Subject name: Resistance of Materials	Code EC: GMA06-RDM
Number of hours per student : 42 hours	ECTS Number : 3
Reference Teacher: Eric RAGNEAU	

Generalities

Objectives

As an extension of the Continuum Mechanics course (cf. semester 5), the classical simplifications of beam theory and the experimental bases of Strength of Materials give this course a more pragmatic orientation, leading to the mastery of the basic tools for the calculation and design of parts in Mechanics.

Description

I. General information on beam theory (fundamental assumptions)
II. Definition of the cohesion torsor – Equilibrium Equations of a plane beam
III. Stresses and strains due to normal force and bending moments
- Equation of the elastic line
- Pure bending, simple bending, compound bending, deflected bending
- Concept of the performance of a section in bending
- Neutral axis and central core
IV. Stresses and strains due to shear forces
- Elementary Theory
- Jourawski's theory
- Study of solid and thin sections
- Concept of shear flow
- Study of the shear center
- General theorems for the calculation of displacements and rotations of beams with a mean plane (Navier-Bresse equation)
V. Application to Isostatic Straight Beams

Requirements

Bases of General Mechanics and Mechanics of Continuous Media

Course requirements and assessments

Teaching Language

French

Teaching methods

The course is taught from a "fill-in-the-blank" document that students complete with the help of the teacher during the Course-Tutorial sessions.
The Tutorial and Practical Work sessions then allow students to implement the concepts and theories seen in the Course-Tutorial.

Number of hours per course type:

Course-Tutorial : 8 hours
Tutorial : 22 hours
Practical Work : 12 hours

Evaluation

A supervised assignment grade (coefficient 3) + a practical work grade (coefficient 1)

Bibliography

Bibliography

M. KERGUIGNAS, G. CAIGNAERT : Résistance des Matériaux. DUNOD (1997).
M. ALBIGES : Résistance des Matériaux Appliquée. DUNOD.
J. COURBON : Résistance des Matériaux. DUNOD (1971).

Contacts

Contacts

André BURGUIERE, Eric RAGNEAU

Subject name: Control Systems Engineering	Code EC: GMA06-AUT
Number of hours per student: 40h (CM : 14h, TD : 14h, TP : 12h)	ECTS Number: 3
Reference Teacher: Sylvain GUEGAN	

Generalities

Objectives *(2000 characters)*

Control Systems Engineering is a discipline that deals with modeling, analysis, identification, and control of dynamic systems. The aim of this course is to provide students with a solid understanding of classical methods for:
- Analog control of single-input, single-output (SISO) dynamic systems (Laplace transform domain).
- Digital control of single-input, single-output (SISO) dynamic systems (Z-transform domain).

The targeted skills are:
→ Identification and modeling of a dynamic system.
→ Understanding the concepts of stability and robustness of a system.
→ Design and tuning of feedback control system.

Description *(2000 characters)*

1. Analog control in the Laplace transform domain:
- Models and graphical identification methods: first-order, second-order, and nth-order models; delay-first-order model (Broïda); Ziegler–Nichols and Strejc models; effects of adding poles and zeros to a transfer function; study of dominant poles.
- Feedback control systems: concept of closed-loop control; purpose and control scheme; graphical representation of open-loop and closed-loop transfer functions; Bode plots; Black–Nichols charts; pole–zero map.
- Closed-loop system performance: Routh–Hurwitz and Nyquist stability criteria; stability margins; steady-state and dynamic accuracy; performance indices; robustness; time- and frequency-domain specifications..
- Regulation and control: Proportional, Integral, and Derivative (PID) actions; feedforward correction; phase-lead and phase-lag compensation; tachometric feedback; controller design methods: semi-empirical, Bode, Black–Nichols, root locus (Evans), Naslin, internal model control.

2. Digital control in the Z-transform domain:
- Z-transform: definition, main properties, and inversion methods.
- Transmission of a numerical signal through a linear system with a zero-order holder (ZOH).
- Characterization of system modes.
- Design of digital controllers: choice of sampling period, transposition of analog design methods, proportional–integral–derivative (PID) actions, pole placement, minimum-time deadbeat controllers, RST control.

Requirements *(2000 characters)*

Signals and Systems (GMA05-SIG)

Course requirements and assessments

Teaching Language *(2000 characters)*

French

Teaching methods *(500 characters)*

Lectures, tutorials and practical lab sessions. Preparation required for tutorials and labs.

