English Track Program

Centre d’Etudes de l’Université de Californie Bordeaux

Course catalog
Fall Semester & Spring Semester
18/12/2015
ENGLISH TRACK COURSE CATALOG

University of Bordeaux

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ECONOMICS

Bordeaux 4 – Licence 3 of “European Economics and Policy”

Fall Semester

Course 5.2 'European perspectives'
This module is composed of four courses focusing on more specific aspects of European policies:

1) European Economic Integration – 4.5
This lecture is an introduction to the analysis of the process of economic integration in Europe. It starts with a definition of the economic integration process then moves on to a wider European perspective. It then identifies the main stages of the process of economic and political integration in Europe since 1945. Then it turns to a thorough examination of the impact of economic integration, mainly through trade and finance. Finally, it examines how the creation of EMU (European Monetary Union) has affected the pace of economic integration in Europe and how this process has affected the functioning of the European Monetary Union in return.

2) Innovation policy in a knowledge-based economy – 4.5 – ECON 152
The course is meant to provide an introduction to the basic concepts of the economics of innovation, and the relevant policy issues and tools. The course addresses more particularly the following topics: Open Science (mainly, public funded research), Intellectual Property Rights (esp. patents), and R&D subsidies to private companies, other sources of market failures, standard setting by public committees and public procurement, and antitrust policy implications. Towards the end of the course, a few hours are dedicated to student presentations, based on readings from the reading list or of their choice.

3) Introduction to European law – 4.5
Course content not available.

4) European institutions – 4.5
This course aims at giving students a basic knowledge of European institutions, their role and influence in the development of European Law. The topic of this lecture is not only EU institutions, but also all the other European institutions, such as the Council of Europe and the European Court of Human Rights.

Course 5.3 'Data analysis'
This module aims to familiarise students with sources, presentation and analysis of economic data:

1) Applied statistics – 4.5
This course provides students with an introduction to the way in which economists make use of data in the analysis of both micro and macroeconomics issues.

2) Statistical programming – 3.0
Students will be introduced to a number of surveys from which they will be able to use data in practical classes to ensure familiarity with the basic analytical software.

3) **Directed Individual Study in Economics – 5.0**
DIS offers an opportunity for undergraduates to perform special supervised study or research in Economics and / or European Studies. It encourages students to undertake in depth study of an area of special interest in economics that cannot be covered in regular course format. Students will be guided and supported to conduct research in practice by producing an oral presentation which will form the basis of the module mark.

**Spring Semester**

**Course 6.2 'European perspectives'**
This module focuses on European economic, social, and environmental policy. It is composed of four courses:

1) **Europe and economic globalisation – 4.5 – ECON 145**
This course addresses the following topics: an overview of benefits and risks of international capital mobility, international capital mobility measures and financial globalization in historical perspective. The second part will focus more specifically on Europe and post-World War 2 trade liberalisation, and examine both regional and international issues such as multilateral liberalisation, regional liberalisation, preferential schemes and protectionism in Europe today.

2) **EU cohesion policy – 4.5 – ECON 156**
The course focuses on the three dimensions of cohesion (economic, social and territorial). It highlights the main differences between European regions and analyses the factors underlying the diversity of performances, as well as the different ways to improve cohesion (innovation, human capital, infrastructure, etc.). This will finally lead to a comprehensive study of the European regional policy framework.

3) **European competition law and policy – 4.5 – ECON 155**
This course helps students understand the legal and institutional framework of anti-trust policy as well as the economic concepts and theories underlying competition policy. It draws on the literature of industrial organization and gives examples of cases in European competition policy.

4) **Environmental regulation and ethical business in Europe – 4.5 – ECON 144**
This course deals with both theoretical and practical aspects of environmental regulation. It examines why and how public authorities might intervene to reduce pollution and analyses the role of environmental regulation upon firms’ strategies and innovation.

**Course Unit 6.3 'Data analysis'**
This is Course 5.3 follow-up module. It aims to present data analysis methodology:

1) **Introduction to econometrics – 5.0**
Course content not available.
2) **European databases – 3.0**
In this module students will acquire a wide range of knowledge, skills and techniques that will enable them to analyse data from European databases in practical classes.

3) **Applied Economics Seminars – 5.0**
Presentations of ongoing research in applied economics carried out by academic researchers and visiting professors. The course aims to develop students' understanding of research methodologies.
ENGLISH AND NORTH-AMERICAN LITERATURE AND CIVILIZATION

Bordeaux 3 – Department of English

Fall semester

Licence 1

Link to the full course brochure of the English department, which includes more detailed course descriptions and bibliographies:
Then click on “Guide Licence Anglais”

L1IAU4 – British literature I – 4.5

This course introduces students to British literature through various literary extracts chosen in connection with a specific theme. The aims of this course are
• to encourage students to acquire the reading skills necessary for literary study.
• the ability to construct and convey meaning in speech and writing.
• to appreciate the formal ways in which authors achieve their effects.
• to develop the student’s knowledge of literature through a selection of canonical texts proposed by the teacher.
Language mostly used in class: English.
Theme of study: “A Sense of Place”: writing of space in English literature from Shakespeare to the 20th century, and it’s related patterns: the gothic, private and public space, exotism, landscape, frontier, etc.
Ten excerpts from theatre, poetry, and fiction works will be studied.

L1IAU5 – American literature I – 4.5 – ENGL 108

This course introduces students to American literature through various short stories written by some of the most renowned American authors. The aims of this course are
• to encourage students to acquire the reading skills necessary for literary study.
• the ability to construct and convey meaning in speech and writing.
• to appreciate the formal ways in which authors achieve their effects.
• to develop the student’s knowledge of literature.
Language mostly used in class: English.
Program: Four short stories are studies:
» The Tell-Tale Heart » (Edgar Allan Poe)
» The Untold Lie » (Sherwood Anderson)
» A Late Encounter With the Enemy » (Flannery O’Connor)
» Collectors » (Raymond Carver)

Licence 2
The aim of this course is to introduce students to the major authors and literary movements in English literature from the medieval origins to XXth century Modernism. The lectures will be given in English.

Text: Jean Briat, Annie Lhérété. The Best of English Literature.

Analysis of emblematic works belonging to novel, theatre and poetry genres, from 16th to 21st centuries, through two themes:

1) Jane Austen, *Pride and Prejudice*

The aim of this course is to introduce you to one of the crucial texts of the English Canon, and to analyse the reasons for its lasting literary fortune. *Pride and Prejudice* will enable us to get a picture of a fascinating period of social mutation in England, of the end of old XVIIIth century gentry codes, and the birth of a new world, based on the new importance of the rising class of merchants. It will also be an interesting insight into the question of the representation of femininity.

2) The Modernist Short Story

The aim of this course is twofold: it is meant as an introduction both to English Modernist literature and to the English short story which authors such as Joyce, Mansfield, Woolf and Lawrence contributed to refashion.

US Expansionism 1800-1850:
1-the building of a nation: Europe v. the « periphery » (former colonial territories)
2-the acquisition of “the wedge” from France: the Louisiana purchase (1803) and its consequences
3- The Monroe doctrine (1823): a discourse of legitimization?
4-Expanding to the South: the annexation of Tejas/Texas, the « Lone star » state (1845)
5-the Mexican-American war (1846-48) and the ensuing Treaty of Guadalupe Hidalgo.

And Historical realities of Canada from the origins to the BNA Act (1867):
The course focuses on the evolution of British North America from the "Conquest" to the British North America Act of 1867. Particular attention will be given to the early history of Canada under French rule; the impact of Catholic missions on the Indigenous communities; territorial expansion and the political evolution leading to the formation of the Dominion of Canada.

The Progressives, 1895-1920:
The course will try to understand who the Progressives were, and the changes they brought to US society and politics during the so-called Progressive Era (1895-1920).
The Relationship between Indians and the Federal Government: the Cherokee Nation as a Case Study:
The history of Native Americans and of their relationship with the Euro-American authorities is at the heart of the US nation-building. Without generalizing or essentializing a very complex history on the scale of the continent, the history of the Cherokee Nation can be seen as an illustration and a case study of a nationwide history. The objective of this class is to try to understand, from a Cherokee viewpoint as much as is possible—that is to say by the use of Cherokee primary sources—the role that the Indians played in the history of the United States.

Licence 3

L5IAU4 – American literature 2 – 4.5 – ENGL 107 A
Late 20th century American literature though in-depth study of 2 works:
Philip ROTH, The Counterlife (1986)
Rick MOODY, Purple America (1997)

L5IAU5 – American literature 3 – 4.5 – ENGL 109 A
Late 19th century to early 20th American literature though in-depth study of 2 works:
Henry JAMES, The Portrait of a Lady (1881),
William FAULKNER, Sanctuary (1931)

L5IAU6 – British civilization 2 – 4.5 – HIST 108
Great Britain, 1834-1914:
This course is devoted to the study of Victorian Britain and highlights the political and social upheaval in the wake of the second period of the Industrial Revolution. The turn of the century and the Edwardian period will also be studied.
The second part of the course will focus on British history, from the New Liberals to World War Two.

L5IAU7 – British civilization 3 – 4.5
This course will focus on the two following subjects:
Britain and Europe from the origins to present;
British decolonization and its consequences: from a relative success to total failure.

MASTER 1
(Updated for 2015-16 on July 6, 15)
Link to the full course brochure for the MASTER of the English department, which includes more detailed course descriptions and bibliographies:
Then under “Master” click on “Guide Master Anglais 2015-2016.pdf”

Seminar on North-America: America, a multi-cultural space – 4.5

Four themes are presented:
Myths, mythologies and mystics of female representation from Antic Greece to American contemporary avatars;
The plantation societies in the English speaking West Indies;
From concept to phenomenon: Americanization, distorting mirror of modernity (this part is taught in French).

Discourse analysis – 4.5

This seminar explores the way meaning is constructed in language, with a focus on semantic, pragmatic and social factors. With the goal of defining the role played by social interaction, we examine language in communicative contexts, particularly in spoken media: interviews, speeches, conversation, TV soap dramas, stand-up comedy, MOOCs, etc. The seminar provides an overview of theories on discourse and particularly on communicative competence (cognitive and interactive skills allowing language-users to make inferences, detect background assumptions, frame judgments about speakers’ intentions and evaluations), as well as on sociolinguistic variation. As our approach is corpus-based, we also look at the methodology of corpus linguistics and we discuss issues involved in collecting and tagging transcripts.

