
ENGINEERING PROGRAMME

2023-2024

Year 1

SOFT SKILLS

PROGRAMME SUPERVISOR

Julie BERGER



Autumn Semester

| Course code | Title | Soft skills |
|---|--|--|
| Business Sciences (2 elective courses) | | |
| IAM20 | Self-awareness | [Becoming / knowing myself] [Convincing] |
| IAM60 | From Fact to Fiction: Creative Writing in a Post-Pandemic Age | [Becoming / knowing myself] [Convincing] |
| INOV14 | Engagement and transitions | [Appreciating the complexity] [Respecting] |
| INOV20 | Innovate ! Concepts, methods and best practices | [Appreciating the complexity] [Respecting] |
| INOV29 | Sector awareness workshops on the challenges of ecological transition (frescoes) | [Appreciating the complexity] [Respecting] |
| OS010 | Introduction to CSR | [Communicating] [Listening] |
| OS012 | Understanding and debating on the ecological transition | [Communicating] [Listening] |
| OS014 | Equality (M/F) and mechanisms of violence in the human being | [Communicating] [Listening] |
| OS034 | Environmental ethics for organizations | [Communicating] [Listening] |
| PRO10 | Leadership | [Deciding] [Understanding] |
| PRO20 | Implementing and conducting a project | [Deciding] [Understanding] |
| PRO51 | Understanding finance through business creation | [Deciding] [Understanding] |
| Social Sciences (2 elective courses) | | |
| CIV01 | The geopolitics of cinema and series | [Becoming / knowing myself] [Listening] [Respecting] |
| ETHI01 | Initiation to responsible and sustainable engineering | [Becoming / knowing myself] [Listening] [Respecting] |
| GEO03 | Japan in the world | [Becoming / knowing myself] [Listening] [Respecting] |
| GEO11 | City, climate and society: dangerous connections | [Becoming / knowing myself] [Listening] [Respecting] |
| GEO12 | Thinking and implementing the ecological transition | [Becoming / knowing myself] [Listening] [Respecting] |
| PHI01 | Philosophy : welcome to the post-pandemic age | [Becoming / knowing myself] [Listening] [Respecting] |

Spring Semester

| Course code | Title | Soft skills |
|---|---|--|
| Business Sciences (2 elective courses) | | |
| IAM20 | Self-awareness | [Becoming / knowing myself] [Convincing] |
| IAM60 | From Fact to Fiction: Creative Writing in a Post-Pandemic Age | [Becoming / knowing myself] [Convincing] |
| INOV14 | Engagement and transitions | [Appreciating the complexity] [Respecting] |
| INOV22 | Understanding ecological change | [Appreciating the complexity] [Respecting] |
| INOV27 | Lowtech and Innovation | [Appreciating the complexity] [Respecting] |
| OSO10 | Introduction to CSR | [Communicating] [Listening] |
| OSO21 | Quality of life at work and stakeholders of organization | [Communicating] [Listening] |
| OSO41 | Project management and renewable energy development | [Communicating] [Listening] |
| P2E | Student Business Projects | [Communicating] [Convincing] [Deciding] [Respecting] [Understanding] |
| PRO10 | Leadership | [Deciding] [Understanding] |
| PRO20 | Implementing and conducting a project | [Deciding] [Understanding] |
| Social Sciences (2 elective courses) | | |
| ARCHE001 | Archeology and understanding of the contemporary world | [Becoming / knowing myself] [Listening] [Respecting] |
| CIV01 | The geopolitics of cinemas and series | [Becoming / knowing myself] [Listening] [Respecting] |
| CIV02 | World Economics and Civilization | [Becoming / knowing myself] [Listening] [Respecting] |
| PHI02 | Is there a future for the future ? Philosophy of progress | [Becoming / knowing myself] [Listening] [Respecting] |
| PSO02 | Sociology of gender at work | [Becoming / knowing myself] [Listening] [Respecting] |

ENGINEER - SOFT SKILLS

Year 1 - Autumn Semester

Self-awareness [IAM20_S5]

LEAD PROFESSOR(S): Eva VAN DEN KERCHOVE / Julie BERGER

Objectives

The objective of this course is to enter into a process of self-knowledge in order to make choices that suit me, to build fluid relationships with a diversity of interlocutors and to value my talents and experiences. The module will end with a presentation.

Course contents

- Know my values, needs, beliefs, motivations and resources.
- How I interact with the group
- The diversity of human personalities and the dynamics of relationships from several approaches to self-knowledge
- Know how to present oneself in a given context

Course material

Assessment

Soft skills: Becoming / knowing myself
 Convincing

| LANGUAGE OF INSTRUCTION | ECTS CREDITS | LECTURES | TUTORIALS | LAB | PROJECT | EXAM |
|-------------------------|--------------|----------|-----------|-------|---------|-------|
| French | - | 0 hrs | 16 hrs | 0 hrs | 0 hrs | 0 hrs |

ENGINEER - SOFT SKILLS

Year 1 - Autumn Semester

From Fact to Fiction: Creative Writing in a Post-Pandemic Age [IAM60_S5]

LEAD PROFESSOR(S): Anna POLONYI / Julie BERGER

Objectives

In this course, we will explore how to grow a story: from the germ of an idea, impression or image to fictional creation. The aims of the module are to :

- develop a daily writing practice
- learn to listen to someone else's experience and identify emotionally powerful material
- research and develop this material for fictional narrative
- provide constructive, critical feedback on works-in-progress

Regular journal-keeping and hands-on observatories are a crucial component of this course. We will be reading examples drawn from contemporary North American Literature, including Jamaica Kincaid, Michael Ondaatje, George Saunders and others. This course will be in English

Course contents

Expect interactive group activities, in-class writing prompts and brief craft lectures.

Themes :

- Facts, anecdotes, overhead conversations
- Where stories come from week
- Someone else's experience - interviewing & storytelling 101 Week
- Research and Writing - Drafting your storyweek
- Feedback Workshop

Course material

Assessment

Soft skills: Becoming / knowing myself
 Convincing

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|-------------------------|--------------|----------|-----------|-------|---------|-------|
| English | - | 0 hrs | 16 hrs | 0 hrs | 0 hrs | 0 hrs |

ENGINEER - SOFT SKILLS

Year 1 - Autumn Semester

Engagement and transitions [INOV14_S5]

LEAD PROFESSOR(S): Emmanuel ROZIÈRE / Julie BERGER

Objectives

In a society disrupted by sociological and ecological transitions, the notion of professional and personal commitment are being redefined. More and more young professionals call for people to work in committed companies, in the social and solidarity economy, or are going on a professional "break". As an engineering school, Centrale Nantes explores through this course, the notion of commitment for students and future engineers. How to have a professional life in line with one's values, skills, and service sustainable human development?

