

**Course Offerings** 

#### Degree codes:

11010 - Agriculture 11020 - Forestry

11040 - Licentiate Degree in Agriculture

11050 - Economics

11061 - Food Science

11070 - Biological Sciences (104 = Licentiate Degree; 4 = Bachelor

Degree)

11080 - Environmental Management

| ID      | Course Name   | Professor  | Course Content Summary  | Total<br>Course<br>Hours | Semester        | Degree<br>code |
|---------|---|--|---|--------------------------|-----------------|----------------|
| LCF0106 | Introduction to<br>Forestry Engineering                 | Fernando Seixas  | Forestry engineering as a profession; Forest ecosystem; Brazilian<br>forest situation; Forest measuring and management; Forest<br>management concept; Forest species selection; Wood multiple<br>uses; Forestry engineering working fields.   | 75                       | 1 <sup>st</sup> | 11020          |
| LCF0130 | Solutions to Forest<br>Problems                         | Demóstenes Ferreira da Silva<br>Filho<br>Hilton Thadeu Zarate do Couto<br>João Luis Ferreira Batista | A series of cases of forestry problems are presented to the students<br>in order to they develop resolutions. A big emphasis is given to the<br>use of the scientific method applied to the Forestry, to the<br>elaboration and drafting of reports and technical texts and to the<br>reflection of pertinent terms to the professional practice.   | 60                       | 1 <sup>st</sup> | 11020          |
| LCF0131 | Space Information<br>Management in<br>Forest Activities | Sílvio Frosini de Barros Ferraz  | Geoprocessing concepts; Cartography; Projection systems; GPS;<br>Data entry; Digital image georeferencing; Digital image processing;<br>Image classification; Geographic Information System; Cartographic<br>database; Forestry database; Relational database; Cartographic<br>database creating, editing and maintaining; Terrain<br>digital modeling; Environmental suitability; Forest planning; Project<br>development. | 75                       | 2 <sup>nd</sup> | 11080<br>11020 |



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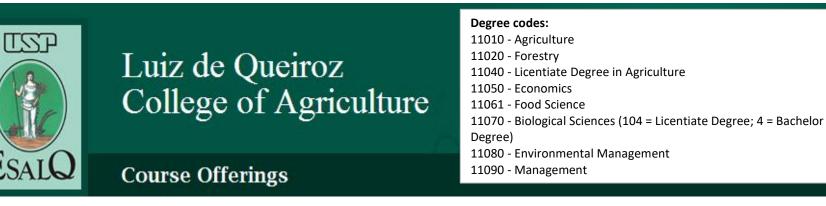
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| LCF0156 | Forest Production<br>Chains    | Adriana Maria Nolasco<br>Ivaldo Pontes Jankowsky | Concept of supply chain, as a tool for business management and<br>technology; Basic assumptions of General Systems Theory;<br>Applications of the systemic approach in prospective studies in<br>forest-based industry; Perspectives of the forest based industry in<br>Brazil; Supply chain analysis focused on: efficiency, technological<br>bottlenecks, environmental sustainability, markets and<br>opportunities, institutional sustainability and image, public policy,<br>forums, and trading councils among the supply chain links. | 60 | 2 <sup>nd</sup> | 11020 |
|---------|--------------------------------|--|--|----|-----------------|-------|
| LCF0224 | Dendrology                     | Mario Tomazello Filho                            | External morphology aspects of forest, conifer and leafy essence discussion; Identification of the main species cultivated in Brazil.  | 60 | 2 <sup>nd</sup> | 11020 |
| LCF0225 | Dendrology and<br>Wood Biology | Mario Tomazello Filho                            | The internal structure of wood of the tree-species – conifers and<br>broadleaves – is discussed; the wood formation by the apical and<br>lateral meristems; The effect of the edaphic-climatic variables on<br>the growth and wood formation and related aspects of the wood<br>quality; Dendrologic aspects to the identification of the main tree-<br>species are also included.   | 75 | 1 <sup>st</sup> | 11020 |



