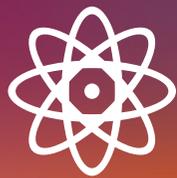


DISCIPLINES IN ENGLISH

SPRING SEMESTER
2017.1



**EARTH AND
EXACT SCIENCES**

QUATERNARY PALEOCEANOGRAPHY

Graduate Program in Geochemistry — Prof. Catia Barbosa

Earth's oceans play a critical role in climate and maintenance of a planet suitable for life. In this course we will explore how the ocean fits the Earth System and learn how the ocean and terrestrial system changed in response to internal and external forcing.

1. Introduction to Paleoceanography and the Atlantic Ocean
2. Oceanographic System, oceanic chemistry and thermohaline circulation
3. Paleoceanography and abrupt climate events
4. Unicellular Organisms and Oceanic History
5. Oxygen Isotope Stratigraphy of other isotopes
6. About glaciations and their causes / Milankovitch cycles; variabilities in millennial, decadal and centennial scales in the Quaternary.
7. Reconstructions of the Glacial Deep Ocean
8. climatic Feedback and Pleistocene variations / break points in the Pleistocene climate
9. Holocene dynamics and sea level variation
10. Cold seeps, methane, Hydrates and Quaternary climatic changes
11. Climate Conditions on Greenhouse and Icehouse and ocean Acidification
12. The boundaries of Paleoceanography
13. South Atlantic Central issues

INTRODUCTION TO PHYSICAL OCEANOGRAPHY AND OCEAN DYNAMICS

Graduation Program in Biosystem Engineering — Prof. Andre Belem

Oceans Big Picture, Oceanographic Exploration and milestones in understanding the Ocean; Development of theoretical ideas and history of ocean exploration; Atmospheric forcing of the ocean: Oceanic winds and Wind Stress; Geographical and seasonal distribution of fluxes; The oceanic Mixed Layer and Thermocline; Density, Potential Temperature, and Neutral Density; Measurement of Temperature and salinity With Depth; Equations of Motion; Dominant Forces for Ocean Dynamics; Coordinate Systems; Types of flow in the Ocean; Conservation of mass and salt; The total derivative of Momentum Equation and Conservation of Mass: Continuity Equation solutions to the Equations of Motion; Inertial motion, Ekman Layer and Ekman currents; Ekman Transports and application of Ekman Theory; Calculating Geostrophic Currents from Hydrographic Data; Barotropic and Baroclinic flow; Conservation of vorticity, Vorticity and Ekman pumping; Wind Driven Ocean Circulation in the South Atlantic, Brazil Current and South Atlantic recirculation; Antarctic Circumpolar Current; Equatorial processes: surface and subsurface currents; El Niño/La Niña: State of art of numerical modelling of the Oceans.

PRODUCTION SYSTEMS AND OPERATIONS

*Graduate Program in Industrial Engineering and
Computer Systems — Prof. Iara Tammela*

The course presents the strategic importance of production systems and operations management. It also discusses operational issues facing organizations and introduces operations management concepts and techniques as well as the necessary skills to improve productivity and quality of operations in both manufacturing and service organizations. Topics include international competitiveness, forecasting, design and control of operations systems, creating value for the customer, production planning and control, quality assurance and supply chain and inventory management.



**HEALTH
SCIENCES**

SEMINAR IN CARDIOMETABOLISM AND CHRONIC KIDNEY DISEASE

Graduate Program in Cardiovascular Sciences — Prof. Denise Mafra

Discussion of papers on current issues involved in the pathophysiology of major complications affecting chronic kidney disease patients.

ORAL PATHOLOGY

Graduate Program in Pathology — Prof. Karin Soares Cunha

This course aims:

- To provide standard training in histopathological diagnosis of oral lesions by means of supervised practical activities of microscopic and macroscopic cases analysis;
- To train oral pathology by means of weekly integrated sessions to discuss routine cases from Oral Pathology Service of the Pathological Anatomy Service at the HUAP, UFF.



**APPLIED SOCIAL
SCIENCES**

THEORY OF INFORMATION, INCENTIVES AND STRATEGIES

Graduate Program in Economics — Prof. Miguel Martinez

This course considers both the theory of information and incentives. The first part will discuss the main solution and concepts of in in noncooperative game theory. The second part of the course will focus on strategic oligopoly models. The third part will present information asymmetry models. The fourth part of the course will focus on mechanism design topics, including the revelation principle, strategy-proof social choice, and implementation theory. The students are expected to have basic microeconomics knowledge. In the end of this course, the student is expected to be able to develop models to analyze industry incentives and strategies as well as policy incentives.

ECONOMIC REGULATION

Graduate Program in Economics — Prof. Michelle Hallack

This course introduces the conceptual framework of economic regulation and proposes some case studies about Brazilian regulatory framework. Our conceptual framework analyzes regulation from two different viewpoints: market failures and transaction costs. It will provide students with analytical tools to understand utilities regulation in Brazil and to compare with international approaches.



**MULTIDISCIPLI-
NARY STUDIES**

ASL – AMERICAN SIGN LANGUAGE

Graduate Program in Diversity and Inclusion — Prof. Ana Campello

This discipline will discuss Deaf Identity and Culture, American Sign Language History, Communities of users of American Sign Language, also including lessons in sign language, recognition signage space and recognition of the elements of the signs. The student will know the basics of the American Sign language structure, how to start a conversation through American sign language with deaf people, including other signs from outside the university environment.

SCIENTIFIC LITERATURE IN DIVERSITY AND INCLUSION

Graduate Program in Diversity and Inclusion — Prof. Helena Castro

This discipline aims to create a space to use English orally by discussing short articles and/or recent films and interviews involving Diversity and Inclusion topics. Among other materials, those that involve relevant issues regarding our research lines are of preference. The dynamics will be varied, including simulations of situations such as interviews and presentations at international conferences and events.

INTERNATIONAL COOPERATION OFFICE - UFF

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