

ENGLISH SEMESTER PROGRAM

PUCPR is the leading Brazilian institution in offering undergraduate classes entirely in English to both international and local university community. The program is based on the concept of English as Medium of Instruction (EMI) and includes options of courses in other languages as well.

Nowadays, the university has already implemented courses in seven Schools: Architecture and Design, Business, Communication and Arts, Life Sciences, Humanities and Education, Polytechnic and Law.

THE PROGRAM

Allows international students to complete a full semester (30 ECTS) totally in English while studying Portuguese as a Foreign Language and getting prepared to expand their academic lives into courses taught solely in Portuguese, or even, to work as an intern in a Brazilian company through our Internship Programs.

PUCPR English Semester Program also offers international and local students the enriching opportunity to sit side by side to discuss topics and learn from a wide range of cultural perspectives, therefore, to expand their knowledge of the world.

BUSINESS SCHOOL

ACCOUNTING PROGRAM

Valuation

5 ECTS

A brief sketch of merger and acquisition (M&A) in Brazil and its importance in the world; the most important M&A made in Brazil for the last 10 (ten) years; the historical background: first international investments in Brazil, the first Brazilian companies that invested in other countries; the valuation method more used in Brazil and the differences with valuation in other countries.

ECONOMICS PROGRAM

Contemporary Brazilian Economy

5 ECTS

Brazil overview; the State of Paraná overview; regional inequality in Brazil; macro policies to sustain growth; raising saving and investment; impediments to investment; promoting infrastructure development; achieving strong and sustainable growth; education and health care in Brazil; income distribution in Brazil; Brazil: what's next?

Geopolitics and International Business

5 ECTS

Geopolitics and the international order; border conflicts and sovereignty; diplomacy and business; conciliation and regulation chambers; international regulatory organizations; international financial organizations; international cooperation; geopolitics and economic blocks; geopolitics scenario's analysis and formation; actors in contemporary geopolitical international scenarios.

BUSINESS PROGRAM**Business Statistics**

5 ECTS

Business statistics provides knowledge and skills to interpret and use statistical techniques in a variety of business applications. It aims at good decision making in uncertainty conditions supporting data analysis in many disciplines such as financial analysis, auditing, production and operations and marketing research. This course is based on practical applications and intense use of interpretation. The use of statistical package software and electronic spreadsheet is mandatory.

Enterprise Architecture

5 ECTS

Enterprise Architecture provide knowledge and skills to business and technology planning from a systems and process-level view to a more strategy-driven enterprise-level view. Enterprise Architecture promote and explain the emerging profession of EA. This course contains references to related academic research and industry best practices, as well potential future practices and the direction of this emerging profession. Using a case study the student will be able to identify, analyze and plan the capabilities to support the fusion between the Business Architecture and the Information Architecture to achieve organizational strategic long-term goals.

Entrepreneurial Management

5 ECTS

Business opportunity, creativity and entrepreneurial vision; education and development of entrepreneurs minds; the profile of the successful entrepreneur; planning, assessment and management tools of projects; labor supply and entrepreneurial initiative; policies and competitive strategies for emerging enterprises; agencies and institutions of support for the generation of innovative projects; development of business plans.

Human Resources Strategic Management

5 ECTS

The course focuses on understanding the importance of management the human resources, to enable a comparison between human resources in Brazil and other countries.

Information Systems

5 ECTS

This course will be conceptual and instrumental. It will focus exclusively on information systems as an instrument to help managers to translate and control business strategy. It is not an IT – Information Technology course.

Innovation and Knowledge Management

5 ECTS

The knowledge economy; knowledge as an organizational resource; theoretical foundations of innovation and knowledge management; strategic aspects of information and competitive intelligence; knowledge management models and practices; innovation models and stages; best practices in innovation management; national and local systems of innovation; technology transfers, strategic alliances and innovation strategies; science, technology and innovation in Brazil; integrated approach to innovation and knowledge management.

Investment Analysis

5 ECTS

The purpose and structure of financial markets; the history of investing; the regulation of the financial sector; the financial crisis; the psychology of investing; the instruments and markets of investing; evaluating risk and return.

Logistics

5 ECTS

An overview of Integration and management of the supply chain; strategic and operational alignment; alignment of supply and demand; multimodality; inventory and warehousing management; customer service; compensated costs (trade-offs); information systems; policies and procedures; technology, machinery and equipment; organizational change.

Social Innovation

5 ECTS

Concepts and definitions; distinctive characteristics of social innovation; typology; analytical dimensions and models, actors; demand for social innovations; social management; social entrepreneurship; metrics and indicators; collaboration and cooperation; sustainable territorial development (local/regional) and social innovation; barriers to social innovation; new research areas; practical applications.