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

CM: 14h
TD: 14h
TP: 12h
PR:
CONF:
Autres:

Evaluation *(200 characters)*

Graded lab work.
Final 2-hour written exam.
Final grade = (Lab grade + 3 × Exam grade) /4

Bibliography

Bibliography *(2000 characters)*

- RIVOIRE M., FERRIER J.-L., 1992, " Cours d'automatique - tome 2 : asservissement, régulation et commande analogique ", Eyrolles ;
- KUO Benjamin C., 1995, " Automatic control systems ", Prentice Hall International Editions ;
- DE LARMINAT Ph., 1993, " Automatique, commande des systèmes linéaires ", Hermès ;
- BORNE P. et al., "Analyse et régulation des processus industriels", Tome 1, Régulation continue, Technip (Paris) ;
- JAUME D., 1989, « Applications du formalisme d'état à la commande des systèmes continus », Eyrolles ;
- GILLE J.-C., CLIQUE M., 1990, « Systèmes linéaires - Equations d'état », Eyrolles.

Contacts

Contacts *(2000 characters)*

Sylvain GUEGAN

Other information

Other information

Target audience : 3GMA

Subject name: Kinematics and Dynamics of Mechanisms	**Code EC: GMA06-CDM**
Number of hours per student:	**ECTS Number: 3**
Reference Teacher: Vigen ARAKELYAN	

Generalities

Objectives *(2000 characters)*

This course aims to equip students with the knowledge and skills required to analyze, model, and design complex mechanical systems, whether planar, spatial, or robotic.
Through the study of mechanism kinematics, dynamics, and geometric synthesis, students will gain a deep understanding of the behavior of articulated systems, gears, and cams, as well as their motion laws and balancing principles.
The ultimate goal is to train engineers capable of:

- Designing efficient mechanisms that fulfill specific functional requirements;
- Analyzing the mobility and stability of mechanical structures, including singular and overconstrained configurations**;**
- Applying modeling methods (Denavit-Hartenberg, Lagrange, Newton-Euler) to real systems, particularly in robotics;
- Optimizing mechanism performance by considering inertia forces, balancing, and motion accuracy**.**

Overall, this course provides a solid foundation for mechanism design, innovation, and mastery of dynamic behavior in modern mechanical systems.

1. Mobility, Topology, and Structural Synthesis

- Study of the mobility, topology, and structural synthesis of mechanical systems.
- Analysis of the mobility of regular and overconstrained mechanical systems.
- Examination of singular configurations of mechanisms.
- Study of overconstrained mechanisms: Bennett mechanism, spherical four-bar mechanism, and Sarrus mechanism.

2. Kinematic Analysis of Mechanisms and Robots

- Kinematic analysis of planar and spatial mechanisms.
- Coordinate transformation using the Denavit-Hartenberg method.
- Kinematic analysis of closed-chain mechanisms.

3. Kinematic Analysis of Gears and Cam Mechanisms

- Classification and fundamental definitions.
- Study of gear mechanisms: planetary and differential systems.
- Study of cam mechanisms: principal motion laws and characteristic behaviors.
- Example of cam profiling with an elastic follower.
- Kinematics of geared linkages (e.g., Watt mechanism).

4. Geometric Synthesis of Mechanisms

- Burmester problem.
- Synthesis of multi-bar linkages generating motion for three, four, or five specified positions (polynomial method).
- Problem of approximate motion reproduction.
- Approximation using the root mean square method.

- Minimization of the maximum deviation (Chebyshev approximation).

5. Dynamics of Mechanisms

- Newton-Euler equations.
- D'Alembert principle and calculation of forces in mechanism joints (matrix method).
- Assur groups: simplification of calculations using reduced-size matrices.
- Lagrange equations: application to robots and closed-chain mechanical systems.
- Equations of motion for single-degree-of-freedom mechanisms (simplified Lagrange form): examples and analyses.

6. Balancing and Inertia Forces

- Study of inertia forces and their balancing on a mechanism's frame.
- Balancing of rotating elements.
- Static balancing considering inertia forces.
- Dynamic balancing considering both inertia forces and moments.
- Approximate balancing based on minimizing the root mean square of forces and moments.

Requirements *(2000 characters)*

A solid understanding of the fundamentals of general mechanics, statics, rigid-body kinematics, and matrix algebra is required. Foundational knowledge in dynamics, differential equations, approximation methods, and mechanical system modeling will also facilitate the comprehension of the course.