From the Grotesque Mode to Monsters in American 19th-20th century fiction – 4.5
Engl 120

This seminar will examine the figure of the monster and the grotesque mode, a recurrent feature of American literature, by focusing on fiction works from the 19th and the 20th centuries. While the grotesque is not necessarily associated with monsters, it often arouses a sense of repulsion. According to Maurice Lévy, “it is the presence of something unacceptable around us or within us that we turn into a circus freak in order to domesticate it or make it less unbearable.” As for the “monster,” etymologically it is a means of showing, of revealing. However it always refers to something different than itself and, therefore, needs to be deciphered and interpreted like hieroglyphics. In addition the monster both imitates nature and deforms it—as such it has something to do with grotesque shapes. Whenever a text is characterized by the use of the grotesque mode or the presence of a monster/monsters, it requires a specific type of reading and interpretation. The seminar will focus on and analyze how to interpret grotesque fiction. It will also study the reasons for the use of the grotesque mode and/or of monsters in a selection of significant American fiction.

American short stories from the past Century – 4.5 – Engl 121

While focusing on four volumes of short stories by John Cheever, Breece D’J Pancake, Raymond Carver and Rick Moody, which all have 20th-century America as a backdrop, this
course intends to embrace the recent evolutions of the genre itself through varied approaches drawing from stylistics, narratology, intertextuality and literary history. The generic approach notably aims at encompassing and questioning the possibly artificial and simplistic divide between so-called “regionalist”, “minimalist”, “postmodernist”, and “mainstream” stories.

**History of the book – 4.5**

Advances in the history of the book are one the main contributions of French historiography in the 20th century (the *Annales* school). In its wake this seminar invites students to take into account an obvious fact that often eludes attention; I mean that a book is not simply a system of signs, but also an object just like any other, with all that this implies. Bindings, title-pages, prefaces, dedications, type, illustrations, etc., are highly meaningful, however. I will attempt to throw into relief correlations between material forms, intellectual content and reading practices.

The seminar falls into two parts. Its starts with a brief overview of the book-as-object. I will also put into perspective other ways of approaching this discipline around the world. The second part concentrates on the analysis of specific printed objects, that is to say engravings that include text (the “letterpress”) with a highly variable subject-matter. The corpus is made up essentially of religious, satirical or historical engravings of the 18th century, which will approached from a synchronic as well as diachronic angle. They provide evidence of historically dated mentalities. But they also survive in present practices. Most of all their apparent strangeness encourages one to step back and put things into perspective. The seminar is meant to open up research approaches without relying on a single preestablished theory.

**Mass culture and popular culture in the United-States : the comics – 4.5**

This seminar will study a part of visual arts : the comic art or cartoon art, starting in the 19th century, from press drawing to the edition of contemporary comic books.

**The Mutation of the Adventure Novel at the End of the Victorian Era – 4.5 – Engl 122**

In this seminar, we will attempt to circumscribe and to qualify a rather furtive literary space, nestled in between the two major systems of signification, the two dominant ideospheres of Realism and Modernism.

We will see that such authors who are apparently so different from one other as Dickens, Conrad, Stevenson or Doyle shared at the turn of the century the same desire for literary innovation. In an admittedly transitory period, they shared a wish to settle in imminence, and to find there the structures for the new text they craved to write.

They all exploited the adventurous and undefined nature of that literary period that can be called “neutral” according to Barthes’s definition, in the sense that it attempted to escape paradigms. We will thus illustrate the fact that far from being an aftermath of Realism or an announcement of Modernism, a mere –post or –pre, that period can be delineated as valid in itself around common literary theoretical positions and technical strategies. Beyond their differences, these authors exploit historic contextual indecision, and propose, around the re-definition of the novel of Adventure, a new kind of literature, the aim of which is to make stabilisation transitory, to prevent full coincidence.
Voyages, exiles, migrations and hybridity in 19th to 21st Century Literature in America
– 4.5 – Engl 123

This seminar deals with the way one gazes at the Other and the way he/she gazes at us, in the context of travelling, exile or migrations between Europe and North America. This gallery of writers from the XIXth and mostly XXth centuries (immigration novels, autobiographies, travelogues) will take us from Europe and Asia to the United States and back. Whether they immigrate to escape the Tsar’s cruelty, or the Irish famine, or seek the American dream in the land of plenty, or embark as war-exiles from the East to the West, or else decide to roam the seas to go back to the cradle of Western civilization to satisfy their eager curiosity, those travelers give us complementary, sometimes contradictory views, not only of the world they discover, but of their own identities. This exploration also leads us to examine what being a foreigner, or being a stranger to oneself, entail.

Enlightenment era in England – 4.5

The Enlightenment is a European phenomenon. How far can one speak of an English Enlightenment?

Historian Roy Porter contends that there was an English specificity and we shall study several practical aspects:
- the notion of natural rights, rights of man and rights of woman
- the idea of tolerance
- the spirit of discovery
- the evolution of social relationships between the landed elite, the poor and the emerging middle class
- the campaigns against the slave trade and slavery.

We shall try to assess the impact of the Enlightenment both on eighteenth century society and on today’s society, in England and France, and to encourage a comparative approach. Historical texts will be studied (available on the virtual office) as well as a tale, Johnson’s Rasselas.

Britain, from Tony Blair to David Cameron – 4.5 –

The origins of New Labour, the relationship between « Old Labour » and « New labour ».
The relationship between the Blairite Third Way, liberalism, Thatcherism.
Conservatism, liberalism and labour, the evolution of three political traditions.
Public policies in the fields of education, social policy, foreign affairs, European affairs.
The management of immigration and integration policies. The opposition between multiculturalism, communitarianism and integration.

Native American and Canadian Studies (19th-21st centuries) – ENGL 110 - 4.5

This seminar studies the cultures of the Natives in the United States and Canada through the fiction written by North American Native and Metis authors.
In order to understand their texts, we use a pluridisciplinary approach based on publications in history, anthropology, religious studies…
Our Library collection on Native studies is one of the richest in France and you will find everything you need.
Aaron Carr, Navajo and Pueblo writer and film maker will conduct the seminars on his own novel.
Literature and the Environment in the U.S.: an introduction to ecocriticism – 4.5

NOT OFFERED IN 2015-16

Ecocriticism is a relatively new critical field, a new frame for textual analysis which has developed as a consequence of a growing awareness that we are in the midst of a major environmental crisis calling for drastic changes in the way we inhabit this planet, and that literary texts are part of a symbolic activity through which we imagine and define our place on this planet.

This seminar will provide a general approach and broad intellectual background to understanding the emergence of the theoretical field of ecocriticism, using a critical anthology of seminal texts (*The Ecocriticism Reader*, Cheryl Glotfelty and Harold Fromm, editors), and apply this approach to three landmark and representative texts in the rich field of U.S. nature writing: Aldo Leopold's *Sand County Almanach*, Rick Bass's *The Lost Grizzlies* and Terry Tempest Williams's *Refuge*.

British novel from the end of Victorian era to the beginning of modernism – 4.5

In this seminar, we will study the beginning and end of british novels, which are strategic narrative spaces of the novel.

British identities II: national identities – 4.5

This is a series of seminars, not classes, and we will continue to examine the notion of "Britishness" (cf M1 British Identities: Multicultural Britain). These seminars will focus on the more historic and traditional notions surrounding the idea of Britishness because we will be examining the history and the identities of Ireland, Scotland, Wales and England. The devolution process has increased autonomy and underpinned national historic identities in the British Isles but it is now argued that after centuries of domination over the three "Celtic" countries, England needs to establish her own identity and governance. The 2015 election results seem to point to the increasing influence of nationalism within the nation-state. We shall examine different aspects of each of the four countries: history, languages, religions, stereotypes, nationalism and expressions of national and cultural identity, both traditional and evolving in a multicultural context. We shall also discuss political considerations including the governance of the United Kingdom which is now becoming problematical.

Language in use: English grammar and the pragmatics of discourse – 4.5 –LING 142

Grammar and pragmatics: manufacturing social meanings with words

“Grammar is not a set of rigid rules that must be followed in order to produce grammatical sentences. Rather, grammar is a set of strategies” (Givón 1993). In this seminar we explore
the socio-cognitive and socio-pragmatic dimensions of grammar. How grammar frames our representations of events through *construal* (Langacker 2008) and *patterning* (Whorf 1942); how we use grammar to collaborate and manipulate by adapting and controlling the thoughts and actions of others. How grams and structures make it possible for us to accept or reject, connect or separate, emphasise or hedge, claim or hypothesise, impose or negotiate; … As we explore the social, cultural and communicative aspects of grammar, the field of pragmatics will be defined and key concepts explained (from “sentence”, “utterance”, “proposition”, “context” to “(spatial, temporal, social) deixis”, “modality”, “voice”, “truth value”, “entailment”, “presupposition”, “speech and illocutionary acts”). Some notions or processes will receive special attention, like *linguistic politeness, interruption and topic control, cultural scripts for the expression of emotion; gendered conversational styles*…

**Gender and literature – 4.5**

This non dogmatic, transdisciplinary seminar is an approach to gender studies. After reading a few inaugural texts that will stimulate reflection on female creativity in fiction, as well as on woman’s, and man’s place in society, or establish the circumstances that led to feminism, students will be encouraged to share their separate interests, covering various fields, media, periods, or cultures, from poetry to the cinema or music, from philosophical to anthropological or ethnical points of view. An eye will be kept on the changes that are taking place in the world regarding gender matters and how they affect exchanges, and our perception.

**Popular and aristocratic cultures in 18th century England – 4.5**

In eighteenth century Britain culture was generally associated to the elite as the poor were illiterate. Thanks to the Enlightenment however, education gained ground and a popular culture emerged little by little. Radical writers—who advocated political reform and increased liberties, tried to address the poor or at least to encourage an oral culture. The British Jacobins drew their inspiration from the French revolution. This seminar will address the various forms of social, political, religious and cultural dissent as opposed to the conservative tradition. We shall focus on writings by Edmund Burke, Thomas Paine, Mary Wollstonecraft, Hannah More… We shall also be concerned with the impact of eighteenth century popular and aristocratic culture on modern Britain.

**Great Britain, a new social model ? – 4.5 – HIST 166**

This seminar analyses the features of the new post-industrial « post fordist » social model which has dominated Britain since the 1980’s, and the collapse of the industrial fordist model. The concept of social model will be analysed within two frameworks (Emmanuel Todd and Esping Andersen), and applied, in a comparative perspective bearing on Britain and either a European country or the US. The restructuring of British identity will be studied in the social, political and cultural fields. The impact of the crisis starting in 2008 will feature at the heart of the seminar.