| LCF0270 | Environmental<br>Education                                 | Marcos Sorrentino              | Environmentalism and Environmental Education (EE) History;<br>Present Public Policies on EE in Brazil; Introduction to the History<br>and EE Context; Preliminary Study on EE political, historical and<br>cultural contexts; Debate on National and State Policies and on the<br>National Program of EE; Participative Environment Management<br>Analysis in Protected Areas; Study on the EE Theoretical and<br>Methodological Fundaments through praxis and social<br>emancipation, critical environment education and sustainability,<br>human dimensions in biodiversity conservation, participative<br>environment management, EE applied to children and its playful<br>aspects; Introduction to EE project elaboration and experience<br>analysis in progress; Analysis of the main EE threads in Brazil and in<br>the world. | 60 | 1 <sup>st</sup> | 11070<br>11080<br>11020 |
|---------|--|--------------------------------|---|----|-----------------|-------------------------|
| LCF0280 | Quantitative<br>Methods for<br>Environmental<br>Management | Luiz Carlos Estraviz Rodriguez | The main theme of this course is the use of basic quantitative<br>methods to support decision making in situations involving the use<br>of natural resources. Concepts like exhaustion, degradation,<br>sustainability, planning, optimal levels of use of renewable<br>resources etc. are contextualized. The course focuses on<br>mathematical concepts and introduces statistical, economic,<br>mathematical, financial, and operational research concepts.  | 60 | 2 <sup>nd</sup> | 11080                   |
| LCF0290 | Forest Certification                                       | Edson José Vidal da Silva      | Management systems in native forests and plantations, economic,<br>ecological and social forestry; Concept and types of certification<br>(agriculture, forestry and organic certification; Forest certification:<br>patterns and processes; FSC Certification, Certification CERFLOR.   | 75 | 2 <sup>nd</sup> | 11020                   |



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| LCF0300 | Urban Environmental<br>Management | Adriana Maria Nolasco<br>Demóstenes Ferreira da Silva<br>Filho<br>Tarlei Arriel Botrel | The growing urbanization challenges in the world, Latin America<br>and Brazil; Urbanization impacts; Sustainable urban environment<br>systems and their integrated management; Urban environment<br>management instruments.  | 90 | 2 <sup>nd</sup> | 11080 |
|---------|-----------------------------------|--|--|----|-----------------|-------|
| LCF0312 | Solid Waste<br>Management         | Adriana Maria Nolasco  | Perspectives and evolutionary analysis of solid waste management<br>in urban and industrial Brazilian areas. The National and State Solid<br>Waste policy and guidelines for the management of urban and<br>industrial solid waste. Methods for the preparation and<br>implementation of urban and industrial solid waste management<br>plans based on principles of Cleaner Production and from the<br>Brazilian Institute of Municipal Administration. | 75 | 2 <sup>nd</sup> | 11080 |
| LCF0324 | Tree Physiology                   | Antonio Natal Gonçalves  | Structures and mechanisms of growth and development; Life cycle;<br>Plant growth – seeds and germination, plant propagation, primary<br>growth: buds, leaves and roots; Secondary growth: exchange and<br>phylogeny; Reproductive growth: flowering, fructification and their<br>controls; Water; Photosynthesis and assimilation; Mineral nutrition.  | 75 | 1 <sup>st</sup> | 11020 |
| LCF0325 | Tree Mineral<br>Nutrition         | Antonio Natal Gonçalves  | Experimental principles and methods; Macro and micro-nutrients;<br>Essentiality, function and metabolism criteria; Absorption and<br>transport; Growth and development control; Vegetative growth;<br>Reproductive growth; Forest product quality; Edaphic problems;<br>Genetic and ecological aspects.  | 60 | 1 <sup>st</sup> | 11020 |



