Subject name: Statistical learning	Code EC: DMA08-AS
Number of hours per student: 36.00 h	ECTS Number: 2.00 credits
Reference Teacher: Olivier LEY, Dominique MONNET	

Generalities

Objectives *(2000 characters)*

Objectives of this course are to make students acquainted with classical tools for statistical learning and decision-making and with modern techniques for high-dimensional data.

Description *(2000 characters)*

- Pre-processing
- Supervised learning:
  - Decision theory
  - Learning from data
  - Linear regression: least-squares, regularization (Ridge, Lasso)
  - Classification: Hinge loss, logistic loss
- Support Vector Machine
- Neural networks
- Deep learning:
  - convolutional neural networks
  - recurrent networks
- Ethical issues of algorithms and machine learning

Requirements *(2000 characters)*

Courses of "Introduction to mathematical softwares", "Linear regression models", “Continuous optimization” (3rd year) and "Risk analysis and scoring" (4th year).

Course requirements and assessments

Teaching Language *(2000 characters)*

The course is taught in French if the students are French-speaking. The speakers can give the course in English if necessary.

Teaching methods *(500 characters)*

Classic courses and tutorials, practical work on computers.

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

CM: 12.00 h
TD: 12.00 h
TP: 12.00 h
PR:
CONF:
Autres: including 2.00 h ST2

Evaluation *(200 characters)*

1 written exam (coefficient 2/3) and a practical exam and/or a project (coefficient 1/3).

Bibliography

Bibliography *(2000 characters)*

- F. Bach, Learning Theory from First Principles (mathematical aspects of machine learning)
- V. Garès, Apprentissage statistique, cours INSA Rennes.
- T. Hastie, R. Tibshirani, J. Friedman. The elements of statistical learning: data mining, inference, and prediction. Springer, 2009.
- T. Liard, Introduction to Machine learning, cours Université de Limoges.
- C. O'Neil. Algorithmes: la bombe à retardement. Ed. Les arènes.

Contacts

Contacts *(2000 characters)*

Olivier Ley, Dominique Monnet

Other information

Other information

Part of the course is devoted to raising awareness of ethical issues surrounding the use of algorithms and machine learning

Subject name: Engineering Practical and Realistic Study	**Code EC: DMA08-BE**
Number of hours per student: 36h	**ECTS Number: 2.50 crédits**
Reference Teacher: Othmane JERHAOUI	

Generalities

Objectives

Our main objective is to provide students with hands-on experience in carrying out projects in collaboration with industrial partners. This experience helps them develop the ability to identify and apply appropriate mathematical tools to address real-world problems. The projects are conducted in groups, fostering teamwork and enhancing each student's collaborative skills.

Description

- Each group is jointly supervised by an industrial partner and a researcher from the INSA (Department of Applied Mathematics).
- The groups are required to design an appropriate solution, prepare a written report, and present their work orally before a committee. Several meetings are scheduled throughout the project to ensure proper guidance and progress.

Requirements *(2000 characters)*

All courses from S5 to S7 (in the department of applied mathematics).

Course requirements and assessments

Teaching Language

French and English.

Teaching methods *(500 characters)*

- The students are expected to have a certain degree of autonomy.
- Regular meetings with the advisors are scheduled throughout the semester.

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

CM:
TD:
TP:
PR:
CONF:
Autres: 36.00h

Evaluation *(200 characters)*

A mark is awarded by the committee and the industrial advisor after the defense. This mark corresponds to the quality of the work, the report and the oral defense.

Bibliography

Bibliography *(2000 characters)*

- The bibliography depends on the subject and will be given to each group by their advisors.
- The students are expected to look for other bibliographical sources.