**Church and sect in the United States – 4.5 – ENGL / RG ST 124**
This seminar looks at the history of the relations between the State and religions in the United States by focusing on the development of sectarianism. Right from the beginning of the nation, the foundation of many sects was encouraged by the federal government to make sure European style hegemonic Churches would not endanger it. We shall see how it has become the major component of the American religious landscape and how it is constantly evolving.

19th century American literature: transcendentalism and utopia, part 2 – 4.5

This seminar continues our Master 1 exploration of the complex relations between Transcendentalism and Reform. The focus in this part will be on feminism, especially as represented by Margaret Fuller, as well as on the utopian communities of Brook Farm (1841-1847) and Fruitlands (1843-1844), later fictionalized by two writers who knew them first-hand, Nathaniel Hawthorne and Louisa May Alcott. We shall also be examining, by way of comparison, a few of the autobiographies and "factual" accounts written by Brook Farmers.

Spring semester

Licence 1

Link to the full course brochure for the LICENCE of the English department, which includes more detailed course descriptions and bibliographies: http://etu.u-bordeaux-montaigne.fr/fr/infos-pratiques/ufr-langues-et-civilisations/livrets-d-etudes.html

L21AU4 – British Civilization I – 4.5

Students are asked to analyse civilization documents in a critical way, using the historical, political and social contexts to present those documents in English. Various topics (such as contemporary British society, the historical development and current state of political institutions, the media, the school system, the issue of Britishness…) will be studied on the basis of John Oakland’s textbook and through critical analysis of primary sources.
Language mostly used in class: English.
Text: John OAKLAND, British Civilization : An Introduction,

L21AU5 – North-American Civilization I – 4.5 – ENGL 110 B

The class’s main aim is to give the students some basic knowledge on the early days of the USA, starting with the British colonial times until Thomas Jefferson’s presidency. The class will thus also focus on the making of the country’s institutions. Primary documents will be analyzed. The class will be given in English.
Program:
“From colonial America to 1789”
“US political institutions”.

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Licence 2

L4IAU4 – American literary history – 4.5

This is a survey course of North American literature from the first voyage narratives until today. The major trends, genres and authors are explored. We look at how American literature gradually shed its European heritage to finally come of age in the 19th century, and then came to be one of the major national literatures on the world stage in the 20th century. Group work classes analyse specific texts published in Françoise Grellet’s anthology which is required reading.

Student must read 3 of the following texts:
- Salinger, *Catcher in the Rye*
- Washington Irving, « Sleepy Hollow » et « Rip van Winkle »
- Jack Kerouac, *On the Road*
- Alice Munro, *The Progress of Love*
- Nathaniel Hawthorne, *The Scarlet Letter*
- Tennessee Williams, *A Streetcar Named Desire*

L4IAU5 – American literary analysis – 5.0 – ENGL 106 B

- Nineteenth-Century American Poetry: Walt Whitman, *Leaves of Grass*
  We shall examine the place of *Leaves of Grass* in the epic and lyric traditions, its major themes, its modernity of form and content, and the Whitman legacy in modern American poetry. Discussion groups will emphasize oral expression, the technique of close reading and textual commentary as well as essay-writing strategies.
- Twentieth-Century Fiction: Toni Morrison, *Beloved*
  The novel which made Toni Morrison famous in France and which earned her the Nobel Prize will enable the students to know a powerful African-American novelist whose novel steeps the reader into the tragedy of slavery and reveals the scars that inevitably go along with postcolonialism.
  The practice done in class, essentially oral, aims at training the students in the methodology of the literary commentary and in the art of French « dissertation », substantially different from an essay. We shall highlight the narratologic and rhetorical devices which operate in this work, and will be observed subsequently in the course of further literary studies.

L4IAU6 – British civilization / commonwealth 1 – 4.5 – HIST 144

Great Britain from the 70s crisis to present:

This course examines the political and social events in Britain from 1970 to the election of Tony Blair, starting with “Decline and crisis: Britain from 1970 to 1979” and moving on to “The Thatcher Years”.

L4IAU7 – British civilization / commonwealth 2 – 5.0 – HIST 169 B

Great Britain from 1534 to 1834:
The course focuses on the social, cultural and political history of Britain from Henry VIII and the foundation of the Church of England to the 1832 Great Reform Act, the 1834 New Poor Laws and the abolition of slavery throughout the British Empire.

Licence 3

L6IAU4 – British literature 2 – 4.5 – ENGL 118 B

Literature of the self.
Analyzes the concept of the self through the study of the 19th century-Romantic poetry and the 18th century-bildungsroman.
The first half of the course focuses on the examination of the individual via an in-depth study of Robinson Crusoe by Daniel Defoe. The latter half of the course continues with the study of romanticism in poetry, from Keats to Yeats (1808-1939).

L6IAU5 – British literature 3 – 4.5 – ENGL 109 (to be reviewed)

Study of two works of the main literary movements of postmodernist and postcolonial periods:
William Shakespeare, Twelfth Night (1601) and postmodern approaches to early modern drama.
Nadine Gordimer, Burger's Daughter (1979) and postcolonial studies.

L6IAU6 – North-American civilization 4 – 4.5 – HIST 145

1) The US and the Pacific word - part 1: beyond the yonder shore:
This course offers an analysis of American foreign policy in the Pacific world. We survey the political reasons for the growing involvement of the USA in the Pacific region from the early 19th century to WW1. Particular attention is given to the “opening” of Japan in 1853 by Commodore Perry and its consequences. We will look at the conquest of Hawaii, and then of the Philippines.
2) Canada: 1867-1967:
The course addresses the first century of the Canadian Confederation from the British North America Act to the celebration of the centennial at the time of the Montreal World Exposition. Particular emphasis will be laid on Canadian-American relations and the rise of cultural nationalism over the period.

L6IAU7 – North-American civilization 5 – 4.5 - HIST 173 B

1) A history of African Americans from Brown to Obama:
Fighting for a postracial future. 1950-2010.

2) The US and the Pacific word - part 2: Becoming the Pacific Super Power
This course offers an analysis of American foreign policy in the Pacific world. We focus on the developments of the 20th and 21st centuries: impact of WW2 in the Pacific and of the Cold
War: occupation of Japan and its aftermath; international treaties; evolution of the relations with China; the wars in Korea and Vietnam. Recent development and the Obama Doctrine.

L6IAU8 – “Frontiers of the discipline”: thematic approach – 4.5 – ENGL 126

3 different “non-traditional” themes will be studied by each group (students choose one group only).

**Group 1:**

**Philosophy and Literature:**
Do literary works produce philosophical ideas? If so, how exactly? Or should the question be instead: where exactly is the philosophy to be sought out?

**Frankenstein from Novel to Films**
This course will explore the adaptation of Mary Shelley’s novel *Frankenstein; or, The Modern Prometheus* (1818 / 1831) by several directors from the 1931 Universal version (directed by James Whale) to the more recent version directed by Kenneth Branagh in 1994.

**The English speaking Caribbean : Independence, the challenge of development and regional identity**
The purpose of this seminar is to fathom the differences and similarities between the different countries of the Caribbean since their accession to independence in the 1960’s, understand their approach to the issues of economic and social development today and the attempts at fostering regional unity.

**Group 2:**

**1970s Horror Cinema & New Hollywood**
The class will be based on the American cinema of the 1970s (also known as the “New Hollywood”), and more specifically on the horror films that thrived in those days.
The focus on the 1970s will be twofold, since on the one hand, we will concentrate on the small-budget films made by young and angry directors in the margins of Hollywood (George Romero, John Carpenter, Wes Craven…), but we will also see that the permissiveness of the period led major studios to finance horror (or sci-fi) films, such as those of Roman Polanski, William Friedkin, without forgetting Steven Spielberg and George Lucas.

**The Essay in English**
The essay is an old form, but it seems to be thriving. It was invented by Seneca, or perhaps by Montaigne, and there have been many English masters on both sides of the Atlantic. Unlike articles, essays lead us away from the heated debates of the moment and make us think instead about wide-ranging questions or, on the contrary, about the tiny details of our everyday lives. Why should we read them?

**1947, The Partition of India and Pakistan: the political, literary and cinematographic dimensions of a historical tragedy**
1947 marked the birth of two new states: the Union of India and the Republic of Pakistan. Both countries had before been part of the British Empire of India and that double independence also coincided with the political and geographical division of the Indian subcontinent. The creation of a new border provoked mass violence between the different communities – Hindu, Muslim, Sikh – and the greatest population displacement of the XXth century. The Partition was therefore not just geographic and political, it was also the cause of a great collective trauma which has been repressed over the decades.

**Group 3:**

**The Living Air in Early Modern Literature**
The course offers a travel through the air with those who aspire, fly, swarm, swoop, sing and sting as they cross the skies. There is a fascination for the birds and the bees in the Early Modern World, and a large array of different discourses in circulation engage with the ontological status of the animal world that inhabits or visits «our» skies. This workshop asks how the sixteenth and seventeenth centuries attempt to account for their presence, their dynamics, their elusive essence, and how this nourished the sky-aspiring ambition of early modern Space travel.

**Live Contemporary Creation and procreation**

The purpose of this course is to explore the traditional clash between (literary) creation and procreation based on the patriarchal equation between pen and penis denounced by Sandra Gilbert and Susan Gubar in their seminal work *The Madwoman in the Attic* (1979). Contemporary feminist writers like Nancy Huston, Margaret Atwood or A. S. Byatt try to challenge patriarchal norms and conventions by representing and envisaging procreation, mothering and creation in their works. We will be discussing the intimate link established by writers between gestating books and babies, in the light of contemporary debates on mothering or abortion stemming from second-wave feminism.

**The Art of Catastrophe at the Turn of New Millenium Britain**

This course focuses on the impact of catastrophe on British artists in the aftermath of the fall of the Berlin wall, the 9/11 terrorist attacks, natural disasters or the crisis of capitalism. Exploring works taken from genres as diverse as cinema, visual art, theatre or fiction, the course aims to show the endurability of old apocalyptic and dystopian motifs as well as their specific handling from a British perspective.

**Group 4:**

**Challenging and complementary approaches in language didactics**

This course intends to review and explore strategies aiming to transcend the theoretical foundations of didactics.

**Food for thought**

This course will focus on the representation of French food and French Cuisine in English and American arts (literature, painting, cinema) and media, after one introductory lecture on the history of French cuisine.

