Subject name: Reinforced Concrete 1	**Code EC: GCU06-BA1**
Number of hours per student: 24h	**ECTS Number: 2**
Reference Teacher: Quang-Huy Nguyen	

Generalities

Objectives *(2000 characters)*

The objectives are to provide a basic understanding of the behaviour of reinforced concrete members and structures; to provide a basic understanding of standard methods of analysis and design of reinforced concrete behaviour (including an understanding of capabilities and limitations); and to provide basic design training in a simulated professional engineering environment. At the end of this course students will gain proficiency in design of reinforced concrete structures according to Eurocode 2.
The syllabus comprises the behaviour of reinforced concrete members and structures, including: material properties, 'elastic' analysis, durability, cover to reinforcement, ultimate strengths of beams (flexure), design calculation procedures, reinforcement detailing, structural drawings.

Description *(2000 characters)*

- Basis of design in accordance with regulatory requirements: EUROCODES 0, 1 et 2.
- Material properties : concrete and steel rebar
- Structural analysis and design method
- Flexion without axial force at Ultimate limit states (ULS)
- Durability and cover to reinforcement
- Detailing of reinforcement

Requirements *(2000 characters)*

Beam theory, basic concepts of solid mechanics and structural mechanics.

Course requirements and assessments

Teaching Language *(2000 characters)*

French

Teaching methods *(500 characters)*

12 hours of lectures and 2 hours of tutorials

Number of hours per course type: *(2000 characters)*

CM: 12h
TD: 12h
TP:
PR:
CONF:
Autres:

Evaluation *(200 characters)*

Written examination (2h)

Bibliography

Bibliography *(2000 characters)*

- Eurocode 0: Basis of design
- Eurocode 1: Actions on structures
- Eurocode 2: Design of concrete structures
- CEB-FIP Model Code 1990: Design code

Contacts

Contacts *(2000 characters)*

Cliquez ou appuyez ici pour entrer du texte.

Other information

Other information

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Subject name: Construction Materials	**Code EC:** GCU06-MAT
Number of hours per student: 24h	**ECTS Number: 1.5**
Reference Teacher: DARQUENNES Aveline	

Generalities

Objectives *(2000 characters)*

The first part of this module focuses on the behavior of widely used construction materials, particularly ceramics -excluding cementitious materials - and steels. The covered topics include the physico-chemical and mechanical behavior of these materials, as well as their application in the construction industry.

The second part of the course specifically addresses construction materials related to sustainable development. This part will be conducted interactively through group projects.

Practical work will deepen students' skills in experimental methods for characterizing the physico-chemical behavior and mechanical properties of materials.

Students will gain a better understanding of fundamental materials that have shaped the field of civil engineering and continue to influence modern construction practices, with an emphasis on new, emerging materials driven by the industry's desire to reduce its impact on climate change.

Description *(2000 characters)*

1. Ceramics in Civil Engineering

1.1. Plaster
1.1.1. Origin and Production
1.1.2. Properties in Fresh and Hardened States
1.1.3. Applications

1.2. Lime
1.2.1. Nature and Production
1.2.2. Physico-Chemical and Mechanical Properties
1.2.3. Production
1.2.4. Applications

1.3. Glass
1.3.1. Chemical Characteristics
1.3.2. Toughness
1.3.3. Weibull's Law – Application
1.3.4. Forming
1.3.5. Reinforcement

2. Steel
2.1. Manufacturing
2.2. Chemical Characteristics
2.3. Mechanical Behavior – Fatigue Behavior (Application)
2.4. Corrosion

3. Construction Materials and Sustainable Development
3.1. Straw
3.2. Wood
3.3. Hemp Concrete
3.4. Port Sediments
3.5. Raw Earth
3.6. Fiber-Reinforced Concrete (vegetable, metallic, polypropylene fibers, etc.)
3.7. Geopolymers

3.8. Concrete with Recycled Aggregates
3.9. Depolluting Concrete

Requirements *(2000 characters)*

Courses in *Mechanics of Construction Materials*, *Cementitious Materials* in 3GCU

Course requirements and assessments

Teaching Language *(2000 characters)*

French

Teaching methods *(500 characters)*

Lectures, Reading and Analysis of Scientific Documents, Practical Work

Number of hours per course type: *(2000 characters)*

CM : 12.00 h, TP : 12.00 h

Evaluation *(200 characters)*

1 supervised exam, 1 group project, and practical work reports

Bibliography

Bibliography *(2000 characters)*

Contacts

Contacts *(2000 characters)*

Cliquez ou appuyez ici pour entrer du texte.

Other information

Other information

Cliquez ou appuyez ici pour entrer du texte.

Nom de la matière : Soil Mechanics 1	**Code EC: GCU06-MDS1**
Volume horaire étudiant : 60 hours	**Crédits ECTS :** 3,5
Responsable(s) : Samuel MASSON	

Généralités

Objectifs, finalités *(2000 caractères)*

Acquiring a good knowledge of physics and behavior of soils, as well as a good understanding of calculation methods to address seepage and settlement problems

Description *(2000 caractères)*

1. Soil physics
2. Water in soils - Seepage
3. Soil settlement calculation
4. Soil consolidation

Pré-requis *(2000 caractères)*

- Differential equations
- Solid mechanics
- Resistance of materials

Modalités du cours et des évaluations

Langue d'enseignement *(2000 caractères)*

French

Modalités d'enseignement *(500 caractères)*

Volume horaire par type de cours : *(2000 caractères)*

CM : 24

TD : 24

TP : 12

PR :

CONF :

Autres :

Modalités d'évaluation / coefficient *(200 caractères)*

- Three-hour written synthesis examination (2/3)
- Practical work reports (1/3)

Bibliographie

Bibliographie *(2000 caractères)*

1. COSTET, SANGLERAT , 1985, "Cours de Mécanique des Sols", Ed. Dunod
2. CORDARY D, 1994, "Mécanique des Sols", Ed. Tec Doc
3. LAMBE T.W. & WHITMAN R.V., 1969, "Soil Mechanics", J. Wiley
4. ATKINSON J.H. et BRANSBY, 1978, "The Mechanics of Soils : an introduction to Critical State Mechanics",
Mac Graw Hill

Contacts

Contacts *(2000 caractères)*

Samuel MASSON : samuel.masson@insa-rennes.fr
Hossein NOWAMOOZ : hossein.nowamooz@insa-rennes.fr

Autres

Autres informations

Subject name: Fluid Mechanics 2	**Code EC: GCU06-MFLU2**
Number of hours per student: 42h	**ECTS Number: 2**
Reference Teacher: LOMINE FRANCK	

Generalities

Objectives *(2000 characters)*

This course aims to deepen students' understanding of fluid mechanics by introducing the study of viscous flows and their practical applications. It focuses on the analysis and resolution of problems involving viscous fluid motion and hydraulic systems.

At the end of the course, students should be able to:

- understand the physical mechanisms related to viscosity and internal friction in fluids;
- apply the fundamental equations of motion to viscous flows under various conditions;
- analyze laminar boundary layers and determine associated velocity and shear stress distributions;
- evaluate head losses in hydraulic systems;
- design and perform calculations for hydraulic installations (piping systems, pumps, and flow networks).