Strategic Management

5 ECTS

The course focuses on understanding the theoretical concepts and tools of strategic management in order to cope with dynamic forces and challenges from the environment. It deals with strategic management as an important approach to help organizations to respond to the demands of the environment seeking to improve organizational performance, competitiveness and sustainability in the long range as well as to fulfill their mission.

MARKETING PROGRAM**Consumer Behavior**

5 ECTS

The main theories and concepts in consumer psychology and about exciting new findings to deepen the understanding of how and why people choose, use, and evaluate products and services the way they do. Involvement and Perception; Memory and Learning; Motivation, Affect and Values; The Self, Personality and Psychographics; Attitudes and Behavior; Consumer Persuasion and Behavior/Attitude Changes, Decision-Making; Cultural Influences on Consumer Behavior; Advanced Topics on Consumer Behavior: The Dark Side, Nonconscious consumer behavior and Consumer Neuroscience.

TOURISM PROGRAM**Sustainability and Business**

5 ECTS

The concept of sustainability; the environmental dimension of sustainability; the social dimension of sustainability; the economic dimension of sustainability; sustainable SCM; innovation and sustainability; eco-efficiency; ecodesign; urban sustainability; indicators for sustainability; strategies for sustainability; the new era of business.

LAW SCHOOL**Economic Law**

3 ECTS

To explore the interdisciplinary approaches between the law and the economy. To work with the concept of private initiative and state intervention/regulation in the economic domain.

Human Rights

3 ECTS

Liberal Rule of Law, Representative Democracy and Individual Rights. Welfare State, Social Democracy and Collective Rights. International Perspective on Democracy and Human Rights. International Protection of Human Rights. International Human Rights Instruments: Incorporation into Domestic law, the Brazilian Precedents. European Mechanisms for Fundamental Rights Protection. American Convention on Human Rights.

Practicing Law Across Civil and Common Law: Contracts. Key Concepts and Skills

6 ECTS

Comprising four parts that altogether provide the students with a solid understanding of the differences and similarities of contractual theory and practice in Civil and Common Law (namely the U.S. legal environment), the lectures, materials and workshops of this course encompass, from a comparative perspective: (i) The essential features of the two traditions, including formation, sources, state structures, the making and the enforcement of the law, federalism, judicial systems (courts and judges), principles of law interpretation (the role of the constitution, certainty and equity, *stare decisis*, overruling, case system, court precedents, principles, statutes, codes, uses, mores and customs); (ii) The definition, sources, formation, classification and understanding of contracts, comprehending the principles of trust, good faith, fair dealing and the fiduciary obligations, the statute of fraud and the burden of proof, pre-contract liability, conditions of substance validity, types of contracts and types of clauses, express, implied and standard terms (*boilerplate*), obligations, representations, covenants, warranties, and conditions precedent, exemption clauses and limitations of liability, liquidated damages and penalty clauses, general rules of Interpretation and the *parol evidence rule*, and termination; (iii) Fundamental legal skills regarding contractual practice: knowledge, communication, advising, planning and Designing, monitoring performance, drafting, reviewing and revising; (iv) The understanding of applied ethics in contractual practice: categorical and utilitarian approaches, dealing with pressing moral problems, ethical reasoning, and guidelines on how to deal with hard cases.

POLYTECHNIC SCHOOL

CHEMICAL ENGINEERING PROGRAM

Nanotechnology

6 ECTS

Introduction to the Nanotechnology basic concepts; Overview of Nanostructured and Nanomaterials classification; Preparation methods of commonly explored nanomaterials; Distinguished properties arising from nano-scaled materials; Nanostructured and nanomaterial characterization; Nanocomposites; Application of nanostructured materials, Introduction to sustainable nanotechnology.

CIVIL ENGINEERING PROGRAM

Building Information Modeling

3 ECTS

Building information Modeling, Object modeling, predecessor design technics and interoperability through IFC.

COMPUTER SCIENCE PROGRAM

Image Processing

5 ECTS

This subject presents fundamental concepts and algorithms for image processing and artificial vision by computers and its main applications. The topics of study deals about the image formation, pinhole model, 3D to 2D transformation; Image types (Color, Intensity, Binary) and their transformations; Gray level Image filtering, enhancement and denoising; histograms; edge detection; lines and curves detection; thresholding; binary morphology. The course is focused to computational implementing of all covered theory applied to practical problems.

