

# COURSES IN ENGLISH AT PUC-Rio

The courses have a content based on different areas such as culture, literature, business, design, civilization, history and logistics among others.



# ARTS AND DESIGN

## Ergonomics and Ergo Design in Brazil (2 credits)

Ergonomics in Brazil: development and research. Main approaches in Brazil used for ergonomic studies. The nature of ergodesign. Ergodesign in development of products, information systems and human-computer interfaces.

## Electronic Art (3 credits)

Analysis of the different ways to express and communicate artistic interventions that include electronic media. Multimidiatic aspects of the computational resources. Interactive art.

## User Centered Design (3 credits)

Design criteria considering usability. Human factors and user centered design. Definition and techniques. Users' safety, comfort, wellbeing and satisfaction. Task analysis.

## New Technologies applied to Design (3 credits)

New 3-D printing technologies and materials. The dematerialization movement. Do it yourself/ makers with 3-D printing. Explaining the future form 3-D printing perspective.

## Ethics and Aesthetics in Contemporary Brazil (3 credits)

Discussion of the connections between ethics and aesthetics in the context of contemporary Brazilian culture and subjectivity.

# BUSINESS AND ADMINISTRATION

## Course Introduction to Strategy in a Globalized World (4 credits)

Basic concepts and tools for strategic management from a global perspective. Assessing and ensuring strategic fit considering global opportunities and challenges. Shift in paradigm of multinational strategies from national differentiation to globalization. International alliances: focus on joint ventures. Cultural challenges. Balanced Scorecards for firms with global strategies.

## International Negotiation (4 credits)

Negotiating in a world of increasing professional and organizational interdependence. Cultural differences and negotiation. Relational development, communication styles, tactics/behaviors, agreements and negotiation.

## Marketing Strategies Through Consumer Behavior (4 credits)

Marketing strategies decisions from a consumer behavior approach. Basic determinants of consumer behavior. The roles of marketing as influence on consumer buying and decision making. Impact of consumer behavior on marketing.

## Relationship Marketing (4 credits)

The course will take the long-term view, the business-based approach to customer relationship management (CRM). It tells students what CRM means to businesses, plus the why and the how of putting a CRM database system into action. Real world examples will be brought into classroom to illustrate how CRM can and has been used to change and build any type of business, strategically and managerially.

# BUSINESS AND ADMINISTRATION

## Valuation and Real Options (4 credits)

Principles of Capital Budgeting. Project Valuation. Static and Dynamic Valuation Models. Valuation Methods and relevant cash flows. Cost of Capital and Valuation under Uncertainty. Risk Analysis and Monte Carlo Simulation. Enterprise Valuation. Mergers and Acquisitions. Modeling uncertainty and project options. Real Option analysis and valuation.

## Online and Mobile Marketing (4 credits)

The Internet and Mobile Platforms. Marketing in the Digital Age. Marketing Online. Mobile Marketing. Website Marketing. Search Engine Marketing. Online Advertising, pay per click and display ads. Email Marketing. Blog Marketing. Social Media Marketing Multimedia Marketing. Web Marketing Mix. Web Marketing Plan. Managing online and mobile marketing activities.

## Cases in International Marketing (4 credits)

Concepts and theories in international marketing. The challenges and opportunities in international markets. Environment analysis of international markets. Strategies to enter international markets. Choosing target markets and positioning. International marketing mix (product, price, distribution and marketing communication).

# ELECTRIC ENGINEERING

Signals and Systems (4 credits)

Pre-requisites: MAT1162 and MAT1200

The objective of this course is to introduce the basic concepts associated to signals and to the systems that process them. It builds a methodology that allows students to model and solve linear time-invariant systems, both in the continuous time and the discrete time. By taking this course students will be able to study further applications in digital signal processing (DSP).

# PRODUCTION ENGINEERING

Supply Chain Logistics Management / Special Topics on  
Production Engineering (3 credits)

Pre-requisites: Students from Engineer, Business and Economy, with knowledge in operation management.