Description *(2000 characters)*

- Dynamics of Viscous Fluids
  - Newtonian and non-Newtonian fluids.
  - Navier–Stokes equations and simplifications for practical cases.
  - Fully developed laminar flow in circular and non-circular ducts.
  - Introduction to turbulent flow and Reynolds number.
- Laminar Boundary Layer
  - Concept of boundary layer and flow separation.
  - Blasius solution for a flat plate.
  - Velocity profiles and wall shear stress.
  - Transition from laminar to turbulent regime.
- Hydraulic Head Losses
  - Major and minor losses in internal flows.
  - Empirical correlations (Darcy–Weisbach, Moody diagram).
  - Energy balance in hydraulic circuits.
- Hydraulic System Design and Calculation
  - Analysis and dimensioning of hydraulic networks.
  - Pump selection and system curves.
  - Practical applications to industrial and civil engineering systems

Requirements *(2000 characters)*

- General Mechanics: kinematics and dynamics of solids and particles.
- Continuum Mechanics: stress, strain, and conservation principles.
- Fluid Mechanics I: perfect fluid theory, Bernoulli's equation, Euler's equations, and integral balances.

Course requirements and assessments

Teaching Language *(2000 characters)*

French

Teaching methods *(500 characters)*

Lectures and preparation of practical work: 3 hours per week

Number of hours per course type: *(2000 characters)*

CM : 12 h
TD : 18 h
TP : 12 h

Evaluation *(200 characters)*

Three-hour written synthesis examination

Bibliography

Bibliography *(2000 characters)*

1.MOREL M.A. et LABORDE J.P., 1992, "Exercices de mécanique des fluides" (tome 1), Ed. Eyrolles

1. OUZIAUX, 1994, Mécanique des fluides appliquée, Ed. Dunod
2. COMOLET R., 1994, Mécanique des fluides (tome 1), Ed. Masson
3. CHASSAING P., 1997, Mécanique des fluides, Ed. Polytech
4. JOULIE R., 1998, Mécanique des fluides appliquée, Ed. Ellipses
5. NAKAYAMA, Y., 2018, Introduction to fluid mechanics, Ed. Butterworth-Heinemann

Contacts

Contacts *(2000 characters)*

Cliquez ou appuyez ici pour entrer du texte.

Other information

Other information

Cliquez ou appuyez ici pour entrer du texte.

Structural Analysis II	GCU06-MSTR2
Number of hours : 60.00 h	4.00 ECTS credit
CM : 24.00 h, TD : 24.00 h, TP : 12.00 h	
Reference Teacher(s) : COUCHAUX Mael	

Objectives :
This module is the continuation of the first semester and aims to finalize the study of the effect of loadings on beams in terms of stresses and displacements by studying the case of shear force and torque. Methods for studying hyperstatic structures are discussed (energetic and three-moment theorems). Finally, more complex structures are studied (curved beams or on elastic supports, second order effects). This module provides the necessary knowledge for Elastic Structural Analysis module as well as specialized teaching in Reinforced Concrete, Steel and Timber Construction.

Content :
1- Shear force
2- Torque
3- Energetic theorems, hyperstatic structures
4- Continuous beams, 3 bending moment theorem
5- Curved beams, second order effects

Bibliography :
[1] Courbon J., Résistance des Matériaux, Dunod, Paris, 1964.
[2] Massonnet C., Cescotto S., Mécanique des Matériaux, De Boeck-Wesmael, 1992.
[3] Timoshenko S.P., Résistance des matériaux 1, Editions Dunod, 1968
[4] Frey F.: Analyse des structures et milieux continus. Statique appliquée. Traité de Génie Civil de l'EPFL, volume 1. Presses Polytechniques et Universitaires Romandes (PPUR). Lausanne, 2005.
[5] Frey F.: Analyse des structures et milieux continus. Mécanique des structures. Traité de Génie Civil de l'EPFL, volume 2. Presses Polytechniques et Universitaires Romandes (PPUR). Lausanne, 2000.
[6] Vlassov V. Z. – Thin walled elastic beams, National Technical Information Service, 2nd Edition, 1984
[7] Timoshenko S.P., Théorie de la stabilité élastique, Editions Dunod, 1966
[8] Delaplace A., Gatuingt F., Ragueneau F., Mécanique des Structures : Résistance des matériaux, Edition Dunod, 2008.
[9] La Borderie C., Méthodes Energétiques, Cours de l'ISA BTP, Université de Pau et des Pays de l'Adour.

Requirements :
Undergraduate Mathematics, Undergraduate General Mechanics, Deformable Solid Mechanics, Structural Analysis I

Organisation :
Lecture with application of concepts discussed in tutorials and practical work.

Evaluation :
Three-hour written synthesis examination. Three practical work reports.

Course name: Construction techniques	EC Code: GCU06-TECH
Number of hours per student: 12 h	ECTS credits: 1.5
Reference teacher(s): KEO Pisey	

Generalities

Objectives

To discover the most commonly used construction techniques in construction projects (housing, functional structures, civil engineering works, and civil engineering structures). To understand the scheduling, organization, and lifecycle of a construction project. To acquire the basics of infrastructure works. To acquire the basics of structural works. To discover specific construction methods (watertight structures, sliding formwork, etc.).

Description

Introduction to the stakeholders involved in a construction project and the project lifecycle. Construction methods. Infrastructure works. Structural works. The sliding formwork technique. The technique for watertight structures. Construction project scheduling. Construction site layout plan.

Requirements

Strength of materials, Civil engineering materials, Mechanics of soils

Course and assessment modalities

Teaching language

French

Teaching modalities

12 hours courses.

Hours per course type

CM : 12 h
TD :
TP :
PR :
CONF :
Autres :

Evaluation modalities / coefficient

Exam

Bibliographies

bibliography

[1] Norme NF EN 206-1, AFNOR, Avril 2004. [2] BOUTEVEILLE Ursula, La construction, comment ça marche ?, Le Moniteur, 2012. [3] LARRE J-M, Memotech bâtiment et construction, Casteilla, 2015

Contacts

Contacts

Cliquez ou appuyez ici pour entrer du texte.

Others

Other information

Cliquez ou appuyez ici pour entrer du texte.

INSA RENNES : 2025/2026

Nom de la matière :	**Code EC:** GCU06-THER1
Volume horaire total par étudiant: 36h	**Nombre crédits ECTS : 3**
Responsable(s) : DUPONT Pascal	

Généralités

Objectifs, finalités *(2000 caractères)*

Heat transfers are present as soon as a temperature gradient takes place. Thermal science modelize the field of temperature and heat fluxes and the main objectives of the course is to learn the fundamental laws relating temperature and heat flux fields. Based on the fundamental laws of thermodynamics, three modes of heat transfer are then described separately: heat conduction in materials, heat convection in materials with flow in fluid and heat radiation in transparent media like gases. The modelization of a thermal problem is based on an electrical network where each heat flux is controlled by a thermal resistance. The course give a simple and efficient methodology to solve those problems with separate conduction or convection or radiative transfer but open to the capacity to modelize complex combined transfer problem.

