Subject name: Cloud Infrastructures	**Code EC: INF08-CLOUDS**
Number of hours per student: 26.00 h	**ECTS Number: 2.00**
Reference Teacher: PARLAVANTZAS Nikolaos	

Generalities

Objectives *(2000 characters)*

This course aims to present the main concepts of cloud computing and to allow students to gain practical experience with modern cloud technologies. Students will explore virtualization, containers, IaaS, PaaS, FaaS, container orchestration, and infrastructure automation. Through lectures and practical exercises, they will learn to deploy, manage, and scale applications across diverse cloud environments.

Description *(2000 characters)*

The course addresses the following topics:

* Introduction to cloud computing
* Infrastructure-as-a-Service (IaaS)
* Platform-as-a-Service (PaaS)
* Serverless computing and Function-as-a-Service (FaaS)
* Virtualisation technologies
* Containers
* Kubernetes and Infrastructure-as-Code (IaC)

Requirements *(2000 characters)*

Basic knowledge of operating systems and networks

Course requirements and assessments

Teaching Language *(2000 characters)*

English

Teaching methods *(500 characters)*

The course combines lectures with hands-on practical exercises, enabling students to gain direct experience in deploying and managing cloud systems. Students work with two major public cloud platforms—Amazon Web Services (AWS) and Google Cloud Platform (GCP)—and leverage technologies such as Docker, Kubernetes, Ansible, and Terraform.

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

CM: 6 x 2h
TP: 7 x 2h

Evaluation *(200 characters)*

Written examination

Bibliography

Bibliography *(2000 characters)*

* Cloud Computing: Concepts, Technology & Architecture, Thomas Erl, Ricardo Puttini, Zaigham Mahmood, Prentice Hall, 2013
* Mastering Cloud Computing: Foundations and Applications Programming, R.Buyya, C. Vecchiola and S. Thamarai Selvi, Elsevier Science & Technology, 2013
* Modern Operating Systems, Andrew Tanenbaum, Herbert Bos, Pearson, 2022

Contacts

Contacts *(2000 characters)*

Nikolaos Parlavantzas

Other information

Other information

Cliquez ou appuyez ici pour entrer du texte.

Subject name: Compiler	**Code EC: INF08-COMPIL**
Number of hours per student: 28h	**ECTS Number: 2.0**
Reference Teacher: Pascal Garcia	

Generalities

Objectives *(2000 characters)*

A compiler is a program that reads another program in a source language and transforms it into an equivalent program in a target language. The term "program" is used here in its broadest sense. It can be a text containing formatting instructions, or an executable program.

Description *(2000 characters)*

We cover lexical analysis (grouping characters into words), syntactic analysis (grouping words into sentences), semantic analysis (type analysis), and code generation.
We illustrate these concepts through practical exercises and a project involving the creation of a Prolog interpreter (https://github.com/lascar-pacagi/Prolog) and a transpiler from a subset of Java to C (https://github.com/lascar-pacagi/MiniJava).

Requirements *(2000 characters)*

Java, Ocaml.

Course requirements and assessments

Teaching Language *(2000 characters)*

French

Teaching methods *(500 characters)*

Lectures, practicals, and project.

Number of hours per course type: (2000 characters)

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

Evaluation (200 characters)

A two-hour exam and the project.

Bibliography

Bibliography (2000 characters)

Compilers: Principles, Techniques, and Tools, Alfred Aho, Jeffrey Ulllman, Ravi Sethi, Monica Lam.

Engineering a Compiler, Keith D. Cooper, Linda Torczon.

Contacts

Contacts (2000 characters)

pgarcia@insa-rennes.fr

Other information

Other information

Subject name: Industrial conferences	**Code EC: INF08-CONF**
Number of hours per student: 12	**ECTS Number: 0,5**
Reference Teacher: Quentin Perez	

Generalities

Objectives *(2000 characters)*

This course aims to complement the curriculum by providing knowledge, practices, and industrial challenges not covered elsewhere in the program. It gives students a better understanding of companies, internal and external ecosystems, and professions. It also helps foster connections between students and businesses.