Contacts

Contacts

Othmane Jerhaoui

Other information

Other information

N/A

Subject name: High Performance Computing	Code EC: DMA08-CHP
Number of hours per student: 36	ECTS Number: 2
Reference Teacher: Jean-Louis PAZAT	

Generalities

Objectives *(2000 characters)*

The goal of this course is to provide students with the foundational knowledge necessary to understand and design high-performance computing programs. We emphasize how to lever locks to implement high-performance programs on both small sized parallel architectures, such as multicore processors of desktop computers, and on larger architectures, such as the large clusters of the TOP500.

Description *(2000 characters)*

- Introduction to the concepts of complexity, performance, and speedup
- Presentation of high-performance computing machines
- Parallel programming
- Some models:
    - multithreaded model (PThreads, OpenMP),
    - SIMD model,
    - distributed memory model, and cluster programming (MPI)

Requirements *(2000 characters)*

- Mastering C programming language
- Basic knowledge of algorithms

Course requirements and assessments

Teaching Language *(2000 characters)*

French

Teaching methods *(500 characters)*

Lectures + Many Practical works on a parallel computing server, workstations and laptops.

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

CM : 8h
TD : 8h
TP : 20h
PR : 0h
CONF : 0h
Autres : 0h

Evaluation *(200 characters)*

Written exam (2 h)

Bibliography

Bibliography *(2000 characters)*

R. Chandra, R. Menon, L. Dagum, D. Kohr, D. Maydan, J. McDonald. Parallel Programming in OpenMP. Morgan Kaufmann, 2000.
T. Rauber, G. Rünger. Parallel Programming: for Multicore and Cluster Systems. 2nd edition 2013.
W. Gropp, E. Lusk, A. Skjellum. Using MPI: Portable Parallel Programming with the Message-Passing Interface. MIT Press, 1999.
W. Gropp, E. Lusk, R. Thakur. Using MPI-2. MIT Press, 1999.

Contacts

Contacts *(2000 characters)*

Jean-Louis Pazat (Jean-Louis.Pazat@insa-rennes.fr)

Other information

Other information

Cliquez ou appuyez ici pour entrer du texte.

INSA RENNES - Applied Mathematics : 2025/2026

Subject name: Modelling with Partial Differential Equation and Numerical Resolution	**Code EC: DMA08-MERN**
Number of hours per student: 42h	**ECTS Number: 3.00 credits**
Reference Teacher: Othmane Jerhaoui	

Generalities

Objectives

The course is concerned with an introduction to mathematical and numerical analysis of linear partial differential equations.

Description

1. Theoretical study

   - Examples of industrial problems and applications
   - Classification of PDEs
   - Detailed study of advection equation, heat equation and wave equation.

2. Numerical approximation

   - Finite difference method: spatial discretization, stability, consistency, and convergence.
   - Finite element method: weak formulation, stability, assembly matrix.
   - Practical work on MATLAB.

Requirements

- Modelling with ordinary differential equations (S5).
- Numerical methods for linear systems (S5).
- Numerical methods, non-linear case (S6).
- Hilbertian tools and applications (S7).

Course requirements and assessments

Teaching Language

The lectures are in French. The lecture notes are in English. The lectures can be given in English if necessary.

Teaching methods

Classic courses and tutorials, practical work on computers.

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

CM: 14.00h
TD: 12.00h
TP: 16.00h
PR:
CONF:
Autres:

Evaluation

1 written exam (coefficient 1/2) and a project (coefficient 1/2).

Bibliography

Bibliography

- D. Arrigo, An introduction to Partial Differential Equations, Second Edition. Springer 2023.

- A. Ern, J.L. Guermond, Theory and Practice of Finite Elements. Applied Mathematical Sciences (159), Springer-Verlag New York, 2004.

- A. Quarteroni, F. Saleri, P. Gervasio, Calcul Scientifique. Cours, exercices corrigés et illustrations en MATLAB et Octave. Springer, 2008.

- J. Rappaz, M. Picasso, Introduction à l'analyse numérique. Presses polytechniques et universitaires romandes, 2004. - F. Filbet, Analyse numérique. Algorithme et étude mathématique. Dunod, 2013.