Description *(2000 caractères)*

The plan of the course is :

I. Introduction
II. Transfers by conduction
II.1. Fundamental law .....
II.2. Conductivity of matter
II.3. Contact resistance
II.4. Steady state
II.5. Transient state
III. Conducto-convective transfers
III.1. Definition of the problem
III.2. Boundary layer equations
III.3. Known correlation laws
IV.Radiative heat transferl
IV.1. Phenomenological principle and law .....
IV.2. Law of emission and absorption of the black body
IV.3. Properties of real surfaces .....
IV.4. Calculations of form factors .....
IV.5. Radiosity method

Pré-requis *(2000 caractères)*

General thermodynamic course and fundamental fluid mechanics course

Modalités du cours et des évaluations

Langue d'enseignement *(2000 caractères)*

In French and possibly in English for oral discussion (questions and answers)

Modalités d'enseignement *(500 caractères)*

Lectures and exercices

Volume horaire par type de cours : *(2000 caractères)*

CM : 18
TD :18
TP :
PR :
CONF :
Autres :

Modalités d'évaluation / coefficient *(200 caractères)*

Several exams (continuous control)

Bibliographie

Bibliographie *(2000 caractères)*

"Aide-mémoire du thermicien", published by Elsevier Paris, 1997
Incropera F.P., De Witt D.P., "Introduction to heat transfer", published by Wiley New York, 1996.
Sacadura J.F., "Initiation aux transferts thermiques", published by Lavoisier
Taine J. and Petit J.-P., "Heat transfers, Mechanics of anisothermal fluids, Courses and basic data", published by Dunod Paris, 1998, present at the BU INSA

Contacts

Contacts *(2000 caractères)*

Pascal.dupont@insa-rennes.fr

Autres

Autres informations

Cliquez ou appuyez ici pour entrer du texte.

Course name: Topography, GIS, Computer aided design	EC Code: GCU06-TOPO
Number of hours per student: 25 h	ECTS credits: 1.5
Reference teacher(s): KEO Pisey	

Generalities

Objectives

TOPOGRAPHY: Determine the altitude of ground points and an inaccessible point. Know how to use an automatic level and a total station. GIS: Learn the basics of a Geographic Information System and its interest in exchanges between topography professionals and civil engineering. CAD: Introduction and advanced training in the use of AutoCAD, the most widely used drawing software by professionals in the construction industry. Produce graphic documents for simple projects. Exploit existing drawings for possible modification. Acquire the necessary basics on AutoCAD for possible use during internships or projects.

Description

TOPOGRAPHY: Direct leveling (4 hours with an automatic level) and indirect leveling (4 hours with a total station). GIS: Introduction to projection systems and those officially adopted for France; General cartography; Definition of topological rules to be respected to produce a coherent GIS; Practical exercises to get started with a GIS and define spatial queries. CAD: AutoCAD environment/main commands/layer management/model space/paper space/layout manager and scales/printing output/drawing standards and representation of materials/building technology.

Requirements

TOPOGRAPHY: None. GIS: Mathematical geometry. CAD: Technical drawing rules/elements of building technology/plan reading.

Course and assessment modalities

Teaching language

French

Teaching modalities

TOPOGRAPHY: In the classroom for 1 hour for the presentation of the equipment, the method, an example. In the field 3 hours for setting up the device, measurements. GIS: 6 hours of lessons then 3 x 1 hour of practical work on dedicated GIS software. CAD: 2 sessions of 4 hours per group of 8 to 10 students/individualization.

Hours per course type

CM : 6 h
TD :
TP : 19 h
PR :
CONF :
Autres :

Evaluation modalities / coefficient

TOPOGRAPHY: practical work report. GIS: evaluation at the end of practical work. CAD: Project

Bibliographies

bibliography

Modern Surveying and Mapping (by Serge Milles): AutoCAD application, standards compliance, project planning, and detailed technical specifications.

Contacts

Contacts

Cliquez ou appuyez ici pour entrer du texte.

Others

Other information

Cliquez ou appuyez ici pour entrer du texte.

Subject name: Environmental impact of buildings	**Code EC: HUM06-IEB**
Number of hours per student: 24h	**ECTS Number: 1,5**
Reference Teacher: SOMJA Hugues	

Generalities

Objectives *(2000 characters)*

This module aims to master the assessment and reduction of the environmental impacts of buildings by combining regulatory approaches, impact analysis methods, and innovative construction techniques. Students will develop a critical understanding of current tools (LCA, RE2020) and explore concrete solutions for designing low-carbon, sustainable buildings that address climate challenges.

Description *(2000 characters)*

This course module aims to provide a comprehensive understanding of the environmental challenges related to the construction and renovation of buildings in France. The topics covered include:
• The regulatory and normative context surrounding the environmental impacts of buildings; • The calculation of environmental indicators through life cycle assessment (LCA) and their integration into the RE2020 regulations, existing labels, and their international equivalents; • Low-carbon materials, particularly geosourced and biosourced materials; • Various construction methods suitable for different building typologies; • Circularity in buildings, focusing on rehabilitation and the reuse of materials; • Low-carbon energy systems that comply with environmental standards; • Bioclimatic building design.
The practical sessions (TD) will allow students to explore calculation methods for each of these topics and apply them to a group project, designing a building based on an ambitious environmental specification.
In this module, aspects related to the energy calculations of buildings during their operational phase—which are covered in other course modules—will only be addressed very briefly.

Requirements *(2000 characters)*

Construction techniques

Course requirements and assessments

Teaching Language *(2000 characters)*

French

Teaching methods *(500 characters)*

Lectures and tutorials

Number of hours per course type: *(2000 characters)*

CM: 10h
TD: 14h
TP:
PR:
CONF:
Autres:

Evaluation *(200 characters)*

Project

Bibliography

Bibliography *(2000 characters)*

Cliquez ou appuyez ici pour entrer du texte.[1] A. Lebert, J.L. Chevalier, L'analyse du cycle de vie dans le bâtiment, Guide Bâtir le développement durable , CSTB,2018.
[2] R. Dionisi, Calcul et réduction de l'empreinte carbone des bâtiments – préparation à la RE 2020, Projet de fin d'études, INSA Rennes, 2020.
[3] Hoxha, E., et al. (2020). Biogenic carbon in buildings: a critical overview of LCA methods. Buildings and Cities, 1(1), pp. 504–524. DOI: https://doi.org/10.5334/bc.46
[4] B. Peuportier, Note sur l'analyse du cycle de vie des matériaux biosourcés, blog du lab recherchhe environnement, chaire VINCI Paristech, 2022 (https://www.lab-recherche-environnement.org/fr/article/note-sur-lanalyse-du-cycle-de-vie-des-materiaux-biosources/)

Contacts

Contacts *(2000 characters)*

Hugues.somja@insa-rennes.fr

Other information

Other information

Nom de la matière : Allemand	**Code EC: EC-HUMF06-ALL**
Volume horaire total par étudiant: 21heures	**Nombre crédits ECTS :**
	1,5 ECTS
Responsable(s) : Cecile Hölzner-Jacques	

Généralités

Objectives, aims *(2000 caracters)*

Targeted skills:
Mastering a foreign language
Ability to communicate/progress/work in an international and intercultural context
Cultural openness
Communicating/interacting with others, working in a team
Working autonomously
German Level A1: Acquiring the basics of the German language. Be able to understand and hold a simple conversation about everyday life.
German Level A2-B1: Be able to communicate in German, acquire intercultural skills, demonstrate cultural openness. Work in a group on a project, speak up.
German Level B2/C1: Work in a group on a project, speak up, communicate in German, acquire intercultural skills, acquire basic scientific and technical vocabulary. Ask questions, become a responsible engineer, think about the world of tomorrow in an international context.

Description *(2000 caracters)*

Practising written and oral comprehension. Developing oral expression through exercises in small groups and whole-class discussions. Acquire everyday German vocabulary for daily life and professional life.
German Level A2-B1: Grammar revision, consolidate knowledge. Practise reading and listening comprehension using multimedia resources. Develop oral expression skills through small group exercises, presentations or whole class discussions. Prepare students to progress independently in languages. Preparing mobility.
German B2-C1: Practise reading and listening comprehension using multimedia resources. Acquire technical and scientific German vocabulary. Develop oral expression skills through small group exercises, presentations or whole class discussions. Use and improve German language skills in the context of a project. Preparing mobility.