**Copyright, plagiar and censorship in the English-speaking world: from John Milton to D. J. Dangermous**

This course focuses on the subject of copyright and its two immediate spin-offs— plagiar and censorship. We shall look into the history of copyright and authorship beginning with the first legal debates and legislation, and the seminal work of John Milton.

**MASTER 1**

(Updated for 2015-16 on July 6, 15)

Link to the full course brochure for the MASTER of the English department, which includes more detailed course descriptions and bibliographies:


Then under “Master” click on “Guide Master Anglais 2015-2016.pdf”

**From British to American Modernism—Writing and/in Crisis in Literature and the Arts**– 4.5
This seminar is about literary and artistic production during the Modernist era seen as a period of crisis (from the Greek *krisis* meaning “decision”), that is both a moment of rupture and a critical moment in the field of art and literature after the First World War. It was also the moment when modernity began with the development of science and technology, the advent of psychoanalysis (the discovery of the unconscious) and the boom of the consumer society during the American Prosperity.

D. H. Lawrence thus wrote: “It was in 1915 the old world ended.” Not everybody agrees on the date.

But it does not really matter. No doubt, after the First World War, as artists were confronted with an unstable world and an uncertain, if not inaccessible, reality, they felt the need to free themselves from traditional art forms and created new modes of expression and representation—hence Picasso’s Cubism, Bartok’s and Stravinsky’s music, Diaghilev’s Russian ballet and on the European literary scene: Virginia Woolf, James Joyce and D. H. Lawrence in Great Britain; Marcel Proust and André Gide in France, to quote only a few writers among the most famous.

The first part of the seminar will be devoted to British Modernism, which will be studied through the lens of gender, both as a literary and artistic category, and as a culturally constructed divide. We will see how women activists like the Suffragettes and writers like Dorothy Richardson or Virginia Wool contributed to this moment crisis, and how the notions of masculinity and femininity were questioned by the figures of the “New Woman” and of the androgyn. Indeed this questioning of sexual norms is reflected in the unconventionality of literary genres and in the fluidity of boundaries separating them. In America this new literary “modernity” will be examined in the field of fiction through works like Dos Passos’s *1919* (1932), Hemingway’s *The Sun Also Rises* (1926), F. Scott Fitzgerald’s *Tender is the Night* (1934) and Nathanael West’s *The Day of the Locust* (1939). Each novel will be an opportunity to study the tension between satiric representation and formal experimentation, that is, as Michael Levenson put it, the “creative violence” characteristic of Modernism.

**The Uncanny in Film – 4.5**

The purpose of this seminar is to explore the variations of the Gothic themes and motifs in English speaking cinema and to trace their origins from eighteenth century British culture to their rewritings and revisions in various contexts of creation, including painting and music.

**Multilingualism and American literature – 4.5**

Far from being confined to the categories of “ethnic” or “minority” literatures, multilingualism has always been an integral part of American literature. This course will allow you to discover (or rediscover) a number of canonical and lesser-known works in which code-switching and interlingualism will be examined as full-fledged literary strategies. In the process, we will address such questions as self-building, identity, memory, canon formation and nation-building.

**From Italy to the Pyrenees: English Ways of looking at nature in the 18th and 19th centuries – 4.5**
This seminar presents the evolution of attitude towards nature. It covers the 18th century and its “landscaped gardens” and landscape painting, as well as the 19th century discovery of the mountain space.

**Alternative Comics in the USA since the 1960s – 4.5**

This seminar studies the American alternative comics for adults, starting in the 60s, and then the rise in the 80s-90s of the graphic novel.

**Afro-American literature; history, identity, and fiction – 4.5**

This seminar aims at providing students with a broad overview of Afro-American literature, based on a few seminal works, in order to bring out and appreciate some of the characteristic features of this rich and unique form of literature, telling an American story darkly different from that told in mainstream works, while addressing and raising complex, specific issues, thematically and scripturally. Afro-American literature was born from specific historical circumstances which shaped it into a specific, remarkable form of cultural expression, facing specific tasks and entertaining a very peculiar relation to language in general and to the English language in particular. As a point of method, then, the seminar will practice an approach inspired by the field of cultural studies, looking at literature as part of a broader field of cultural production. Afro American literature cannot be disconnected from Afro American art, music, folklore, verbal games, any more than it can be released from the historical burden which the history of slavery then racial segregation placed on the artists’ shoulders. The format of the seminar does not allow us to give space to the incredible wealth of Afro-American literary production, and we will focus just on a few emblematic works, which are also representative of historical and artistic moments.

**British Identities I : Multicultural Britain – 4.5 – Engl 125**

This is a series of seminars so there is no "teaching" as such. We will be examining the concept of "Britishness". What does this mean and who is British today? The subject is very complex and the notion of what it means to be British is very fragmented. In the M1 seminars we will look at "multicultural Britain" and the history of immigration to Britain, from the "traditional" immigrants from the former British Empire, to the new immigrants of today, many of whom are from eastern Europe and new member countries of the European Union. The social, political and economic impact of these new arrivals will be discussed and we will also see how successive governments policies to welcome and absorb the new arrivals have succeeded - and failed. Where possible we shall compare the British model with other countries (France, Ireland ...)

**Language body and mind : introducing cognitive linguistics and gesture studies – 4.5**

**Cognitive linguistics (CL):** we start by explaining the cognitive theory of metaphor, as originally founded by Lakoff and Johnson in *Metaphors We Live By*. We look at some later developments and refinements. We close with a brief discussion of one of the central tenets of cognitive linguistics: embodied meaning / cognition.

**Gesture studies (GS):** we start with an introduction to the fast expanding field of *gesture studies* and a presentation of co-speech gestures in silent movies and spontaneous speech. Talkers are movers and speech production necessarily comes with gestural action. How do facial expressions, head tilts and nods, eyebrow activity, movements of the hands and arms,
etc. "work" in combination with vocal activity? We look at the interpersonal, cohesive and representational properties of gesticulation. We learn how to observe, record and interpret gestural activity in context. We explore the relation between grammar and gesture, i.e. how grammatical meanings are simultaneously encoded at the verbal and gestural levels. And all are invited to take part in "grammar and movement workshops".

**KineGrams:** we look at the way a special kind of gesture symbolism may be used to explore grammatical meanings in the foreign language classroom.

**Dance Theory:** we explore the history of dance and movement analysis and learn some basic principles of composition.

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**20\textsuperscript{th} century British and Anglo-Irish theatre — 4.5**

The purpose of this seminar is to explore the variations of the dark comedy genre in 20\textsuperscript{th} century British and Anglo-Irish Theatre, from John Millington Synge’s *Playboy of the Western World* (1907) to Sarah Kane’s *Blasted* (1995). We will first examine the evolutions of the genre by focusing—among other points—on the influence of Surrealism. The importance of Antonin Artaud’s “Theatre of Cruelty,” in the light of anthropological studies by Victor Turner, will also be discussed. These playwrights' rewriting of the tragic genre will also be a point at stake. Furthermore, the potential political interpretations of the plays under study will be analysed in the contexts of their first stagings and in more recent ones. Lastly, this course will focus on the issue of gender—how and why are the issues of masculinity and femininity questioned in these plays? The following themes will be analysed: body and language; absurdity and realism; humour and violence; form and movement; poetry and drama.

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**19\textsuperscript{th} century American literature: transcendentalism and utopia, part 1 — 4.5**

This seminar—and its sequel in Master 2—will explore the relations between Transcendentalism and various reform movements and utopian projects of the 1830s, 1840s, and 1850s, in the areas of religion, education, women’s rights, socialism, pacificism, and abolitionism. Special emphasis will be placed on three themes: 1) the religious and philosophical roots of the idea of human perfectibility; 2) the self-image of the age (the nineteenth-century as the Age of Progress), and its critics; 3) the tension between individual and collective ideals of reform.
POLITICAL SCIENCES

BORDEAUX SCIENCES PO

Fall Semester

More detailed information on the following link:
http://www.sciencespobordeaux.fr/fr/formation/relations_internationales/english_track.html

Licence courses

**History of French Politics** – 3.5
Exploring French political history since 1870, this course presents the history of the French republican system during the Third, Fourth and Fifth Republics. It explains how this political regime gradually stabilized and became synonymous with democracy. The different lectures focus on the successive constitutions and their application, while also enabling students to discover the main political figures of the period -- the presidents and the political leaders for instance-- and to understand the great moments of crises as well as of progress. The course also focuses on France during the two World wars and the colonial crisis, underlining the effects of these events on the different governments.

**Representation of French society through film** – 3.5
After a brief overview of the different periods in French cinema (3 to 4 lectures), a selection of films will be watched and analysed by the students each week (the films are made available to the students – in original version with subtitles in English – who are required to watch them out of class time). Students will be given discussion questions to prepare for each film, as well as reading materials related to the film and/or to societal questions relevant to the film under study.

**The World Economy in the 20th Century**
The course, while giving an outline of global economic developments over the recent past and their implications in today’s world, focuses on key moments and areas in the history of the 20th Century – sometimes referred to as “the short 20th Century” starting in 1914 and ending in 1989.

**A History of Modern Europe**
This 18 hours course offers a broad survey on Modern European political, intellectual, social and cultural history, from the end of the 18th century to the aftermath of the Cold War. The topics covered include the French Revolution and its consequences, the Napoleonic era, the industrial revolution, Revolutions and unifications, imperialism and colonialism, World War I and II and the Cold War.
Master 1 courses

Problems in International Relations – 3.5
In everyday language, 'problems' are questions to be considered, solved, or answered. In science, 'problems' are 'puzzles', identified by Thomas Kuhn as problems likely to receive solutions within existing paradigms. If we combine these two definitions, “Problems in International Relations” can be defined as questions to be considered, solved, or answered thanks to theories, concepts, and methods used in the discipline of International Relations. The aim of this course is to tackle some contemporary international problems by having a look at them through the scientific lenses provided by IR. Given the potentially huge domain of international issues at stake, the topics concerned will focus on international security, rather than international political economy.

Invited Lecturers courses – 3.0
Each semester, a few additional courses are offered in English by invited lecturers.