CONTROL AND AUTOMATION ENGINEERING PROGRAM

Intelligent Systems

5 ECTS

Artificial intelligent, computational intelligence and natural computing concepts. Fundamentals and applications of evolutionary computing. Fundamentals and applications of swarm intelligence. Fundamentals and applications of fuzzy systems. Fundamentals and applications of artificial neural networks. Fundamentals of neuro-fuzzy systems. Emerging approaches in intelligent systems.

ENVIRONMENTAL ENGINEERING PROGRAM

Administration of Project Engineering and Entrepreneurship

4 ECTS

Entrepreneurship and entrepreneurial process. Administration. Management of organizational functions in engineering projects. Strategic planning for engineering business.

Culture Citizenship and Environment

4 ECTS

Basics of sociology; cultural studies; governing the commons; social networks; human decision making; managing environmental conflicts; environmental ethics.

Environmental economics

4 ECTS

Fundamentals of economic models, how market works, externalities and market failures, public goods and common resources, pollution taxes and cap-and-trade programs, ecosystem services assessment, cost-benefit analysis.

Geographic Information System

4 ECTS

Fundamentals of Cartography, Global Positioning Application, Image Classification, Data Integration using Geographic Information System (GIS).

SCHOOL OF ARCHITECTURE AND DESIGN

ARCHITECTURE AND URBAN PROGRAM

Integrated Urban Design: Innovative Transportation Systems

6 ECTS

This course is organized as a practical workshop that integrates urban design, landscape design, product design and graphic design. It will focus on Innovative Transportation Systems, from the transport network planning to sustainable vehicles, from the Bus Rapid Transit operational concept and the Transportation Management System to the graphic identity of public infrastructures and services. A guided visit with a Professor to Curitiba's transportation system is also part of the course.

Integrated Urban Design: Urban Development & Slum Upgrading

6 ECTS

This course is organized as a practical workshop that integrates urban design, landscape design, product design and graphic design. It will focus on urban development and slum upgrading. Having the Brazilian Favela as its main case study, introduces best practices and new trends on urban development and in-situ upgrading, integrating landscape and urban requalification with recyclable street furniture design, participatory management and urban design tools.

DIGITAL DESIGN PROGRAM

Universal Principles Of Design

3 ECTS

This subject is an overview of design principles and practices common to most design professions, to give students a foundation understanding of design rules, laws, and guidelines that they can use throughout their education and career pursuits. Students will learn the language of design, how to think like a designer, how to judge between good and bad design works, and where to go for additional resources of specialized design practice.

FASHION DESIGN PROGRAM

Digital Photography

3 ECTS

Essentially practical classes that seek to develop creative capacity beyond the mastery of expression and visual reproduction techniques. Students learn to handle professional photographic equipment in a fully manual mode. Development of technical skills and comprehension of the creative possibilities that Photography offers are a huge part of the program. The methodology follows the precepts of presenting theoretical content at first followed by practical work done by students under a proposed topic that leads all students to develop the connection between theory and practice, exercising creativity and visual expression.

SCHOOL OF COMMUNICATION AND ARTS

Creative Thinking

5 ECTS

The creativity as an ability to generate ideas. The creative being and his individual and collective attitudes. The comprehension of the creative process and its techniques. The creative problem resolution and its incentives. Observation, perception and the understanding by using draws. The image and the study of the representation techniques. The importance of non-verbal languages of the contemporary culture.

SCHOOL OF EDUCATION AND HUMANITIES

History of Brazil

5 ECTS

This course will study Brazilian history from the arrival of Portugal's Pedro Álvares Cabral in 1500 to the nation's establishment during the Empire period in the XIXth century. Divided into three periods, the course first considers how Portuguese, African and indigenous institutions and traditions molded the colonial period, where sugar and then gold dominated Brazil's economy. The second part begins with Brazil's independence from Portugal in 1822 and covers the persistence of slavery, the introduction of railroads, European immigration and the importance of coffee during the Brazilian Empire. The third part of the course reflects on the presence of Brazil's past in today's history.

Intercultural Communication

5 ECTS

Concepts and definitions of culture. Identification of the various cultural dimensions and its impact on a study abroad experience. Cultural identity. Intercultural developmental model. Culture chock and the process of adjustment to other cultures. Cultural diversity in teamwork and the role of intercultural communication inside the organizations.

Sociology and Anthropology of Art

5 ECTS

Arts and social sciences. Social Sciences contributions to the analysis of art. Institutions, ideologies and artistic movements. Modern and contemporary approaches to art.