Pré-requis *(2000 caractères)*

German Level A1: none

German Level A2-B1: mastery of the basics of German (A2), second foreign language at secondary school (B1)

German B2-C1: good language skills, first foreign language or bilingual class at secondary school, ABIBAC

Modalités du cours et des évaluations

Langue d'enseignement *(2000 caractères)*

Cliquez ou appuyez ici pour entrer du texte.

Modalités d'enseignement *(500 caractères)*

1.5–2 hours of classes per week.
IAutonomous study time: 14-16 hours Total: 35 hours. Students are encouraged to read German newspapers regularly and watch videos, series and films, in addition to the work assigned between sessions.

Volume horaire par type de cours : *(2000 caractères)*

CM :
TD : 19 hours for the first cycle, 21 hours for the second cycle.
TP :
PR :
CONF :
Autres :
Autonomous study time: 14-16 hours
7 hours of optional project work in the second cycle

Modalités d'évaluation / coefficient *(200 caractères)*

Continuous assessment, oral examination

Bibliographie

Bibliographie *(2000 caractères)*

MOODLE course page
Deutsch für Ingenieure, Maria Steinmetz/Heiner Dintera, VDI/Springer Vieweg, 2014
Deutsch Perfekt, periodical
online: Deutsche Welle, ARD, Der Spiegel, FAZ, die Zeit, das Handelsblatt, VDI (Verein Deutscher Ingenieure), Nachrichten, ZDF Logo
French-German dictionary le visuel, Editions de la Martinière
Übungsgrammatik für die Mittelstufe Hueber-Verlag
Na also! Waltraud Legros, Ellipses
multimedia resources

Contacts

Contacts *(2000 caractères)*

Cecile Hölzner-Jacques : cecile.holzner-jacques@insa-rennes.fr

Autres

Autres informations

Cliquez ou appuyez ici pour entrer du texte.

ENGLISH	Code EC: EC-HUM06-ANGL
Total number of hours per student : 28h	ECTS : 2
Supervisor : Philippe LE VOT	

General information

Objectives and Purposes

General Objectives:

Improve the ability to express oneself, understand, and interact in everyday situations, with a particular emphasis on professional and social life.

Linguistic Objectives:

Achieve or strengthen the B2 level (required for the validation of the engineering degree and defined by the CEFR).

Cliquez ou appuyez ici pour entrer du texte.

Description

- **Action-oriented approach to language learning:** Learning by doing: speaking and listening, writing documents while mobilizing the ability to solve, construct, demonstrate, and persuade.
- Express oneself with precision through rigorous use of syntax and phonology. Activities involving creativity and responsiveness, such as debates, role-playing, individual oral presentations with PowerPoint or Canva support, and projects, will be based on current, scientific, and societal topics.
- Development of specific skills related to the professional world:
    - Writing emails and abstracts linked to the EPA (Engineering Problem Analysis) course.
    - Notions of interculturality.
    - Sustainable development.

Prerequisites

A good mastery of the STPI program is essential: B1/B2 level.

Course and Evaluation Modalities

Language of Instruction

English

Teaching Methods

The classes are two hours long and take place in rooms equipped with projectors and sound systems. We also have two multimedia language labs and a Computer Resource Center to provide students with a stimulating teaching environment.

- Educational resources include press articles, audio, and video documents from the web.

- Regular personal work is required. Students are expected to remain curious and continue practicing beyond the classroom.

Hours by Course Type

- **Lectures (CM):**
- **Tutorials (TD):** 28 hours (14 sessions of 2 hours each)
- **Practical Work (TP):**
- **Research Projects (PR):**
- **Conferences (CONF):**
- **Others:**

Evaluation Methods / Coefficient

1 in-class presentation + 1 continuous assessment grade (average of different graded assignments)

Bibliography

Bibliography

Any English-language materials, whether technical or otherwise.

Contacts

Contacts

plevot@insa-rennes.fr

Subject name: CHINESE LV2-LV3	**Code EC: EC-HUMF06-CHI**
Number of hours per student: 21 hours	**ECTS Number: 1,5**
Reference Teacher: Cécile Hölzner-Jacques	

Generalities

Objectives *(2000 characters)*

Targeted skills:

- Mastering a foreign language
- Ability to communicate/develop/work in an international and intercultural context
- Cultural openness
- Communicating/interacting with others, working in a team
- Working independently
- Acquiring the basics of the Chinese language, essential structures and vocabulary
- Comprehension, expression, pronunciation
- Using the language in everyday contexts.

Description *(2000 characters)*

Oral skills:
Corrective phonetics (pinyin system),
Listening to and analysing simple texts and complex sentences,
Oral exercises (learners with each other / learners with teacher)
Learning new characters (pronunciation and tone accentuation).

Written skills:
Theme/version
Written production of simple texts and complex sentences,
Learning and reinforcement of grammatical mechanisms and vocabulary for oral and written production,
Learning new characters (stroke order, keys),
Reading and analysis of texts, commentary on texts.

Requirements *(2000 characters)*

Chinese 1: None
Chinese 2: Completion of Chinese 1
Chinese 3: Completion of Chinese 2

Course requirements and assessments

Teaching Language *(2000 characters)*

Teaching methods *(500 characters)*

Reading lesson texts (in characters), rewriting new characters, exercises applying grammar points, lexical and morphological points, theme and version exercises...

Number of hours per course type: *(2000 characters)*

CM:
TD: 1h30
TP:
PR:
CONF:
Autres:

Evaluation *(200 characters)*

S1: Final mark
S2: Oral examination

Bibliography

Bibliography *(2000 characters)*

1. Chinese as spoken in China, Bernard Allanic, Presses Universitaires de Rennes, 2009
2. Contemporary Chinese, WU Zhongwei, Sinolingua, 2010
3. Experiencing Chinese, ZHANG Rumei, AI Xin, Higher Education Press, 2006
Chinese Language Method (Second Level), Zhitang Yang-Drocourt - Liu Hong – Fan Jianmin
Short Stories for Learning Mandarin Chinese, Zhang Xiaoli, 2025
Standard Course HSK Workbook, Jiang Liping
Other tools will complement these basic textbooks to provide students with a wide range of practical exercises.

Contacts

Contacts *(2000 characters)*

Other information

Other information

Learning Chinese isn't just about tones and characters. It's about connection — to a culture, to people, and to the stories that make language come alive.

INSA RENNES : 2025/2026

Subject name: CREATIV	**Code EC: EC-HUM06-creativ**
Number of hours per student: 16h	**ECTS Number: 1.5**
Reference Teacher: Fanny GOURRET	

Generalities

Objectives *(2000 characters)*Cliquez ou appuyez ici pour entrer du texte.

The module aims to raise students' awareness of the challenges of innovation within companies and to place them in situations where they can generate ideas for launching new economic activities.
It serves as preparation for the *"Entrepreneurship & Innovation"* module in Semester 7.

Main learning outcomes:

- Understand the challenges and implications of an innovation strategy,
- Be able to use specific analytical tools and the associated vocabulary,
- Demonstrate creativity,
- Work effectively in a team: make collective decisions and produce deliverables within given deadlines.