Contemporary China
PRESENTATION OF TODAY’S CHINA PERSPECTIVES AND CHALLENGES
This course will help the first year students to get ready for a possible break year or study in China, but is opened to anyone interested by the understanding of the world second economic power

Cultural Political Comparative
No description available

India
No description available

Understanding Policy Decision
No description available

Comparative Political Behaviours
No description available

Concepts and Fundamental Aspects of the Chinese Culture
No description available
**Spring Semester**

More detailed information on the following link:
[http://www.sciencespobordeaux.fr/fr/formation/relations_internationales/english_track.html](http://www.sciencespobordeaux.fr/fr/formation/relations_internationales/english_track.html)

Licence courses

**Comparative Political Regimes – 3.5 – POLS 131**
This course provides students with a basic introduction to comparative politics and the comparative method by comparing and contrasting various forms of political regimes in the world. Focusing on key terms, concepts, and theories, the course builds upon a foundational typology of political regimes and examines important political actors (national leaders such as presidents and prime ministers), political institutions (legislatures, bureaucracies, courts, regional/local governments), political processes (elections and democratic transitions), and patterns of political competition (party systems in democracies). While it is concerned primarily with democracies and transitions to democracy, the course will also cover various forms of autocratic systems, and will include a discussion of the role of the military in politics. Through lectures, reading, and discussions, students who complete this class successfully should emerge with a broad base of knowledge that will allow them to understand political systems and events in any country that is of interest to them.

**The World as it is: current strategic analysis – 3.5**
The aim of the course is to study the way one can practice nowadays Strategic Analysis so as to understand the current situation in the World. The point is to deliver precise benchmarks and a methodology tailored to Strategic Analysis. The course will be divided in two main parts: the first eight sessions will be devoted to the core elements for Strategic Analysis, then sessions 9 to 12 will focus on 4 non-western regional areas. Each session will rely on precise facts *i.e.* maps (with the special Corto™/Spallian software), graphs and tables.

**Recent Anglo-American democratic theory: justice and multiculturalism – 3.5**
This course seeks to answer the question: Can political liberalism as developed in recent Anglo-American political theory adequately respond to the needs of pluralistic, multicultural societies with conflicting and irreconcilable cultural, religious, and political perspectives in an age of globalized immigration pressures? We will begin the course with a discussion of Isaiah Berlin’s masterful analysis of value pluralism in his essay “The Pursuit of the Ideal.” We will then provide an overview of John Rawls’ *A Theory of Justice* (1971), the book that set the framework for recent Anglo-American discussion of political liberalism, as well as those who have challenged the capacity of Rawlsian liberalism to address multicultural issues. The critics discussed will include Michael Sandel, Charles Mills, Seyla Benhabib, Will Kymlicka and Catherine MacKinnon.

**International Relations Theories: an Introduction – 3.5 – POLS / INTL 137**
The course is an introduction to general international relations theories. Its purpose is to present the major paradigmatic approaches, analytical tools, and conceptual frameworks of the academic discipline IR with the view of enabling every student to have a better, that is, critical understanding of contemporary international trends and events.

**Syllabus**
Part One: Defining International Relations
1. The Meaning of International Relations and the Significance of Theory
2. International Theory in the History of Political Thought
3. The Discipline of International Relations
Part Two: Major Theoretical Approaches
4. Classical Realism
5. Neo-Realism
6. State-Centric Liberalism
7. Non-State-Centric Liberalism
8. (Neo-)Marxism
9. Post-Positivism
10. Social Constructivism
Part Three: Assessing International Relations
11. The Usefulness of International Relations
12. What Have We Learned?

Master 1 courses

**Agenda Setting, Issue Definition & Public Policy – 3.5**

Any public policy supposes a problem. However, sociologists and political scientists have shown that public problems are not immediately obvious. No phenomenon is a public problem in itself, public problems are socially constructed: phenomena become public problems when they have been presented – properly – as such. Moreover, the definition of a public problem does not inevitably lead to a policy. Individuals and groups compete to draw the attention of public authorities. Indeed, the decision-makers’ agenda is limited and the number of potential public issues far exceeds the capabilities of decision-making institutions to process them. In a word, there is no mechanical linkage between problems and policies. The process is not completely predictable, but neither is it random… logics can be identified. The course precisely seeks to explain why governments and other decision-makers pay attention to one issue and not another. Basically, it is concerned with how problems are formed and framed, and how they become – or do not become – items on the policy agenda. After having introduced the notion of agenda setting, the course will develop the so-called “social problem” approach, then it will expose leading concepts to explain the character of the policy agenda in modern times.

The course is a lecture. For the foreign students, the exam is an oral, in French or English. During 10 mn you will have to present a case to illustrate and discuss the course. Students choose themselves the issue to be analyzed but it must be drawn from the “real world” and be recent.

**Financial Management – 3.5 – ECON 142**

Financial Management is important in all types of businesses, including banks and other financial institutions, as well as industrial and retail firms. Financial management is also important in governmental operations, from schools to hospitals to highway departments. Financial managers also have the responsibility for deciding the credit terms under which customers may buy, how much inventory the firm should carry, how much cash to keep on hand, whether to acquire other firms (merger analysis) and how much of the firm’s earnings to plow back into the business versus pay out as dividends.

The Intended Learnings Outcomes (ILO) of Lecture are to have a basic understanding of the fundamentals of financial statement to understand the goal(s) of a firm in terms of
performance measurement. The financial indicators are used to understand the way financial managers can contribute to the attainment of these goals.

Students are required to be actors of their class, not spectators. They are required to prepare before coming to classroom all materials: papers, case studies, hands-on exercises, so that they can take part to group discussions, case studies analysis and oral presentations.

**American Foreign policy – 3.5**
The course begins with a brief overview of the history of American foreign policy to set the context. The majority of the course is devoted to understanding the foreign policy-making process (theories as well as actors and their interactions). We will also discuss contemporary problems and issues facing the United States in the global arena (e.g., the rise of China, security threats from the Middle East and Russia, trade promotion). This is a small American-style upper-division seminar; students will be expected to come to class prepared to participate actively in group discussion based on their readings and other assignments.

**History of International Politics – 3.5**
The course is a historical overview of the evolution of international politics from its early beginnings to the contemporary post-Cold War world.

It is purpose is twofold. First and foremost to recall the major stages of this evolution with the view of enabling students to have an in-depth knowledge of long-term trends and processes at the roots of current historical features.

Second objective: to serve either as a complementary or as a preliminary class to a course on IR theories.

**Syllabus**
1. Introduction. How to Approach World History?
Part I. The Evolution of the International System
2. 1492-1648: From the Middle Ages to a Global International System
3. 1648-1815: The Anglo-French Struggle for Mastery in Europe
4. 1815-1945: The Rise and Decline of Pax Britannica
5. 1945-1989/91: The Soviet-American Struggle for Mastery in the World
6. 1989/91- ...: The Triumph of Pax Americana
Part II. The Development of an International Society
7. 1492-1648: Christianity vs. Heathen Barbarians
8. 1648-1815: European Commonwealth vs. Savage Tribes
9. 1815-1945: Civilization vs. Non-Civilized Entities
10. 1945-1989/91: Western World vs. Eastern Totalitarianism
11. 1989/91- ...: International Community vs. Rogue Regimes
12. Conclusion. What Does World History Tell Us?

**Global environmental politics – 3.5 – POL S 173**
This course will adopt a global perspective on the formation and the implementation of environmental policies. Given the nature of environmental problems one cannot separate the local from the global. Environmental regimes do work across the jurisdictional scale, and across state boundaries. Quite often the national sovereignty dogma impedes progressive policy-making and policy implementation. Therefore, international power politics as well as national and sub-national actors’ strategies are part of the policy debate. Various non-state actors, including NGOs, TNCs and scientists, strive to influence and shape global environmental policies. The global politics of the environment are not limited to intergovernmental relations.
Globalization in historical perspective – 3.5
This course aims to provide students with the historical background to the recent intensification of global exchanges, help them assess the significance of these developments and draw comparisons between past and present experience. The course will examine many different chapters of global history and travel on different continents: medieval Europe, pre-Columbus America, the great civilisations of Asia and will acquaint students with the debates and controversies surrounding the emergence of ‘global capitalism’.

Master 2 courses

The European Union Policy Making – 3.5
The aim of this course is to undertake a critical analysis of European Union institutional structure and political functioning from the point of view of political science. The course first proposes a reflection on the nature of the EU political system and polity. It looks at its constitutional design and gives an overview of the mains steps of European integration’s history. It underlines EU’s ambivalences and ambiguities, that still conditions its functioning today. EU’s main institutions are then presented. The course examines their competencies, how they are appointed, how they function, and how they interact with each other’s and with the national political institutions and civil society actors. In a third part, the European decision-making process is analysed, by looking at the various procedures and at the way they are put into practice by EU’s institutions. On all these aspects (institutions and decision-making), the course aims at going beyond the treaties, by describing the concrete aspects of policy-making, including inter-institutional agreements and informal practices, and by paying attention to the role played by experts and lobbyists. The process of institutional reform and the challenges the EU is facing today are finally addressed.

Environment in Europe: Politics and Policies – 3.5
This course presents the main trends affecting policy-making in Europe on environmental issues. Questioning convergence over time and between countries, the perspective chosen is both comparative and historical. The course is based on cases of significant policy developments at different periods in time, from the first international agreements in the beginning of the 20th century to the part played by the European Union in recent climate change international negotiations. By embracing different issues (nature protection, industrial risks, citizens rights), the approach also focuses on the politics involved and the part played by environmental mobilisation and green parties.

Transcalar Politics of Climate Change
This course will adopt a global approach on the politics of climate change, albeit with a transcalar perspective – i.e. across levels of the same scale and across different scales. Climate change is such a complex phenomenon affecting almost all areas of human activity and all societies that it cannot be reduced to the international negotiations within the United Nations Framework Convention on Climate Change (UNFCCC), how important these might be.

Urban Governance in the Global South – 3.5
This seminar course on urban governance in the global south seeks to understand key issues and concepts used among academics and professional to understand the ways cities and metropolises in Africa and Latin America are governed. It will interrogate what is supposed to be some of the major features of urban Africa and Latin America (authoritarian legacies, patronage politics, widespread poverty and inequality, prevalence of informality and violence) as well as new areas of innovation (participatory governance, urban social movement,
decentralization reinforcing local government structures…). It will also examine specific empirical case studies.

**Invited Lecturers courses – 3.0**

Each semester, a few additional courses are offered in English by invited lecturers.