Course contents

- Introduction: Engineer Engagement. Individual work and small groups.
- From CSR to impact business: what are we talking about?
- How is the impact of a project measured: Sustainable Development Goals (SDGs), Carbon footprint, labels.
- Meeting with a committed engineer from Centrale, participation in a conference
- Label analysis: flipped classroom
- What is a committed engineering school: meeting with the sustainable development department of Centrale Nantes and the Observatory of Citizen Training
 - Carbon footprint
 - Study of labelled companies. Individual and collective reflection on the role of the engineer

Course material

Assessment

Soft skills: Appreciating the complexity
Respecting

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ENGINEER - SOFT SKILLS

Year 1 - Autumn Semester

Innovate ! Concepts, methods and best practices [INOV20_S5]

LEAD PROFESSOR(S): Julie BERGER / Mickael NELSON

Objectives

The objectives of this module are to develop students' ability to carry out innovative projects:

- Provide keys to understanding innovation, beyond the technical dimension or technological
- Facilitate the analysis of situations of success or failure of innovations
- Provide tools and methodology to launch and drive innovations.

Teaching structure:

- A presentation of theories to better understand the path of innovations
- A wide range of examples and feedback (including those provided by students who want to share)
- Exercises in sub-groups to put into practice the concepts covered (creativity, study of case...)
- A mini-innovation project worked on in sub-groups and presented at the end of the module.

Course contents

- Economy, sobriety and degrowth
- Democracy, Politics and Ecology
- History and sociology of science and technology
- Art, literature and imagination around ecological transition

This course will be based on different teaching methods:

- Conferences by integrating the Ecological Transition Mornings
- Readings of works by great ecological thinkers
- Workshops for reflection and collective intelligence

Course material

Assessment

Soft skills: Appreciating the complexity
Respecting

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ENGINEER - SOFT SKILLS

Year 1 - Autumn Semester

Sector awareness workshops on the challenges of ecological transition (frescoes) [INOV29_S5]

LEAD PROFESSOR(S): Emmanuel ROZIÈRE / Julie BERGER

Objectives

- Discover the sustainable development challenges of an economic sector, particularly in the digital and industrial sectors
- Identify, present and critique tangible examples of solutions implemented in organisations and companies.

Course contents

- Digital Fresk
- Low-tech Fresk
- Company testimony
- Work and restitution on tangible solutions in companies and organizations

Course material

Assessment

Soft skills: Appreciating the complexity
 Respecting

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ENGINEER - SOFT SKILLS

Year 1 - Autumn Semester

Introduction to CSR [OSO10_S5]

LEAD PROFESSOR(S): Benoit HILLOULIN / Julie BERGER

Objectives

Faced with climate, energy, socio-economic and risk of sustained decline, social responsibility offers a systemic approach, with the objective of sustainable development on a global scale. The objectives of this introductory course are following:

- Become aware of the social, economic and environment of sustainable development as well as its responsibility
- Understand the systemic aspect of these issues,
- Acquire vocabulary and analysis tools,

This course is built around the assimilation of the concepts necessary for the implementation of a responsibility approach societal in business.

Course contents

- 0) Upstream participation of students in the Climate MOOC - Selection of flipped course topics
 - 1) Introductory Social Responsibility course
 - 2) Climate Change course
 - 3) Preparation for flipped courses (IPCC WG III themes)
 - 4) Flipped course presentations

Course material

IPCC WG III

Assessment

Soft skills: Communicating
Listening

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ENGINEER - SOFT SKILLS

Year 1 - Autumn Semester

Understanding and debating on the ecological transition [OS012_S5]

LEAD PROFESSOR(S): Benoit HILLOULIN / Julie BERGER

Objectives

A dynamic module led by 2nd or 3rd year students and teachers for 1st year students. The aim is to approach the various themes of ecology in the form presentations, debates and projects.

Course contents

- 1) Introductory course on sustainable development and corporate sustainability as well as discussion facilitation techniques
- 2) Energy Transition courses and exchanges
- 3) Presentation of the debate themes by 2nd or 3rd year students
- 4) Project: preparation of group debates
- 5) Animation of debates and synthesis

Course material

Albe, Enseigner des controverses, 2009

Hopkins, Manuel de Transition : de la dépendance au pétrole à la résilience locale (trad. de l'anglais), Montréal/Escaquens, Éditions Écosociété, 2010

Hopkins, Ils changent le monde ! 1001 initiatives de transition écologique, Éditions du Seuil, 2014

Le Calvez, Animer un débat : les clés de la réussite, 2008

Assessment

Soft skills: Communicating
Listening

| LANGUAGE OF INSTRUCTION | ECTS CREDITS | LECTURES | TUTORIALS | LAB | PROJECT | EXAM |
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ENGINEER - SOFT SKILLS

Year 1 - Autumn Semester

Equality (M/F) and mechanisms of violence in the human being [OS014_S5]

LEAD PROFESSOR(S): Carito GUZIOLOWSKI / Julie BERGER

Objectives

The topic of Equality (W/M among others) is a topic where we, as a society, still have a long way to go. Like "black-white", "strong-weak", "smart-stupid", "man-woman" our thinking is more accustomed to opposing than to seeing the system as a whole. We have learned very little to know what is good for us, to listen to ourselves, to feel what is going on in our heart, in our feelings. The result is an ignorance of ourselves, and clumsy strategies in conflict resolution and in our relationships with others. Our judgments, criticisms, analyzes, cut us off from what is alive in us: from our frustrations, our suffering, our limits, our weaknesses, our aspirations. As well as what is alive in the other. In recent decades, we have focused on part of our brain capacity. The idea of denying this potential is far from us, because if we have evolved, advanced, walked, it is also and above all thanks to our reflection, our thought, our calculations. However, today it is perhaps time to take into account the human being in a holistic way, so that each one can know and listen to one another more to pacify human relations.

Course contents

This course will be divided into two parts. The first (about 8 hours) in connection with the notion of Equality (M / W) and the exploration of the beliefs underlying the situation of inequality. The second (about 8 hours) will be devoted to self-knowledge, modes of communication and empathy

Course material

Damasio. « The Feeling of What Happens: Body and Emotion in the Making of Consciousness ». Harcourt Brace & Company 1999

Michael Gazzaniga. « The Mind's Past » University of California Press, 1998.

A. Damasio « The somatic marker hypothesis and the possible functions of the prefrontal cortex », Philosophical Transactions of the Royal Society of London (1996)

Shih M et al.« Stereotype susceptibility » Psychol Sci 1999.

Michel Desmurget « La fabrique du crétin digital » Ed. Du Seuil 2019

Byron Katie, "Loving What Is: Four Questions That Can Change Your Life" Synchronique Editions, 2016

Assessment

Soft skills: Communicating
Listening

| LANGUAGE OF INSTRUCTION | ECTS CREDITS | LECTURES | TUTORIALS | LAB | PROJECT | EXAM |
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ENGINEER - SOFT SKILLS

Year 1 - Autumn Semester

Environmental ethics for organizations [OS034_S5]

LEAD PROFESSOR(S): Julie BERGER / Nicolas DESMOITIER

Objectives

Decision-makers often look to scientists and engineers to help them navigate complex environmental, health and societal challenges steeped in systemic uncertainty, ambiguity and ethical implications.

