniques. Professionals have high market insertion in both public and private sectors, in careers involving research, teaching, consulting, development, processing and materials' management.

Integrated into the Interdisciplinary Bachelor's Degree in Science and Technology
Program Type: Bachelor's
Title: Bachelor of Material's Engineering
Study Mode: Full-time
Duration: 10 semesters
Number of available spots per semester: 30

Agricultural Engineering

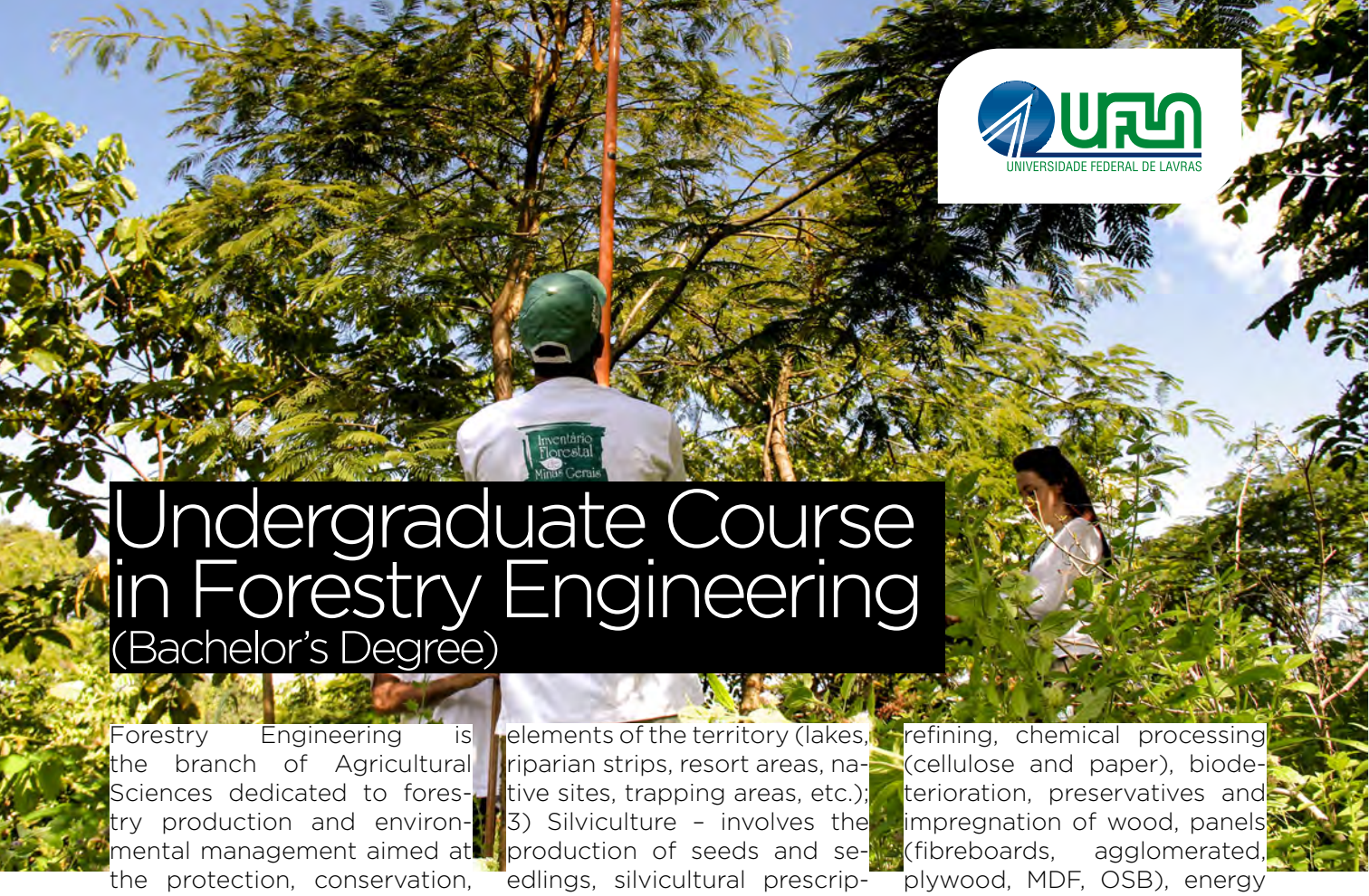
Agricultural Engineering is the profession that seeks to solve problems that affect the development of agribusiness by providing necessary engineering solutions to increase productivity, reduce costs, and preserve and conserve the natural resources involved. In the agricultural sector, demands arise with intense and complex evolution, constantly requiring more from professionals working in it. In this context, there is a need for scientific and technological knowledge for the development of rational agriculture. During the course, students learn to design and develop production support systems, working in the following areas: planning irrigation and drainage systems; designing and developing agricultural machinery and equipment; designing agricultural buildings and facilities and animal environment; planning automation and control systems; planning and managing agricultural production; meteorological monitoring, agricultural crop forecasting, and agroclimatic zoning; topographic surveys for construction and land divisions, using remote sensing and aerial photography in agricultural planning and environmental monitoring; planning drying and post-harvest product preservation systems, as well as their processing and the development of appropriate packaging; planning rural energization systems, rational energy use, alternative energy generation systems, and, more recently, the use of lasers in agriculture. The course has a strong environmental focus, especially regarding the proper use of water and soil resources, working on the conservation of water and soil quality, as well as the management and treatment of liquid and solid waste generated by agricultural processes. Ultimately, the Agricultural Engineering professional graduated from UFLA has a solid engineering foundation, with a focused application in solving technical and environmental problems in Brazilian agribusiness.

Integrated into the Interdisciplinary Bachelor's Degree in Science and Technology
Program Type: Bachelor's
Title: Bachelor of Agricultural Engineering
Study Mode: Full-time
Duration: 10 semesters
Number of available spots per semester: 25

Food Engineering

The Food Engineering course aims to train qualified professionals to work in the scientific, technical, commercial and extension areas related to the commercialization and industrialization of food, with the ability to monitor and contribute to the constant advancement of these areas, minimize production costs and increase the quality of food products, always considering environmental, social and etchical-professional issues.

The Food Engineering profession involves knowledge in the areas of exact, biological and chemical sciences. The food engineer is responsible for working in the areas of production, control and optimization of processes; storage of food products; hygiene and quality control in the industry; research and development of new processes and products; planning, execution and implementation of processing unit projects; implementation and management of food industry waste treatment systems; preventive maintenance of equipment; inspection of food and beverages; consultancy and technical assistance to companies in the food industry.



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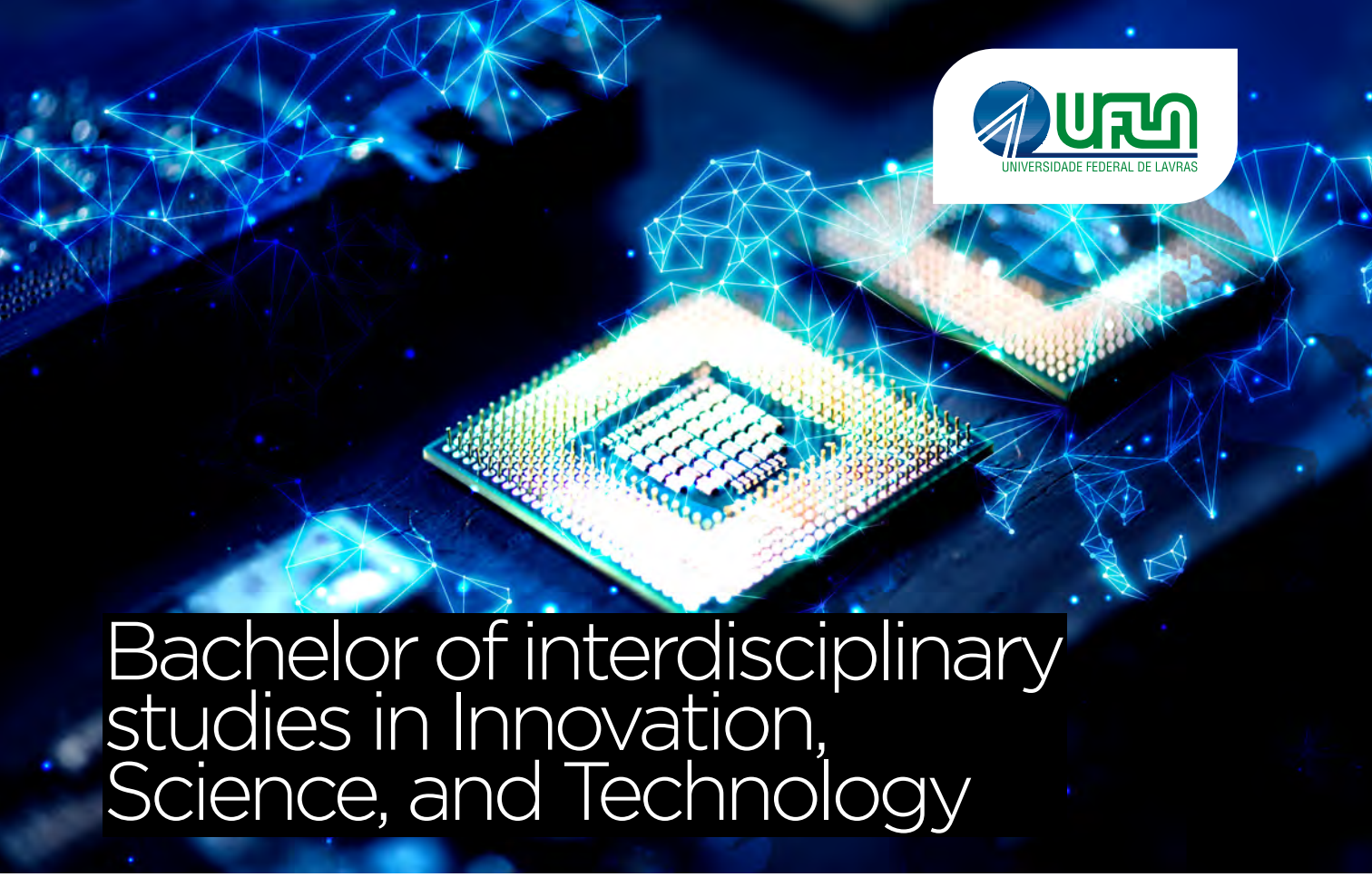
Undergraduate Course in Forestry Engineering
(Bachelor's Degree)