Contacts

Contacts *(2000 characters)*

Cliquez ou appuyez ici pour entrer du texte.

Other information

Other information

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Subject name: Large-Scale Optimization	Code EC: DMA08-OGD
Number of hours per student: 30 h	ECTS Number: 2
Reference Teacher: Abdelaziz BELMILOUDI	

Generalities

Objectives *(2000 characters)*

The objective of this course is to introduce methods appropriate to the problems of large-scale complex systems. The main ideas are based on the theory of decomposition-coordination optimization and methods such as interior points. The course will cover practical optimization applications.

Description *(2000 characters)*

I. Optimization problems under constraints (implicit and explicit) and duality
II. Augmented Lagrangian methods in quadratic optimization and SQP methods (Successive Quadratic Optimization)
III. Decomposition/coordination methods and applications
- Formulation and examples - Price decomposition
- Optimal resource allocation decomposition
- Prediction decomposition
- Proximal decomposition

IV. Principle of the auxiliary problem
V. Applications

Requirements *(2000 characters)*

This teaching needs the knowledge of
- Basic mathematics of the Bachelor
- Numerical linear methods,
- Numerical nonlinear methods
- Smooth and nonsmooth optimization

Course requirements and assessments

Teaching Language *(2000 characters)*

French/English

Teaching methods *(500 characters)*

The complete lecture course consists of a projected part and a part done with chalk on the blackboard

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

CM: 12h
TD: 8h
TP: 10h
PR:-
CONF:-
Autres:-

Evaluation *(200 characters)*

One written examination (2/3) and a practical examination and/or project (1/3)

Bibliography

Bibliography *(2000 characters)*

A. Belmiloudi. Stabilization, Optimal and Robust Control. Theory and Applications in Biological and Physical Sciences, Springer-Verlag, 2008
M. Grötschel et al. (Eds.) Online Optimization of large Scale Systems, Springer-Verlag, 2001.
D.P. Bertsekas. Constrained optimization and Lagrange multiplier methods, Academic Press, 1999.
L.T. Biegler et al. (Eds.) Large-Scale Optimization with Applications, Springer-Verlag, 1997.
J.-C. Culioli. Algorithmes de decomposition-coordination en optimisation stochastique. RAIRO, 1986.
B. Jansen. Interior Point Techniques in Optimization, Complementarity, Sensitivity and Algorithms.. Kluwer Academic Publishers. 1997
D.A. Wismer (Ed.), Optimization Methods for Large Scale Systems with Applications, MacGraw-Hill, 1971.

Contacts

Contacts *(2000 characters)*

Aziz.belmiloudi@insa-rennes.fr

Other information

Other information

Cliquez ou appuyez ici pour entrer du texte.

Subject name: Nondifferentiable Optimization, Applications in data	Code EC: DMA08-OND
Number of hours per student: 22 h	ECTS Number: 2.0
Reference Teacher: HADDOU Mounir	

Generalities

Objectives *(2000 characters)*

The aim of this course is to give an introduction to non-differentiable convex optimization, to introduce several modern or updated algorithms, recognized for their effectiveness in solving or approaching problems encountered in statistics anddata analysis. The course will be partly interactive and half of the practical work will be done in reverse mode.

Description *(2000 characters)*

- nonsmooth analysis and convexity.
- Accelerated gradient and subgradient methods.
- Stochastic and constrained gradient methods.
- Alternated directions methods.
- Nonsmooth optimization techniques.
- Augmented Lagrangien methods and ADMM.

Applications :
- Sparse inverse covariance estimation.
- Sparse principal components.
- Low-rank decomposition.
- Support Vector Machines.
- Logistic regression, …

Requirements *(2000 characters)*

Course assumes a good working knowledge of Continuous optimization, and numerical Analysis (3rd year). New material will be covered in depth in the class, but a strong background will be necessary. Course material and homework also assume a good working knowledge of MATLAB and Python, and Basic classical knowledge on statistics.