This course prepares students to meet the demands and requirements of current and future decision-makers. In this course, students will analyse the ethical challenges associated with environmental dilemmas and apply different decision-making tools relevant to environmental management and regulation.

The approach is interdisciplinary and aims to broaden the students' view of society's environmental challenges, such as increased use of technology, resource extraction, mitigation and adaptation to climate change.

Course contents

Basic theory of ethics, focus on environmental ethics

The role of ethics, philosophy, science and engineering in society.

Environmental principles

The role of the engineer as a expert in social, environmental and ethical dilemmas.

Group project applied to a technology or engineering field

Course material

Assessment

Soft skills: Communicating
Listening

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ENGINEER - SOFT SKILLS

Year 1 - Autumn Semester

Leadership [PRO10_S5]

LEAD PROFESSOR(S): Gildas GUIHENEUF-LALERE / Julie BERGER

Objectives

"Put students in situations to understand the challenges of group dynamics, team leadership and the behavior of team members and leaders".

PEDAGOGICAL GOAL

At the end of this training the students will be able to :

- Pass on given instructions, establish priorities, explain clearly and do well, understand the task to be performed by the group (8-10 students)
- Respond to the requests, reformulate, argue to convince the usefulness of the result .
- Identify motivational drivers and energize a team .
- Suggest solutions (a plan of action), check the conformity and redress differences.
- Take a step back, control the safety of persons and equipment .
- Encourage, recognize the gains (results achieved) , highlight successes, analyse failures with greater self-confidence.
- Implement the principles of criticism and self-analysis : be able to communicate and analyse feedback to improve, challenge ourselves to progress.

LEADERSHIP - CLASSROOM ACTIVITIES IN ENGLISH

1. Leadership theory

Students will spend two hours in total in the classroom learning some initial fundamental ideas on Leadership theory.

- The key attributes that make a good leader
- Different leadership styles and communication strategies
- Business, innovation and leadership

2. Observing, analysing and debriefing in English

- Before each workshop students will prepare an observation sheet in English in order to analyse other students' performance
- After observing a workshop students will carry out a debriefing session in English based on their observations

Course contents

WHAT IS A LEADERSHIP WORKSHOP ?

A leadership workshop is:

- o a context in a particular environment
- o a situation to be respected and a collective operation to bring about
- o a time constraint
- o material made available
- o safety or scenario-specific rules
- o a goal to reach
- o a student project leader
- o student teammates

In short, it's a mission to be carried out under the leadership of a project leader who must visualize the context develop a

strategy to achieve the stated objective, he/she must propose to the team members an action plan defining each team member's tasks and role. There are a dozen workshop with students each taking turns as team leader.

SKILLS AND ABILITIES LEADERSHIP WORKSHOP

1 COMPANY AND INNOVATION

A) CREATE

- ability to create or invent creative solutions
- ability to expand to others uses tools and concept.
- ability to mobilize imagination

B) RECOGNIZE- ANALYSE

- ability to collect informations
- ability to analyse situations with logic and method for diagnosis

C) PRODUCE

- ability to mobilize technical culture and theoretical knowledge (transdisciplinarity)
- ability to complete project
- ability to convince to mobilize

2 UNDERSTANDING COMPLEX PROBLEM

- ability to understand and formulate the problem

B) ORGANIZE THE RESOLUTION

- ability to recognize elements of the problem
- ability to propose a resolution scenerio

3 PROJECT IMPLEMENTATION

A) LEAD THE PROJECT

- ability to identify and plan all necessary resources
- ability to develop work methods to organize
- ability to lead coordinated and close projects tasks

B) KNOW AND PREVENT RISKS

- ability to take account of environmental safety rules

4 MANAGERIAL

A) MANAGING PEOPLE

- ability to communicate, to convince others
- ability to be accountable
- ability to make decision in an uncertain or changing environment

B) MANAGING THE ORGANISATIONS

- ability to adapt quickly to new functions (leader- team members)

C) LEADERSHIP

- ability to define a strategy
- ability to elicit widespread acceptance
- ability to mobilize skills of a wide range of team members

Course material

Assessment

Soft skills: Deciding
Understanding

| LANGUAGE OF INSTRUCTION | ECTS CREDITS | LECTURES | TUTORIALS | LAB | PROJECT | EXAM |
|-------------------------|--------------|----------|-----------|--------|---------|-------|
| French | - | 0 hrs | 0 hrs | 16 hrs | 0 hrs | 0 hrs |

ENGINEER - SOFT SKILLS

Year 1 - Autumn Semester

Implementing and conducting a project [PRO20_S5]

LEAD PROFESSOR(S): Florent LAROCHE / Julie BERGER

Objectives

The objective of this module is to cover the basics of project management. A combination of rigidity and flexibility, managing a project is an art. This module will shed light on different modes of management, company organization, the tools for managing a project, both temporally and financially.

A project in the form of a business game with realistic data will be undertaken in a team.

Course contents

- 4 hours of introductory lectures on the basics of project management
- 3 x 4 hours of tutorials for the project (Cocottes Project)

Course material

Assessment

Soft skills: Deciding
Understanding

| LANGUAGE OF INSTRUCTION | ECTS CREDITS | LECTURES | TUTORIALS | LAB | PROJECT | EXAM |
|-------------------------|--------------|----------|-----------|-------|---------|-------|
| French | - | 0 hrs | 16 hrs | 0 hrs | 0 hrs | 0 hrs |

ENGINEER - SOFT SKILLS

Year 1 - Autumn Semester

Understanding finance through business creation [PRO51_S5]

LEAD PROFESSOR(S): Julie BERGER / Pascal GILQUIN

Objectives

Have a minimum understanding of business finance
 Understand financial mechanisms
 Make Profit and Loss and income forecasts
 Use a business plan tool

Course contents

Your vocabulary and understanding
 The difference between profit and cashflow
 Balance sheet and income statement
 Starting a business
 Cash flow plan
 Demonstration of the FISY tool
 Create a dashboard
 Investment profitability

Course material

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Assessment

Soft skills: Deciding
 Understanding

| LANGUAGE OF INSTRUCTION | ECTS CREDITS | LECTURES | TUTORIALS | LAB | PROJECT | EXAM |
|-------------------------|--------------|----------|-----------|-------|---------|-------|
| French | - | 0 hrs | 16 hrs | 0 hrs | 0 hrs | 0 hrs |

ENGINEER - SOFT SKILLS

Year 1 - Autumn Semester

The geopolitics of cinema and series [CIV01_S5]

LEAD PROFESSOR(S): Anna POLONYI

Objectives

The Geopolitics of Cinema and Series

The course encourages students to adopt a critical distance in terms of mass entertainment by showing how cinema and series can create and strengthen geopolitical images. This approach also deals with representations of territory, resources and identity. An introduction to notions such as popular geopolitics and social constructionism is followed by an analysis of how certain films and TV series legitimise or question the geopolitical stances of governments such as that of the United States. As well as focusing on the USA, with special attention to American films and series in relation to the 'War on Terror,' the course also looks at cinema and/or series from China, Turkey, India and the UK.