Forestry Engineering is the branch of Agricultural Sciences dedicated to forestry production and environmental management aimed at the protection, conservation, and sustainable use of forest resources. The forest engineer has a professional profile that enables him to work at different job positions in forestry/logging companies, advice, monitor, carry out, or direct work related to the exploitation of forest resources, work in the research, teaching, and consulting sector, whether public or private, as well as managing his own enterprise. This professional can work in the following areas: 1) Environmental Sciences – studies on forest ecology, reforestation, landscaping, recovery of degraded areas, management of watersheds, environmental pollution, managing parks and forest reserves, management of flora and fauna, planning for harmonizing land uses on the territory; 2) Forest Protection – aims to obtain knowledge about the control insect and disease outbreaks, prevention and control of forest fires, map the resources and sensitive elements of the territory (lakes, riparian strips, resort areas, native sites, trapping areas, etc.); 3) Silviculture – involves the production of seeds and seedlings, silvicultural prescriptions, agroforestry, forestry and reforestation, genetic improvement, tree classification, and forest regeneration; 4) Forestry Management – involves planning and management techniques, forest measurement and inventory, perform harvest volume calculations, preparation of production schedules, cost estimates and economics of forest production, and planning, silvicultural methods, dynamics and structure of ecosystems; 5) Science and Technology of Wood and Forest Products – studies the fundamental properties of wood and derivatives, sawmilling and drying, refining, chemical processing (cellulose and paper), biodeterioration, preservatives and impregnation of wood, panels (fibreboards, agglomerated, plywood, MDF, OSB), energy from biomass, charcoal, and commercialization of forestry products. The training of this professional in these areas is based, in large part, on practical classes in the experimental forests (collection of forest seeds, measurement and identification of tree species, extraction of resins and oils, production of seedlings in forest nurseries, pest control and forest fires in the field, etc.), laboratory analyzes (chemistry, physics, wood mechanics, molecular markers, production of cellulose, paper, panels, analysis of forest soils, etc.) and also visits to forestry companies, among other activities.

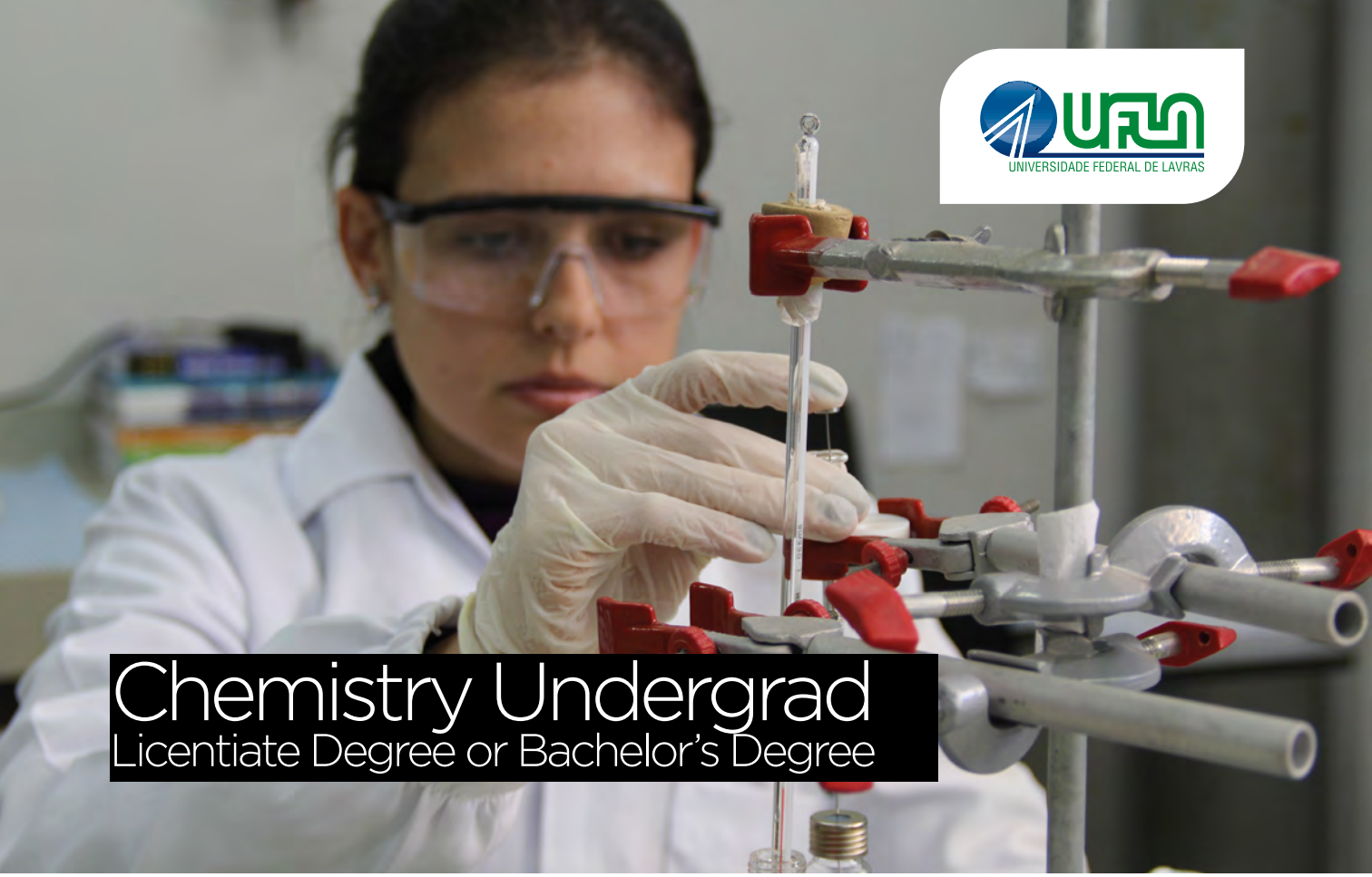
Program Type: Bachelor's Degree
Title: Forestry Engineer
Scheme: Semester
Study Mode: Full-time
Duration: 10 semesters
Number of vacancies per semester: 50
Course code at UFLA: G005



Bachelor of interdisciplinary studies in Innovation, Science, and Technology

The Bachelor of interdisciplinary studies in Innovation, Science, and Technology is an undergraduate degree program that offers a comprehensive education in the natural, exact, and humanistic sciences, as well as the fundamental principles of engineering. Upon completion of this program, students earn a bachelor's degree and have an interdisciplinary understanding of science and technology. This degree equips graduates with the necessary skills for various career paths, including opportunities in the financial market, intermediate management positions in both private and public organizations, technology companies, and further academic studies. Additionally, it also actuates as the initial step (first cycle) of education for engineering programs. At the Federal University of Lavras, specially on the Paraíso campus, students have the option to continue their studies in one of three second-cycle courses: Production Engineering, Electrical Engineering, and Software Engineering. These courses strongly emphasize their specific fields of expertise on innovation and processes related to agribusiness. Importantly, during the first cycle, students have the opportunity to select their preferred engineering disciplines from the options available on campus. This provides the possibility of interdisciplinary knowledge construction. The completion of the second-cycle course requires an addition of two years of study. This approach allows students to gain maturity and make a more informed choice only at the end of the first cycle, thereby increasing the success of the engineering choice.