**Spring 2016 program**

**The great evolutions of the contemporary political philosophy**
In Anglo-American political philosophy, the publication of John Rawls’ *A Theory of Justice* in 1971 is considered as very important. Rawls is interested in identifying just or fair institutions. He constructs the original position contract as a procedure with a good claim to be fair. It is a redefinition of universalism and formalism in a political philosophy. But the rise of feminism, gender studies, new social movements and the end of colonial rules offers new models for a democratic politics. More precisely, the political exclusion of such minorities as African-Americans and sexual minorities in the developed world has led to feminist, post colonial and multicultural thought becoming significant. The social contract imagined by John Rawls excludes persons of color and women respectively. On the one hand, the question is: how is it possible to construct a more inclusive society? On the other hand, in a time of violence and vulnerability, what does it mean to institute a caring democracy?

**The Resistances to European integration**
With the ongoing crisis and the last European elections, radical and Eurosceptic parties have attracted much attention. Although opposition to the European Union is not a new phenomenon, the media predicted a Eurosceptic storm or earthquake. This course aims at examining these resistances to Europe engendered by the integration process. More particularly, the objectives are to provide students with a better understanding of the dynamics underlying Euroscepticism. To do so, the course takes an historical and comparative perspective to analyse Euroscepticism among parties, public opinions, the media as well as national institutions.

It addresses several key questions: what is Euroscepticism? How has it evolved over time? Can we talk of a decreasing public support for EU integration? What are the roles of national elites? What is the impact of Euroscepticism on the EU and the integration process?

It should be seen as a complement to courses on the EU political system: studying Euroscepticism provides another way to look at the legitimacy deficit of the EU.

**Urban/Metropolitan Planning and Urban Politics**
Metropolitan areas are arguably the most relevant units for managing and planning present-day human settlements, although usually having fuzzy boundaries and lacking political-administrative status. This course aims to introduce changing conceptions of urban and metropolitan planning; technological, economic and political transformations that explain them; and the balance of power between elected politicians and planning bureaucrats and between top-down and bottom-up decisions embedded in urban policy choices.

**Asian cities in a global world**
This class will discuss theoretical and empirical dimensions of urban research with reference to Asia, with attention primarily to India, and secondly to China. Of particular interest are two interrelated developments – rapid urbanisation and the growing contribution of urban spaces
to economic growth at both national and global scales. In China and India, urbanisation and growth have been mutually reinforcing and have given rise to strategies aimed at leveraging cities in pursuit of national objectives. Territorial reorganisation and institutional reforms (decentralisation, creation of mega city regions, ...) are contributing to state rescaling via reconfigured jurisdictional spaces and new governance arrangements. Attention will be given to comparing various aspects of urban development policies across Asian cities such as the role of planning, infrastructure development, public space, mega-projects, slum redevelopment, service delivery systems, social inclusion and citizen participation. While engaging with current academic literature on these topics, the class will question the extent to which Asia’s urban experience can inform urban theory.

**International trade and diplomacy**

Economic Diplomacy is about the expanding realm of international economic policy. Today’s interdependent economic policy demands skills and knowledge over a wide range of governmental activity affecting international commerce – in areas such as health, safety, and environment standards; consumer protection; competition policy; bribery and corruption laws; agricultural support programs; industrial subsidies; and regulations covering services such as banking, telecommunications and accounting. This course is most directly aligned with the International Commerce and Business concentration but it offers a relatively broad introduction to negotiation and to international trade.

**Non Governmental Organizations and Democracy**

This course will explore the role of non-governmental organizations (NGOs) in developing countries, focusing on how they influence democratization, the quality of democracy and the democratic process – both intentionally and unintentionally. We will first cover the main debates over NGOs, trace the history of these organizations and their involvement in the developing world, and then consider the ways in which they may impact democracy. We will touch on theories of civil society, and consider how NGOs may fit into civil society and the role NGOs have in shaping political participation. We will also consider the case of Bolivia as an interesting example of many of the dynamics discussed. Finally, we will conclude with a discussion of the path ahead for NGOs working in developing countries.
SCIENCES

University of Bordeaux

Biology – Chemistry – Computer sciences – Environment – Math – physics

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Biology and Health sciences – Graduate courses

INP

Engineering - Graduate courses
BIOLOGY

FALL SEMESTER

CELLULAR BIOLOGY

S1 – C1MI1I05 - Unicell - 3.0
16hr of class – online course

Basics in cell function at the subcellular and molecular levels;
Understand how cell components contribute to the cell unit of the living organism.
Understand how cells build the functional organism

S3 – C1MI3W02 - Metacell - 3.0
16hr of class – online course
Cell organization and dynamics

SPRING SEMESTER

GENETICS

S4 – C1MI4W03 Base of Genetic analysis - 3.0
Genetics explorations, formal and molecular
16hr of class – online course

S2 (in Licence Physics/Chemistry)
An introduction to biological systems – 3.0
- Classes and structure of plants
- Structure of the cell, specificity of vegetal and microbial cells
- Biology of plants: the main biological cycles (carbon & photosynthesis, nitrogen)
- Biology of microorganisms (bacteria, yeast, mold)
- Chemical components of living matter: nucleic acids, proteins, carbohydrates, lipids; DNA, RNA, peptides, proteins
- An introduction to the mechanisms of interaction and molecular recognition in the components of living matter
CHEMISTRY

Fall Semester

S3 - Magnetic Properties: from Molecules to Materials – 4.5

20h Theoretical classes + 8h Tutorials

I. Compounds with one single magnetic center
Fundamental formula in magnetism and Curie law. Examples. Deviations from the Curie law: consequences of the orbital momentum (1 and 2 order).
Tutorial: Application of the Curie law for different ions: transition and lanthanides ions.
Expression of the magnetic susceptibility in the case of the presence of the zero-field splitting (complete study with the S=1 spin).

II. Compounds with two magnetic centers in interaction
Goodenough-Kanamori rules. Comparison of the two models.
Tutorial: Examples of dinuclear compounds, prediction of the nature of the interaction.

III. Magnetic Ordering. Applications to non-conducting materials.
Magnetic ordering: through binuclear system to the solid in the mean-field approximation.
Phase transition (notion of the order parameter and the critical temperature Tc). Criteria to get a high Tc (high |J|, high S …).
From molecules to networks: polynuclear compounds and Prussian blue analogs. Ferro- and ferrimagnetic ordering. Antiferromagnetic ordering in oxides.
Tutorial: Prussian blue analogs AMIIICr(CN)6 : can we rationalize the evolution of their TC ?

IV. Dynamic Phenomena: magnetic hysteresi.
Tutorial: study of the Mn12O12 and/or a nanoparticule.
Magnetization process. Domains formation and observations. Domain walls.

S3 - Applied Nanoscience – 3.0 – 4.5

27h Theoretical classes
molecular chemistry; Chapter II: Applications 1: Renewable Energy; Chapter II: Applications 1: Renewable Energy; • Photoconversion of solar energy; • Innovative supramolecular systems for artificial photosynthesis; • Contribution of molecular and supramolecular chemistry; • Effects of nano-structurizing; Chapter III: Applications 2: Information Technology; • New generation of organic screens; • Organic lighting; • Organic transistors and artificial noses; Chapter IV: Future Developments; • Single molecules and nano-addressable objects; • Molecular machines; Part II: Tools and Techniques for Nanosciences; • Chapter V: The techniques used for the study of nano-organic and inorganic systems. The contribution of molecular chemistry for the development of new techniques; • Chapter VI: Analysis of experimental data and publications; Part III: A short overview on Molecular Materials; • Chapter VII: Applications 3: Information Storage; • Chapter VIII: Applications 4: Nanoparticles of Molecular Materials

S3 – Chemistry Bibliographic Project
The student will have to gather and to analyze the international literature on a given topic under the supervision of a university staff. He will be in charge of the writing of a synthesis of the different papers chosen including a critical analysis of the results described in these papers. The main results will be then shown during an oral presentation (10 minutes) followed by questions (10 minutes).

S3 - Dielectric Materials – 4.5
16h Theoretical classes + 8h Tutorials
I) Background : Dipoles, polarisation, dipolar interactions, microscopic models; Complex dielectric permittivity, dielectric losses; Frequency spectra: relaxations, resonances (…) fundamental relations; Measuring dielectric properties: impedance spectroscopy, optical spectroscopies; Interfaces between electrodes and dielectric materials; II) low permittivity dielectrics : The most used oxide in electronics: amorphous SiO₂; Other oxides: Al₂O₃ , MgO, Ta₂O₅, TiO₂; III) high permittivity dielectrics : Substituted alkali halides : KCl:OH, KCl:Li; Ferroelectric materials: spontaneous polarisation, ferroelectric domains; Relaxor materials; Ferroic and multiferroic materials; IV) Chemical Bonding / Polarisability / Dielectric permittivity : Simple oxides polarisability; Case of transition metal oxides; Anisotropy and permanent dipole in octahedral symmetry; Influence on chemical bonding; V) Implementation of dielectric materials: Shaping constraints; Multilayer ceramic capacitors, contribution of grain boundaries; Supercapacitors (Ta, Nb, Al); Thin films, nanoparticles; Finite size effects in dielectrics; Composites.

S3 - Nanomaterials & Hybrids – 6.0
50h Theoretical classes (T); 8h lab teaching
I Nanomaterials: I-1 General introduction; I-2 How to fabricate nanoparticles; I-3 Size effect on chemical reactivity; I-4 Confinement effect on optical properties of metal; I-5 Confinement effect on optical properties of semiconductor; I-6 Confinement effect on thermodynamic properties; I-7 General conclusion; II Hybrids; II-1 Introduction to hybrid materials; II-2 Class I hybrids; II-3 Class II hybrids; II-4 Hybrid materials for optics; II-5 Intercalation chemistry - basic concepts; II-6 2D-hybrid materials; II-7 Multifunctional hybrid materials; II-8 Preparation routes and characterization of hybrid nanoparticles of controlled composition and morphology; II-9 Nanoobjects as building blocks: towards new functional materials; III Self-Assembly and Self-Organization of Block Copolymers: III-1 Generalities: uncompatibility, phase separation, self-assembly; III-2 From polymer mixtures to copolymers; III-3 Bulk structure of "flexible-flexible" block copolymers (phase diagram, order-disorder transition); III-4 More complex structures (multiblocks, stars, "rigid-flexible", cycles); III-5 Mixtures of copolymers and heteropolymers : compatibilization; III-6 Commercialized and potential applications.

