



# Luiz de Queiroz College of Agriculture

## 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
- 11090 - Management

ID	Course Name	Professor	Course Content Summary	Total Course Hours	Semester	Degree code
LCE0100	Quality Management in the Agri-food Sector	Cristian Marcelo Villegas Lobos Edwin Moises Marcos Ortega Gabriel Adrian Sarries	Philosophy; Basic concepts and quality management tools of the main world systems; International certification; Quality statistical control; Business intelligence systems.	60	1st	11061
LCE0137	Management, Entrepreneurship, Certification and Job Market	Carlos Tadeu dos Santos Dias Gabriel Adrian Sarries	Philosophy; Basic concepts and quality management tools of the main world systems; International certification; Quality statistical control; Process maps, mind maps and other diagrams to be developed using programs with hypertext resources and "flash" tool; Systemic management and global systems through e-learning with certification; Entrepreneurship: concepts, schools, advantages, application methodology, expansion of the labor market; Analysis of the Biology labor market in Brazil and worldwide.	30	1st	11061
LCE0143	General Chemistry	Marcelo Eduardo Alves	Key concepts; Quantum numbers; Chemical bonds; Classification of chemical elements; Oxidation and reduction; Homogeneous chemical equilibrium.	30	1st	11061
LCE0182	Quantitative Analytical Chemistry	Wanessa Melchert Mattos	Chemical equilibria; Laboratory overview; Materials used and errors involved in analysis; Classical analysis methods: gravimetric and volumetric.	90	2nd	11061



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LCE0103	Calculus	Roseli Aparecida Leandro Taciana Villela Savian	Number systems; Functions and Graphics; Functions; Limits; Continuous functions; Derivates; Indefinite integrals; Definite integrals; Gamma functions; Beta functions; Functions of several variables; Partial Derivates; Multiple Integrals.	90	1st	11050
LCE0105	Information Systems Applied to Economics	Carlos Tadeu dos Santos Dias Cristian Marcelo Villegas Lobos Gabriel Adrian Sarries	1. Electronic spreadsheet advanced use. 2. Lecture, seminars and video conferencing elaboration using hypermedia. 3. Computer local and remote network notions. 4. Internet, advanced search, downloads, web spaces and web ontologies. 5. On line information access (CMA Broadcast). 6. Basic concepts, support tools and database management (SIG, GPS, etc). 7. Computer systems for business intelligence and traceability (DSS, ERP, MRP, Benchmarking, etc.). 8. Information Systems for International Certification of Quality. 9. Programs that work in the processing "cloud". 10. Tools for elaboration of process maps, to future computerization. Tools for analyzes and system project. 11. E-Learning. 12. Android Operational System, app development for production control. 13. Websites and blogs elaboration. 14. System logic using mental maps and UML language. 15. Life quality, concept, measuring and diagnosis (WHO).	60	2nd	11050
LCE0108	Inorganic and Analytical Chemistry	Marcos Yassuo Kamogawa	Solutions concentration. Chemical balance. Acids and basis. Acidimetry and alkalimetry. Precipitation and dissolution. Gravimetry. Complexes and chelates. Chelatometry. Oxidation and reduction. Redox volumetry. Ionic activity. Instrumental methods of analysis.	90	1st	11020 11010



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LCE0118	Chemistry	Marcos Yassuo Kamogawa	Solution and solid concentrations; Chemical balance; Acids and bases; Solubility and chemical reaction kinetics; Precipitation; Complexes and chelates; Oxidation and reduction.	60	2nd	11070
LCE0120	Calculus I	Edwin Moises Marcos Ortega	Functions; Limits; Continuity; Derivation; Function studies; Derived applications; Differentials.	60	1st	11020 11010
LCE0134	Information and Intelligence Systems for Food Science	Carlos Tadeu dos Santos Dias Cristian Marcelo Villegas Lobos Gabriel Adrian Sarries	Electronic spreadsheet advanced use; Lecture, seminars and video conferencing elaboration using hypermedia; Computer local and remote network notions; Internet, remote access, advanced search, downloads, web spaces and web onthologies; On line information access (CMA Broadcast); Basic concepts, support tools and database management (SIG, GPS, etc); Computer systems for business intelligence and traceability (DSS, ERP, MRP, Benchmarking, etc.) Information Systems for International Certification of Quality; E-Learning; Android system, application development for production management; Website and blog development.	30	1st	11061 11070
LCE0161	Organic Chemistry	Simone Possedente de Lira	Functions, nomenclature and properties: alkenes, alkynes, alcohols, ethers, alkyl halogens, sulfur compounds, amines, aldehydes, ketenes, carboxylic acids, esters and aromatic compounds; Stereochemistry: enantiomers, racemic mixture, chirality; Alkene, alkyne, and aromatic reactions.	60	2nd	11061