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| LCF0335 | Principles and<br>Applications of Forest<br>Products Chemistry I  | Francides Gomes da Silva<br>José Otavio Brito | Chemistry of lignocellulosic and non-lignocellulosic components of trees; Obtaining, processing and application of bioproducts and bioenergy derived from arboreal components of forests.  | 75 | 1 <sup>st</sup> | 11020          |
|---------|---|---|--|----|-----------------|----------------|
| LCF0410 | Forest Mensuration  | João Luis Ferreira Batista                    | Basic structure of the mensuration models and forest management;<br>Concept of probability distribution and statistical inference, with<br>applications in discrete and continuous distributions to empirical<br>modeling.   | 90 | 1 <sup>st</sup> | 11020          |
| LCF0427 | Propagation of Forest<br>Species                                  | Antonio Natal Gonçalves                       | Introduction; General aspects; Asexual propagation; Sexual propagation; Protection and quarantine; Forest species seedling system and production.  | 60 | 2 <sup>nd</sup> | 11020<br>11010 |
| LCF0445 | Principles and<br>Applications of Forest<br>Products Chemistry II | Francides Gomes da Silva Junior               | Chemical reactions of wood; Carbohydrates and lignin; Pulp; Quality raw material; Pulp industries; Ethanol timber; Biorefinery.  | 75 | 1 <sup>st</sup> | 11020          |
| LCF0491 | Forest Ecology  | Ciro Abbud Righi                              | Purpose of ecology and forest ecology, its history and relevance to<br>mankind; The structure of the major terrestrial ecosystems;<br>Description and classification of Brazilian forest ecosystems; The<br>energy flow in ecological systems; Forests and the biogeochemical<br>and water cycles; Limiting factors and adaptation of tree species;<br>Ecology of populations and communities; Phytosociology;<br>Ecosystem development, succession and climax in forests; Notions<br>of landscape ecology; Human impacts on natural environments and<br>consequences on sustainability; Deforestation, forest fires, forest<br>fragmentation. | 90 | 2 <sup>nd</sup> | 11080          |



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| LCF0493 | Tropical Forestry                                 | Pedro Henrique Santin<br>Brancalion                         | Tropical forestry management; Tropical forests; Tropical forestry<br>ecological bases; Forestry systems for natural forest sustainable<br>production; Forest fragmentation and restoration; Agroforest<br>systems; Forest certification; Management planning; Forest<br>legislation and forest concession law. | 75 | 1 <sup>st</sup> | 11020          |
|---------|---|---|--|----|-----------------|----------------|
| LCF0500 | Fundamentals of<br>Forest Biometrics              | Hilton Thadeu Zarate do Couto<br>João Luis Ferreira Batista | Basic structure of the mensuration model and Forest management.<br>Concepts of probabilities distribution and statistical inference, with<br>applications in discretes and continuous distributions in the forestry<br>empirical modeling.   | 75 | 2 <sup>nd</sup> | 11070<br>11020 |
| LCF0510 | Forest Inventory                                  | Hilton Thadeu Zarate do Couto                               | Forest inventory methods by sampling; Randomized, stratified, systematic and conglomerate samplings; Biological population surveying aspects.  | 90 | 2 <sup>nd</sup> | 11020          |
| LCF0522 | Principles and<br>Applications of Wood<br>Physics | Ivaldo Pontes Jankowsky                                     | Physical property general concepts; Wood main physical properties;<br>Specific mass and basic density; Water and wood relations;<br>Dimensional movement; Wood fluid movement; Conductivity and<br>resistance; Wood drying processes; Wood deterioration; Wood<br>treatment processes.                         | 75 | 2 <sup>nd</sup> | 11020<br>11010 |
| LCF0533 | Pulp and Paper<br>Technology                      | Francides Gomes da Silva Junior                             | Raw materials for pulp and paper production; Pulp production<br>processes; Pulp bleaching; Pulp processing; Paper production; Pulp<br>and paper chemical, physical and mechanical tests.   | 75 | 1 <sup>st</sup> | 11020          |