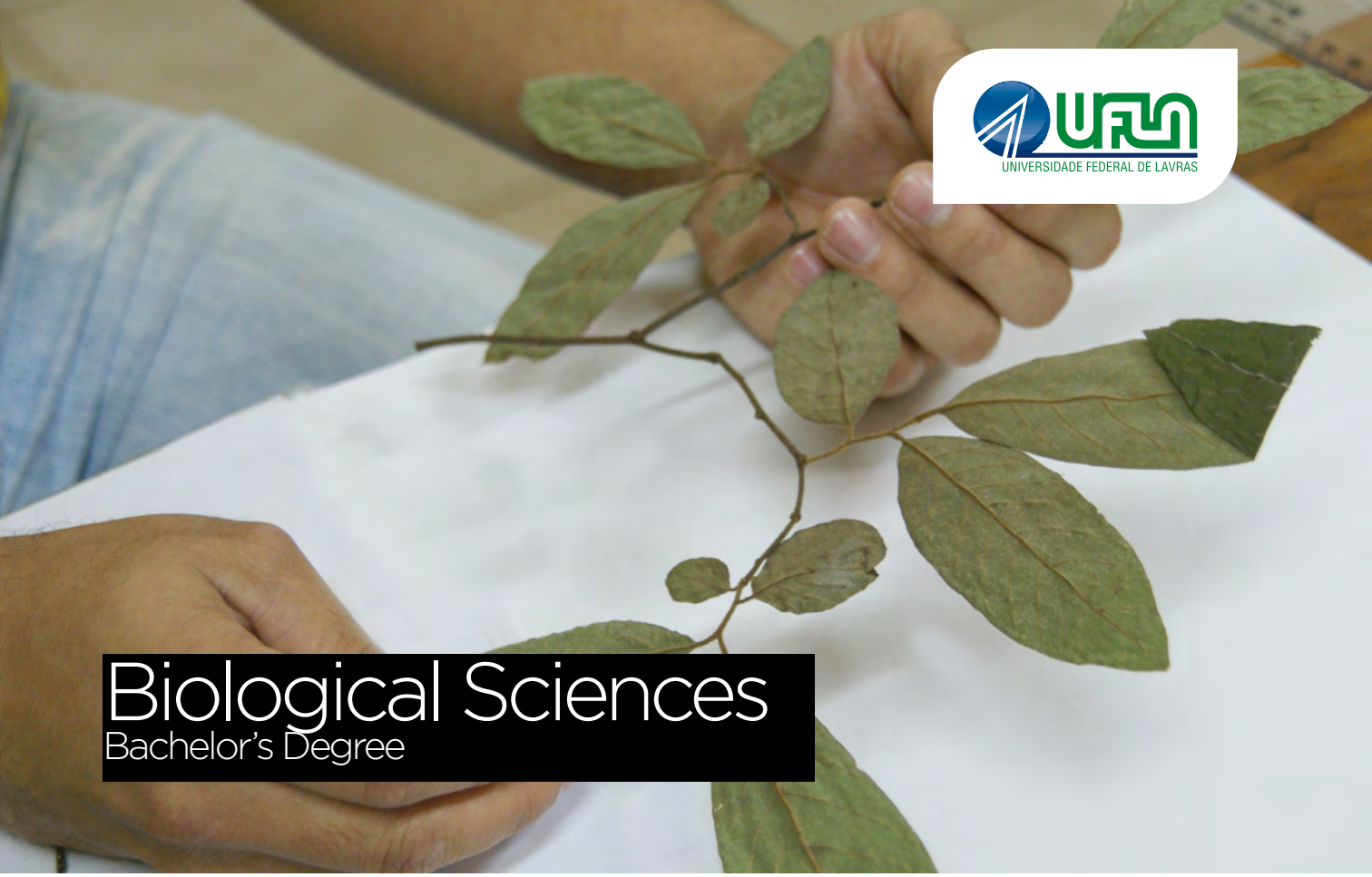
1st Cycle Course
Degree: Bachelor's degree
Program: Bachelor of interdisciplinary studies in Innovation, Science, and Technology
Program Structure: Semester-based
Study Mode: Full-time
Duration: 7 semesters (it can be completed in 6 semesters)
Number of Openings per Semester: 40



Chemistry Undergrad
Licentiate Degree or Bachelor's Degree

Curiosity is a very peculiar characteristic of a chemist, whether he is a researcher in different subareas (Analytical Chemistry, Physicochemical, Organic Chemistry, Inorganic Chemistry and Biochemistry) or a professional linked to Education. The undergraduate course in Chemistry at UFLA has, among others, the objective of training professionals capable of teaching, at the elementar school, high school or higher education level, or chemistry activities in general, stimulating the search for chemical knowledge. The course's curriculum structure provides solid training through theoretical and practical classes, development of scientific projects and technical visits. Adequate infrastructure and qualified teaching staff enable the development of educator-researchers, ensuring autonomy to graduates, as well as the ability to develop methods and techniques related to the area, essential for their performance in pedagogical, technical and/or research activities scientific.

Modality: Graduation
Period: Full-time
Duration: 8 semesters
Number of seats per semester: 30



Biological Sciences
Bachelor's Degree

The Biological Sciences Bachelor's Degree program at UFLA aims to develop professionals with the necessary skills to address the growing demands in the field of biological diversity conservation and environmental adaptation of processes and services. The program emphasizes fundamental research in the areas of cellular and molecular biology, physiology, genetics, ecology, botany, zoology, and microbiology, fostering collaboration with professionals in applied fields and technology generation.

To facilitate this comprehensive education, the program incorporates a range of activities including theoretical lectures, practical fieldwork, and laboratory sessions in biology, microscopy, chemistry, computer science, and geology. Additionally, students have the opportunity to visit biological reserves to gain practical insights. Upon completion, graduates will be prepared to contribute to research and/or teaching institutions, museums, herbaria, animal facilities, industries, consulting firms, sanitation agencies, environmental preservation organizations, parks, zoological gardens, and governmental bodies

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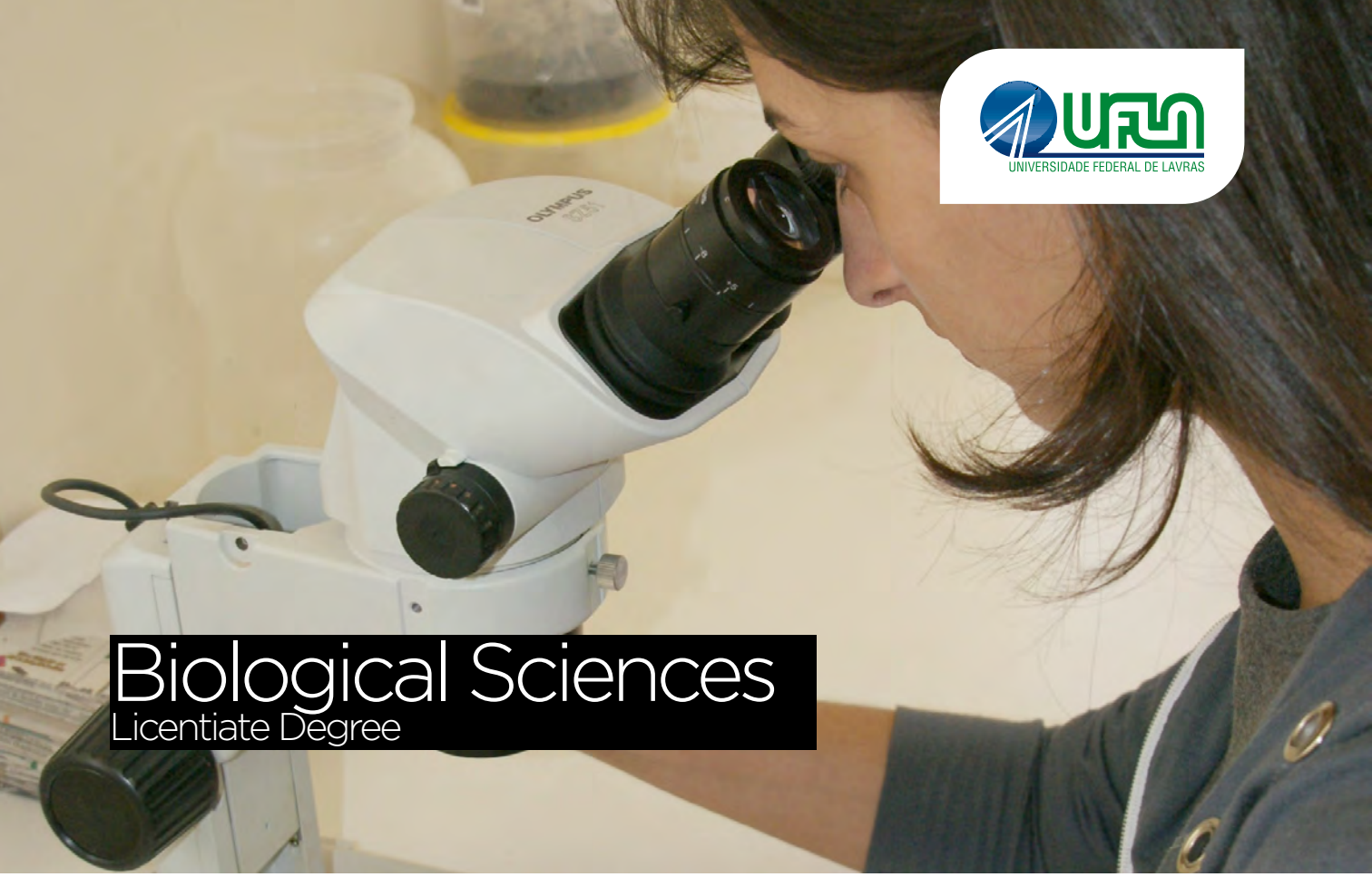
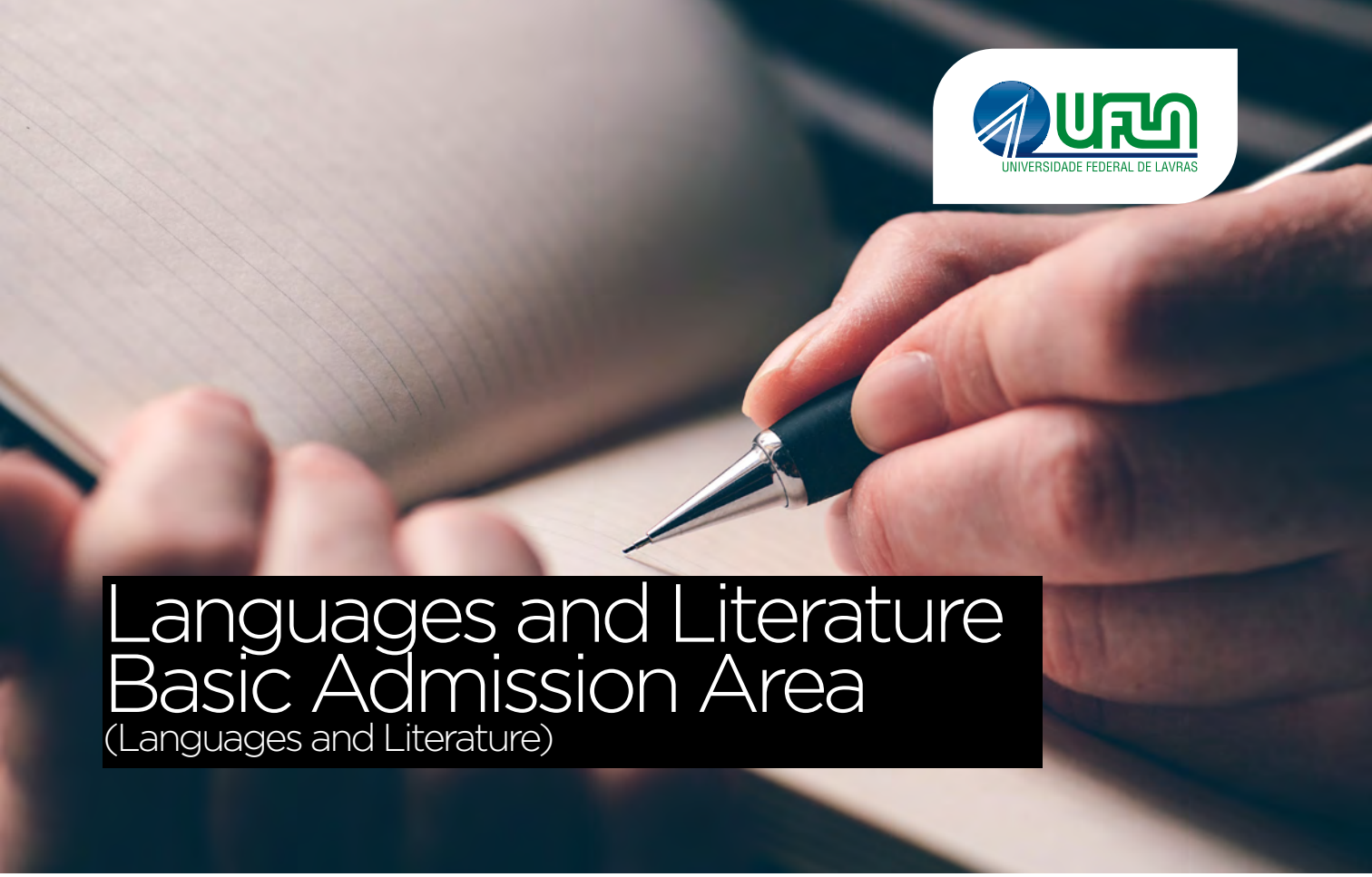
Degree Type: Bachelor's Degree
Title: Bachelor of Biological Sciences
Program Structure: Semester-based
Program Duration: 9 semesters
Number of Openings per Semester: 25