Course contents

Course material

Assessment

Soft skills: Becoming / knowing myself
 Listening
 Respecting

| LANGUAGE OF INSTRUCTION | ECTS CREDITS | LECTURES | TUTORIALS | LAB | PROJECT | EXAM |
|-------------------------|--------------|----------|-----------|-------|---------|-------|
| English | - | 16 hrs | 0 hrs | 0 hrs | 0 hrs | 0 hrs |

ENGINEER - SOFT SKILLS

Year 1 - Autumn Semester

Initiation to responsible and sustainable engineering [ETHI01_S5]

LEAD PROFESSOR(S): Anaël MARREC / Anna POLONYI

Objectives

History of energy: technologies, societies, environments, 19th - 20th centuries

The aim of this course is to examine the technical, social and environmental technical, social and environmental dimensions of the environmental dimensions.

The aim is to understand the growing role of energy in society societies, the development of major energy networks and the fossil fuel economy, their players and technologies, their territorial impact and their contestation, as well as the persistence and energy energy alternatives that have punctuated this non-linear history.

An introductory session will examine how energy has been approached in the history of technology, followed by a look at the renewals environmental history. Subsequent sessions will will focus on:

- the rise of the coal system in England in the 19th century,
- electricity networks since the end of the 19th century,
- renewable energies, between abandonment, persistence and alternatives alternatives, in twentieth-century France
- the nuclear industry after the Second World War.

Several of the concepts covered should also be useful to future engineers: technical systems, energy systems, techno-politics and socio-technical configurations.

Course contents

Course material

Assessment

Soft skills: Becoming / knowing myself
Listening
Respecting

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|-------------------------|--------------|----------|-----------|-------|---------|-------|
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ENGINEER - SOFT SKILLS

Year 1 - Autumn Semester

Japan in the world [GEO03_S5]

LEAD PROFESSOR(S): Anna POLONYI / Yukie NAKAO

Objectives

To know the historical and cultural context on various subjects. To be able to interpret the culture by more advanced knowledge. To enlarge one's interest to the world.

Course contents

1. Geographical aspects: Japan as an insular country.
 - Natural disasters
 - Place of the nature in the Japanese culture
2. History of Japan from the point of view of its international relationship
 - Influence of the China and of the Korea (ancient Japan)
 - Encounter with the Europe (16th century)
 - Closed country (17-19th centuries)
 - Reopening of the country and technological progress
 - Japan today
3. Japanese companies
 - Companies with more than 100 years of history
 - Innovation and challenges
4. Culture
 - Monsters and mysterious beings
 - Masked identity and historical and cultural backgrounds
 - Freedom of expression in the pop-culture

Course material

Assessment

Soft skills: Becoming / knowing myself
 Listening
 Respecting

| LANGUAGE OF INSTRUCTION | ECTS CREDITS | LECTURES | TUTORIALS | LAB | PROJECT | EXAM |
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ENGINEER - SOFT SKILLS

Year 1 - Autumn Semester

City, climate and society: dangerous connections [GEO11_S5]

LEAD PROFESSOR(S): Anna POLONYI / Géraldine MOLINA

Objectives

At a time when climate change is high on the political agenda, a better understanding of the relationship between the city and the climate is a major scientific, social and environmental challenge. Cities, in particular, raise the question of climate change, and how vulnerable and adaptable our societies are faced with these developments. Half of the world's population now lives in cities and is therefore exposed to its unique climates. How do atmospheric changes manifest themselves for city dwellers in their daily lives and habits? How do our movements lead us to experience complex phenomena such as urban heat islands or urban micro-climates? How can we understand the relationship between city climates through interdisciplinary approaches taking into account the physical, technical and social dimensions of the changes that are observed? These climate changes that affect our cities and their vulnerability should be put into perspective over a longer period of time. How have cities adapted to or tried to free themselves from climatic constraints? What perverse effects have past developments paradoxically had on the climate? What lessons can be drawn from this in terms of forward planning and development of the cities of tomorrow?

Course contents

To answer the above questions, this course offers different entries and an educational approach that is entertaining, pragmatic and reflective, notably using story-telling. I will present feedback on field surveys, and the adventures of professionals and city dwellers and the ways in which they are confronted with the question of the urban climate in their professional or daily lives.

This lecture course aims to broaden your general knowledge on an environmental issue of our contemporary societies which is of increasing importance. It will allow you to acquire interdisciplinary skills (knowledge, know-how and life skills) to understand the complexity of the urban climate, a major subject which also currently presents opportunities in terms of professional outlets.

Course material

Will be provided during the course.

Assessment

Soft skills: Becoming / knowing myself
Listening
Respecting

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ENGINEER - SOFT SKILLS

Year 1 - Autumn Semester

Thinking and implementing the ecological transition [GEO12_S5]

LEAD PROFESSOR(S): Anna POLONYI / Géraldine MOLINA

Objectives

Designing and implementing ecological transition: science, art and literature to the rescue

Course contents

To question the representations of otherness. How was it approached, reported and organised in the past? And nowadays? Compare / decentralise / relativise / stand back. This way of considering difference (system of representations) is a socio-historical-cultural construction. To become familiar with survey methodologies by carrying out a mini-field study. To acquire skills of observation, restitution and self-reflection. The underlying intention is to discover a fundamental discipline of the social sciences. What is anthropology/ethnology? In concrete terms, what is the job of an anthropologist/ethnologist? What is its purpose? ... To create links and parallels with the professions around engineering

Course material

Assessment

Soft skills: Becoming / knowing myself
 Listening
 Respecting

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ENGINEER - SOFT SKILLS

Year 1 - Autumn Semester

Philosophy : welcome to the post-pandemic age [PHI01_S5]

LEAD PROFESSOR(S): Anna POLONYI / Sophie BOSSARD

Objectives

The aim of the course is to identify the different social issues of our postmodern world. By going through the different dimensions of postmodernity, we will analyse the changes that humankind has made in their relationship to time, to truth, to ideologies, to others... The aim is that everyone should be able to reflect on the world in which they live, thanks to the contribution of social sciences.

Keywords: postmodernity, social science, humanities

Course contents

Topics covered:

- 1 "Welcome to postmodernity!" historical and conceptual references
- 2 New spatio-temporal relationships: between expansion and acceleration
- 3 A dystopia in the making: "Big Brother is watching you" (Orwell), "Big Data is watching you"...
- 4 What about the truth in all this? "Fake news" and conspiracy theories
- 5 Robotization and transhumanism: going beyond the human...
- 6 Between species and genus, how can we think about humans?
- 7 Living together: can we rethink fraternity?
- 8 New social issues? What will be the responsibilities for the engineer of tomorrow?