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| LCF0543 | Wood Based Panels                 | Geraldo Bortoletto Junior            | Wood based panel characteristics; Raw material and fiberboard<br>manufacturing process; Natural and synthetic adhesive main<br>characteristics; Gluing basic principles; Raw material and<br>manufacturing process of particleboards and plywood; Other wood<br>based panels.  | 75 | 2 <sup>nd</sup> | 11020                            |
|---------|-----------------------------------|--------------------------------------|--|----|-----------------|----------------------------------|
| LCF0575 | Forest Crops                      | José Leonardo de Moraes<br>Gonçalves | Pure and mixed forest formation potentiality with native and<br>introduced species; Wood production objectives and other forest<br>products: economical and ecological importance of species; Most<br>important wood species uses, with cultivation possibilities; Edaphic<br>and climatic requirements, growth rate; Basic ecophysiological<br>models; Seed special features and seedling production, planting,<br>fertilization, spacing, cultural practices, management, exploration<br>and regeneration techniques for each potential alternative species. | 75 | 1 <sup>st</sup> | 11020                            |
| LCF0577 | Biodiversity<br>Management        | Weber Antonio Neves do<br>Amaral     | Biodiversity concepts and definitions; Sustainable use and<br>biodiversity management; Public policies and supporting<br>mechanisms on biodiversity management; Designing and writing<br>business plans for biodiversity deals; Case studies and<br>presentations of business plans.   | 60 | 2 <sup>nd</sup> | 11070<br>11080<br>11020<br>11010 |
| LCF0586 | Management of<br>Forest Resources | Luiz Carlos Estraviz Rodriguez       | Introduction to Administration; Important biometric and economic<br>concepts review; Forest regulation; Current forest planning<br>techniques; Models with one or multiple goals; Data collecting,<br>analysis and preparation of management plans with multiple forest<br>resources and products.   | 75 | 2 <sup>nd</sup> | 11050                            |



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| LCF0590 | Wildlife Management<br>and Conservation                    | Katia Maria Paschoaletto<br>Micchi de Barros Ferraz | Biodiversity conservation: from theory to practice; Human-wildlife<br>interactions; Field techniques for population survey and<br>monitoring; Wildlife management; Application of concepts and<br>practices for wildlife conservation and management in natural and<br>planted forests.   | 90  | 1 <sup>st</sup>                  | 11020<br>11070<br>11080          |
|---------|--|---|---|-----|----------------------------------|----------------------------------|
| LCF0615 | Supervised Internship<br>on Forestry I                     | José Leonardo de Moraes<br>Gonçalves                | Activities related to the following areas: Forestry, Applied Ecology<br>and Forest Product Technology, under the responsibility of the<br>professors of the Forestry Department inside or outside the<br>University Campus or in public or private institutions under also the<br>responsibility of a supervisor.   | 105 | 1 <sup>st</sup> /2 <sup>nd</sup> | 11070<br>11080<br>11020<br>11010 |
| LCF0620 | Forest Soils   | José Leonardo de Moraes<br>Gonçalves                | History; Soil formation factors and processes; Characteristics of the<br>main soils used for forest purposes; Forestry implications; Nutrient<br>cycling effects on fertility and soil physical characteristics; Climate<br>and soil characteristics associated to the main Brazilian forest sites;<br>Soil fertility evaluation, corrective and fertilizer recommendation;<br>Production capacity mapping of forest sites; Tree root system. | 90  | 2 <sup>nd</sup>                  | 11020                            |
| LCF0621 | Establishment and<br>Regeneration of<br>Forest Plantations | José Leonardo de Moraes<br>Gonçalves                | Economic and technical aspects relevant to the forest plantations;<br>Soil conservation and preparation techniques; Fertilizers and<br>fertilizer prescriptions; Layout and spacing of planting;<br>Regeneration of forest stands by conducting sprout (coppice<br>method); Forestry practices; Forestry precision.   | 90  | 1 <sup>st</sup>                  | 11020                            |



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| LCF0622 | Education Topics<br>Directed to<br>Environmental Issues | Marcos Sorrentino                    | The educational issues: education, teaching, research, extension,<br>diffusion, knowledge, praxis, school, curriculum, learning,<br>pedagogical chains, didactics, motivation, creativity, initiative,<br>values, ideologies, assimilation, innovation, objectives, philosophy,<br>problem solving teaching, Professors, educators, agronomist and<br>forester educational development; The environmental issues:<br>ecology, environment, diversity, ecosystems, ecological movement,<br>eco-development; UNCED 92, "Our Common Future"; Institutions<br>related to environmental issues; Environmental education:<br>philosophies, objectives, methodology, clientele, contents,<br>techniques, history, experiences; nature tracks interpretation. | 90  | 2 <sup>nd</sup>                  | 11020<br>11010                   |
|---------|---|--------------------------------------|---|-----|----------------------------------|----------------------------------|
| LCF0623 | Mechanical<br>Properties and Wood<br>Structures         | Jose Nivaldo Garcia                  | Applied calculus to wood engineering; Statistics and material<br>resistance fundamentals; Mechanical properties determination,<br>interrelations and their correlations with wood physical properties;<br>Introduction to structural calculation to constructions in general.   | 90  | 2 <sup>nd</sup>                  | 11020                            |
| LCF0635 | Supervised Internship<br>on Forestry II                 | José Leonardo de Moraes<br>Gonçalves | The students will have the opportunity to enhance their hands-on<br>experience related to the following areas: Forestry, Applied Ecology<br>and Forest Product Technology, always under the responsibility of a<br>professor or supervisor inside or outside the University Campus or<br>in public or private institutions.   | 105 | 1 <sup>st</sup> /2 <sup>nd</sup> | 11070<br>11080<br>11020<br>11010 |