Course requirements and assessments

Teaching Language *(2000 characters)*

French

Teaching methods *(500 characters)*

Lectures: 14 hours

Tutorials (TD): 10 hours

Laboratory sessions (TP): 16 hours

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

CM: 14h
TD: 10h
TP: 16h
PR: -
CONF: 2h
Autres:

***Evaluation** (200 characters)*

2-hour supervised exam; lab marks

Bibliography

***Bibliography** (2000 characters)*

1. Arakelian, V. (2025). Mobility of Mechanisms and Robot Manipulators: A Training Manual with Illustrative Examples.
2. Erdman, A. G., Sandor, G. N., & Kota, S. (2001). Mechanism Design: Analysis and Synthesis (Vols. 1 & 2).
3. Uicker, J. J., Pennock, G. R., & Shigley, J. E. (2016). Theory of Machines and Mechanisms.
4. McCarthy, J. M., & Soh, G. S. (2010). Geometric Design of Linkages.
5. Tsai, L.-W. (2001). Mechanism Design: Enumeration of Kinematic Structures According to Function.
6. Ghosh, A., & Mallik, A. K. (1988). Theory of Mechanisms and Machines.
7. Waldron, K. J. & Kinzel, G. L. (2020). Kinematics, Dynamics, and Design of Machinery.

Contacts

***Contacts** (2000 characters)*

Vigen ARAKELYAN

Tél.: 02 23 23 84 92

Mail: vigen.arakelyan@insa-rennes.fr

Other information

Other information

Cliquez ou appuyez ici pour entrer du texte.

Subject name: Partial Differential Equations	Code EC: GMA06-EDP
Number of hours per student: 28.00 h	ECTS Number: 2.00 credits
Reference Teacher: Olivier LEY	

Generalities

Objectives *(2000 characters)*

The objective of this course is to introduce, from physical models, the main types of partial differential equations and give exact solution methods in simple cases.

Description *(2000 characters)*

- Equation of advection
- Wave equation
- Heat equation

Requirements *(2000 characters)*

Mathematical courses from the undergraduate program of INSA (years 1-2) or equivalent skills: functions of several variables, ordinary differential equations, integration, Fourier series.

Course requirements and assessments

Teaching Language *(2000 characters)*

The course is taught in French.

Teaching methods *(500 characters)*

Classic courses and tutorials.

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

CM: 14.00 h
TD: 14.00 h
TP:
PR:
CONF:
Autres:

Evaluation *(200 characters)*

1 written exam.

Bibliography

Bibliography *(2000 characters)*

- L. C. Evans, *Partial Differential Equations*, American Mathematical Society.

Contacts

Contacts *(2000 characters)*

Olivier Ley

Other information

Other information

Subject name: Fluid mechanics	**Code EC: GMA06-MDF**
Number of hours per student: 42	**ECTS Number: 3**
Reference Teacher: Noé LAHAYE	

Generalities

Objectives *(2000 characters)*

The main objective of this module is to provide a foundation of fundamental knowledge in fluid mechanics and enable GMA engineering students to acquire this knowledge so that they can apply and perfect it within a possible specialization in their future studies. The module also covers practical applications in the fields of hydraulics, turbulence, and aerodynamics.

Description *(2000 characters)*

Lectures and tutorials:
1. Fluid statics - Hydrostatics: hydrostatic pressure, calculation of pressure forces on walls
2. Fluid kinematics: Lagrange and Euler variables, velocity field, acceleration, continuity, flow rate, streamlines, plane flow, stream function
3. Dynamics of incompressible ideal fluids: Bernoulli's theorem, Euler's theorem, applications
4. Dynamics of viscous fluids: stresses, deformations, general equations, some solutions to the Navier-Stokes equations (couette flows, Poiseuille flows, boundary layers
5. Hydraulics: singular and regular pressure losses, study of hydraulic circuits
6. Notions of aerodynamics
7. Introduction to instabilities and turbulence

Practical work:
- Study of pressure losses
- Study of lift and drag in a wind tunnel
- Hydraulic characteristics of a pumping unit and measurement of pressure loss

The practical work includes some numerical modeling using MecaFlux software.

Requirements *(2000 characters)*

STPI4-MECA
GMA05-MMC: Mechanics of Continuous Media and Elasticity
GMA06-EDP: Partial Differential Equations

Course requirements and assessments

Teaching Language *(2000 characters)*

French

Teaching methods *(500 characters)*

Teaching delivered in the form of lectures/tutorials and practicals

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

CM: 16
TD: 14
TP: 12
PR:
CONF:
Autres:

Evaluation *(200 characters)*

1 three-hour written exam / weighting 3
1 practical assessment mark / weighting 1

Bibliography

Bibliography *(2000 characters)*

- R. Comolet, Mécanique expérimentale des fluides, 3 tomes, éditions Masson
- S. Amiroudine, J.-L. Battaglia, Mécanique des fluides, éditions Dunod (2022)
- P. Chassaing, Mécanique des fluides : éléments d'un premier parcours, éditions Cépadues
- R. Ouziaux, J. Perrier, Mécanique des fluides appliquée, éditions Dunod
- R. Joulié, Mécanique des fluides appliquée, éditions ellipses