Evaluation criteria EC - PHI01

To be sent via email at Sophie.Bossard@ec-nantes.fr by Monday 24 October 2022, 5pm at the latest.

Format =

Report, Format A4 recto verso, typed, Times New Roman font size 12, line spacing 1.5, justified document, with surname, first name.

Content =

Your assessment is the result of personal reflection on the course followed.

You will deal with the following topic: How am I a postmodernist?

4 paragraphs (half a page each)

Constraints =

You must mobilise your knowledge in Humanities and Social Science.

Each paragraph therefore integrates at least one reference and a concept worked on in class.

Illustrative: the aim is to engage yourself in this assessment, using the "I" and supporting your arguments with personal examples.

Course material

BOHLER, Sébastien, *Le Bug humain : pourquoi notre cerveau nous pousse à détruire la planète et comment l'en empêcher*, Paris, Robert Laffont, 2019.

BRONNER, Gérard, *La démocratie des crédules*, Paris, PUF, 2013.

PATINO, Bruno, *La civilisation du poisson rouge : petit traité sur le marché de l'attention*, Paris, Grasset, 2019.

ROSA, Hartmut, *Aliénation et accélération - Vers une théorie critique de la modernité tardive*, Paris, La Découverte, 2014.

Assessment

Soft skills: Becoming / knowing myself
 Listening
 Respecting

| LANGUAGE OF INSTRUCTION | ECTS CREDITS | LECTURES | TUTORIALS | LAB | PROJECT | EXAM |
|-------------------------|--------------|----------|-----------|-------|---------|-------|
| French | - | 16 hrs | 0 hrs | 0 hrs | 0 hrs | 0 hrs |

ENGINEER - SOFT SKILLS

Year 1 - Spring Semester

Self-awareness [IAM20_S6]

LEAD PROFESSOR(S): Eva VAN DEN KERCHOVE / Julie BERGER

Objectives

The objective of this course is to enter into a process of self-knowledge in order to make choices that suit me, to build fluid relationships with a diversity of interlocutors and to value my talents and experiences. The module will end with a presentation.

Course contents

- Know my values, needs, beliefs, motivations and resources.
- How I interact with the group
- The diversity of human personalities and the dynamics of relationships from several approaches to self-knowledge
- Know how to present oneself in a given context

Course material

Assessment

Soft skills: Becoming / knowing myself
 Convincing

| LANGUAGE OF INSTRUCTION | ECTS CREDITS | LECTURES | TUTORIALS | LAB | PROJECT | EXAM |
|-------------------------|--------------|----------|-----------|-------|---------|-------|
| French | - | 0 hrs | 16 hrs | 0 hrs | 0 hrs | 0 hrs |

ENGINEER - SOFT SKILLS

Year 1 - Spring Semester

From Fact to Fiction: Creative Writing in a Post-Pandemic Age [IAM60_S6]

LEAD PROFESSOR(S): Anna POLONYI / Julie BERGER

Objectives

In this course, we will explore how to grow a story: from the germ of an idea, impression or image to fictional creation. The aims of the module are to :

- develop a daily writing practice
- learn to listen to someone else's experience and identify emotionally powerful material
- research and develop this material for fictional narrative
- provide constructive, critical feedback on works-in-progress

Regular journal-keeping and hands-on observatories are a crucial component of this course. We will be reading examples drawn from contemporary North American Literature, including Jamaica Kincaid, Michael Ondaatje, George Saunders and others.

This course will be in English

Course contents

Expect interactive group activities, in-class writing prompts and brief craft lectures.

Themes :

- Facts, anecdotes, overhead conversations
- Where stories come from week
- Someone else's experience - interviewing & storytelling 101 Week
- Research and Writing - Drafting your storyweek
- Feedback Workshop

Course material

Assessment

Soft skills: Becoming / knowing myself
 Convincing

| LANGUAGE OF INSTRUCTION | ECTS CREDITS | LECTURES | TUTORIALS | LAB | PROJECT | EXAM |
|-------------------------|--------------|----------|-----------|-------|---------|-------|
| English | - | 0 hrs | 16 hrs | 0 hrs | 0 hrs | 0 hrs |

ENGINEER - SOFT SKILLS

Year 1 - Spring Semester

Engagement and transitions [INOV14_S6]

LEAD PROFESSOR(S): Emmanuel ROZIÈRE / Julie BERGER

Objectives

In a society disrupted by sociological and ecological transitions, the notion of professional and personal commitment are being redefined. More and more young professionals call for people to work in committed companies, in the social and solidarity economy, or are going on a professional "break". As an engineering school, Centrale Nantes explores through this course, the notion of commitment for students and future engineers. How to have a professional life in line with one's values, skills, and service sustainable human development?

Course contents

- Introduction: Engineer Engagement. Individual work and small groups.
- From CSR to impact business: what are we talking about?
- How is the impact of a project measured: Sustainable Development Goals (SDGs), Carbon footprint, labels.
- Meeting with a committed engineer from Centrale, participation in a conference
- Label analysis: flipped classroom
- What is a committed engineering school: meeting with the sustainable development department of Centrale Nantes and the Observatory of Citizen Training
 - Carbon footprint
 - Study of labelled companies. Individual and collective reflection on the role of the engineer

Course material

Assessment

Soft skills: Appreciating the complexity
Respecting

| LANGUAGE OF INSTRUCTION | ECTS CREDITS | LECTURES | TUTORIALS | LAB | PROJECT | EXAM |
|-------------------------|--------------|----------|-----------|-------|---------|-------|
| French | - | 0 hrs | 16 hrs | 0 hrs | 0 hrs | 0 hrs |

ENGINEER - SOFT SKILLS

Year 1 - Spring Semester

Understanding ecological change [INOV22_S6]

LEAD PROFESSOR(S): Jean-Marc BEN GUIGUI / Julie BERGER

Objectives

The main objective of this course is to open up to great thinkers, engineers and innovators of ecological change through reading books. Discovering these authors will allow you to grasp the complexity of a changing world and to consider these new concepts or new ideas.

On the way to a paradigm shift!