Description *(2000 characters)*

Conferences led by industrial or scientific professionals cover various themes, including:
- IT in finance
- Creating innovative startups
- User-centered design
- Introduction to corporate information systems organization
- Complex project management
- Continuous integration

These conferences can last 2 hours, span multiple 2-hour sessions, or be organized over a single day.e

For example, the Rocher Group gave a two-hour presentation on CSR and the GreenDevOps approach. This was followed by a two-hour practical session on the environmental impact of REST APIs (GreenScore API), led by one of the group's GreenIT project managers.

Requirements *(2000 characters)*

None

Course requirements and assessments

Teaching Language *(2000 characters)*

French

Teaching methods *(500 characters)*

Conferences

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

CM: 12
TD:
TP:
PR:
CONF:
Others: including 2h ST²

Evaluation *(200 characters)*

Validation based on student attendance.

Bibliography

Bibliography *(2000 characters)*

Contacts

Contacts *(2000 characters)*

quentin.perez@insa-rennes.fr

Other information

Other information

Subject name: Green Computing	**Code EC: INF08-CMS8**
Number of hours per student: 26	**ECTS Number: 2**
Reference Teacher: Quentin Perez	

Generalities

Objectives *(2000 characters)*

This course aims to provide knowledge and skills in measuring software and hardware energy consumption, as well as designing more energy-efficient applications using software engineering methods. The module also covers cross-cutting topics such as physics concepts related to energy, greenhouse gas emissions, the electricity mix, and the energy and CO2 impact of information and communication technologies (ICTs).

Description *(2000 characters)*

This course enables students to acquire the following knowledge and skills:
- Understanding global concepts related to electrical energy and the electricity mix
- Understanding the impact of ICT
- Knowledge of hardware and software measurement tools
- Understanding the lifecycle of a digital service
- Knowledge of software engineering best practices to reduce software energy consumption
- Ability to implement software measurement tools
- Ability to evaluate the energy consumption of algorithms, processes, and containers
- Ability to use consumption profilers in browsers and identify energy-consuming elements
- Ability to measure the energy consumption of a software build chain for lifecycle assessment

Requirements *(2000 characters)*

Good knowledge of scripting languages, systems, object-oriented programming (OOP), and web development is required.

Course requirements and assessments

Teaching Language *(2000 characters)*

French

Teaching methods *(500 characters)*

The course is delivered through lectures followed by practical sessions that cover the topics discussed in the lectures. Lectures include questionnaires and demonstrations to encourage interaction between the instructor and students.

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

CM: 10
TD:
TP: 16
PR:
CONF:
Autres : dont 16h ST²

Evaluation *(200 characters)*

1 graded practical session / weight: 1
2-hour written exam at the end of the module / weight: 2
Attendance in practical sessions and lectures is considered in the evaluation.

Bibliography

Bibliography *(2000 characters)*

-.- Simon, T., Rust, P., Rouvoy, R., & Penhoat, J. (2023, June). Uncovering the environmental impact of software life cycle. In *2023 International Conference on ICT for Sustainability (ICT4S)* (pp. 176-187). IEEE.
- Luccioni, S., Jernite, Y., & Strubell, E. (2024, June). Power hungry processing: Watts driving the cost of AI deployment?. In *Proceedings of the 2024 ACM conference on fairness, accountability, and transparency* (pp. 85-99).
- Freitag, C., Berners-Lee, M., Widdicks, K., Knowles, B., Blair, G. S., & Friday, A. (2021). The real climate and transformative impact of ICT: A critique of estimates, trends, and regulations. *Patterns*, *2*(9).
- Jay, M., Ostapenco, V., Lefèvre, L., Trystram, D., Orgerie, A. C., & Fichel, B. (2023, May). An experimental comparison of software-based power meters: focus on CPU and GPU. In *2023 IEEE/ACM 23rd International Symposium on Cluster, Cloud and Internet Computing (CCGrid)* (pp. 106-118). IEEE.

Contacts

Contacts *(2000 characters)*

quentin.perez@insa-rennes,fr

Other information

Other information

Cliquez ou appuyez ici pour entrer du texte.