S3 - Large Scale Facilities – 4.5
15h Theoretical classes + 13h Tutorials
1 – Background: General considerations, matter/radiation interaction (linear response theory…), sources (neutron and synchrotron radiations), facilities (which information and where?), concerned fields of applied and fundamental research, complementarities with other techniques (NMR, Raman, IR…); 2 – Structure: a) Specificities of neutron diffraction (ND) and X-ray diffraction (XRD). Nuclear diffraction: complementarities ND/XRD. Scattering and absorption lengths, isotopic effects: ND/XRD contrasts. Neutron Magnetic diffraction: access to magnetic structure. Examples and limits of ND and XRD; b) Techniques proper to synchrotron radiation: X-ray absorption techniques and Exafs (contribution of linear and circular polarized beam in the study of crystalline and magnetic anisotropy), scanning
imaging techniques (X-ray micro-diffraction, micro-fluorescence and UV/IR microspectrometry) and full-field imaging techniques (soft X-ray spectroscopy, X-ray microtomography); 3 – Dynamics: a) Elastic, quasi-elastic and inelastic neutron scattering, structure factors, van Hove formalism, molecular dynamics (from vibrations to Brownian motions); b) Complementarities with computing science (MD simulations…) and applications in solid state chemistry, materials science and biology. In addition to the lectures, a practical training project will be organized in the neutron facility near Paris (Nuclear reactor “Orphée” of the “Laboratoire Léon Brillouin”, http://www-llb.cea.fr) during three days. This project will give to the students the opportunity to experience the acquired concepts. It should be noted that such a project is subjected to obtaining the access authorizations.

S3 - Polymers for Optoelectronics – 6.0
56h Theoretical classes + 4h Tutorials
I Introduction, overview; I-1 Examples of applications of polymer-based electronic devices; I-2 General features of conjugated polymers; I-3 Operating principles of a LED; II Electronic Structure; II-1 Molecular structure / electronic properties relationships of conjugated polymers : orbital treatment; II-2 Polymers doping and electrical conduction; III Interaction of conjugated polymers with light; III-1 Non-linear polarization phenomena; III-2 Optical excitations; IV Charge transport in conjugated polymers; IV-1 Charges movement mechanisms; IV-2 Analysis methods at various scales; V Structure of conjugated polymers in the solid state; V-1 Molecular conformation, local order; V-2 Morphology; VI Synthesis and design; VI-1 Main synthesis methods of conjugated polymers; VI-2 Impact of synthetic tools on electronic properties; VII Applications and devices principles.

S3 - Photonics – 6.0
56h Theoretical classes + 4h Tutorials
Part I : Introduction to non-linear optics; I.1-General aspects of 2nd order non-linear optics; I.1.a- Reminder : linear optics; I.1.b- Non-Linear Optics (NLO) phenomena : examples of NLO behaviours; I.1.c- Symmetry in quadratic NLO; Polarisability and 2nd order susceptibility; I.2- Molecular symmetry determination by hyper-Rayleigh diffusion (HRD); I.2.a- General principles of HRD; I.2.b- Experimental technique and instrumentation; I.2.c- Molecular symmetry determination : principles and examples of applications; I.3- Surfaces, interfaces and thin films characterization; I.3.a- Second Harmonic Generation (SHG); Wave propagation in SHG; I.3.b- Experimental techniques and instrumentation; I.3.c- Determination of surfaces, interfaces and thin films symmetries : Oxide glasses, Organic materials and organised polymers; Part II: Introduction to time-resolved spectroscopy; II.1 Reminder : Radiation-Matter interaction; II.2 Towards temporality notion; II.3 Physical-chemical and photochemical aspects; II.4 Fundamental limits and scales; II.5 Process :From dynamics to kinetics; II.6 Requested tools : LASER methodologies; II.7 Pump-probe techniques; I.8 Some applications : materials sciences, biology; II.9 Photodissociation, photoprotection.; Part III : Luminescence of inorganic materials; III.1 Reminder : theory; III.2 Luminescence : II.2.a Luminescence related to transition elements (d elements), II.2.b Luminescence related to rare earths ions (f elements), II.2.c Can the luminescence of a material be predicted?; III.3 Applications : III.3.a Phosphor selection criteria., III.3.b Applications (Lighting, Visualization, LASERs).
S1 – J1MI1103 - **Algorithms and programming – 3.0**
**15 hr tutorial**
Algorithms: first examples and definitions. Python(TM) first steps. Basic data structures: arrays: strings. The course is organized around individual projects. The course follows a week by week progression with deliverables at due date. You are expected to work by yourself, using resources made available on the course server, as well as resources you may find elsewhere (browse the web, go to libraries). Face to face interviews with your tutor will give you opportunities to ask questions and provide feedback -- you should carefully prepare them to fully take advantage of these small group meetings.

S3 - J1MI3W04 - **Data structures – 3.0**
**15 hr tutorial**
Abstract types: being able to design data structures, studying their behavior and properties without referring to their actual implementation. Implementing classical data structures using object oriented languages: sequences, stacks, queues, trees, graphs. Sorting and searching in data structures. Algorithmic complexity versus empirical evaluation.

**MASTER 1 COURSES -**

S7 - J1IN7121 - **Extended automata – 6.0**
**24h theoretical classes + 24h tutorials**
tree automata (ranked and unranked trees); weighted and probabilistic automata; pushdown automata; data automata and logics; Decidability.

S7 - J1IN7123 - **Formal design – 6.0**
24h theoretical classes + 24h tutorials
abstract the behaviour of (software or hardware) systems to check functional and/or dysfunctional properties; Reason logically on data, on instructions and sequences of instructions as a preliminary for program proving. Case studies will be modelled in AltaRica.

S7 - J1IN7124 - **Research seminar**
**4h theoretical classes + 56h tutorials**
The students are given an introduction to research activities (paper reading and writing, writing referee for an article, presenting a paper). Moreover, they are requested to attend seminars given by invited or local lecturers and to produce a written report on some of the talks.

S7 - J1IN7M21 – **Logic – 6.0**
24h theoretical classes + 24h tutorials
Foundation of logic: Propositional logic, predicate calculus, higher-order logic, modal logic, notion of model and of validity, inference rules and notion of proof.; Logic and Computers: Proof as a computational object, correlation between proofs and programs, formula and automata.; Computer assisted proofs: Correct program synthesis from proofs, proof of programs.

S7 - J1MA7W07 - C and Java Programming
This course teach basics on procedural (C language) and object-oriented programming (Java language). For both programming languages, the students are asked to create from scratch a full application and to handle their code in a proper manner. More than only programming skills, this course is also concerned about code correction, efficiency and style.

MASTER 2 COURSES

S9 - J1IN9124 - Modern Type-Oriented Constructions in Programming Languages – 6.0
24h theoretical classes + 24h tutorials
Types are one of the means for obtaining some safety in programs. Even when restricted to domains where decidability is prefered, like in multi-purpose programming languages, type theory can be applied in many effective ways. Type inference, polymorphisms, genericity, class and module types, etc., are some of the sophisticated elements which now offer some automatic validation in everyday programming. Some languages have included and developed these notions from their beginning (e.g. Haskell, OCaml, Scala), and also some mainstream languages are now extended through them (e.g. Java, C#, and even C++). This course introduces and illustrates these modern type-oriented programming constructions, their theoretical foundations and their usefulness in programs.

S9 - J1IN9122 - Games and Controller Synthesis – 6.0
24h theoretical classes + 24h tutorials
Introduce the interplay between controller synthesis, fixpoint computation and game theory.

S9 - J1IN9121 - Modeling techniques – 6.0
24h theoretical classes + 24h tutorials

S9 - J1IN9W21 - Software verification – 6.0
24h theoretical classes + 24h tutorials
A wide range of methods, data structures and algorithms (BDDs, SAT solver, bounded model-checking, static analysis, data flow analysis, Craig interpolation, CEGAR loop, SMT solver).

Spring semester

S2 - J1MI2I06 - Data models and databases – 3.0
15 hr tutorial
Database: a first look. Relational algebra. The Entity-Relationship model. The relational model. The SQL Language. The course is organized around individual projects. The course follows a week by week progression with deliverables at due date. Your are expected to work by yourself, using resources made available on the course server, as well as resources you may find elsewhere (browse the web, go to libraries). Face to face interviews with your tutor will give you opportunities to ask questions and provide feedback -- you should carefully prepare them, to fully take advantage of these small group meetings.

S4 - J1MI4W02 - Advanced Programming and Information Systems – 3.0
15 hr tutorial
Information system (IS) modeling and design. Development phases of an IS. Distinguishing conceptual and logical modeling from physical design. Requirement analysis main phases. Essential conceptual modeling techniques (data / entity-relation approach) (processes / information flow diagrams).
ENVIRONMENT

FALL SEMESTER

S1 – F1M11106 – Biosourcing: resource management and renewable resources
15h of class – 3.0
The main steps of the "life cycle" of a material (extraction, synthesis, transformation, insertion, use, disposal, recycling).
Access to resource databases and methods for collecting and structuring information.
Presentation of two examples, one from mining or fossil resources, one from renewable resources.
Introduction to Green Chemistry, with comparison of some syntheses of products relevant or not from Green Chemistry
Presentation of the 12 Principles of Green Chemistry.
Identification of the roles played by these principles in a number of methods of synthesis described previously.

SPRING SEMESTER

S4 – Environmental Impact and Resource Efficiency
40 hrs of class – 5.0
Basic concepts of environmental impact and resource efficiency
First introductory and motivational examples highlighting the added value of knowing about environmental impact and resource efficiency
Ways how to measure environmental impact and resource efficiency
Overview of different environmental impacts
Life cycle assessment of products
Examples of assessment studies and application to a concrete case
**MATHEMATICS**

**FALL SEMESTER**

S1 – **Calculus** – 4.5  
**28h Classes and tutorials**  
Basic properties of sequences and functions. Differential equations.

S1 – **Foundations** – 6.0  
**60h Classes and tutorials**  
Set theory, logic, induction.

S1 – **Linear algebra (online)** – 3.0  
**15h meetings and online during one semester**  
Introduction to linear algebra.

S3 – **Probability and statistics (online)** – 3.0  
**15h meetings and online during one semester**  
Random theory, probability, statistics.

S5 – **Modeling and scientific calculus (online)** – 3.0  
**15h meetings and online during one semester**  
Zero search, interpolation, matrices and linear systems.

**SPRING SEMESTER**

S2 – **Bilinear algebra (online)** – 3.0  
**15h meetings and online during one semester**  
Introduction to bilinear algebra.