Course contents

- Economy and degrowth
- Politics and ecology
- History and another future
- Ecology and inner change
- Art, literature and imagination
- Stories, Imagination and Society
- Sobriety and low-tech

Course material

- BARJAVEL, René. Ravage. Folio, Gallimard, 1972.
- BIHOUIX, Philippe. L'Âge des low tech. Vers une civilisation techniquement soutenable: Vers une civilisation techniquement soutenable. Le Seuil, 2014.
- BOHLER, Sébastien. Le bug humain: pourquoi notre cerveau nous pousse à détruire la planète et comment l'en empêcher. Robert Laffont, 2019.
- BOURG, Dominique. Une nouvelle terre. Desclée de Brouwer, 2018.
- CABANES, Valérie. Un nouveau droit pour la Terre. Pour en finir avec l'écocide. Le Seuil, 2016.
- COCHET, Yves. Pétrole apocalypse. Fayard, 2005.
- DIAMOND, Jared Mason. Effondrement: comment les sociétés décident de leur disparition ou de leur survie. Gallimard, 2006.
- DIAMOND, Jared Mason. Collapse: how societies choose to fail or succeed. Viking Penguin, 2005.
- DUMONT, René. L'utopie ou la mort. Le Seuil, 2016.
- DUPUY, Jean-Pierre. Pour un catastrophisme éclairé. Quand l'impossible est certain: Quand l'impossible est certain. Le Seuil, 2009.
- ELLUL, Jacques. Le bluff technologique. 1988.
- FRESSOZ, Jean-Baptiste. L'apocalypse joyeuse. Une histoire du risque technologique, Points d'histoire, Points, 2020.
- GEORGESCU-ROEGEN, Nicholas. La décroissance. Entropie-Écologie-Économie, Sang de la Terre, 2020.
- HERVE-GRUYER Perrine et Charles : Permaculture : Guérir la Terre, nourrir les hommes » Acte Sud. Septembre 2014.
- HOPKINS Rob. Manuel de Transition. De la Dépendance au pétrole à la résilience locale. Ecosociété. 2010.
- JANCOVICI, Jean-Marc. Transition énergétique pour tous: ce que les politiques n'osent pas vous dire. O. Jacob, 2013.
- LATOUCHE, Serge. Le pari de la décroissance. Fayard, 2006.
- MEADOWS, Donella, MEADOWS, Dennis, et JORGEN, Randers. Les Limites à la croissance (dans un monde fini). L'écopoche. Rue de l'Échiquier, 2017.
- MEADOWS, Dennis et RANDERS, Jorgan. The limits to growth: the 30-year update. Routledge, 2012.
- PITRON, Guillaume. La guerre des métaux rares: la face cachée de la transition énergétique et numérique. Éditions Les Liens qui libèrent, 2018.
- SALOMON, Thierry, MARIIGNAC, Yves, JEDLICZKA, Marc, et al. Manifeste Négawatt: réussir la transition énergétique. Éditions Actes Sud, 2012.
- SERVIGNE, Pablo, STEVENS, Raphaël, CHAPPELLE Gauthier. Une autre fin du monde est possible. Vivre l'effondrement (et pas seulement y survivre). Le Seuil, 2018.

Assessment

Soft skills: Appreciating the complexity
 Respecting

| LANGUAGE OF INSTRUCTION | ECTS CREDITS | LECTURES | TUTORIALS | LAB | PROJECT | EXAM |
|-------------------------|--------------|----------|-----------|-------|---------|-------|
| French | - | 16 hrs | 0 hrs | 0 hrs | 0 hrs | 0 hrs |

ENGINEER - SOFT SKILLS

Year 1 - Spring Semester

Lowtech and Innovation [INOV27_S6]

LEAD PROFESSOR(S): Jonathan GUEGUEN / Julie BERGER

Objectives

In light of the climate crisis, the finite nature of resources and planetary limits, engineers will have to learn to be resilient and sober in the coming years. To meet these challenges, the low-tech approach will help them to redefine essential needs, to evolve in a world under constraints and to design systems that are better adapted to economic, social and environmental issues. It will require innovation, but through designing solutions geared towards a sustainable world.

Course contents

- Low-tech approach
- Visit of the association APALA and presentation of its activities
- Development strategy of the association: courses of action
- Scientific approach applied to low-tech
- Sociology and aptitude for change
- Exploration of low-tech solutions: electronics, heat, wood and solar heating, etc.
- Areas of application of low-tech: Energy, housing, food, etc.

Course material

APALA resources

Assessment

Soft skills: Appreciating the complexity
Respecting

| LANGUAGE OF INSTRUCTION | ECTS CREDITS | LECTURES | TUTORIALS | LAB | PROJECT | EXAM |
|-------------------------|--------------|----------|-----------|-------|---------|-------|
| French | - | 0 hrs | 16 hrs | 0 hrs | 0 hrs | 0 hrs |

ENGINEER - SOFT SKILLS

Year 1 - Spring Semester

Introduction to CSR [OSO10_S6]

LEAD PROFESSOR(S): Benoit HILLOULIN / Julie BERGER

Objectives

Faced with climate, energy, socio-economic and risk of sustained decline, social responsibility offers a systemic approach, with the objective of sustainable development on a global scale. The objectives of this introductory course are following:

- Become aware of the social, economic and environment of sustainable development as well as its responsibility
- Understand the systemic aspect of these issues,
- Acquire vocabulary and analysis tools,

This course is built around the assimilation of the concepts necessary for the implementation of a responsibility approach societal in business.

Course contents

- 0) Upstream participation of students in the Climate MOOC - Selection of flipped course topics
 - 1) Introductory Social Responsibility course
 - 2) Climate Change course
 - 3) Preparation for flipped courses (IPCC WG III themes)
 - 4) Flipped course presentations

Course material

GIEC WG III

Assessment

Soft skills: Communicating
Listening

| LANGUAGE OF INSTRUCTION | ECTS CREDITS | LECTURES | TUTORIALS | LAB | PROJECT | EXAM |
|-------------------------|--------------|----------|-----------|-------|---------|-------|
| French | - | 0 hrs | 16 hrs | 0 hrs | 0 hrs | 0 hrs |

ENGINEER - SOFT SKILLS

Year 1 - Spring Semester

Quality of life at work and stakeholders of organization [OS021_S6]

LEAD PROFESSOR(S): Benoit HILLOULIN / Julie BERGER

Objectives

In an ultra-connected world, engineers must be able to evolve and undertake by taking into account their well-being and that of their employees as well as respecting the various stakeholders in order to get the best out of them.

This course offers an immersion into the concrete issues of work and organization management through their human and social components.

Through the meeting of various actors, future engineers will develop human and multidisciplinary skills beneficial their activities.

Course contents

- 1) Tutorial - intro stakeholders
- 2) Organizational visit / testimony: best practices, management of customer / supplier relationships, ...
- 3) Quality of Life at Work Course
- 4) Tutorial - Game and project around stakeholders
- 5) Tutorial - QWL issues

Course material

<https://www.dirigeantsresponsablesdelouest.fr/>

Assessment

Soft skills: Communicating
Listening

| LANGUAGE OF INSTRUCTION | ECTS CREDITS | LECTURES | TUTORIALS | LAB | PROJECT | EXAM |
|-------------------------|--------------|----------|-----------|-------|---------|-------|
| French | - | 0 hrs | 16 hrs | 0 hrs | 0 hrs | 0 hrs |

ENGINEER - SOFT SKILLS

Year 1 - Spring Semester

Project management and renewable energy development [OS041_S6]

LEAD PROFESSOR(S): Benoit HILLOULIN / Julie BERGER

Objectives

The purpose of this module is to introduce you to project management and development in renewable energies by involving different actors involved on a daily basis in the energy transition, from companies to associations, including researchers. These different individual paths will highlight different possible paths for the development of renewable energies. More precisely, the means of management (public, private, associative), financing (citizen financing, participatory, public, public / private) and development (from the study phase to recycling) will be presented by each of the structures according to their specificities and the different types of renewable energies (wind, solar, biomass, on land or at sea) as well as their integration into the power grid.