Subject name: Formal languages	Code EC: INF08-GRL
Number of hours per student: 32	ECTS Number: 2.5
Reference Teacher: FILA Barbara	

Generalities

Objectives *(2000 characters)*

The objective of this course is to study regular and context-free languages with their closure properties. Various description approaches will be seen: grammars, automata, regular expressions, system equations. Knowledge and manipulation of these formalisms make it possible to choose the one that is most suitable for developing a description or translation method.

Description *(2000 characters)*

* Mathematics preliminaries
* Regular languages and finite state machines
* Regular expressions
* Context-free grammars
* Context-free languages
* Pushdown automata

Requirements *(2000 characters)*

Validation of a basic logic course.

Course requirements and assessments

Teaching Language *(2000 characters)*

French (English upon request)

Teaching methods *(500 characters)*

Study the teaching material, preparing exercises before the exercise sessions.

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

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

Evaluation *(200 characters)*

Two-hour written examination

Bibliography

Bibliography *(2000 characters)*

"Langages algébriques", Jean-Marie Autebert, Masson, 1994

"Introduction to the theory of Computation", Michael Sipser, 1997

Contacts

Contacts *(2000 characters)*

FILA Barbara (barbara.fila@insa-rennes.fr)

Other information

Other information

Subject name:	Code EC: INF08-PROGSECU
Number of hours per student: 26	**ECTS Number: 2**
Reference Teacher: FILA Barbara	

Generalities

Objectives *(2000 characters)*

By the end of the course, the students will understand the impact of secure development, as well as the common threats affecting the code. The students will learn how to use tools and methodologies in the software engineering domain. Moreover, students should develop a critical eye during this module to allow them to adapt their knowledge to future threats.

Description *(2000 characters)*

This course aims at describing the main categories of software vulnerabilities, at explaining their impact on the security, and at learning the ways to protect the code from them. Beyond testing and fixing code, we will focus on proactive actions that can help assure the security during the software development, by using tools such as git and GitLab, and the TDD (test-driven development) development methodology. This course covers both the theoretical description of vulnerabilities and concrete examples of security flaws, and it presents specific and generic countermeasures. The module relies on various labs, including a graded lab.

Requirements *(2000 characters)*

The students must have a good basis in programming to attend this cours. For the graded lab, they will have to choose a programming language (to be validated by the teacher). Notions of computer architecture would also be useful.

Course requirements and assessments

Teaching Language *(2000 characters)*

Français

Teaching methods *(500 characters)*

- Lectures to present theoretical aspects, examples, countermeasures et best practices;
- Labs to find vulnearbilities, test flaws in practice et fix them

Number of hours per course type: (2000 characters)

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

Evaluation (200 characters)

1 graded lab and 1 presentation

Bibliography

Bibliography (2000 characters)

- oss-security (http://www.openwall.com/lists/oss-security/) is a mailing list where vulnerabilities and fixes about open source software are discussed;

- the CERT-FR web site (http://www.cert.ssi.gouv.fr/) or the corresponding mailing list, to get information about existing vulnearbilities;

- [Memory Corruption] Smashing Stack For Fun and Profit, the foundational article describing how to exploit a stack-based buffer overflow (http://insecure.org/stf/smashstack.html) ;

- [Languages] Studies from ANSSI on programming languages: JavaSec (http://www.ssi.gouv.fr/agence/publication/securite-et-langage-java/) and LaFoSec (http://www.ssi.gouv.fr/agence/publication/lafosec-securite-et-langages-fonctionnels/) ;

- [Languages] The Mind Your Languages article on quirks in programming languages (http://spw14.langsec.org/abstracts.html#mind).

- [Tools] Pro Git book by Scott Chacon and Ben Straub;
- [Tools] Test-Driven Development: By example by Kent Beck.

Contacts

Contacts (2000 characters)

FILA Barbara (barbara.fila@insa-rennes.fr)
LEVILLAIN Olivier (olivier.levillain@telecom-sudparis.eu)

Other information

Other information

Cliquez ou appuyez ici pour entrer du texte.