Course requirements and assessments

Teaching Language *(2000 characters)*

French (English if necessary (when some student(s) can not use French)

Teaching methods *(500 characters)*

Lectures, exercises and labs. (Some labs are done in reverse mode)

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

CM: 8
TD: 6
TP: 8
PR:
CONF:
Autres:

Evaluation *(200 characters)*

One written examination (2/3 of the final mark) and a practical examination and/or project (1/3 of the final mark).

Bibliography

Bibliography *(2000 characters)*

S. Boyd et al, , http://cvxr.com/cvx/, Convex Optimization.
J.F. Bonnans et al. Optimisation numérique. Aspects théoriques et pratiques. Springer, 1997.
J.F. Bonnans. Optimisation continue, Cours et problèmes corrigés. Dunod, 2006.
D. P. Bertsekas Convex Optimization Algorithms ISBN: 1-886529-28-0, 978-1-886529-28-1 , 2015.

Contacts

Contacts *(2000 characters)*

Mounir Haddou, Rozenn Texier-Picard

Other information

Other information

2 hours are dedicated to application(s) related to sustainable digital development.

Subject name: Design of experiments	Code EC: DMA08-PE
Number of hours per student: 28h	ECTS Number: 2
Reference Teacher: Pierrette CHAGNEAU	

Generalities

The aim of this course is to familiarize students with experimental design methodology. At the end of the course, students will have a knowledge of different possible classes of experimental designs. They should be able to design an experiment and to analyze the results with appropriate statistical methods.

Description *(2000 characters)*

One-way ANOVA, Two-way ANOVA with replication
Introduction to experimental design methodology
Factorial designs
Fractional factorial designs
Response surface designs
Design for mixture experiments

Requirements *(2000 characters)*

Inferential Statistics (Estimation, Hypothesis testing)
Linear Regression models
Computational skills with software R

Course requirements and assessments

Teaching Language *(2000 characters)*

French

Teaching methods *(500 characters)*

Lectures and small group tutorials

Handout in English

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

CM: 10h
TD: 12h
TP: 6h
PR:
CONF:
Autres:

Evaluation *(200 characters)*

One written examination (2h)

Bibliography

Bibliography *(2000 characters)*

J.-M. Azaïs, J.-M. Bardet. Le modèle linéaire par l'exemple. Dunod, 2005.
J.J. Droesbeke, J. Fine, G. Saporta. Plans d'expériences : Applications à l'entreprise. Editions Technip, 1997.
J. Goupy, L. Creighton. Introduction aux plans d'expériences. Dunod, 3ème édition, 2006.
J. Goupy. Plans d'expériences pour surfaces de réponse. Dunod, 1999.
W. Tinsson. Plans d'expériences : constructions et analyses statistiques. Springer, 2010.

Contacts

Contacts *(2000 characters)*

Pierrette.Chagneau@insa-rennes.fr

Other information

Other information

Cliquez ou appuyez ici pour entrer du texte.

Subject name: Research Project	Code EC: DMA08-PIR
Number of hours per student: 36 h	ECTS Number: 2.5
Reference Teacher: Abdelaziz BELMILOUDI	

Generalities

Objectives *(2000 characters)*

The objective is to propose a discovery of the profession of researcher and its professional environment in an academic or industrial context.

Description *(2000 characters)*

A project exploring one of the themes favored by the student will be proposed by a senior researcher from an academic/industrial laboratory in Rennes. It is adapted to the skills acquired until then by the student.
It is requested to conduct an interview with a researcher from at least three different laboratories. The project can be accompanied by any initiative of discovery of the world of research (visit of academic or industrial laboratories, participation in meetings of follow-up of research projects, process of publication of a scientific article ...)

Requirements *(2000 characters)*

Strong academic results.