The discipline exams traditional logistics issues within the context of the supply chain. Main definitions, logistics evolution, performance management systems, primary logistics activities (network design, information, transportation management, inventory management and strategy, warehousing, materials handling, packaging), supply chain management (organization and relationship management, information technology), trends, business.

# ENVIRONMENTAL ENGINEERING

## Environmental Issues in Brazil (4 credits)

The latest Intergovernmental Panel on Climate Change (IPCC) assessment report (AR5) showed a clear relation between anthropogenic processes and climate change, stating that the human influence is clear for the unequivocal warming of the climate system (IPCC, 2013). The undesirable consequences of climate change for human society's sustainability urge for solid international agreements, as well as deep changes in the business as usual human behavior and activities. In this course we will discuss how anthropogenic greenhouse gases emissions contribute to climate change and how they can be measured, managed and mitigated.

## Course Special Topics Engineering (4 credits)

The discipline will introduce the concerns of Brazilian environmental issues linking the fields of Science and engineering to the human dimensions of problem solving and decision-making. While acknowledging dilemmas, the lecturer will also describe the good news, progress towards solutions, and the many ways individuals can make contributions toward environmental protection. Students will be encouraged to form their own opinions, and to recognize that there are multiple ways to interpret data and to find a balance between competing views.

# HISTORY

## Brazilian History (4 credits)

South America in the context of the Portuguese ultramarine Empire. Black and Indian slavery. The Catholic Church: hierarchies and social identity in the colony. Political emancipation and the construction of the Imperial State. Nationality formation and social tensions. Crisis of slavery and the end of the monarchic regime. The historical experience of the Brazilian Republic. Authoritarianism and Democracy. Inclusion and exclusion in the Brazilian society.

# SOCIOLOGY

## Contemporary Brazilian Debates from a Sociological and Anthropological Perspective (4 credits)

This course aims to give an introduction to contemporary Brazilian anthropology and sociology. Beginning with central problems which influenced the constitution of these two disciplines, centering around the ideas of Gilberto Freyre and Sergio Buarque de Hollanda, we will discuss modernity and Portuguese tradition; the historical role of the State and its relations with society; public life and private values; family and social solidarity; "racial democracy" and criticisms; Brazilian modernism. The course will then highlight some specific contemporary subject discussions in both areas: violence and urban life, race and inequality, religion, cultural artistic manifestations, especially Tropicalism, Brazilian funk and "manguebeat".

# INTERNATIONAL RELATIONS

## Regional Integration Process (4 credits)

The resurgence of regionalism in world politics. Typologies of regional integration. Theoretical perspectives on regionalism. Different processes of integration, ALALC, ALADI, Cartagena Agreement, CARICOM, CAFTA, Andean Community, Mercosul, NAFTA, FTAA, European Union, ASEAN.

## Special Topics in International Relations II:

### *Science, Technology and War* (4 credits)

Science, technology and war are inextricably linked. Every major technology – metallurgy, explosives, internal combustion, aviation, electronics, and nuclear energy – has either been developed for, or used in, armed conflicts. This course focuses on the application of chemical and biological agents as weapons. However, wider forces and influences are at play. The economic, political, strategic and technological dimensions are important and relevant considerations that bear on research, development and use of weapons. This course draws on a number of approaches to illuminate some of the most pertinent aspects of modern arms control. A key element is the consideration of real world examples: historical uses and development, rationales, and practicalities of arms control to make this often abstract subject matter more tangible and accessible.



# INTERNATIONAL RELATIONS

## Course Brazilian Foreign Policy I (4 credits)

The course will explain how the main Brazilian Foreign Policy paradigms were formulated as well as discuss the role of economic development on the Brazilian foreign policy contents. The following issues will be discussed: The Republican regime and foreign policy; Americanism and Pan-Americanism; Cold War and foreign policy; The impact of economic development on Brazilian Foreign Policy; The independent foreign policy and the globalism; The foreign policy of military regime and the Americanism; Geopolitics and National Security Doctrine; Globalism revival and consolidation; Democracy and foreign policy; The post-Cold War and Brazilian international insertion; Actors and perceptions of Brazilian Foreign Policy.