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| LCF0636 | Urban Forestry                  | Demóstenes Ferreira da Silva<br>Filho | City and urban forestry history; Vegetation uses, benefits and<br>importance in urban environments; Landscaping principles; Urban<br>forestry planning; Urban forest ecosystems management;<br>Municipal public policies (environmental policy, administrative<br>structure, urban planning, etc.); Community programs for urban<br>forest ecosystem establishment, recuperation, valuing and<br>maintenance.  | 90 | 1 <sup>st</sup> | 11080<br>11020 |
|---------|---------------------------------|---------------------------------------|--|----|-----------------|----------------|
| LCF0637 | Tropical Forest<br>Management   | Edson José Vidal da Silva             | Tropical forest management systems in Brazilian biomes as the<br>Amazon and Atlantic forest; Tropical forest management plans;<br>Current tropical forest management and its implications for the<br>forest future; Solutions for a more ecological, social, environmental<br>and sustainable management.  | 75 | 2 <sup>nd</sup> | 11020          |
| LCF0641 | Wood Drying and<br>Preservation | Ivaldo Pontes Jankowsky               | Drying importance and humidity influence in wood physical-<br>mechanical properties and characteristics; Wood-water relations<br>and methods for humidity determination; Physical principles of<br>drying process; Methods for natural and artificial drying; Drying<br>defects and quality control; Wood preservation importance and<br>field of action; Wood deterioration physical, chemical and biological<br>agents; Wood preservatives and evaluation methods; Wood<br>treatment processes; Wood and treatment efficiency process<br>characteristics; Quality control. | 90 | 1 <sup>st</sup> | 11020<br>11010 |



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| LCF0644 | Management of<br>Renewable Natural<br>Resources     | Daniela Custódio Talora | The major biomes of tropical forests; The Brazilian system of<br>conservation areas, nature conservation and environmental laws;<br>Importance of maintaining the biodiversity of agroecosystems and<br>different forms of management; Agroforestry and organic<br>agriculture; Fauna Management; Humans impacts on the<br>environment, climate change and ozone layer; The management of<br>water resources and watersheds; Energy sources and their<br>ecological consequences. | 60 | 1 <sup>st</sup> | 11070                   |
|---------|---|-------------------------|---|----|-----------------|-------------------------|
| LCF0650 | Forest Product<br>Industrialization I               | Jose Nivaldo Garcia     | Sawing and secondary processing strategies for native and planted<br>wood; Key equipments; Compatibility between equipments and<br>wood types; Growth stress and strains in trees and subsequent<br>defects to sawn wood; Sawn wood and log quality indicators for<br>guiding forest management and improvement programs;<br>Calculation and manufacturing of composite cross section, glulam,<br>LVL, CLT, OSL, T, I, H and Box joist.   | 60 | 2 <sup>nd</sup> | 11020                   |
| LCF0662 | Programs of<br>Environmental<br>Education           | Marcos Sorrentino       | Programs of environmental education analysis; Programs of<br>environmental education identification and elaboration steps; Text<br>readings, conferences and debates on different proposals for<br>environmental education; Intervention research and environmental<br>education; Programs of environmental education proposal for an<br>institution.   | 90 | 1 <sup>st</sup> | 11080<br>11020<br>11010 |
| LCF0665 | Advanced Topics on<br>Wood Mechanical<br>Processing | Jose Nivaldo Garcia     | Robotics in wood industries; CNC and traditional machines, General pre-manufacturing; Wood industry optimization through linear programming; AutoCad; Wood engineered products and final product quality control.   | 90 | 2 <sup>nd</sup> | 11020                   |