Course requirements and assessments

Teaching Language *(2000 characters)*

English/ French

Teaching methods *(500 characters)*

36h are reserved in the timetable of the semester. Each session is an opportunity to discuss with his tutor.

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

CM:
TD:
TP:
PR:
CONF:
Autres: 36h

Evaluation *(200 characters)*

A report of not more than 25 pages in English. A 20 minutes defense in English.

Bibliography

Bibliography *(2000 characters)*

Each project is based on a specific bibliographic study

Contacts

Contacts *(2000 characters)*

Aziz.belmiloudi@insa-rennes.fr

Other information

Other information

Target audience:
A maximum of N engineering students with strong academic results, where N = E(20% of the current class).

Subject name: Business seminar	Code EC: DMA08-SE
Number of hours per student: 23 h	ECTS Number: 0.5
Reference Teacher: Jean-François DUPUY, Mounir HADDOU, Olivier LEY	

Generalities

Objectives *(2000 characters)*

This module is an open forum for stakeholders of the business world. It covers all semesters of the engineering curriculum and aims at providing the students a broad-spectrum engineering culture. This module will constitute a unique opportunity for students to discover the different career profiles of mathematical engineering. Through this module, the students will also acquire some useful technical, managerial and juridical skills and a solid operational expertise. Finally, this module will help the students raising their awareness to the challenges of sustainable development and to the societal aspects of their future profession of engineer.

Description *(2000 characters)*

In the 4th year, the module will offer (among others):

- Specific software training ;

- some awareness to specific technical issues related to the profession of mathematical engineer (such as scoring, pricing...).

Requirements *(2000 characters)*

Course requirements and assessments

Teaching Language *(2000 characters)*

French

Teaching methods *(500 characters)*

Different kind of presentations and interventions.

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

CM: 23
TD:
TP:
PR:
CONF:
Autres:

Evaluation *(200 characters)*

The assessment is based on some report delivery.

Bibliography

Bibliography *(2000 characters)*

Contacts

Contacts *(2000 characters)*

DUPUY Jean-François, HADDOU Mounir, LEY Olivier

Other information

Other information

Subject name: Internship	Code EC: DMA08-STAGE08
Number of hours per student: 240.00 h	ECTS Number: 8.00 credits
Reference Teacher: Olivier LEY	

Generalities

Objectives *(2000 characters)*

Each student in the Applied Mathematics Department (MA) has to carry out an internship in a company or a research laboratory (in France or in a foreign country). The minimal duration is 8 weeks and an agreement has to be signed between INSA, the company and the student. This internship takes usually place during the 4th year (in some case during the 3rd year). It can start in May and ends before September.
The objectives are to allow the student:
- to get a work experience in an industrial or business environment or/and in research;
- to improve his/her skills in communication, teamwork, creativity, integration in the professional world;
- to have a firsthand opportunity to assess his/her capacities in a job directly related to their field of studies.

Description *(2000 characters)*

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Requirements *(2000 characters)*

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Course requirements and assessments

Teaching Language *(2000 characters)*

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Teaching methods *(500 characters)*

The internship is a full time work in the company under the responsibility of an advisor of the company. The internship is also supervised by a researcher from INSA.

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

CM:
TD:
TP:
PR: 1.00 h
CONF:
Autres:

Evaluation *(200 characters)*

The achievement of the internship provides 8 ECTS credits (which count for the 4th year). The student writes a report leading to an oral defense. Three marks are given:
- 1 mark awarded by the internship supervisor for work accomplished.
- 1 mark for the written report awarded by the INSA supervisor.
- 1 mark is awarded by a committee (including the INSA supervisor) after the defense.

The average of the marks gives a global mark couting for the 5th year.

Bibliography

Bibliography *(2000 characters)*

Cliquez ou appuyez ici pour entrer du texte.