## Advanced Studies in International Relations II: Hospitality Hostility in International Political Theory (4 credits)

This course surveys classics of European International Relations Theory. Through a mixture of lecture and discussion, we will consider together the following thinkers or texts: History of the Peloponnesian War by Thucydides, writings on "just war" by Augustine of Hippo and Francisco de Vitoria, On the Citizen by Thomas Hobbes, several key texts by Immanuel Kant, Sigmund Freud's Civilization and Its Discontents, and Carl Schmitt's Concept of the Political. Although most of the readings are derived from a European tradition of thought on matters of peace and war, we will focus these problems by considering the initial encounter between Europeans and native Brazilians in the sixteenth century with reference to the following question: is the treatment of foreign peoples governed by the rights of hostility or of hospitality?

# LETTERS

Special Topics in Portuguese Language / Study and discussion of special topics related to the Portuguese language studies (4 credits)

Intercultural studies: parameters of analysis. Identification of aspects of the Brazilian culture and language interaction that may be relevant in multicultural/intercultural contexts. Practical work with Brazilian films, TV soap operas and sitcoms, song lyrics, press articles, advertising campaigns and short stories.

Special topics in Portuguese language / Brazilian language and culture: from stereotyping to reality (4 credits)

Approach and discussion of the Brazilian culture in its most relevant aspects to students who come from other cultures. Rethink Brazil through the reading of possible stereotypes present in images internationally disseminated, taking into consideration the process of construction of the Brazilian Portuguese language and the verbal, non-verbal and social interactional patterns currently in use. Effective contact with different cultural aspects such as ethnic diversity, art, religion, folklore, culinary and language through theoretical readings, debates and eventual lectures about specific cultural topics.

# LETTERS

## Brazilian Literature on Screen: From Cinema Novo to Novo Cinema (4 credits)

To present classic adaptations of Brazilian literature by *auteur* filmmakers. To explore the development of modern and contemporary Brazilian cinema and culture through the screening and critical analysis of representative works within their respective socio-historical contexts. To stimulate interest for Brazilian literature, cinema, and culture in order to promote and facilitate future studies. To discuss and write about topics related to Brazilian literature, cinema, and culture, from an informed and critical perspective. To relate the knowledge acquired about Brazilian literature, cinema, and culture to the students' own bodies of knowledge.

## Topics in Brazilian Literature (4 credits)

To explore the development of Brazilian literature and culture through the close reading and critical analysis of representative works within their respective socio-historical contexts. To stimulate interest for Brazilian literature and culture in order to promote and facilitate future studies. To discuss and write about topics related to Brazilian literature and culture, from an informed and critical perspective. To relate the knowledge acquired about Brazilian literature and culture to the students' own bodies of knowledge.

# PSYCHOLOGY

## Clinical Neurosciences (2 credits)

The goal of this course is to provide an overview of neuroimaging methodologies, neuropsychological assessment tool, and various diseases that affect the structure and functioning of brain. The course will consist of 5 different parts. Part 1 will introduce different neuroimaging methodologies, including electroencephalography, magnetic resonance imaging and positron emission tomography, and will elaborate on how to perform a neuropsychological assessment. The other parts of the course all focus on different categories of diseases that affect the brain and how neuroscience aids in understanding these diseases and in the clinical diagnostic process. The second part of the course is on dementias, and specifically Alzheimer's disease and frontotemporal dementia. What are the main clinical manifestations, what are the neuropathological features, how does the neuroanatomy changes, are there differences in neuropsychological assessment? These are key questions during this part of the course. Part 3 focusses on movement disorders, and in particularly Parkinson's disease. A description of the motor and cognitive manifestations will be given, as well as the neuropathology guided by the use of advanced neuroimaging methodologies. The 4<sup>th</sup> part will be on metabolic disorders. Diabetes and obesity are the 2 most common metabolic disorders in the world.

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Valuation and Real Options (4 credits)

Online and Mobile Marketing (4 credits)

Cases in International Marketing (4 credits)

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## ENVIRONMENTAL ENGINEERING

Environmental Issues in Brazil (4 credits)

Course Special Topics Engineering (4 credits)

## HISTORY

Brazilian History (4 credits)

## PRODUCTION ENGINEERING

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