Taxonomy - Reading and Analyzing Scientific Terminology

5 ECTS

Lexicon, Taxonomy, Terminologies and Ontology. The Worldwide Scientific Terminology. Linguistic and Ontological Tools and Morphology. Latin and Greek Roots. The Lexicon and the Word Formation Processes. Improving Academic Reading and Writing.

The Human Health: Body, Environment, and Culture

5 ECTS

The course tackles health in a global point of view, in another words. It aims at understand health through the relations that its main components weave with each other. It starts exploring the social and the cultural basis of health and illness, giving special attention to the historical foundations of the western notion of the body and, then, focuses specific native realities of health and illness, specially the Brazilian social conditions and regional diversities. The course proceeds analyzing the environmental factors that can be related to the human health. It will be given special attention to the notion of the antropocene. Finally, the course ends reading some of the contemporary concepts of the neurosciences and one or two philosophical propositions about the ideia of a good life.

Portuguese as a Foreign Language – (Students are placed on the most appropriate level after a placement test taken during Orientation session)

5 ECTS

Upon successful completion of the course, the students should be able to: develop a strategy learning/recording vocabulary, be aware of some other learning strategies; use capitalization and punctuation correctly; learn some basic classroom language, introduce themselves and others. Talk about countries, nationalities, habits, routines, personal details, jobs, likes and dislikes, possessions, leisure time activities, food and drink, requests, future plans, past experiences describe places, houses, people, make suggestions. Ask for and give information, recognize and use verb tenses, modals, passives, recognize and use time expressions, articles, count/non-count nouns, demonstratives recognize and use parts of speech, recognize and use high-frequency words and expressions; read at sentence and paragraph level, read for comprehension, read stories for specific information, scan for details, listen for specific information. Listen for main ideas, take part in role-plays and conversations brainstorm ideas, plan and outline a paragraph, write at sentence and paragraph level, write an informal letter, write a story, write about a process, make sentences using conjunctions, use data to write a paragraph.

SCHOOL OF LIFE SCIENCES

Brazilian Cuisine

7 ECTS

Study and characterization of Brazilian cuisine. Establishment of relations between the different regional characteristics. Development, construction and production of menus. Increase in culinary techniques involved in this process.

Case Studies in Biotechnology

Case studies used to explore biotechnology practice and the application of various technologies in industry and medicine. Emphasis placed on developing problem solving, information gathering, inductive reasoning and technical communication skills.

<u>Designing Academic Illustrations</u>	2 ECTS
<p>The course Designing Academic Illustrations is indicated for local and foreign students from different programs. Through the semester they learn how to design high resolution figures using a free and powerful tool called Inkscape®. Furthermore, they learn PowerPoint® animation strategies for better use of the created figures compared with traditional methods, embellishing and improving their presentations. When students conclude the discipline, they are able to design their dream's figures moreover enhancing their keynote methods.</p>	
<u>Food Microbiology</u>	4 ECTS
<p>Spoilage, pathogenic and beneficial microorganisms. Intrinsic and extrinsic factors that limit microbial growth and survival. Standard methods for sampling, counting and identification of microorganisms. Foodborne diseases and outbreaks. Emerging microorganisms. Legislation.</p>	
<u>Geoprocessing Applied to Natural Resources: Production and Conservation</u>	5 ECTS
<p>Basic Concepts of Geographic Information Systems. Basic Concepts of Remote Sensing. Soil Use Mapping Techniques (vegetation mapping techniques, satellite images georeferencing of satellite images and aerial photographs). Supervised Classification of Satellite Images. Projection of Permanent Preservation Areas. Database. Spatial Operators.</p>	
<u>Math Made Fun and Easy</u>	2 ECTS
<p>Math made simple and fun will help you to understand the relationship between Life Science factors, variables and its main indexes. At the end of the course, students develop the use of mathematical operations, geometry and functions to predict different organisms growth dynamics and relations.</p>	
<u>Microbes for Food, Health and Profit</u>	5 ECTS
<p>Microbial biological diversity. Microbial metabolic diversity. Tapping the metabolic diversity of microbes: from cultivation to bioprospecting to metabolomics. Microbes for food: applications of microorganisms in food production and technology. Microbes for health: applications of microorganisms in human and veterinary health. Microbes for profit: applications of microorganisms in industry and environment.</p>	
<u>Tropical Agriculture and Agribusiness</u>	2 ECTS
<p>Tropics: climate and geography; Tropical soils; Major food crops; Cropping systems; Plant breeding and biotechnology; Tropical forages; Animal production in the tropics; Agricultural Co-ops; Agro-industries; Rural development; Food safety and contemporary challenges in agriculture.</p>	