Course contents

- Courses with the speakers by time slots of 2h or 4h
- Renewable energy project management mini-project

Course material

Filloux, Intégrer les énergies renouvelables : choisir, intégrer et exploiter les systèmes utilisant les énergies renouvelables, 2014

Hougron et Cousty, La conduite de projets, 2016

Assessment

Soft skills: Communicating
Listening

| LANGUAGE OF INSTRUCTION | ECTS CREDITS | LECTURES | TUTORIALS | LAB | PROJECT | EXAM |
|-------------------------|--------------|----------|-----------|-------|---------|-------|
| French | - | 0 hrs | 16 hrs | 0 hrs | 0 hrs | 0 hrs |

ENGINEER - SOFT SKILLS

Year 1 - Spring Semester

Student Business Projects [P2E_S6]

LEAD PROFESSOR(S): Catherine MICHEL / Julie BERGER

Objectives

- To put acquired knowledge and skills into practice
- Support for the various Business Science modules
- Team work on an industrial project supervised by the company
- Each project falls within a theme (for example: virtual reality, urban engineering, sustainable development, etc.)
- Several types of industrial subjects: problem solving, market study, analysis of product needs, student "entrepreneurship" project etc.

Course contents

- Project choice: each student formulates preferences in terms of area and type of study which enables groups to be formed and subjects assigned.
- Project launch: each group meets their school tutor and learns about their project
- Scope phase: the group meets the company, defines the scope and determines their project organization
- Implementation phase: the group reports on the progress of its project to the company. Progress meetings are organized with teachers.
- Reporting phase: the group writes a report and presents its results to the company. They also carry out a communication exercise within the school: the pitch.

Course material

Assessment

Soft skills: Communicating
 Convincing
 Deciding
 Respecting
 Understanding

| LANGUAGE OF INSTRUCTION | ECTS CREDITS | LECTURES | TUTORIALS | LAB | PROJECT | EXAM |
|-------------------------|--------------|----------|-----------|-------|---------|-------|
| French | - | 0 hrs | 0 hrs | 0 hrs | 0 hrs | 0 hrs |

ENGINEER - SOFT SKILLS

Year 1 - Spring Semester

Leadership [PRO10_S6]

LEAD PROFESSOR(S): *Gildas GUIHENEUF-LALERE / Julie BERGER*

Objectives

"Put students in situations to understand the challenges of group dynamics, team leadership and the behavior of team members and leaders".

PEDAGOGICAL GOAL

At the end of this training the students will be able to:

- Pass on given instructions, establish priorities, explain clearly and do well, understand the task to be performed by the group (8-10 students)
- Respond to the requests, reformulate, argue to convince the usefulness of the result .
- Identify motivational drivers and energize a team .
- Suggest solutions (a plan of action), check the conformity and redress differences.
- Take a step back, control the safety of persons and equipment .
- Encourage, recognize the gains (results achieved) , highlight successes, analyse failures with greater self-confidence.
- Implement the principles of criticism and self-analysis : be able to communicate and analyse feedback to improve, challenge ourselves to progress.

LEADERSHIP - CLASSROOM ACTIVITIES IN ENGLISH

1. Leadership theory

Students will spend two hours in total in the classroom learning some initial fundamental ideas on Leadership theory.

- The key attributes that make a good leader
- Different leadership styles and communication strategies
- Business, innovation and leadership

2. Observing, analysing and debriefing in English

- Before each workshop students will prepare an observation sheet in English in order to analyse other students' performance
- After observing a workshop students will carry out a debriefing session in English based on their observations

Course contents

WHAT IS A LEADERSHIP WORKSHOP ?

A leadership workshop is :

- o a context in a particular environment
- o a situation to be respected and a collective operation to bring about
- o a time constraint
- o material made available
- o safety or scenario-specific rules
- o a goal to reach
- o a student project leader
- o student teammates

In short, it's a mission to be carried out under the leadership of a project leader who must visualize the context develop a

strategy to achieve the stated objective, he/she must propose to the team members an action plan defining each team member's tasks and role. There are a dozen workshops with students each taking turns as team leader.

SKILLS AND ABILITIES LEADERSHIP WORKSHOP

1 COMPANY AND INNOVATION

A) CREATE

- ability to create or invent creative solutions
- ability to expand to others uses tools and concept.
- ability to mobilize imagination

B) RECOGNIZE- ANALYSE

- ability to collect information
- ability to analyse situations with logic and method for diagnosis

C) PRODUCE

- ability to mobilize technical culture and theoretical knowledge (transdisciplinarity)
- ability to complete project
- ability to convince to mobilize

2 UNDERSTANDING COMPLEX PROBLEM

- ability to understand and formulate the problem

B) ORGANIZE THE RESOLUTION

- ability to recognize elements of the problem
- ability to propose a resolution scenario

3 PROJECT IMPLEMENTATION

A) LEAD THE PROJECT

- ability to identify and plan all necessary resources
- ability to develop work methods to organize
- ability to lead coordinated and close projects tasks

B) KNOW AND PREVENT RISKS

- ability to integrate environmental safety rules

4 MANAGERIAL

A) MANAGING PEOPLE

- ability to communicate, to convince others
- ability to be accountable
- ability to make decision in an uncertain or changing environment

B) MANAGING THE ORGANISATIONS

- ability to adapt quickly to new functions (leader- team members)

C) LEADERSHIP

- ability to define a strategy
- ability to elicit widespread acceptance
- ability to mobilize skills of a wide range of team members

Course material

Assessment

Soft skills: Deciding
Understanding

| LANGUAGE OF INSTRUCTION | ECTS CREDITS | LECTURES | TUTORIALS | LAB | PROJECT | EXAM |
|-------------------------|--------------|----------|-----------|--------|---------|-------|
| French | - | 0 hrs | 0 hrs | 16 hrs | 0 hrs | 0 hrs |

ENGINEER - SOFT SKILLS

Year 1 - Spring Semester

Implementing and conducting a project [PRO20_S6]

LEAD PROFESSOR(S): Florent LAROCHE / Julie BERGER

Objectives

The objective of this module is to provide the basics in project management. Combining rigidity and flexibility, managing a project is an art. This module will shed light on the different modes of eating, the organization of businesses, the tools to manage a project both temporally and financially.

In addition to industrial testimonies, a theoretical project in the form of a business game with realistic data will be implemented as a team.