Biological Sciences
Licentiate Degree

The Biological Sciences undergrad course of UFLA (licentiate degree) aims to train professionals to meet the increasing demands related to the conservation of biological diversity and environmental adequacy of processes and services of production. The graduates can conduct basic to applied research in cellular and molecular biology, physiology, genetics, ecology, botany, zoology, and microbiology, in line with technology generation. The course emphasizes the training of teachers committed to understanding science, through the conception of the world, history, social context, theories, laws, methods, and concepts in light of the Biological Sciences. To this training, science teaching is added, guiding the training of graduates towards the main advances in research in the teaching of Biological Sciences. The learning activities include expository classes and practical work in the field and laboratories in biology, microscopy, chemistry, informatics, geology, and visits to biological reserves. Such professionals will be qualified to work in research and/or teaching institutions, museums, herbaria, vivariums, industries, consulting companies, sanitation agencies, environmental preservation, parks, zoobotanical gardens, and government agencies.

Degree Type: Undergrad (Licentiate Degree)
Title: Biological Sciences
Program Structure: Semester-based
Program Duration: 9 semesters
Number of Openings per Semester: 25



Languages and Literature Basic Admission Area

(Languages and Literature)

In the first semester of 2023, the UFLA Languages and Literature course will have two majors: a double major in Portuguese, English and its Literatures and a single major in Portuguese and its Literatures. Admission to the Languages and Literature Course is unified, i.e., students wishing to study either of the two majors must enroll in the Basic Admission Area of the Languages and Literature Course (ABI-Languages and Literature). Students entering will take the first two semesters together, and from the third semester onwards will choose between two academic majors: the 5-year double major in Portuguese, English and its Literatures (10 semesters) or the 4-year single major in Portuguese and its Literatures (8 semesters). This will allow students to choose the career path they consider most appropriate, considering their availability and their areas of interest.

Regimen: Semester
Term: Evening
Duration: 10 semesters (double major) or 8 semesters (single major)
Places per semester: 25 places (Portuguese, English and its Literatures) and 30 places (Portuguese and its Literatures)

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FOTO: SHUTTERSTOCK

Undergraduate Course in Portuguese and English
(License)

UFLA's undergraduate program in Portuguese, English and its Literatures prepares professionals to work as teachers of Portuguese and English and their literatures in primary and secondary education, as critical readers in a dynamic context, making use of these languages in their different manifestations. Linguistic and literary processes will be studied by means of analysis, description, and explanation, based on a consistent theoretical foundation.

The students will be able to work in an integrated way with other school subjects, in the education and training of primary and secondary students, aiming at their full insertion and active participation in society, using new technologies and understanding education as a continuous and autonomous process.

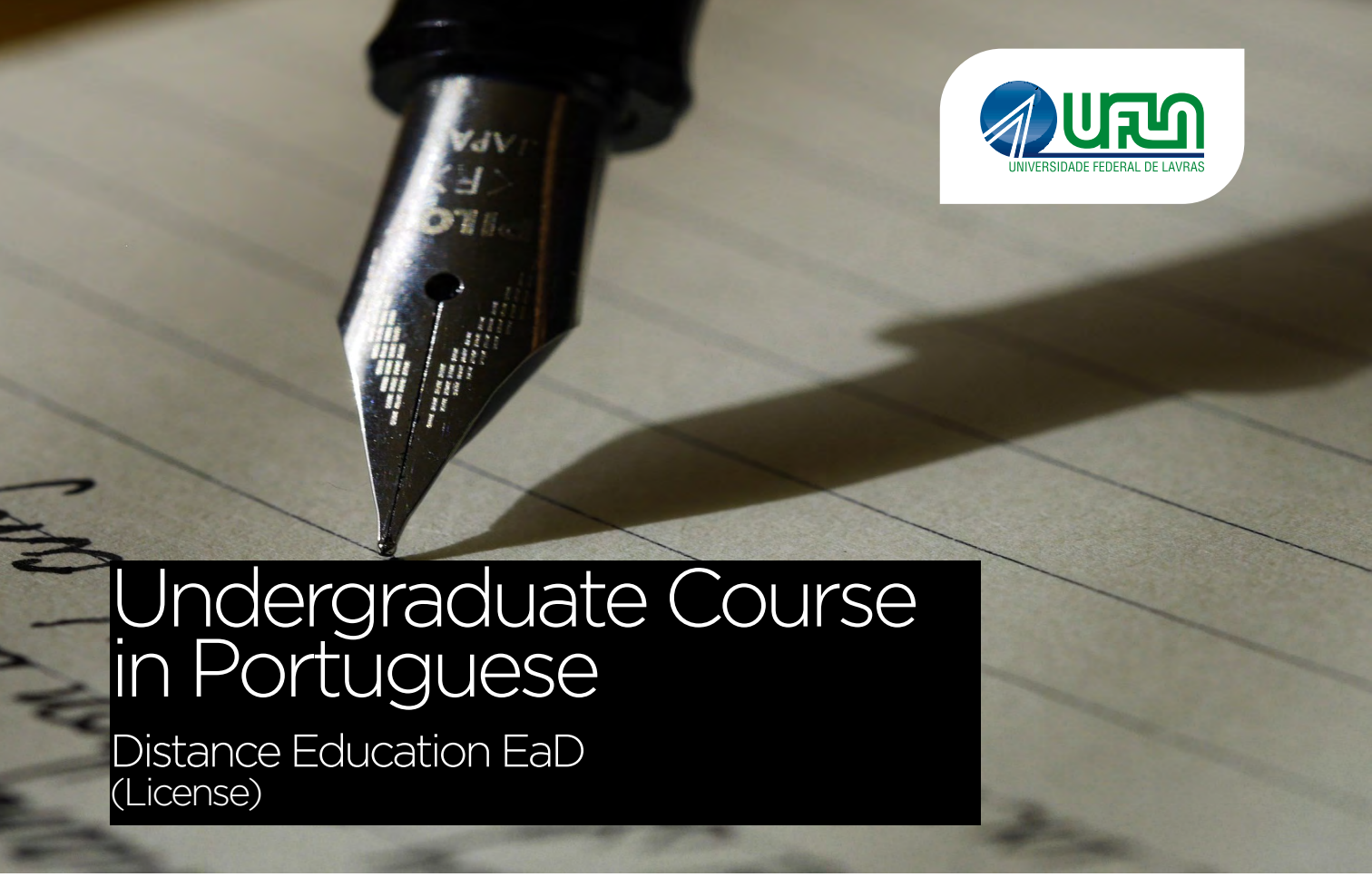
Mode: : License
Qualification: Licentiate in Languages / Portuguese and English
Term: Evening
Duration: 10 semesters
Places per semester: 25

Undergraduate Course in Portuguese
(License)

UFLA's undergraduate program in Portuguese and its Literatures prepares professionals to work as teachers of Portuguese and its literatures in primary and secondary education, as critical readers in a dynamic context, making use of these languages in their different manifestations. Linguistic and literary processes will be studied by means of analysis, description, and explanation, based on a consistent theoretical foundation.

The students will be able to work in an integrated way with other school subjects, in the education and training of primary and secondary students, aiming at their full insertion and active participation in society, using new technologies and understanding education as a continuous and autonomous process.