Description *(2000 characters)*

Workshops are organized in project groups to enable students to:
• Explore inspiring practices through benchmarking,
• Identify opportunities and key challenges to be addressed,
• Develop innovative solutions using design thinking methods,
• Assess potential risks,
• Present and effectively pitch their project.

Requirements *(2000 characters)*

Non

Course requirements and assessments

Teaching Language *(2000 characters)*

french

Teaching methods *(500 characters)*

Cliquez ou appuyez ici pour entrer du texte.

- Work based on real cases of innovative companies (either in the start-up or development phase).
- Creative project built around an innovative idea (in groups).

Number of hours per course type: *(2000 characters)*

CM:
TD: 16
TP:
PR:
CONF:
Autres

Evaluation *(200 characters)*

Cliquez ou appuyez ici pour entrer du texte.
Continuous assessment (collective work)
Progress is evaluated through progress reports in the form of oral presentations.

Bibliography

Bibliography *(2000 characters)*

Cliquez ou appuyez ici pour entrer du texte.

Provided during the course

Contacts

Contacts *(2000 characters)*

Fanny GOURRET, Philippe MENKE

Other information

Other information

Cliquez ou appuyez ici pour entrer du texte.

Subject name: PHYSICAL EDUCATION (EPS) SEMESTER 6	**Code EC: EC-HUM06-EPS**
Number of hours per student: 24H	**ECTS Number: 1**
Reference Teacher: Gérard VAILLANT Yvan HINAULT Maïté LOSCHETTER	

Generalities

Objectives *(2000 characters)*

Aims
The program aims to contribute, through the practice of Physical, Sports, and Artistic Activities, to the education and development of future citizens. It seeks to foster individuals who are capable of managing their present and future health, communicating effectively, participating actively in group dynamics, demonstrating innovation, and showing adaptability in various contexts.
Learning Objectives
Upon completion, learners should be able to:

1. Manage their own learning and training processes in a structured and reflective manner.
2. Engage in and take responsibility for the organization and management of a group, a structure, or a collective project.
3. Take charge of their physical, mental, and social health as an ongoing process of well-being and self-regulation.

Description *(2000 characters)*

This course aims to develop students' motor, personal, social, and methodological competencies through the practice of physical, sports, and artistic activities. It fosters autonomy, adaptability, creativity, and responsibility in both individual and collective contexts.
Motor and Cultural Competencies: Master the technical and tactical fundamentals of the chosen activity. Adapt to varying play conditions, environments, and performance spaces. Develop specific physical qualities (endurance, flexibility, strength, speed) and psychological resources (focus, perseverance, stress management, confidence).
Personal Competencies: Take responsibility for one's long-term health and safety. Manage emotions and stress with self-control. Demonstrate innovation and creativity in practice. *Semester 6 focus:* comprehend the physiological principles for maintaining good health (preparation for effort, recovery, and regulation of exertion); Recognize one's strengths and weaknesses in order to use them most effectively.
Interpersonal and Social Competencies: Work effectively in teams—listen, communicate, motivate, and lead. Adopt an eco-citizen approach by respecting others, oneself, the environment, and equipment. *Semester 6 focus:* Adjust verbal and non-verbal communication to suit the group context.
Methodological Competencies: Manage complex projects by setting objectives, planning, and evaluating outcomes. Make informed decisions through observation, reflection, and feedback. *Semester 6 focus:* Commit to a learning project (evaluate one's initial level, identify areas for progression, gather information, and self-assess). Plan practice to achieve realistic goals

Requirements *(2000 characters)*

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Course requirements and assessments

Teaching Language *(2000 characters)*

French

Teaching methods *(500 characters)*

Through original and varied situations, this course engages all of the student's resources — motor, cognitive, relational, emotional, and informational.
Through action and experience, students are confronted with complex problem-solving and decision-making processes.
This practice encourages students to take autonomous responsibility for their own health, understood as a state of well-being requiring continuous regulation. It also contributes to preventing risky behaviors, reducing sedentary lifestyles, and promoting social integration.
Enjoyment serves as a key source of motivation, ensuring sustained engagement in both practice and learning

Number of hours per course type: *(2000 characters)*

CM:
TD: 20
TP:
PR:
CONF:
Autres:

Evaluation *(200 characters)*

Assessment
Students are evaluated on their participation, progress, and mastery of the competencies developed throughout the cycle.
Grading:

- 10 points for motor and cultural competencies.
- 5 + 5 points for two additional competencies selected by the instructor from personal, interpersonal and social, or methodological competencies.

Bibliography

Bibliography *(2000 characters)*

Cliquez ou appuyez ici pour entrer du texte.

Contacts

Contacts *(2000 characters)*

Cliquez ou appuyez ici pour entrer du texte.

Other information

Other information

Cliquez ou appuyez ici pour entrer du texte.

Nom de la matière : Spanish	Code EC: EC-HUMF06-ESP
Volume horaire total par étudiant: 21h	Nombre crédits ECTS : 1,5 ECTS
Responsible(s) : Marine Amargos Guilleray	

Généralités

Objectifs, finalités *(2000 caractères)*

1 – Beginner Level:
Establish the grammatical and linguistic foundations of the Spanish language. Introduce students to Spanish and Latin American cultures. Be able to produce simple sentences related to everyday topics.

2 – Intermediate Level:
Maintain and strengthen linguistic skills, and deepen cultural knowledge (Hispanic culture, Spanish and Latin American civilization, social issues).

- Know how to manage a team around a project.
- Be able to integrate into a multicultural environment.

Be capable of taking into account the social, environmental, technological, and economic

3 – Advanced Level:
Consolidation of linguistic skills and deepening of cultural knowledge (Hispanic culture, Spanish and Latin American civilization, social issues).

- Know how to manage a team around a project.
- Be able to integrate into a multicultural environment.
- Be capable of taking into account the social, environmental, technological, and economic challenges of Spanish-speaking countries.

- challenges of Spanish-speaking countries.

Description

Speaking and writing skills, listening and reading comprehension.

Pré-requis *(2000 caractères)*

Spanish A1: None
Spanish A2: Must have A1 level
Intermediate Spanish: Must have B1 level
Advanced Spanish: Must have B2 level

Modalités du cours et des évaluations

Langue d'enseignement *(2000 caractères)*

Spanish

Modalités d'enseignement *(500 caractères)*

Face-to-face tutorials

Volume horaire par type de cours : *(2000 caractères)*

CM :
TD : 21 hours /semester
TP :
PR :
CONF :
Autres :

Modalités d'évaluation / coefficient *(200 caractères)*

Continuous assessment- Coefficient 1,5

Bibliographie

***Bibliographie** (2000 caractères)*

"La grammaire active de l'espagnol", le livre de poche. Collection Les langues modernes + "El arte de conjugar en español" -Hatier+ "Passez-moi l'expression en espagnol", Belin + "El español en la prensa", Belin

Contacts

***Contacts** (2000 caractères)*

Marine Amargos Guilleray : marine.amargos@insa-rennes.fr

Autres

Autres informations

Cliquez ou appuyez ici pour entrer du texte.