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| LCF0670 | Forest Product<br>Processing II                                 | Adriana Maria Nolasco<br>Geraldo Bortoletto Junior | Industry panel perspectives and trends; Wood adhesives; Veneer<br>processing methods; Plywood, particleboards and fiberboards<br>processing methods; Furniture industry overview; Furniture history;<br>Furniture industry product development processes; Machines, tools<br>and processes; Reading instructions and furniture design basic<br>representation.  | 90 | 1 <sup>st</sup> | 11020 |
|---------|---|--|---|----|-----------------|-------|
| LCF0676 | Forest Improvement I  | Weber Antonio Neves do<br>Amaral                   | The course is structured into four main blocks of themes:<br>1.distribution patterns of genetic diversity in natural populations -<br>using concepts of evolution and population genetics; 2. methods<br>and tools for forest improvement - using concepts of quantitative<br>genetics; 3. use of genetic diversity in conservation and forest<br>improvement, using concepts related to sustainable use of forest<br>genetic resources and 4. case studies for tree species. | 60 | 2 <sup>nd</sup> | 11020 |
| LCF0678 | Forest Watershed<br>Management                                  | Sílvio Frosini de Barros Ferraz                    | Hydrological Cycle; Experimental watersheds; Catchment water<br>balance; Forest water use; Water yield control in forested<br>watersheds; Forest and water quality; Watershed integrated<br>management.   | 75 | 1 <sup>st</sup> | 11020 |
| LCF0679 | Forest<br>Administration,<br>Public Policies and<br>Legislation | Marcos Sorrentino                                  | Brazilian forest legislation and environmental law; Brazilian forest<br>public policies and forest restoration; Natural protected areas and<br>legal reserves.  | 75 | 2 <sup>nd</sup> | 11020 |



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| LCF0681 | Forest Seed Biology<br>and Production | Paulo Yoshio Kageyama            | Forest species reproduction biology; Factors affecting forest seed<br>production; Factors affecting forest species seed germination;<br>Forest species seed production methods; Forest seed technology.   | 75 | 2 <sup>nd</sup> | 11020 |
|---------|---------------------------------------|----------------------------------|---|----|-----------------|-------|
| LCF0683 | Harvesting and<br>Transport of Wood   | Fernando Seixas                  | Objectives and importance of forest mechanization; Description of<br>systems in forest harvesting activities: cutting, bucking,<br>debranching, extraction, loading and unloading, wood<br>transportation and debarking; Machinery and forest implements<br>analysis, and the effects of timber harvesting on the environment;<br>Aspects of ergonomics in forestry activities; Forest roads. | 60 | 2 <sup>nd</sup> | 11020 |
| LCF0685 | Economics of Forest<br>Resources      | Luiz Carlos Estraviz Rodriguez   | Introduction to Economics: main concepts used in the analysis of<br>the efficient use of productive resources; Study of supply and<br>demand curves; Factors affecting demand and supply; Financial<br>Math and Analysis of Forestry Projects: Financial mathematics, key<br>concepts, main evaluation criteria and applications.   | 75 | 1 <sup>st</sup> | 11050 |
| LCF0686 | Forest Improvement<br>II              | Weber Antonio Neves do<br>Amaral | The theory of forest genetic improvement will be discussed through<br>advanced topics in determining the genetic parameters in the<br>selection processes: discussion of special topics in improvement as<br>hybridization, mass propagation, controlled pollination and<br>improvement techniques for tropical characteristics.  | 60 | 1 <sup>st</sup> | 11020 |