Mode: : License
Qualification: Licentiate in Languages / Portuguese
Term: Evening
Duration: 8 semesters
Places per semester: 30



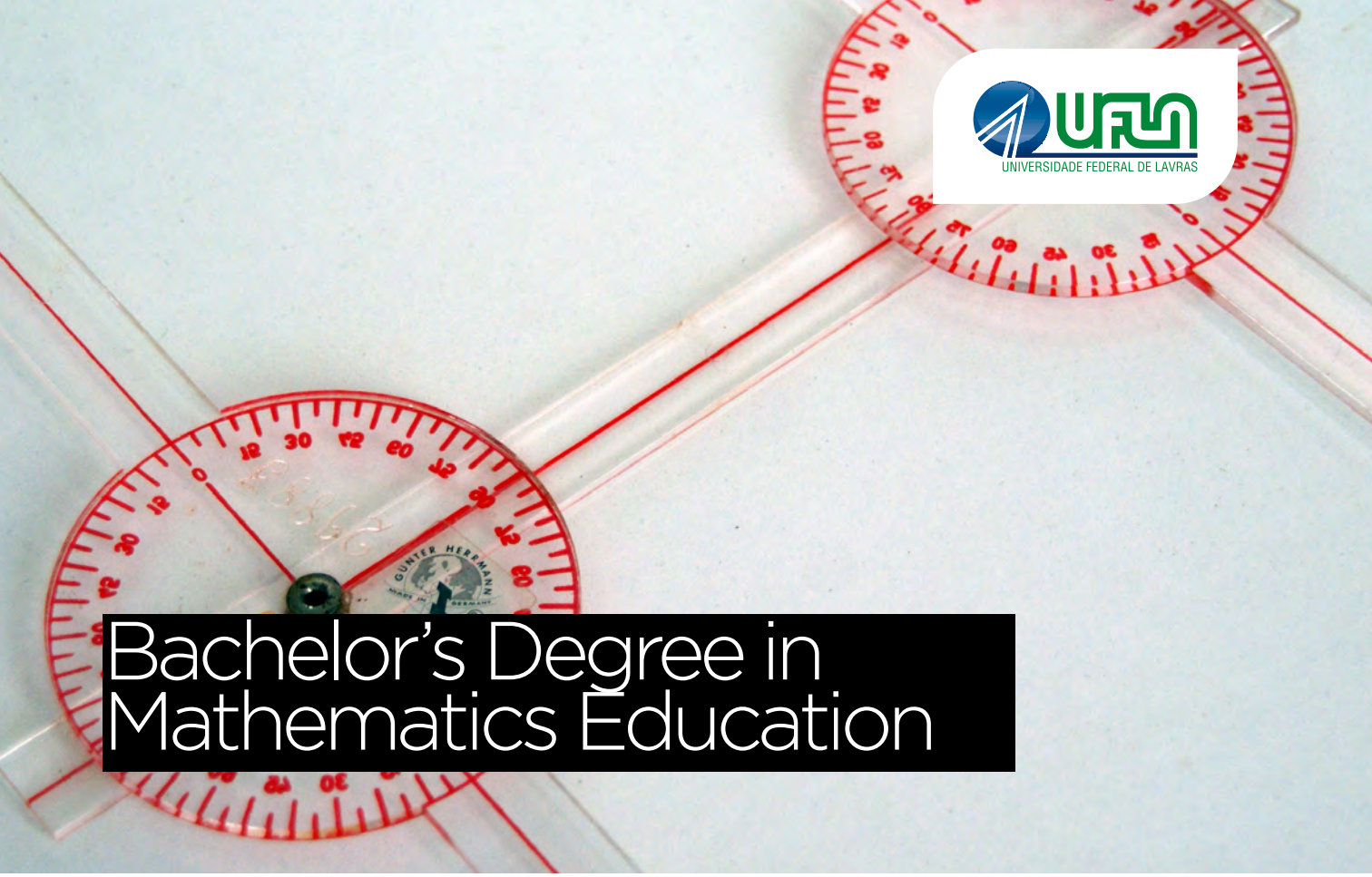
Undergraduate Course in Portuguese

Distance Education EaD (License)

Based on the concept of competence and ability, the Undergraduate Course in Portuguese and its Literature aims at making future teachers capable of using different sources of knowledge in order to observe, analyze and criticize the reality that surrounds them, raising hypotheses and finding viable solutions to questions about language. Linguistic and literary processes will be studied by means of analysis, description, and explanation, based on a consistent theoretical foundation.

The course establishes a correlation between theory and practice, employing methods that use the disciplinary contents as realities under construction, permeated with coherent, ethical, and scientific values and attitudes that enable the creation of a democratic society, in which the students become opinion-forming agents and a citizens aware of their duties, as well as of their social and professional rights.

Mode: : License
Qualification: Licentiate in Languages / Portuguese
Term: Distance Education
Duration: 8 semesters
Places per year: 300



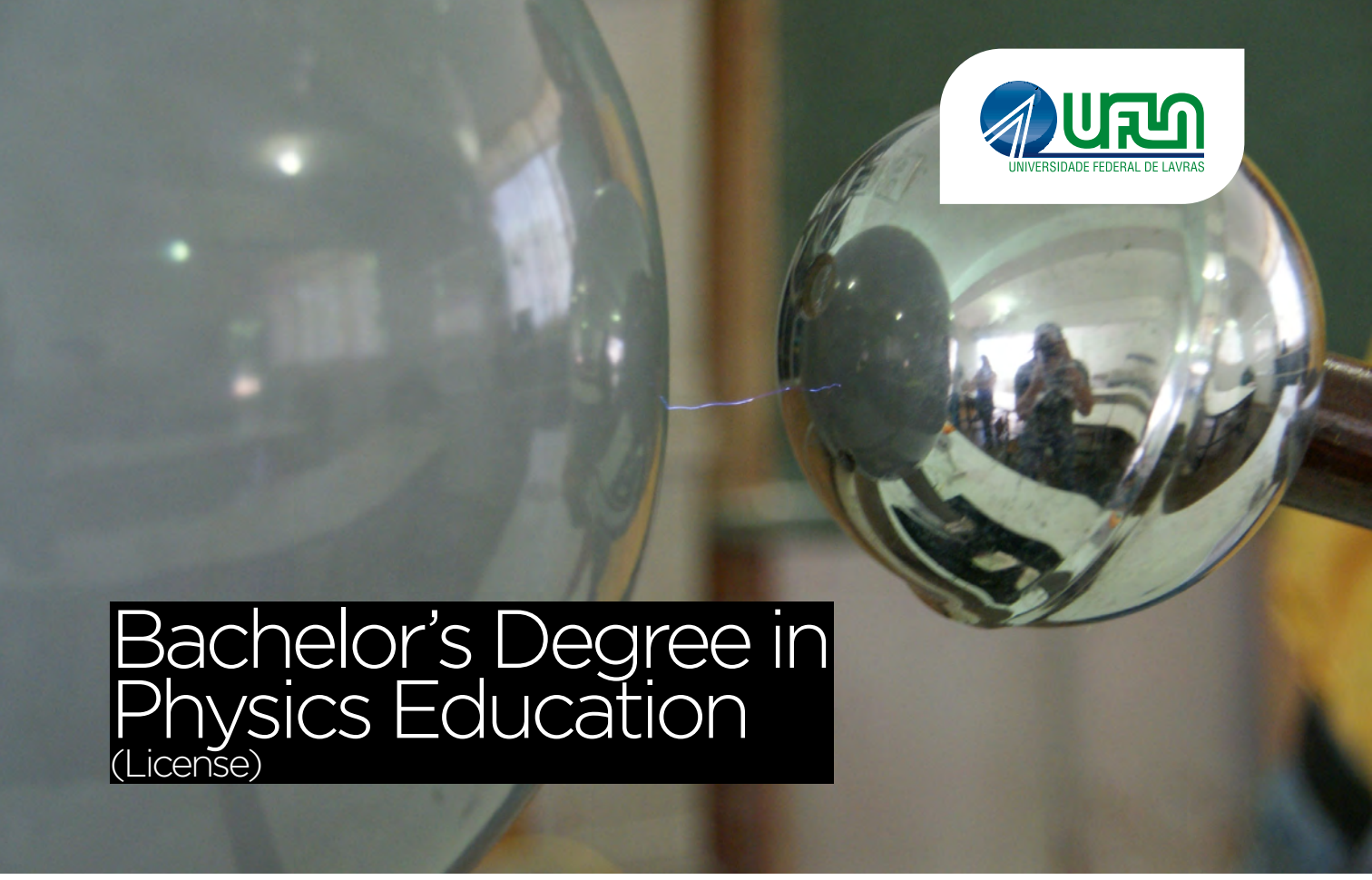
Bachelor's Degree in Mathematics Education

Bachelor's Degree in Mathematics Education is a program at the Federal University of Lavras offers a comprehensive degree course for aspiring teachers in Basic Education. The program focuses on equipping students with the necessary knowledge and skills to develop pedagogical practices that align with current trends in Mathematics teaching and cater to the specific needs of their teaching environment. Graduates of this program are prepared to teach Mathematics in both traditional face-to-face settings and through distance learning methods, taking advantage of the opportunities presented by the current technological advancements.

Furthermore, the program provides graduates with the opportunity to pursue further studies in Mathematics Education, Mathematics, or Applied Mathematics through postgraduate programs. This enables them to deepen their knowledge and expertise in their chosen field.

The primary objective of the program is to qualify teachers to effectively teach Mathematics to students in the final years of Elementary School and in High School.