Subject name: French foreign language	**Code EC: EC-HUMF06-FLE**
Number of hours per student: 21 hours (or 2 x 21 hours for the Exchange programme)	**ECTS Number: 1,5**
	3 credits for the Exchange
Reference Teacher: FOURE Dominique	

Generalities

Objectives *(2000 characters)*

The various activities in the FLE and FOS (French for Specific Purposes) programme aim to develop optimal language proficiency and the use of language as a cultural and intercultural vehicle, a tool for work and communication adapted to the context. Students will develop their autonomy through group work and individual work.
Targeted skills/humanities (SHS): ▪ Knowing oneself, managing oneself physically and mentally▪ Working, learning and developing independently▪ Interacting with others, working in a team▪ Demonstrating creativity, innovation and initiative▪ Acting responsibly in a complex world▪ Developing in a professional and social environment▪ Working in an international and intercultural
context

Description *(2000 characters)*

Level A1/A2
1- Language, culture and communication: Help learners feel comfortable in all everyday situations. Language learning is organised around observing how the language works, practising a variety of activities in class and carrying out projects in real or simulated contexts to promote autonomy.

2- Scientific and academic French: Facilitate integration into scientific studies, student life and social life.

Level B1/B2
1- Language, culture and communication: Help learners express themselves fluently in writing and orally on a wide range of general and specialised topics.
Key themes: Studying and living in France/ Understanding and exercising critical thinking in various fields: current affairs/history/art/science and technology, urban planning, the environment, etc.
Social sciences and humanities: socio-ecological transition, business and innovation.

2- Preparation for DELFB2 or DALFC1, compulsory French language diploma required to obtain an engineering degree**.**

Level B2/C1
1- Interculturality - Study of European and international current affairs and in-depth exploration of issues related to SHS
- Communicate and interact
- Decode intercultural references in speech, attitudes and behaviour
- Put one's values, beliefs and behaviour into perspective
- Integrate cultural diversity into group work

2- Professional French
- Prepare effectively for finding an internship or job
- Understand complex issues within the company
- Master societal, political, economic, environmental, ethical and philosophical aspects, etc.
- Act responsibly in the professional world

Requirements *(2000 characters)*

None
Courses range from beginner to advanced levels.
Each student will be placed in a group corresponding to their level and needs
- based on a test at the beginning of the year for new entrants
- based on the level acquired and assessed the previous year for existing students

Course requirements and assessments

Teaching Language *(2000 characters)*

Learners are trained and assessed on the five skills recognised by the Common European Framework of Reference for Languages (CEFR).

Teaching methods *(500 characters)*

Language, communication and intercultural skills are tailored to the target level and the needs of the group (indicated in the group code).

Number of hours per course type: *(2000 characters)*

CM:
TD:
TP:
PR:
CONF:
Autres:

Evaluation *(200 characters)*

Continuous assessment in line with the skills to be validated: CE, CO, PE, PO
INSA student programme: 21 hours/semester (1.5 credits)
Exchange programme: Students studying for a semester at INSA Rennes have the opportunity to obtain a total of 4 credits
- 1 Language Project (7 hours/semester) = 1 ECTS
- 2 FLE courses (2X21 hours/semester) e.g. Language, Culture and Communication + Interculturality

Bibliography

Bibliography *(2000 characters)*

Materials selected by the teacher based on the level and objectives to be achieved

Contacts

Contacts *(2000 characters)*

Dominique.foure@insa-rennes.fr

Other information

Other information

https://fle.insa-rennes.fr/

Subject name: Environmental impact of buildings	**Code EC: HUM06-IEB**
Number of hours per student: 24h	**ECTS Number: 1,5**
Reference Teacher: SOMJA Hugues	

Generalities

Objectives *(2000 characters)*

Cliquez ou appuyez ici pour entrer du texte.France has set a goal of achieving carbon neutrality by 2050. The construction sector plays a significant role in greenhouse gas (GHG) emissions. Therefore, a new environmental regulation, known as RE2020, mandates the calculation of the environmental impact of buildings and sets GHG emission thresholds that must not be exceeded.
The objectives of the course module are as follows:

- Master the principles of calculating the environmental impact of buildings using life cycle analysis (LCA) approaches;
- Understand its translation into the RE2020 standard and learn how to apply it;
- Measure the limitations of the current standardized approach and acquire the elements to anticipate its future developments by gaining a broader understanding of environmental impact calculation:
    - Temporal effects (static, dynamic, pseudo-dynamic LCA);
    - Transition from a single carbon criterion to a multi-criteria approach;
    - Effects of the lower and upper bounds of the calculation;
    - Result reliability through comparative and statistical analysis;
    - Effects of soil modification, LCA of neighborhoods;

Description *(2000 characters)*

The objectives of the course module are as follows:

- Master the principles of calculating the environmental impact of buildings using life cycle analysis (LCA) approaches;
- Understand its translation into the RE2020 standard and learn how to apply it;
- Measure the limitations of the current standardized approach and acquire the elements to anticipate its future developments by gaining a broader understanding of environmental impact calculation:
    - Temporal effects (static, dynamic, pseudo-dynamic LCA);
    - Transition from a single carbon criterion to a multi-criteria approach;
    - Effects of the lower and upper bounds of the calculation;
    - Result reliability through comparative and statistical analysis;
    - Effects of soil modification, LCA of neighborhoods;
    - ...

Achieving this objective will be supported by comparing with foreign and international standards and the latest research advancements.
The tutorials will teach how to perform the LCA calculation of a building using computer software.
In this module, aspects related to the energy calculations of the building during use, which are covered in other course modules, will only be briefly addressed.

Requirements *(2000 characters)*

Construction techniques

Course requirements and assessments

Teaching Language *(2000 characters)*

French

Teaching methods *(500 characters)*

Lectures and tutorials

Number of hours per course type: *(2000 characters)*

CM: 10h
TD: 14h
TP:
PR:
CONF:
Autres:

Evaluation *(200 characters)*

Project

Bibliography

Bibliography *(2000 characters)*

Cliquez ou appuyez ici pour entrer du texte.[1] A. Lebert, J.L. Chevalier, L'analyse du cycle de vie dans le bâtiment, Guide Bâtir le développement durable , CSTB,2018.
[2] R. Dionisi, Calcul et réduction de l'empreinte carbone des bâtiments – préparation à la RE 2020, Projet de fin d'études, INSA Rennes, 2020.
[3] Hoxha, E., et al. (2020). Biogenic carbon in buildings: a critical overview of LCA methods. Buildings and Cities, 1(1), pp. 504–524. DOI: https://doi.org/10.5334/bc.46
[4] B. Peuportier, Note sur l'analyse du cycle de vie des matériaux biosourcés, blog du lab recherchhe environnement, chaire VINCI Paristech, 2022 (https://www.lab-recherche-environnement.org/fr/article/note-sur-lanalyse-du-cycle-de-vie-des-materiaux-biosources/)

Contacts

Contacts *(2000 characters)*

Cliquez ou appuyez ici pour entrer du texte.

Other information

Other information

Subject name: ITALIAN LV2-LV3	**Code EC: EC-HUMF06-ITA**
Number of hours per student: 21h	**ECTS Number: 1,5**
Reference Teacher: Cécile HÖLZNER-JACQUES	

Generalities

Objectives *(2000 characters)*

Targeted skills:
Mastering a foreign language
Ability to communicate/develop/work in an international and intercultural context
Cultural openness
Communicating/interacting with others, working in a team
Working independently

Level 1 beginner: Introducing Italian language and culture, expressing ideas in writing and orally.
Level 2 advanced beginner: By the end of the course, students should be able to converse and write in Italian.
Level 3 intermediate: Give students the opportunity to explore topics related to art, civilisation, literature and cinema in greater depth.

Description *(2000 characters)*

Oral expression and comprehension: reading the course material with phonetic and grammatical corrections with the teacher, reading the situations found in the text, watching films and reading literary texts and press articles.
Written expression and comprehension: doing the exercises in the text with particular attention to difficulties, summarising the situations without the text available and the films studied.