Contacts

Contacts *(2000 characters)*

Olivier Ley

Other information

Other information

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Nom de la matière : Allemand	**Code EC: EC-HUMF08-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)*

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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-HUM08-ANGL
Total number of hours per student : 28h	ECTS : 2
Supervisor : Philippe LE VOT	

General information

Objectives and Purposes
General Objectives:
Acquisition of the linguistic tools necessary for work in a company. Achieving the required level (B2) for the awarding of the diploma.

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

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Description

- **Action-oriented approach to language learning:** Learn by doing: speaking and listening, writing a document while leveraging problem-solving, construction, demonstration, and persuasion skills.
- **Expressing oneself with precision** through rigorous use of syntax and phonology. Activities that call on the creativity and responsiveness of students, such as debates, role-playing, individual oral presentations using PowerPoint or Canva, and projects, will focus on current, scientific, and societal topics.
- Writing letters and CVs.
- Syntax structures specific to scientific English.
- Exploring the professional world in an international context.
- Preparation for the TOEIC (2nd semester: specific course "TOEIC Booster").

Prerequisites:
English courses from the 1st, 2nd, and 3rd years or equivalent.

Course and Evaluation Modalities

Language of Instruction
English

Teaching Methods
The classes are two hours long and are held in rooms that are mostly equipped with projectors and sound systems. We have a multimedia language lab as well as computer rooms to provide students with a setting conducive to stimulating learning.

The educational resources used include press articles, audio and video materials (TV reports, excerpts from films or series), and the Internet is used as a documentary source.

Regular personal work is required. Students are expected to be curious and to 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 (see departments) + 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-HUMF08-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.

Subject name: PHYSICAL EDUCATION (EPS) SEMESTER 8	**Code EC: EC-HUM08-EPS**
Number of hours per student: 20H	**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 8 focus : Participate in a creative process and generate innovative solutions. Understand one's motor preferences and identify the motivations driving one's practice to ensure long-term engagement throughout life;* 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 8 focus:* Demonstrate the appropriate behaviors to maintain group safety. Handle conflicts in a way that leads to constructive and mutually beneficial outcomes.
Methodological Competencies: Manage complex projects by setting objectives, planning, and evaluating outcomes. Make informed decisions through observation, reflection, and feedback. *Semester 8 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; Manage and oversee the progress of a collective project.

Requirements *(2000 characters)*

Cliquez ou appuyez ici pour entrer du texte.

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-HUMF08-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-HUMF08-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-HUMF08-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

Subject name: Japanese	**Code EC: EC-HUMF08-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-HUMF08-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-HUMF08-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-HUMF08-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

Subject name: Economic, legal and social issues	Code EC: EC-HUM08-TEJS
Number of hours per student: 10	ECTS Number: 1
Reference Teacher: Adeline Le Mabec	

Generalities

Objectives *(2000 characters)*

The module's main objective is to raise students' awareness of economic, legal, and social issues. Key learning outcomes include: developing analytical skills for understanding current economic, legal, and social topics; grasping the underlying logic and mechanisms; and cultivating curiosity and critical thinking skills.

Description *(2000 characters)*

The topics covered may vary depending on the speakers and current events.

Some examples include: the financial and monetary system, discrimination and inequality, quality of work life (QWL) – leadership and responsible management, legal status of businesses and public subsidies, media and information, wealth and common goods...

Requirements *(2000 characters)*

none

Course requirements and assessments

Teaching Language *(2000 characters)*

French

Teaching methods *(500 characters)*

Lectures/Conferences/Tutorials or mini-projects. References to current issues using a variety of media (press articles, videos, MOOCs, serious games, world café, etc.). Particular attention will be paid to the use of active learning methods.

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

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

Evaluation *(200 characters)*

Continuous assessmen

Bibliography

Bibliography *(2000 characters)*

Presentation materials and bibliographic references will be made available by the speakers on the Moodle platform.

Contacts

Contacts *(2000 characters)*

Adeline Le Mabec : adeline.le-mabec@insa-rennes.fr

Other information

Other information

Cliquez ou appuyez ici pour entrer du texte.