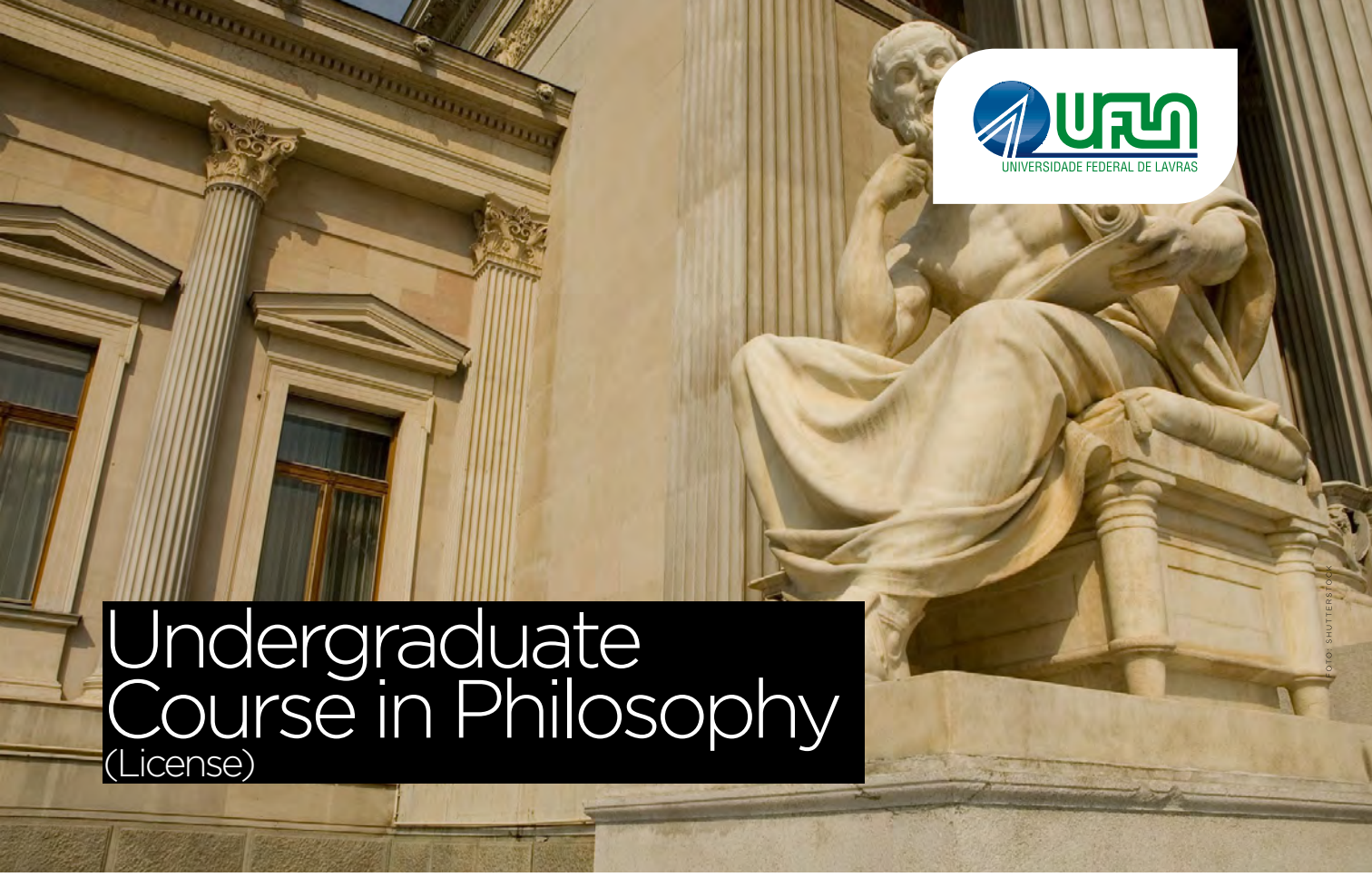
Mode: : License
Qualification: Licentiate in Mathematics Education
Term: Night shift
Duration: 8 semesters
Places per semester: 30



Bachelor's Degree in Physics Education
(License)

The Bachelor's Degree Program in Physics Education at UFLA focuses on the instruction of physics educators, equipping them with a comprehensive education encompassing scientific and humanistic disciplines. The program's core curriculum integrates essential components of Physics, Mathematics, Education, and Physics Teaching, thus furnishing students with robust theoretical knowledge and practical skills necessary for their future teaching careers. Furthermore, the program incorporates a range of projects encompassing teaching, research, and community engagement, all seamlessly integrated into the curriculum. These initiatives facilitate the cultivation of a comprehensive and relevant academic foundation, closely aligned with the societal context prevalent in the country. Moreover, the program cultivates the development of technical expertise and social and political competencies, preparing graduates to effectively contribute to the field of Physics education and its related domains.

Mode: : License
Qualification: Licentiate in Physics Education
Term: Night shift
Duration: 8 semesters
Places per semester: 30



Undergraduate Course in Philosophy
(License)

FOTO: SHUTTERSTOCK

The UFLA's Graduation Degree in Philosophy, in-class modality, obtained the highest score (grade 5) in the recognition evaluation carried out by the MEC. The Course is organized around two fundamental and interdependent axes, essential for a solid philosophical education: the first focuses on the History of Philosophy (Ancient, Medieval, Modern and Contemporary), taking it as a fundamental horizon for teacher education and researchers capable of appropriating and transmitting rigorously and critically the themes, arguments, concepts and central problems of the tradition of philosophical thought; the second, in turn, and without abandoning the historical perspective, focuses on the possible connections of philosophical thought with related areas (sciences, arts, politics, morals, history), present in the Course through the major disciplines themes (Philosophy and Psychoanalysis, Philosophy of Science, Ethics and Political Philosophy, Aesthetics).

In addition, the Philosophy Degree Course at UFLA has numerous programs and research groups, with the possibility for the student to carry out, as a scholarship holder or as a volunteer, scientific initiation, teaching initiation, discipline monitoring, mentoring, among other activities, including the dimension of extension and teaching. Another mark of excellence of the Bachelor's Degree in Philosophy at UFLA are its various events held throughout the school year (master class, colloquiums, research week, philosophical meetings...), making permanent dialogue with important researchers possible. of the national and international philosophical community. In summary, the purpose of the Course is to provide students with the necessary tools to develop their intellectual and professional trajectory as a high school teacher and/or as a researcher/teacher at Higher Education Institutions.

Mode: : License
Qualification: Licentiate in Philosophy
Term: Night shift
Duration: 8 semesters
Places per semester: 40

Undergraduate Course in Pedagogy
(License)

The Pedagogy Degree Course builds professionals whose work base is teaching, guided by the theory-practice unit, with transversality and interdisciplinarity as privileged categories. According to the National Curriculum Guidelines for the Undergraduate Course in Pedagogy (CNE/CP Resolution nº 1, 2006), the course must cover the training of educators in a broad sense that includes formal education, primarily, education non-formal and educational management.

The first, understood in the educational practices developed in Early Childhood Education and in the early years of Elementary Education, including Youth and Adult Education, in which the educational institution is configured as the main space for the pedagogue to act; the second presents several other institutions as a space for action, such as associations, organizations and groups from different segments of society; and the third covers management, planning, coordination and educational guidance.

Mode: : License
Qualification: Licentiate in Pedagogy
Term: Night shift
Duration: 8 semesters
Places per semester: 60

Undergraduate Course in Pedagogy Distance Education EaD
(License)

The undergraduate course in Pedagogy forms professionals whose performance basis is teaching, guided by the unity theory-practice, having transversality and interdisciplinarity as privileged categories.

According to the National Curricular Guidelines for the graduation course in Pedagogy (Resolution CNE/CP nº. 1, 2006), the course must cover the formation of the educator in a broad sense that contemplates formal education, primarily, non-formal education and educational management.

The first one, understood in the educational practices developed in children Education and in the initial years of elementary school, including youth and adult Education, in which the educational institution is configured as the main space for the pedagogue's performance; the second one presents as a performance space several other institutions, such as associations, organizations, and groups from different segments of society; and the third one covers management, planning, coordination, and educational guidance.

Mode: : License
Qualification: Licentiate in Pedagogy (distance education mode)
Term: Distance Education
Duration: 8 semesters
Places per year: 390

Bachelor's Degree in Business Administration

The Business Administration course aims at training professionals qualified to develop the management process in various areas of organizations: production and service management, commercialization and marketing, finance, human resources, information management, among others. The business manager must be a professional with the ability to reflect on different social needs. They must also be able to perceive the general context of the business and renew their skills in a continuous learning process, committed to society, with environmental awareness, valuing ethical and citizenship principles.

To carry out his function, the business manager must have the ability to plan, organize, coordinate and control the use of productive resources, considering factors such as quality and competitiveness.

In this course, the management of different forms of organizations in all sectors of the economy is studied, such as: public and private organizations, non-governmental organizations, associations and cooperatives, as well as those providing services.

Degree Type: Bachelor's Degree
Title: Bachelor of Business Administration
Program Structure: Semester-based
Program Duration: 8 semesters
Number of Openings per Semester: 40

Bachelor's Degree in Computer Science

The graduate of the Bachelor's Degree in Computer Science from the Federal University of Lavras is a professional with the ability to conduct scientific analysis, identify and solve problems, and be committed to continuous knowledge updates and decision-making, with the purpose of creating software and hardware systems, always considering social aspects within ethical principles. To achieve this, students participate in activities aimed at developing theoretical knowledge and practical skills. In this environment, the student has the opportunity to learn how to analyze and understand this field in order to adopt and create ways to establish a harmonious relationship between humans and technological aspects.

Throughout the course, students receive a well-rounded education in mathematics, physics, and computer science, developing competencies and critical thinking skills for professional practice and the management of their lifelong learning. The curriculum consists of mandatory courses, including theoretical and practical classes conducted in computer laboratories. There are also flexible activities in which students can tailor their education to their specific areas of interest. These activities encompass elective courses, supervised internships, tutoring, scientific initiation, extension initiation, workshops, lectures, conferences, among others, all of which are important for expanding individuals' cognitive foundation in various aspects of human interaction.

At the end of the course, the future professional presents a course conclusion paper in which they discuss the area of interest they intend to work in or continue their studies, incorporating a significant portion of the knowledge acquired. Graduates can enter the job market or pursue an academic career, contributing to and strengthening research in the field of Computer Science in the country.