Requirements *(2000 characters)*

Beginner level: none.
Advanced beginner level A2: must have attended the beginner Italian course.
Intermediate level B1/advanced level B2: must have a good knowledge of the Italian language.

Course requirements and assessments

Teaching Language *(2000 characters)*

Italian language

Teaching methods *(500 characters)*

The course will cover:.
Grammar concepts;.
Exercises to understand basic linguistic mechanisms;.
Building vocabulary using keywords and translations;.
Presentations and discussions on given topics;.
Asking questions and knowing how to respond;.
Creating dialogues, stories, and discussions based on given keywords;
(All of this will be adapted to the average level of the course.)

1.5 hours of face-to-face lessons per week, 21 hours per semester.
Personal work: 14 hours Read the texts provided in the handouts; 7 hours create a dialogue or short story using the keywords provided and express yourself with them.

Number of hours per course type: *(2000 characters)*

CM:
TD: 21h
TP:
PR:
CONF:
Autres:

Evaluation *(200 characters)*

S1: Final mark
S2: Oral examination

Bibliography

Bibliography *(2000 characters)*

Loesher Archivio di Grammatica, https://italianoperstranieri.loescher.it/archivio-di-grammatica

Harraps, Italian Express Method, Vittoria Bowles and Paul Coggle

Texts taken from Italian novels, poems, essays, daily and weekly newspapers, and films by famous directors

Contacts

Contacts *(2000 characters)*

Paolo Procesi: Paolo.Procesi@insa-rennes.fr

Other information

Other information

INSA RENNES : 2025/2026

Subject name: Japanese	Code EC: EC-HUMF06-JAP
Number of hours per student:	ECTS Number: 1.5
Reference Teacher: Cécile Hölzner-Jacques	

Generalities

Objectives *(2000 characters)*

Targeted skills:

Mastering a foreign language
Ability to communicate/develop/work in an international and intercultural context
Cultural openness
Communicating/interacting with others, working in a team
Working independently

Beginner level (A1):

-Awareness of specific features (phonetics, syntax)
-Discovering Japanese culture, traditions and customs
-Learning two writing systems (Hiragana and Katakana)
-Mastering spoken Japanese in everyday situations.

Intermediate level (A2):

- Introduction to ideograms (30-60 kanji)
- Reading simple texts (using manga, etc.)
- Writing simple texts
- Mastering spoken Japanese in everyday situations.

Advanced level (B1, B2):

- Learning kanji (60-200)
- Acquiring four skills (reading, listening, writing and speaking) for travelling and studying in Japan.

Description *(2000 characters)*

Description (2000 characters)
Level 1 beginner (A1):
- Improvement of Hiragana and Katakana
- Mastery of Japanese in everyday situations (Marugoto A1).
Lesson 3: Me_ Nice to meet you
Lesson 4: Me_ There are three of us in my family
Lesson 5: Food_ What kind of food do you like?
Lesson 6: Food_ Where shall we eat?
Lesson 7: The house_ It's a three-room flat
Lesson 8: The house_ What a beautiful room you have!

Lesson 9: Everyday life_ What time do you get up?
Lesson 10: Everyday life_ When are you available?
Level 2 Intermediate (A2):
- Continuation of the Marugoto textbook (Lessons 11 to 18)
- Learning new basic grammar points (past tense, potential tense, volitional tense, etc.)
- Improving and discovering new particles (で、に、から/まで, etc.)
- Discovering and learning 30-60 kanji
- Reading and writing simple texts
- Learning to communicate in everyday situations.

Intermediate level (B1, B2):

- Reading manga
- Acquiring four skills (reading and listening comprehension, writing and speaking).

Requirements *(2000 characters)*

Beginner level A1: none.
Beginner level A2: completion of beginner level A1.
Intermediate/advanced level: completion of beginner levels A1/A2.

Course requirements and assessments

Teaching Language *(2000 characters)*

Teaching methods *(500 characters)*

Teaching takes the form of tutorials. Each session consists of an explanation of concepts, which are then illustrated with examples and conversation exercises in which the students participate.

Number of hours per course type: *(2000 characters)*

CM:
TD:21h
TP:
PR:
CONF:
Autres:

Evaluation *(200 characters)*

A1
S1 and S2: Final mark

A2 and B1
S1: Final mark
S2: Oral examination

Bibliography

Bibliography *(2000 characters)*

Level 1 beginner (A1): Margoto A1, Japan Foundation, 2013, Japan.

Level 2 beginner (A2): Margoto A2, Japan Foundation, 2014, Japan.

Contacts

Contacts *(2000 characters)*

Other information

Other information

Nom de la matière : Language Project	Code EC: EC-HUMF06-LV2P
Volume horaire total par étudiant: 7 hours /semestre	Tous semestres
	Nombre crédits ECTS : 0,5
Responsable(s) : C.Hölzner, M.Amargos, D.Fouré	

Généralités

Objectifs, finalités (2000 caractères)

German Project: Mastering a foreign language Ability to communicate/develop/work in an international and intercultural context Cultural openness Communicating/interacting with others, working in a team Working independently Using and improving German language skills within the framework of a project.
Spanish Project: 1- Prepare for the Spanish language certification: the DELE Spanish Project
2- Facilitate oral expression and build students' confidence before studying abroad in a Spanish-speaking country - Acquire fluency and enjoy expressing oneself in Spanish without being constrained by grammar rules.
French as a Foreign Language (FLE) Project: 'International Student Short Film Festival' in conjunction with the Interculturality course. An educational outing (or field study) is proposed to study an issue in social sciences and/or TSE that interests them. The aim is to produce an audiovisual report that may consist of interviews, particularly with experts and professionals, to address the issue on the programme. These meetings will enable them to exchange views and refine their analysis. Finally, students will be asked to present their findings to the public. The reports will be screened at an International Festival on an intercultural theme studied in class.

Description (2000 caractères)

German Project:
- Preparation for the Goethe Institute's 'Zertifikat' exam, level B2 or C1 (external certification)
- Thematic courses: cultural awareness
- Project related to the industrial world: international economics: Germany
- Preparation for mobility
- Preparation: study trip

Spanish Project:
Spanish Project 1
- Written and oral tests
- Written and oral work in preparation for the exam
Spanish Project 2
- Oral expression: debates on current affairs and discussions on the main concerns of students

FLE Project:
- Oral expression, confidence in front of an audience
- Creation of an audiovisual report
- Preparation for oral expression to obtain the DELFB2/DALFC1

Pré-requis *(2000 caractères)*

German Project: German Level B2

Spanish Project: Baccalaureate Level

FLE Project: Levels B1 to C1

Modalités du cours et des évaluations

Langue d'enseignement *(2000 caractères)*

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Modalités d'enseignement *(500 caractères)*

German Project: 7 hours/semester in class 10 hours of independent and group work Class hours are intended to review students' independent work and project progress. Most of the work is done outside of class, preferably in groups of 2 or 3 students (exception: 'Zertifikat' project with methodological assistance during class).
Spanish Project: Regular training with DELE workbook

Volume horaire par type de cours : *(2000 caractères)*

German Project: 7 hours of tutorials per semester
Spanish Project: 7 hours of tutorials per semester
FLE Project: 7 hours of tutorials per semester

Modalités d'évaluation :

German Project: Semester 1: Final Mark - Semester 2: Final Mark

Spanish Project: Written

FLE Project: Oral/Public presentation as part of an international short film festival

Coefficient: 0.5 (1 for Erasmus exchange students)

Bibliographie

Bibliographie *(2000 caractères)*

German Project: Zertifikat Project: Goethe-Institut exam papers (B2 and C1) in the INSA library
Spanish Project: Books related to the DELE

Contacts

Contacts *(2000 caractères)*

Cliquez ou appuyez ici pour entrer du texte.