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| LCF0689 | Introduction to<br>Ergonomics and<br>Workplace Safety | Fernando Seixas                                     | Ergonomic basic concepts; Workplace study; Workplace physiology;<br>Anthropometry principles; Human nutrition; Noise; Vibrations;<br>Climate effects; Workplace safety.  | 60 | 1 <sup>st</sup> | 11020<br>11010 |
|---------|---|---|--|----|-----------------|----------------|
| LCF0691 | Conservation and<br>Protected Areas<br>Management     | Teresa Cristina Magro                               | National parks history and activities related to the protection of<br>nature in Brazil and world; The protected area systems in Brazil and<br>IBAMA; Social and economic issues in outdoor recreation; Natural<br>areas planning and management; Protected areas interpretation;<br>Environmental impacts in protected areas; Tourism management in<br>protected natural areas.  | 90 | 1 <sup>st</sup> | 11020          |
| LCF0693 | Agroforestry Systems                                  | Ciro Abbud Righi<br>Marcos Silveira Bernardes       | Definitions and concepts involved in the study of agro-forestry<br>systems and summary of the basic principles of ecology and<br>socioeconomics involved in the evaluation of agro-forestry systems<br>and their functions; Presentation of key concepts for the agro-<br>forestry systems management, discussing their research and rural<br>extension peculiarities and principles of Ethnoecology and<br>participatory processes. | 60 | 2 <sup>nd</sup> | 11020<br>11010 |
| LCF0694 | Auditorship and<br>Environmental<br>Certification     | Katia Maria Paschoaletto<br>Micchi de Barros Ferraz | Studies about FSC certification system on forest management and ISO standards on environmental management (Series 14000).  | 60 | 1 <sup>st</sup> | 11080<br>11020 |



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| LCF0699 | Forest Residues<br>Management | Adriana Maria Nolasco | Environment quality control concepts and general aspects; Forest<br>residues: definition and classification; Main environmental<br>problems related to forest residues; Brazilian and international<br>environmental legislation on forest residue management; Forest<br>residue management methods (minimization, recycling, use,<br>treatment and disposal); Environment management models on<br>forest residues: ISO 14000 and Agenda 21 model for adequate<br>residue environmental management; Product life cycle analysis. | 90 | 1 <sup>st</sup> | 11020 |
|---------|-------------------------------|-----------------------|--|----|-----------------|-------|
| LCF0710 | Protected Areas<br>Management | Teresa Cristina Magro | Biocentric and anthropocentric perspectives in protected areas<br>management; Legislation and natural areas management; Present<br>situation of the protected areas in Brazil; Principles and guidelines<br>for protected areas participatory management ; Human values and<br>Public consultation for protected areas creation; Consultation<br>board experiences for protected areas; Land regulation; Partnership<br>and concession management; Cultural values in conservation;<br>Protected areas financing.                | 60 | 1 <sup>st</sup> | 11080 |
| LCF0720 | Forest Nursery                | Luciana Duque Silva   | Infrastructure and protection in forest nurseries; Planning and methods of seedling production; Current legislation.   | 75 | 1 <sup>st</sup> | 11020 |



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- 11040 Licentiate Degree in Agriculture
- 11050 Economics
- 11061 Food Science

11070 - Biological Sciences (104 = Licentiate Degree; 4 = Bachelor

- 11080 Environmental Management
- 11090 Management

| LCF1581 | Forest Resources in<br>Agricultural<br>Properties | Pedro Henrique Santin<br>Brancalion                 | Forest ecosystem concepts, functioning and characterization;<br>Forest ecology and sustainable forest development basic concepts;<br>The forest role in biodiversity conservation, hydric resources and<br>soil productivity; Forest legislation: natural protected areas and<br>legal reserve; Forest fragment conservation; Small forest<br>communities formation and management; Wood use in agricultural<br>properties.  | 90 | 1 <sup>st</sup> | 11010                            |
|---------|---|---|--|----|-----------------|----------------------------------|
| LCF1680 | Regeneration and<br>Forest Management             | Luciana Duque Silva                                 | Forest regeneration, use and management; Forest multiple uses;<br>Products and benefits diversification; Wood sustainable production<br>for consumption markets; Management plans for short and long<br>rotation wood production to noble uses and other forest benefits;<br>Firefighting techniques.  | 90 | 2 <sup>nd</sup> | 11020                            |
| LCF1697 | Environmental<br>Impact Assessment                | Katia Maria Paschoaletto<br>Micchi de Barros Ferraz | Environment impact concepts; The structure of the environmental<br>impact studies in Brazil; Environment impacts characterization in<br>physical, biotic and social environments; environmental impact<br>evaluation; Mitigation and compensation actions; Elaboration and<br>analysis of environmental impact studies; Politics and legislation of<br>environmental impact studies in Brazil; Public Audiences; Study<br>cases of environmental impact studies in Brazil. | 90 | 1 <sup>st</sup> | 11070<br>11080<br>11020<br>11010 |