S4 – **Differential equations (online)** – 3.0  
**15h meetings and online during one semester**  
Numerical schemes, programming in scilab
PHYSICS

FALL SEMESTER

S3 - Representing Models of Pathophysiology – 3.5
Online course – 15 hrs
http://www.u-bordeaux.fr/formation/2014/PRLIPHPI/licence-physique-parcours-international/enseignement/ENC1MI3W07_14/mop

S3 – Methods and tools for biosyntheses – 3.5
Online course – 15 hrs
Know some of the chemical and biochemical mechanisms involved in some reactions involved in cell metabolism;
- Have basic knowledge in enzyme-catalyzed reactions;
- Know how to identify the chemical and biochemical unit operations in an industrial bioreactor;

SPRING SEMESTER

S2 - Representing physics – 4.5

S4 – Principles of Biophysics and Bioimaging – 4.5
28h classes
http://www.u-bordeaux.fr/formation/2014/PRLIPHPI/licence-physique-parcours-international/enseignement/ENC1MI4W07/approche-multidisciplinaire-de-la-bioimagerie
Master 1 courses

S7 – S1ST7201 - Biological Oceanography

S7 – S1ST7202 - Physical Oceanography

S7 – S1ST7203 - Chemical Oceanography

S7 – S1ST7204 - Marine Geology

S7 – F1ST7W04 - Statistics and data processing
SCIENCES - GRADUATE COURSES

Master in bio-imaging

Master 1 – Fall semester
Experimental approaches in Biology
English/French as a foreign language
Elements of mathematics and physics for bio-imaging
Modeling and computer simulation of biological processes

Master 1 – Spring semester
From molecule to human: imaging approaches of pathophysiologic mechanisms
Initiation to Research & Development
Detection systems for Bio-imaging (AFM, fluorescence, contrast agents)

Master 2 – Fall semester

Track 1: cellular imaging
Communication and conception of a Research & Development project
Principles of microscopy (compulsory)
Dynamic imaging: global measurement and single molecule (compulsory)
Nonlinear optical imaging (elective)
Dynamics of cellular mechanisms (elective)
Physics and chemistry of markers and biosensors (elective)
Visualization and exploration of 3D data, programming techniques (elective)

Track 2: biomedical imaging
MRI (compulsory)
Ionizing radiation imaging (compulsory)
Ultrasound imaging (elective)
Multimodal imaging (elective)
Visualization and exploration of 3D data, programming techniques (elective)
Master in neurosciences & biotechnology

Master 1 – Fall semester

- Biotechnology and Bioinformatics

- Functional and Cognitive Anatomy
  General presentation of cognitive functions, Neuroanatomy, cognitive and emotional connexions, animal behavioural models, animal vs human models

- Cellular neurobiology/physiology
  synaptic connections, membrane excitability, action potential

Master 1 – Spring semester

- Experimental approaches of neuropathology
  Neuropathology, Experimental models, Methods Mechanisms, Therapeutic strategies. Prof. Soraya Valles
  Focus on Pain and Neurodegenerative disorders

- Behavior, emotion and cognition
  Language, consciousness, learning capacities, memory, motivation, stress and emotion

- Biophysics

- Neuropharmacology

- Genomics and proteomics

- Developmental biology & aging

Master 2 – Fall semester

- Economy
  Intellectual property, Patent, Quality procedures, Biotechnology and Regional Economy

- Regulations, laws and Bioethics
  Public policy, Laws on ethics, Biosecurity and dual-use

- Drug development
  Procedures for drug approval, Economical aspects

Track 1
Molecular and Cellular Neurosciences:

- Plasticity and cell communication
  Synaptic plasticity, Neuron-glia interaction, Membrane receptors, trafficking
-From perception to action Neuronal pathways: Cortex, subcortical pathways, spinal cord, effectors
-Integrative physiology Focus on biological Rhythms
-Computational neuroscience and neural network

**Track 2**
Integrative and System Biology:

-From sensation to perception Focus on 2 main examples: Somatosensory and Visual perception (Transduction, coding, elaboration of the sensation, representation, integration).
-Neurogenesis, Stem cells and transplantation Neural progenitors, Migration, Differentiation, Apoptosis
-Case study in Biotechnology To propose a strategy for answering a biological question, or for constructing a specific tool

**Track 3**
Medical Neuroscience and Neuroimaging:

-Pathophysiology Epilepsy, Stroke, TBI and forensic, Inflammation, genetic and developmental disorders.
-Diagnostic and therapeutic tools development Biophysics of Imaging techniques, neurostimulation, interventional neuroradiology, radiosurgery

**Track 4**
Neuropharmacology and Innovative Therapeutics:

-Neurotransmitters and their pharmacology Contribution of pharmacology to the understanding of integrative neuronal functions
-Neuropharmacological mechanisms of Pathophysiology Neural progenitors, Migration, Differentiation, Apoptosis
-Recent advances in Neuropharmacology Innovations in drug design and drug delivery, pharmacogenetics, vectorization, nanotechnology.
**Master 2 in micro and nanotechnology**
Institut Polytechnique de Bordeaux - ENSCBP

**SPRING SEMESTER ONLY**

1) Courses: January to March
2) Internship: April to June

From January to March, three month courses in micro- and nanotechnology (fully in English), including different laboratory courses (AFM, STM, Microfluidics…), a one week hands-on training in clean room conditions and a personal project in cooperation with industrial partners.

**Module 1: Fabrication Techniques and characterization** – 76 h – 8.0 units

- Near-field scanning techniques
- Characterization techniques
- High resolution spectroscopy
- Nano- and microfabrication techniques
- Materials and thin films
- Engineering of surfaces and interfaces
- Nanobiotechnologies

**Module 2: Nano-objects & auto-organisation** – 62h – 6.0 units

- Inorganic, polymer and metal nanoparticles
- Nanotubes and nanofibres
- Nanostructured materials and applications
- Toxicology of nanomaterials and nanotechnologies

**Module 3: Applications** – 78 h – 8.0 units

- Micro- and nanofluidics
- Analytical nanosystems
- Sensors and microsystems
- Nanophotonics
- Organic electronics
- Lab course on microfabrication and clean room technology
Master 2 in Inorganic materials design and processing
Institut Polytechnique de Bordeaux - ENSCBP

SPRING SEMESTER ONLY

1) Courses: January to March

2) Internship: April to June

From January to March, three month courses in materials design and processing including practical case studies in laboratories and projects in cooperation with industrial partners.

Module 1: From materials selection to materials design – 78 h – 8.0 units

- Materials universe (engineering alloys, composite materials)
- Materials selection (material property charts, the selection strategy – translation, screening, ranking using performance indices)
- Materials and environment (material life-cycle and eco-selection).

Module 2: From microstructure modeling to microstructure characterization – 66 h – 6.0 units

- Phase transformation modeling nucleation, growth and coasening)
- Microstructural characterization of materials
- Property characterization of materials
- Non-destructive testing of structures.

Module 3: From materials selection to materials design – 72 h – 8.0 units

- Shaping processes
- Surface treatment processes
- Numerical simulation of processes.
**Master 2 in formulation of polymers and colloids**
Institut Polytechnique de Bordeaux - ENSCBP

**SPRING SEMESTER ONLY**

1) Courses: January to March

2) Internship: April to June

From January to March, three month courses in Macromolecular engineering and formulation including experimental training and a personal project in cooperation with an industrial partner.

**Module 1: Formulation: basis concept and tools** – 67 h – 6.0 units

-Formulation: principles and applications
-Polymers and surfactants in solution
-Polymers and surfactants at interfaces
-Sustainable chemistry, ecodesign

(Applications in cosmetics, detergency, building materials…).

**Module 2: Nano- and meso-organization in soft matter** – 71 h – 8.0 units

-Controlled polymerizations
-Self-assembling
-Latex and Particles
-Foams and Emulsions
-Hybrid materials and nanocomposites

(Applications in coatings, nanomedicine, biomaterials…).

**Module 3: Nano- and meso-organization in soft matter** – 72 h – 8.0 units

-Imaging techniques
-Spectroscopy
-Chromatography
-Rheology
-Wave scattering

(Applications in polymer materials, adhesives, paints…)

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Master in European Studies in Software Verification
Institut Polytechnique de Bordeaux – ENSEIRB MATMECA and Bordeaux 1 University

Program and Prerequisites
Students follow the programme of master ESSV. Good backgrounds in theoretical computer science as well as programming skills are required. Particularly, students applying to the second year (Master 2) should have a solid background on the following topics:
- Algorithms (e.g. IF101, IF102, IF106)
- Language theory, automata and compiling (e.g. IF114, IF203)
- Logic (e.g. IF105)
- Computability and complexity (e.g. IF228)

FALL SEMESTER ONLY

Master 1 level

Extended Automata in Applications (original syllabus) – 48h – 6.0 units
System Modelling and Formal Design (original syllabus) – 48h – 6.0 units
Logic (original syllabus) – 48h – 6.0 units
C and Java Programming (original syllabus) – 48h – 6.0 units
Scientific Communication in Computer Science (original syllabus).

Master 2 level

Advanced Modelisation Techniques (original syllabus) – 48h – 6.0 units
Software Verification (original syllabus) – 48h – 6.0 units
Games and Fix-points for Controller Synthesis (original syllabus) – 48h – 6.0 units
Foundation of Program Proving (original syllabus) – 24h – 4.5 units
Modern Type-Oriented Constructs in Programming Languages – 24h – 4.5 units
Dependable Computing (RAMS) – 48h – 6.0 units
Research Project (original syllabus).
FRENCH

English track students are required to follow at least one course of French Language.

The French language courses are organized by the DEFLE (Department of French as a second language) at the University of Bordeaux Montaigne.

For students with no French of very little French, a specific course is organized for the UC students by the DEFLE.

Students who already have an intermediate level, can integrate the regular courses of the DEFLE (after taking the language test that will determine in which level students will be placed).

Courses vary from 3.5 to 6.0 units.

FRENCH GASTRONOMY

Course offered by the Bordeaux Study Center to the UC students – 5.0

This course on French gastronomy will aim at giving the students an overview of how the food and wine culture became such a distinctive feature of life in France. Two teachers will address both the subjects of food and wine, with a view to giving as informative a perspective as possible. The evolution of French food culture will be tackled through the study of ancient recipe books and landmark texts on gastronomy. Regional cuisine and wine areas will also be given special attention as well as the rituals around food and wine. The course will thus rely on historical facts, sociological data and economic figures but it will also be an opportunity to get as close as possible to French gastronomy thanks to field trips, dinners and tastings. The perspective will be both French and foreign as it will welcome the students’ experience and ideas about French gastronomy.