Course contents

- 4h lecture introduction to the basics of project management
- 3x4h practical exercises - applied theoretical project (chicken Project)

Course material

Assessment

Soft skills: Deciding
Understanding

| LANGUAGE OF INSTRUCTION | ECTS CREDITS | LECTURES | TUTORIALS | LAB | PROJECT | EXAM |
|-------------------------|--------------|----------|-----------|-------|---------|-------|
| French | - | 0 hrs | 16 hrs | 0 hrs | 0 hrs | 0 hrs |

ENGINEER - SOFT SKILLS

Year 1 - Spring Semester

Archeology and understanding of the contemporary world [ARCHEO01_S6]

LEAD PROFESSOR(S): Anna POLONYI / Jean-Sylvain CAILLOU

Objectives

Jean-Sylvain Caillou
Docteur en histoire et civilisations de l'Antiquité
Archéologue - Expert judiciaire près la Cour d'Appel d'Orléans
Chercheur associé à l'Institut français du Proche-Orient (Ifpo)
Chargé d'enseignement à l'université d'Angers (UCO), Poitiers et Paris (ICP)

In the collective imagination, the figure of the archaeologist is sometimes embodied either by Indiana Jones, the romantic adventurer, or by some meticulous scientist handling a brush and a trowel, classifying and analyzing the remains of the past. Beyond the adventure and the accumulation of anecdotal knowledge, archaeology is mainly an intellectual approach, an attempt to understand the world and the human beings in their depths.

Course contents

The course will describe how the science of archaeology can shed light on our contemporary times through a reflection on the evolution of techniques and ideas on a centuries-long scale. We will explore the various mechanisms behind art, beliefs, conflict and politics. Travelling from the caves of Lascaux to the temples of Baalbek, from the tomb of Jesus-Christ to the castle of Chambord, we will discover a discipline that turns material facts into spiritual questions, just like in an alchemical process.

Course material

Assessment

Soft skills: Becoming / knowing myself
 Listening
 Respecting

| LANGUAGE OF INSTRUCTION | ECTS CREDITS | LECTURES | TUTORIALS | LAB | PROJECT | EXAM |
|-------------------------|--------------|----------|-----------|-------|---------|-------|
| French | - | 16 hrs | 0 hrs | 0 hrs | 0 hrs | 0 hrs |

ENGINEER - SOFT SKILLS

Year 1 - Spring Semester

The geopolitics of cinemas and series [CIV01_S6]

LEAD PROFESSOR(S): Anna POLONYI

Objectives

The Geopolitics of Cinema and Series

The course encourages students to adopt a critical distance in terms of mass entertainment by showing how cinema and series can create and strengthen geopolitical images. This approach also deals with representations of territory, resources and identity. An introduction to notions such as popular geopolitics and social constructionism is followed by an analysis of how certain films and TV series legitimise or question the geopolitical stances of governments such as that of the United States. As well as focusing on the USA, with special attention to American films and series in relation to the 'War on Terror,' the course also looks at cinema and/or series from China, Turkey, India and the UK.

Course contents

Course material

Assessment

Soft skills: Becoming / knowing myself
 Listening
 Respecting

| LANGUAGE OF INSTRUCTION | ECTS CREDITS | LECTURES | TUTORIALS | LAB | PROJECT | EXAM |
|-------------------------|--------------|----------|-----------|-------|---------|-------|
| English | - | 16 hrs | 0 hrs | 0 hrs | 0 hrs | 0 hrs |

ENGINEER - SOFT SKILLS

Year 1 - Spring Semester

World Economics and Civilization [CIV02_S6]

LEAD PROFESSOR(S): Anna POLONYI

Objectives

Is there a future for the future? The philosophy of progress

Our world is frantic, busy, liquid. We feel rushed, our days compressed. Simultaneously there is a perception that our historical moment has been slowed, that we have arrived at a terminus even; that from hereon in global change will be hesitant, halting and repetitive. We no longer appear to be moving forwards.

The course explores this seeming contradiction in the cultural moment of the west using contemporary popular culture—the MCU and DC universe, the zombie genre and varieties of pop music—to address and illustrate this particular combination of hurry and stasis.

Culture discussions are placed in a social and political context with reference to new communication media and technologies of surveillance, and to the long intellectual evolution of the west's self-opinion as the realised future of the whole world.

Course contents

Course material

Assessment

Soft skills: Becoming / knowing myself
 Listening
 Respecting

| LANGUAGE OF INSTRUCTION | ECTS CREDITS | LECTURES | TUTORIALS | LAB | PROJECT | EXAM |
|-------------------------|--------------|----------|-----------|-------|---------|-------|
| English | - | 16 hrs | 0 hrs | 0 hrs | 0 hrs | 0 hrs |

ENGINEER - SOFT SKILLS

Year 1 - Spring Semester

Is there a future for the future ? Philosophy of progress [PHI02_S6]

LEAD PROFESSOR(S): Anna POLONYI

Objectives

Our world is frantic, busy, liquid. We feel rushed, our days compressed. Simultaneously there is a perception that our historical moment has been slowed, that we have arrived at a terminus even; that from hereon in global change will be hesitant, halting and repetitive. We no longer appear to be moving forwards.

The course explores this seeming contradiction in the cultural moment of the west using contemporary popular culture—the MCU and DC universe, the zombie genre and varieties of pop music—to address and illustrate this particular combination of hurry and stasis.

Culture discussions are placed in a social and political context with reference to new communication media and technologies of surveillance, and to the long intellectual evolution of the west's self-opinion as the realised future of the whole world.

Course contents

Course material

Assessment

Soft skills: Becoming / knowing myself
Listening
Respecting

| LANGUAGE OF INSTRUCTION | ECTS CREDITS | LECTURES | TUTORIALS | LAB | PROJECT | EXAM |
|-------------------------|--------------|----------|-----------|-------|---------|-------|
| English | - | 16 hrs | 0 hrs | 0 hrs | 0 hrs | 0 hrs |

ENGINEER - SOFT SKILLS

Year 1 - Spring Semester

Sociology of gender at work [PS002_S6]

LEAD PROFESSOR(S): Anna POLONYI / Hubert BILLEMONT

Objectives

The course is organized around the scientific description of the various approaches to work psychology since the 1960s (ergonomics, work psychopathy, work psychodynamics, and activity analysis). Particular attention will be given to the psychodynamics of work and to the innovative work of Christophe Dejours. Another part will be devoted to understanding the psychological foundations of management techniques. All with a view to highlighting the different modalities of the activity according to gender.

Course contents

Course 1: Before work psychology: work ergonomics
 Course 2: Evolution of work psychology since the 1960s
 Course 3: Work psychodynamics
 Course 4: Psychology in the service of management at work.

Course material

Bourdieu P., La domination masculine
 Dejours C., Travail usure mentale
 Dejours C., Souffrance en France
 Molinier P., L'énigme de la femme active

Assessment

Soft skills: Becoming / knowing myself
 Listening
 Respecting

| LANGUAGE OF INSTRUCTION | ECTS CREDITS | LECTURES | TUTORIALS | LAB | PROJECT | EXAM |
|-------------------------|--------------|----------|-----------|-------|---------|-------|
| French | - | 16 hrs | 0 hrs | 0 hrs | 0 hrs | 0 hrs |