Contacts

Contacts *(2000 characters)*

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Other information

Other information

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Subject name: Industrial Methods and Processes	Code EC: GMA06-MOPI
Number of hours per student: 42 hours	ECTS Number: 3
Reference Teacher: Jean Guillaume GOURDON	

Generalities

Objectives *(2000 characters)*

This EC aims to equip future mechanical and automotive engineers with the skills essential for the design, industrialisation and control of manufactured products.
It enables students to understand and master machining processes and associated industrial methods, in order to ensure the production of mechanical parts under optimal conditions in terms of quality, cost and lead time.
Upon completion of the course, students will be able to:

- Design a complete manufacturing sequence for a metal part by choosing the most appropriate machining processes;
- Validate the performance of a manufacturing sequence for a metal part (manufacturing dimensions, isostatic precision, etc.);
- Manage manufacturing in a digital environment (computer-aided manufacturing);
- Integrate environmental considerations into the industrialisation process, particularly in relation to product life cycles and the management of material and waste flows.

This course follows on from EC GMA05-PMI and contributes to the development of an engineering approach capable of communicating with all players in the industrial chain, from the design office to production, with a view to overall and sustainable performance.

Description *(2000 characters)*

The course covers methods for industrialising a product:

1. Machining range;
2. Manufacturing dimensions;
3. Isostatic validation;
4. Computer-aided manufacturing (CAM);
5. Unconventional processes;
6. High-speed machining;
7. Complex surface machining.

The teaching approach emphasises practical application through case studies, tutorials and practical work on real or simulated machines.

Requirements *(2000 characters)*

The prerequisites are related to the 3GMA courses on processes: GMA05-PMI:

- Fundamentals of mechanical design and technical drawing (reading plans, functional dimensioning, etc.);
- Basic concepts of material strength and general mechanics;
- Fundamentals of metallic materials and their technological properties;
- Basic concepts of raw material production (casting, forging, etc.);
- Fundamental concepts of machining;
- Fundamental concepts of metrology (specification analysis, control methods, etc.).

These prerequisites are intended to ensure that students are able to relate the theoretical aspects of processes to the realities of industrial manufacturing from a methodological perspective.

Course requirements and assessments

Teaching Language *(2000 characters)*

French

Teaching methods *(500 characters)*

Teaching is based on a pedagogical approach that integrates theory, experimentation and critical analysis, alternating between lectures (conceptual input), tutorials (industrial problem solving) and practical work (implementation on machines and measuring devices).

Case studies illustrate the cross-disciplinary nature of processes, methods and sustainability constraints.

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

CM: 12h
TD: 14h
TP: 16h
PR: 0h
CONF: 0h
Autres: 0h

Evaluation *(200 characters)*

Supervised assignment (3 hours), Practica.l work

Bibliography

Bibliography *(2000 characters)*

SANDVIK COROMANT, « Guide technique d'usinage », Sandvik Coromant, 2012 à 2020
GARANT, « Manuel d'usinage », Garant, 2024.
Norme AFNOR NF E04-013, « Spécification géométrique des produits (GPS) - Symbolisation des prises de pièces », AFNOR, février 2015.
R. DIETRICH, G. FACY, E. HUGONNAUD, M. POMPIDOU, J.-P. TROTIGNON, « Précis de construction mécanique – 2. Méthodes, fabrication et normalisation », AFNOR/Nathan, 1979.
J.P. CORDEBOIS et coll, « Fabrication par usinage – 2ème édition », DUNOD, 2013.
C. MARTY, J.-M. LINARES, « Industrialisation des produits mécaniques – Tome 1 : Conception et industrialisation », HERMÈS SCIENCE, 1999.
M. AGULLO, « Optimisations fabrication », CÉPADUÈS-ÉDITIONS, 2000.
R.D. WEILL, « Conception des gammes d'usinage », TECHNIQUES DE L'INGÉNIEUR.
P. BOURDET, « 2e partie – Gamme d'usinage », ENS Cachan, novembre 2003.

B. ANSELMETTI, « Tolérancement : cotation de fabrication et métrologie », HERMÈS SCIENCE, 2003.

Contacts

Contacts *(2000 characters)*

Jean-Guillaume GOURDON

Other information

Other information

-

Subject name: Discrete mechanical systems modeling	**Code EC: GMA06-MSMD**
Number of hours per student: 24h	**ECTS Number: 2**
Reference Teacher: Eric COURTEILLE	

Generalities

Objectives *(2000 characters)*

Raise students' awareness of issues related to vibratory phenomena, and provide them with the fundamental knowledge in vibratory dynamics of discrete mechanical systems required to address noise and vibration reduction methods as well as industrial measurement techniques.