Autres

Autres informations

Cliquez ou appuyez ici pour entrer du texte.

Subject name: Intercultural Modul	**Code EC: EC-HUMF06-LV2-OI**
Number of hours per student: 21h par semestre	**ECTS Number: 1.5**
Reference Teacher: Cécile Hölzner-Jacques	

Generalities

Objectives *(2000 characters)*

The course aims to develop students' fluency in both written and spoken communication while fostering philosophical reflection. It not only enhances reading, listening, and expressive skills but also cultivates critical thinking and confident public speaking. Particular emphasis is placed on rigorous reasoning, clear argumentation, and the ability to connect philosophical inquiry with linguistic precision.

Description *(2000 characters)*

Each semester is devoted to a specific philosophical concept. For the first semester of 2025, the theme is *violence*.
The course is divided into two distinct parts. The first part focuses on language development. Each session begins with a warm-up activity designed to encourage oral participation and group interaction. Students engage in creative writing exercises — such as recounting a memory or imagining a story — to stimulate imagination and improve expressive skills. Regular reading of newspaper articles helps strengthen reading comprehension, pronunciation, and vocabulary.
The second part of the course is dedicated to project work, which constitutes the final graded assignment. Through these projects, students synthesize language practice and philosophical reflection, applying both to a concrete and personally meaningful topic.

Requirements *(2000 characters)*

Students should be able to express themselves in English with a reasonable degree of confidence. Mistakes in grammar or pronunciation are not a problem, but a solid foundation in vocabulary and basic grammar is necessary to follow the course. The class usually includes both bilingual students and others with more limited proficiency, so the activities are designed to allow everyone to participate meaningfully and progress at their own pace.

Course requirements and assessments

Teaching Language *(2000 characters)*

The course is conducted primarily in English, although French may occasionally be used for clarification or discussion when necessary.

Teaching methods *(500 characters)*

This is not a traditional lecture-based course but an interactive class built around students 'interests. It is designed as a space for expression and reflection. Written and video materials are regularly used, and students are encouraged to take an active role through role-playing activities and short theatrical performances.

Number of hours per course type: *(2000 characters)*

CM:
TD: 20 h par semestre
TP:
PR:
CONF:
Autres:

Evaluation *(200 characters)*

Assessment is based on attendance and participation, but mainly on a creative end-of-term project demonstrating linguistic skills and critical thinking, completed individually or in groups

Bibliography

Bibliography *(2000 characters)*

Books

Camus, Albert. *The Stranger*. Translated by Stuart Gilbert. New York: Vintage Books, 1942.
Dostoevsky, Fyodor. *Crime and Punishment*. Translated by Constance Garnett. New York: Modern Library, 1866.
Flock, Elizabeth. *The Furies: Women, Vengeance, and Justice*. New York: Harper, 2024.
Malm, Andreas. *How to Blow Up a Pipeline: Learning to Fight in a World on Fire*. London: Verso Books, 2021.
Manne, Kate. *Down Girl: The Logic of Misogyny*. Oxford: Oxford University Press, 2017.
Motz, Anna. *If Love Could Kill: The Myths and Truths of the Women Who Commit Violence*. New York: Knopf, 2024.
Thoreau, Henry David. *Civil Disobedience*. Boston: David R. Godine, 1849.
Zinn, Howard. *A People's History of the United States*. New York: Harper & Row, 1980.

Articles and Essays

King, Martin Luther, Jr. "Letter from Birmingham Jail." April 16, 1963.
Schwartz, Alexandra. "When Women Commit Violence." *The New Yorker*, 2024.
Zinn, Howard. "The Problem is Civil Obedience." Speech delivered at Johns Hopkins University, Baltimore, November 1970.

Films and Television

Bong Joon-ho, dir. *Parasite*. Seoul: Barunson E&A, 2019.
Coen, Joel, and Ethan Coen, dirs. *Fargo*. Los Angeles: PolyGram Filmed Entertainment, 1996.
Coen, Joel, and Ethan Coen, dirs. *No Country for Old Men*. Los Angeles: Miramax Films, 2007.
Demme, Jonathan, dir. *The Silence of the Lambs*. Los Angeles: Orion Pictures, 1991.
Fincher, David, dir. *Gone Girl*. Los Angeles: 20th Century Fox, 2014.
Fincher, David, dir. *The Girl with the Dragon Tattoo*. Culver City: Columbia Pictures, 2011.
Fincher, David, dir. *Zodiac*. Los Angeles: Paramount Pictures, 2007.
Gilligan, Vince, creator. *Breaking Bad*. Los Angeles: AMC, 2008–2013.
Kelly, Richard, dir. *Donnie Darko*. Los Angeles: Newmarket Films, 2001.
Lanthimos, Yorgos, dir. *The Killing of a Sacred Deer*. London: A24, 2017.
Lynch, David, and Mark Frost, creators. *Twin Peaks*. Los Angeles: CBS Television Distribution, 1990–1991, 2017.
Martin, Steve, and John Hoffman, creators. *Only Murders in the Building*. Los Angeles: Hulu, 2021–.
Miller, George, dir. *Furiosa: A Mad Max Saga*. Burbank: Warner Bros., 2024.
Miller, George, dir. *Mad Max: Fury Road*. Burbank: Warner Bros., 2015.
Penhall, Joe, creator. *Mindhunter*. Los Gatos: Netflix, 2017–2019.
Pizzolatto, Nic, creator. *True Detective*. Los Angeles: HBO, 2014.
Tarantino, Quentin, dir. *Kill Bill: Vol. 1* and *Kill Bill: Vol. 2*. Los Angeles: Miramax Films, 2003–2004.
Wan, James, dir. *Saw*. Santa Monica: Lions Gate Films, 2004

Contacts

Contacts *(2000 characters)*

Other information

Other information

Subject name: Russian	Code EC: EC-HUMF06-RUS
Number of hours per student: 21h	ECTS Number: 1,5
Reference Teacher: Cécile HÖLZNER-JACQUES	

Generalities

Objectives *(2000 characters)*

Russian beginner : acquire A1 level
Russian intermediary : acquire A2/B1 level

Description *(2000 characters)*

Acquisition of grammatical basis and commonplace vocabulary.
Training of the 5 skills, oral and written comprehension, oral and written expression, interaction.
The stress is put on written and oral communication, firstly in the frame of daily situations, then with a progressive introduction of other themes and opening on the professional communication.
Training with varied media (written, audio, video)
Individual exercices and works in groups, talks from the intermediate level on.
Grammar program depending on the level.
(Inter) cultural opening

Requirements *(2000 characters)*

Course requirements and assessments

Teaching Language *(2000 characters)*

Teaching methods *(500 characters)*

Number of hours per course type: *(2000 characters)*

CM:
TD: one hour -and-a-half courses per week in SUPELEc
TP:
PR:
CONF:
Autres:

Evaluation *(200 characters)*

Final grade (overseen by SUPELEC).

Bibliography

Bibliography *(2000 characters)*

To be seen with the teacher

Contacts

Contacts *(2000 characters)*

Other information

Other information