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LCE0164	Applied Mathematics in Population Dynamics	Clarice Garcia Borges Demetrio Roseli Aparecida Leandro	Differential equations; Population dynamics.	30	2nd	11070
LCE0166	Calculus and Mathematics Applied to Food Science	Gabriel Adrian Sarries Silvio Sandoval Zocchi	Functions; Limits; Continuity; Derivation; Function studies; Derived applications; Differentials; Indefinite integration; Definite integration and definite integral application.	60	1st	11061
LCE0176	Calculus and Mathematics Applied to Biological Sciences	Roseli Aparecida Leandro Taciana Villela Savian	Set theory. Functions studies. Limits. Derivatives. Integrals. Applications in Biological Sciences.	60	1st	11070
LCE0180	Environmental Chemistry	Arquimedes Lavorenti	Acidification/Alkalinisation; Precipitation; Complexation and redox reactions; Interactions of chemicals in the environment.	60	2nd	11080
LCE0190	Applied Analytical Chemistry	Wanessa Melchert Mattos	Understanding laboratory; materials used and errors involved in analysis. Classical methods of analysis: gravimetric and volumetric.	60	1st	11061
LCE0204	Biostatistics	Cristian Marcelo Villegas Lobos	1. Descriptive statistics: graphs and tables, measures of location and dispersion. 2. Concepts of Probability. 3. Sampling. 4. Discrete random variables - Binomial and Poisson distributions. 5. Continuous random variables - Normal distribution. 6. Confidence intervals. 7. Hypothesis testing for the mean of a population. Comparison of two populations. 8. Chi-square test and contingency tables.	60	2nd	11070



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LCE0211	Basic Statistics	Sonia Maria de Stefano Piedade	Descriptive statistics; Table and graphic representation; Measures of central tendency and dispersion; Probability: definitions and theorems; Distributions of probability; Mathematical confidence; Principal distributions; Binomial, Poisson and Normal; Sampling notions; Sampling distributions; Distributions of t, F and Chi-square; Statistical inference: estimation and hypotheses tests; Regression and simple linear correlation; Contingence tables; Test of Chi-square; Proportion analysis.	60	1st	11010
LCE0212	Statistics Applied to Food Science	Silvio Sandoval Zocchi Taciana Villela Savian	Descriptive statistics; Table and graphic representation; Central tendency measures and dispersion; Probability: definitions and theorems; Aleatory variables; Main distributions: binomial, Poisson and normal; Confidence and bias-variance; Sampling notions; Statistical inference: estimation and hypothesis tests; Sample distribution; Contingence tables; Chi-square test.	60	2nd	11061
LCE0216	Introduction to Forest Biostatistics	Clarice Garcia Borges Demetrio Sonia Maria de Stefano Piedade	1. Descriptive statistics: tabular and graphic representation; measures of central tendency and dispersion. 2. Probability: definitions and theorems. 3. Probability distributions. 4. Mathematical hope. 5. Main distributions: Binomial, Poisson, Exponential, Weibull and Normal. 6. Sampling notions: sampling distributions; T, F and Chi-square distribution. 7. Statistical inference: estimative and hypothesis tests. 8. Regression and simple linear correlation. 9. Contingence tables: Chi-square test; proportions analysis.	60	1st	11020



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LCE0220	Calculus II	Carlos Tadeu dos Santos Dias	Indefinite Integration; Integration techniques; Definite integration and definite integral application; Inappropriate integrals, gamma and beta; Functions of several variables functions: partial derivatives, multiple integration; Differential equations.	60	2nd	11020 11010
LCE0602	Experimental Statistics	Carlos Tadeu dos Santos Dias Sonia Maria de Stefano Piedade	Experiment planning; Planning, analysis and interpretation of total randomized complete design results in randomized block design, latin squares, factorial experiments, split plot design, strip-plot (split-block); Multiple comparisons ; Polynomial regression analysis; Mathematical model requirements – data transformation; Factorial confounding; Experimental group analysis.	60	2nd	11061 11070 11020 11010
LCE0615	Supervised Internship in Chemistry and Statistics I	Gabriel Adrian Sarries	This internship involves scientific initiation work and tasks in areas related to analytical chemistry, environmental chemistry and physical chemistry, experimental statistics, total quality, quality international certification and statistical control.	105	1st/2nd	11061 11070 11080 11020 11010
LCE0635	Supervised Internship in Chemistry and Statistics II	Gabriel Adrian Sarries	This internship involves scientific initiation work and tasks in areas related to analytical chemistry, environmental chemistry and physical chemistry, experimental statistics, total quality, quality international certification and statistical control.	105	1st/2nd	11061 11070 11080 11020 11010



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LCE1112	Calculus and Mathematics Applied to Environmental Management	Carlos Tadeu dos Santos Dias Silvio Sandoval Zocchi	Functions; Limits; Derivatives; Integrals; Differential equations.	60	1st	11080
LCE1270	Management for Total Quality, Certification, Intelligence and Statistics	Edwin Moises Marcos Ortega Gabriel Adrian Sarries	Philosophy, basic concepts and tools of the main global management systems and business quality assurance systems, international certification. Statistical Quality Control and Statistic for Management. Business Intelligence Systems. Elaboration of process maps, mental maps, UML and other diagrams using programs with hypertext and "flash" tool. Learning systemic management and global system through electronic learning with certification. Entrepreneurship, centralized or third-party work. Life quality: conceptualization, measurement and diagnosis (WHO).	60	2nd	11050 11070 11080 11020 11010
LCE2112	Statistics Applied to Social and Environmental Sciences	Carlos Tadeu dos Santos Dias Clarice Garcia Borges Demetrio	1. Descriptive statistics: tabular and graphic representation; measures of central tendency and dispersion. 2. Probability: definitions and theorems. 3. Probability distributions. 4. Mathematical hope. 5. Main distributions: Binomial, Poisson and Normal. 6. Sampling notions: sampling distributions; T, F and Chi-square distribution. 7. Statistical inference: estimative and hypothesis tests. 8. Regression and simple linear correlation. 9. Contingence tables: Chi-square test; proportions analysis.	60	2nd	11080