Degree Type: Bachelor's Degree
Title: Bachelor of Computer Science
Program Structure: Semester-based
Program Duration: 8 semesters
Number of Openings per Semester: 40

Bachelor's Degree in Veterinary Medicine

The Program in Veterinary Medicine is designed to provide the formation and professional training of veterinarians for the ample exercise of their professional attributions, providing theoretical knowledge and skills in the clinic and surgery of animals in all its modalities; in the inspection and supervision under the hygienic, technological and sanitary point of view of products of animal origin; in the teaching, planning, direction, coordination, and technical execution of artificial insemination, biotechnology, and physiopathology of reproduction; in the application of public health measures related to zoonoses; in zootechnical and laboratory examinations and research related to general biology, zoology, and bromatology; in the research, planning, technical direction, fomentation, orientation, execution, and control of any work related to animal production; in the regency of chairs or medical-veterinary courses, as well as in the direction of the respective sections and laboratories; in the technical and sanitary direction of industrial establishments, commercial or of recreational purpose, related to the animals or their products and sub-products; in the accomplishment of expertise, elaboration and interpretation of technical reports in all the fields of knowledge of the Veterinary Medicine; in the technical advisory to the several organs of the federal public administration (Ministry of Agriculture, Ministry of Foreign Relations, Ministry of Science and Technology, among others) in the Country and abroad, in what refers to the relative subjects to the production and the animal industry. During the course, the student will receive a generalist education, developing skills and critical sense for professional performance and for the management of their continuing education.

There is also a focus on the Human and Social Sciences, which will provide skills in communication, administrative management, information technology, and in understanding the social and cultural determinants involved in the exercise of the profession. The curriculum for the Veterinary Medicine program is composed of compulsory subjects made up of theoretical and practical classes held in various laboratories, such as chemistry, microbiology, clinical, surgery, and also in experimental and commercial farms, slaughterhouses, etc. There are also flexible activities, through which the student directs the training to his or her area of interest. These activities are made up of elective courses, supervised internships, monitoring, scientific initiation, initiation to extension, courses, lectures, and congresses, which are important in expanding the cognitive base of individuals in the different fields of human relations

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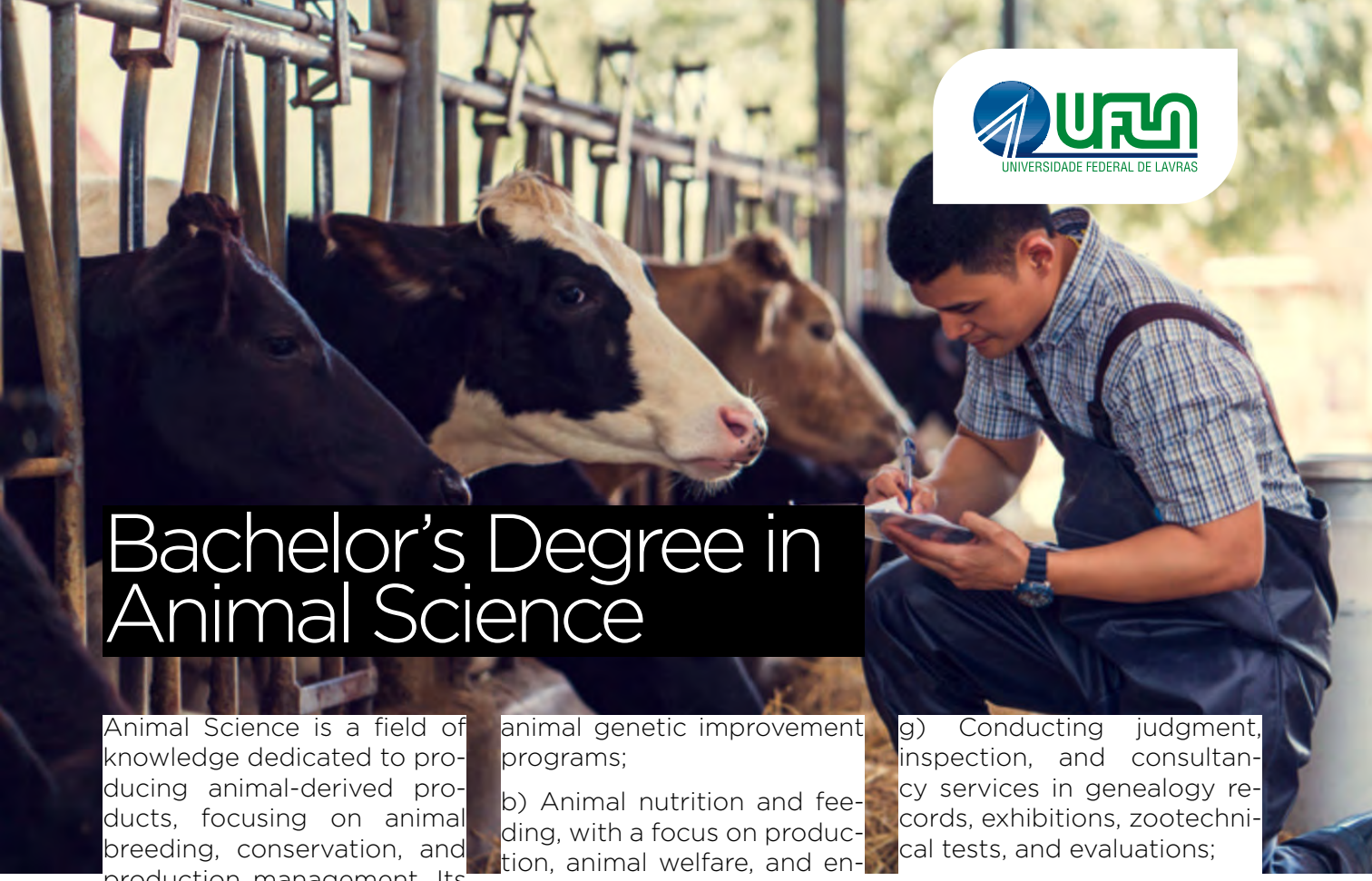
Degree Type: Bachelor's Degree
Title: Bachelor Degree in Veterinary Medicine
Program Structure: Semester-based
Program Duration: 10 semesters
Number of Openings per Semester: 50



Bachelor's Degree in Animal Science

Animal Science is a field of knowledge dedicated to producing animal-derived products, focusing on animal breeding, conservation, and production management. Its goal is to understand their relationships, utilities, and services to humans in a technically efficient, economically viable, socially just, environmentally sustainable, and ethically appropriate manner.

The course aims to educate professionals with solid scientific and technological knowledge in the animal production sector of agribusiness, equipping them with communication and integration skills with the various stakeholders involved in agricultural complexes. Additionally, it seeks to enhance students' logical, interpretive, and analytical reasoning abilities, enabling them to identify and solve problems while promoting the development, well-being, and quality of life of individuals and communities.

The main areas of work for professionals in this field are:

a) Promoting, planning, coordinating, and managing animal genetic improvement programs;

b) Animal nutrition and feeding, with a focus on production, animal welfare, and environmental balance;

c) Planning, researching, and overseeing the breeding of companion, sport, or leisure animals, as well as the appropriate utilization of wild and exotic animals;

d) Evaluating, classifying, and categorizing products and by-products of animal origin, also working in the processing industry;

e) Conducting environmental impact studies during the implementation of animal production systems;

f) Managing rural properties, agro-industrial enterprises, and commercial ventures;

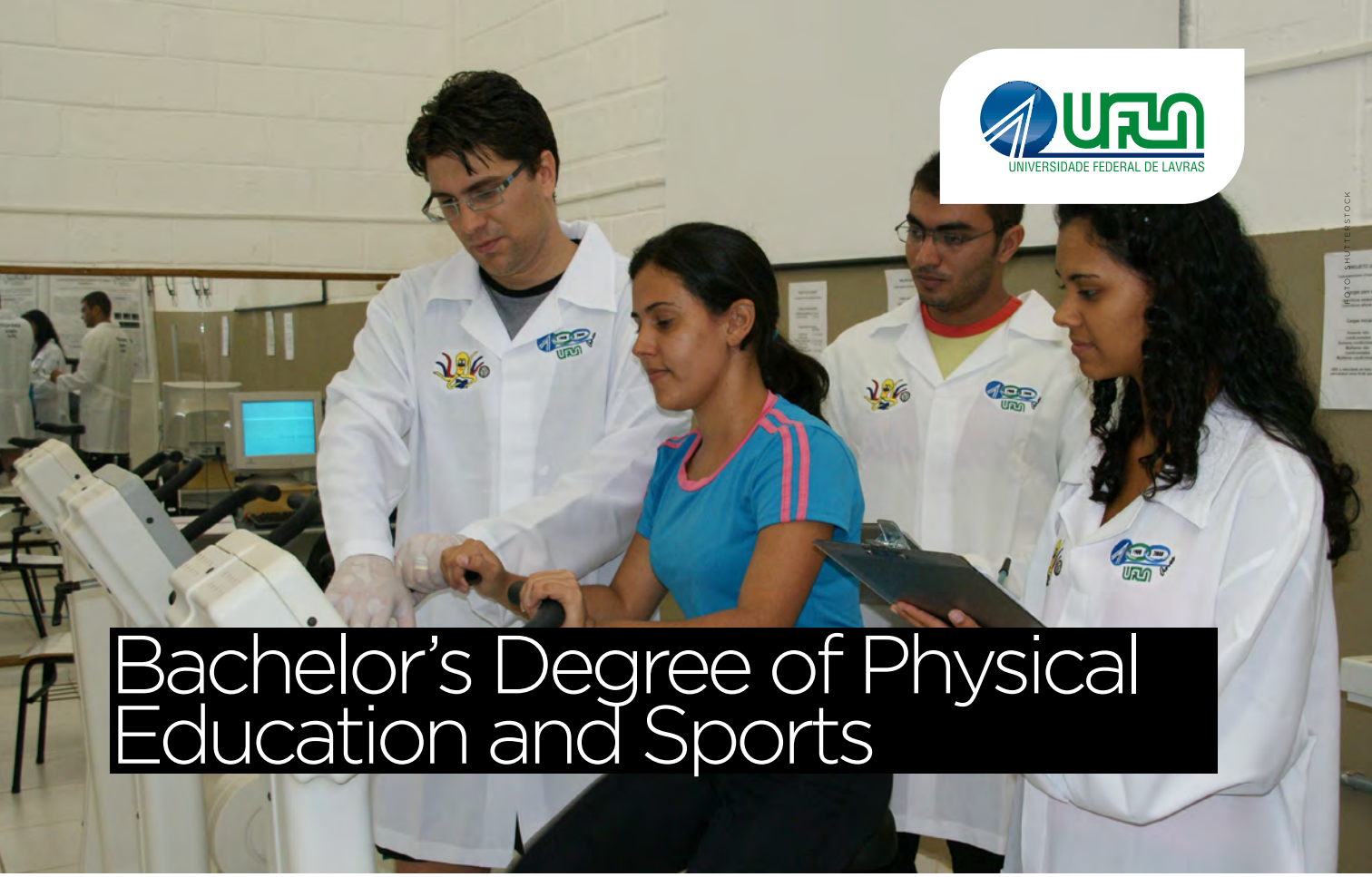
g) Conducting judgment, inspection, and consultancy services in genealogy records, exhibitions, zootechnical tests, and evaluations;