Description *(2000 characters)*

Students carry out a 12-hour project on a concrete case study, renewed each year and inspired by industrial applications, which they model and simulate in Matlab/Simulink using numerical data representative of the physical orders of magnitude. A course handout is provided, and a 4-hour introductory lecture in amphitheatre format is used to set the objectives, the positioning within the curriculum, and the role of the module within the design process. The project is complemented by 8 hours of laboratory work, supported by a dedicated test bench, enabling students to experimentally validate the concepts addressed (resonance, vibration isolation, time-frequency analysis, etc.).

Requirements *(2000 characters)*

Analytical mechanics of rigid-body systems (Fundamental Principle of Dynamics, Lagrange Equations).

Course requirements and assessments

Teaching Language *(2000 characters)*

French

Teaching methods *(500 characters)*

– 2 × 2-hour lectures.
– 6 × 2-hour tutorial sessions.
– 2 × 4-hour laboratory sessions.
– Online contents: lecture slides, course handout, formula sheet, tutorials and examples for numerical simulation tools.

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

CM: 4h
TD: 12h
TP: 8h
PR:
CONF:
Autres:

Evaluation *(200 characters)*

– Project report (coefficient 1)
– 2-hour final exam at the end of the semester (coefficient 3)

Bibliography

Bibliography *(2000 characters)*

1. University of Cincinnati, « Vibrations: analytical and experimental modal analysis », 1999.
2. Harris, C. et Piersol, A., « Shock and Vibration Handbook », Mc Graw-Hill, 5ième édition.
3. Plusquellec, J., « Vibrations », Techniques de l'ingénieur, A410.

Contacts

Contacts *(2000 characters)*

Eric Courteille (Eric.courteille@insa-rennes.fr)

Other information

Other information

Cliquez ou appuyez ici pour entrer du texte.

Subject name: Mechanical design project	Code EC: GMA06-PCO
Number of hours per student: 24h	ECTS Number: 2
Reference Teacher: Romain FISCHESSER	

Generalities

Objectives *(2000 characters)*

- Modelling a mechanism using a multi-body dynamic analysis software
- Dimensioning the mechanical components of the mechanism
- Numerical modelling of the mechanism with Solidworks
- Have initial experience in the development cycle of an industrial product

Description *(2000 characters)*

The project is divided into three main phases:

- **Phase 1 :**

  ✓ With the Adams software, modelling of the mechanism to obtain the forces in the various joints and the forces applied to the main mechanical components to be sized.

- **Phase 2 :**

  ✓ Dimensioning all the mechanical components of the mechanism studied. Writing calculation notes.

- **Phase 3 :**

Propose a design for the mechanism incorporating all the mechanical components dimensioned in phase 2.
Produce the digital model of the mechanism with Solidworks software (CAD)

Requirements *(2000 characters)*

GMA05-ARSM : Mechanical system analysis and representation
GMA06-DICM : Mechanical systems design

Course requirements and assessments

Teaching Language *(2000 characters)*

French

Teaching methods *(500 characters)*

This project takes place over 6 sessions of 4 hours, with work being carried out in pairs. At the end of each of the phases 1 to 3 defined above, a deliverable is provided.

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

CM: 0
TD: 24h
TP: 0
PR: 0
CONF: 0
Autres: 0

Evaluation *(200 characters)*

The final evaluation is the average of the evaluations for each deliverable.

Bibliography

Bibliography *(2000 characters)*

Construction mécanique, AUBLIN, CAHUZAC, FERRZA, VERNHERES
Guide des sciences et technologies industrielles, FANCHON
Eléments de machines, SZWARCMANN
Construction Mécanique Transmission de Puissance, ESNAULT
Mécanique du solide, AGATI P., BREMONT Y., DELVILLE G, Ed. Dunod
Liaisons et mécanismes, AGATI P., ROSETTO M., Ed. Dunod, 1994
Traité théorique et pratique des engrenages, HENRIOT G., tome 1, Ed. Dunod
Mémotech Productique, Conception et dessin, BARLIER C., BOUGEOIS R., Ed. Casteilla

Contacts

Contacts *(2000 characters)*

Romain FISCHESSER.
romain.fischesser@insa-rennes.fr

Other information

Other information

Cliquez ou appuyez ici pour entrer du texte.

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

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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: 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)*

Cliquez ou appuyez ici pour entrer du texte.

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