h) Facilitating alternative systems for animal production and the marketing of their products in domestic and international markets;

i) Developing, managing, and coordinating programs, projects, and activities in teaching, research, extension, innovation, and entrepreneurship, enabling the training of professionals in animal production;

j) Assisting in sanitary control programs, hygiene, prophylaxis, and traceability, meeting society's demands for quality and safety of animal-derived products, promoting well-being, quality of life, and public health.

Degree Type: Bachelor's Degree
Title: Bachelor of Zootechnics
Program Structure: Semester-based
Program Duration: 10 semesters
Number of Openings per Semester: 50



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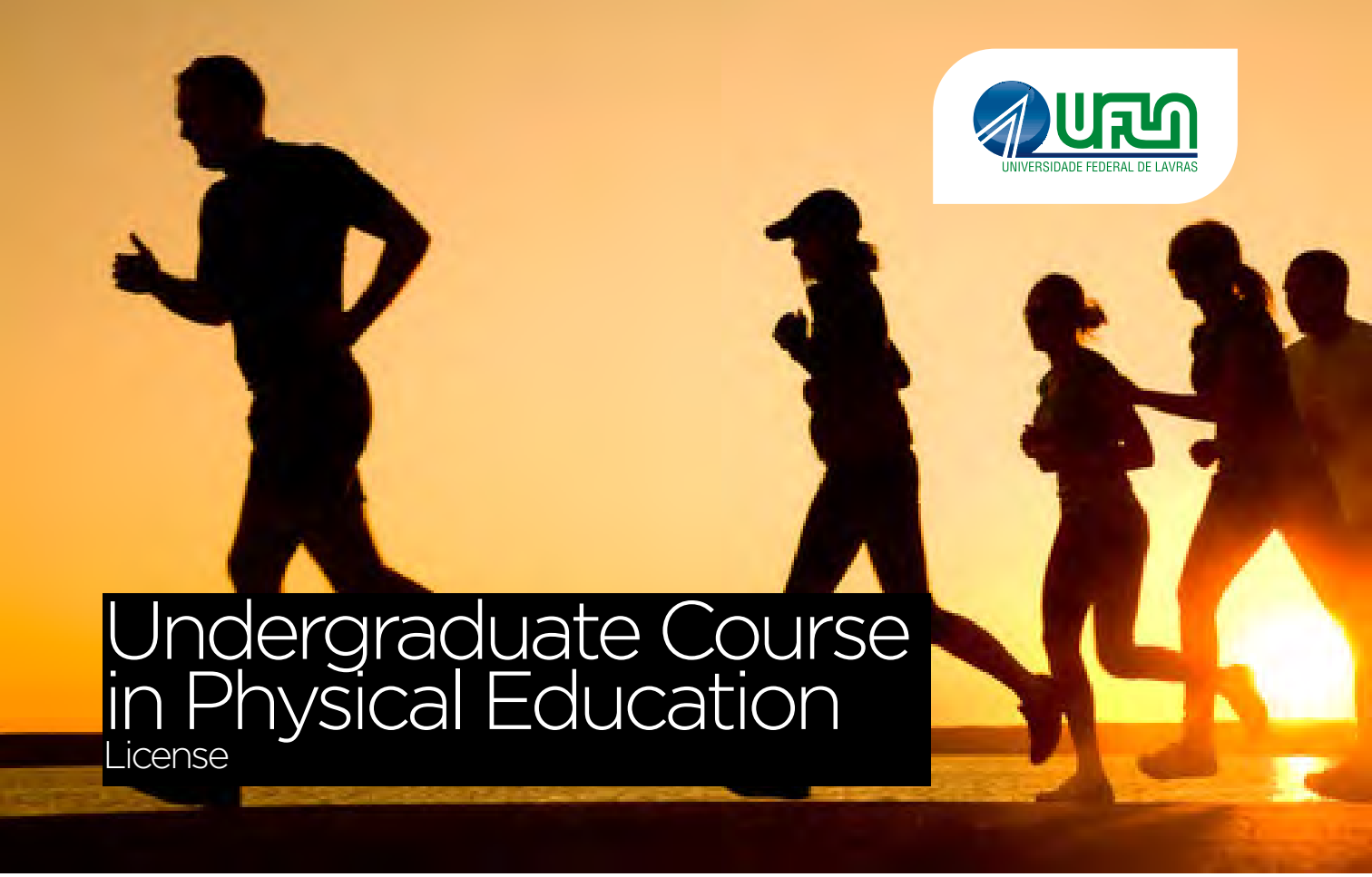
Bachelor's Degree of Physical Education and Sports

Facts and phenomena resulting from man in motion have aroused growing interest in society and resulted in studies of determinant and associated biopsychosocial variables. In this context, the practice of exercises and sport began to be recognized as a subject of university education, with great recognition by the professional of the area. The prescription of exercises and sport permeate from aspects of health (prevention/rehabilitation) to the competitive spectacle.

Thus, UFLA, with the obligation of social-community insertion, engaged in satisfying the training needs of competent active agents, in the production and dissemination of knowledge also in this area.

The graduates of the Bachelor's Degree in Physical Education and Sports of UFLA will be able to act, in addition to the teaching scope, in sports academies, rehabilitation, social clubs, community centers, companies, hotels and similar, and also in research and extension activities, respecting the uniqueness and inseparability of knowledge and ethical aspects of the profession.

Degree Type: Bachelor's Degree
Title: Bachelor of Physical Education
Program Structure: Semester-based
Program Duration: 8 semesters
Number of Openings per Semester: 30



Undergraduate Course in Physical Education

License

From the regulation of the profession, by Law No. 9696/98, of September 1, 1998, Physical Education gained prominence and is in great evolution. The work in this area is based on the concepts of body and movement, aiming at promoting healthy lifestyles. Professionals licensed in Physical Education will have training that will enable them to carry out activities based on technical, scientific and cultural knowledge. This professional should be able to organize, plan, manage, evaluate and act pedagogically, scientifically and technically in the school environment. The course will train its professionals to work in teaching Physical Education in the area of Education, Sport and Health. With ample physical structure, the Department of Physical Education at Federal University of Lavras (Ufla), existing for 30 years, also has a qualified faculty, which will enable the full academic development of its students.

Mode: License
Qualification: Licentiate in Physical Education
Term: Evening
Duration: 8 semesters
Places per semester: 30

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Medical Course

FOTO: SHUTTERSTOCK

The Medical Course aims to train the professional to human diseases' diagnosis and treatment, promoting individual and community health. According to the 2014 National Curriculum Guidelines, the course must educate health professionals with generalist, humanist, critical and reflective training. It enables graduates to act based on ethical principles at different levels of care, it means, from the comprehensive health care perspective, promoting, recovering and rehabilitating health, as well as preventing diseases. This professional can work in Family and Community Medicine, Internal Medicine, Urgent and Emergency Services, Women's and Child Health. Training is based on theoretical and practical classes in academic and community environments, labs (biochemistry, physiology, cellular and molecular biology, medical simulation, among others) and health services. The course employs active methodologies and student-centered learning, involving case studies, mentoring, clinical and surgical practice, focused on Primary Care and the Brazilian Public Health System (SUS).

Degree Type: Bachelor's Degree
Title: Medical Doctor
Program Structure: Semester-based
Program Duration: 12 semesters
Number of Openings per Semester: 30

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Bachelor's Degree in Nutrition

FOTO: SHUTTERSTOCK

The UFLA Nutrition major aims to provide a professional that is generalist, technically competent, critical, creative and humanized, aware of his social commitment. Students who major in Nutritional UFLA are able to act developing assistance, education, coordination, planning and management actions, adjusting the inactions according to the economic, political, social and cultural reality, in order to rationally use available resources. They will be able to act, according to the interest and affinity, in the areas of Foodservice management, Hospitals, clinics or health care facilities, Clinical nutrition management, Community and public health, University education, Food and nutrition-related business and industry, Marketing and Sports nutrition. In addition to the most common areas, segments such as Hotels, Commercial restaurants, Private practice/ consultant at industrial and home levels, and Natural and Alternative nutrition are spaces for Registered Dietitian Nutrition isn't that are not yet fully explored, but which are growing every day.

Degree Type: Bachelor's Degree
Title: Bachelor's Degree in Nutrition
Program Structure: Semester-based
Program Duration: 9 semesters
Number of Openings per Semester: 50

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