Subject name: Project Management: design and implementation	Code EC: INF08-PROJ2
Number of hours per student: 60	ECTS Number: 3
Reference Teacher: Eric Anquetil	

Generalities

Objectives (2000 characters)

The aim of the fourth-year project is to familiarise students with working in groups of five to seven people on a large-scale project involving 1,500 hours of work.

Project topics change every year and are usually related to research or innovation issues in partnership with companies.

The project is supervised by one or more tutors. As well as achieving a technical outcome, the objective is to apply a number of software engineering and project management methods covered in the associated module's lectures (10 hours).

The targeted skills are as follows: - Introduction to teamwork

- Use of software engineering methods and tools

- Time management, planning and communication

- Breaking down work into phases of analysis, specification, implementation and validation

- Reading technical documents

- Writing technical reports

- Acquiring presentation techniques

Description (2000 characters)

The second semester is devoted to designing, implementing, validating and delivering the project.
This will culminate in a final defence, a project demonstration, and the submission of a design report and a project review report.

Requirements (2000 characters)

Course requirements and assessments

Teaching Language *(2000 characters)*

French

Teaching methods *(500 characters)*

The module is based on weekly in-person meetings with project supervisors.

Students then work independently for approximately seven hours per week.

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

Coaching: 2 to 3 hours in-person per week
Homework: independent student work, about 7 hours per week
Others: including 4h ST²

Evaluation *(200 characters)*

2 reports + 1 demonstration + 1 oral presentation

Bibliography

Bibliography *(2000 characters)*

Contacts

Contacts *(2000 characters)*

Cliquez ou appuyez ici pour entrer du texte.eric.anquetil@insa-rennes.fr

Other information

Other information

Cliquez ou appuyez ici pour entrer du texte.

Image and video recognition and interpretation	**Code EC: INF08-RIV**
Number of hours per student: 26 hrs	**ECTS Number: 2**
Reference Teacher: Yann RICQUEBOURG	

Generalities

Objectives

Computer image processing and pattern recognition is a widely developed field with multiple applications. This module focuses on the recognition of shapes or symbols in images. It gradually covers a significant part of the knowledge required to achieve this objective: based on previously studied concepts (image representation and early vision), it begins with the extraction of image characteristics, then moves on to classification systems for recognition.

Description

The course material is in English..

Part 1: Features
I.   Features Detection (locally, low level)
- Edges and Lines
- Keypoints and Corners
- Regions and Blobs
II.   Features Extraction (globally or higher level)
- Properties of features
- Geometrical, Frequential, Scale-space Features
III.   Feature selection
- Distances, Selection

Part 2: Classification
I.   Unsupervised Learning / Clustering
- C-Means, Fuzzy C-Means, Possibilistic C-Means
II.   Supervised Learning
- First simple classifiers (k-Nearest-Neighbor...)
- Neural Networks
  o MultiLayer Perceptron (MLP)
  o Radial-Basis Function Neural Networks (RBFN)
- Evaluation: Reject option, Validation
  o Fuzzy Inference System (FIS),
  o Dynamic Time Warping (DTW),
  o Hidden Markov Models (HMM),
  o Support Vector Machine (SVM)
III.   Improvement strategies
IV.   Example of Pattern Recognition System

Requirements

Basic knowledge of image representation and early vision is preferable.

Course requirements and assessments

Teaching Language

English if the audience is not French-speaking, otherwise French.

Teaching methods

Exploration of the techniques seen in class, as well as the ideas discussed, as part of the practical project.

Number of hours per course type:

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

Evaluation

A practical project based on a set of real data is set up and takes up half of the module. This project aims to develop a complete recognition system, as an extension of the previous semester's module project, with groups of students competing against each other. The results of the project are assessed via a presentation at the end of the module.

Bibliography

Bibliography

Contacts

Contacts

yann.ricquebourg@insa-rennes.fr, eric.anquetil@insa-rennes.fr

Other information

Other information

Cliquez ou appuyez ici pour entrer du texte.

Nom de la matière : 4INFO internship	**Code EC: INF08-stage**
Volume horaire total total : 240h	**Nombre crédits ECTS : 8**
Responsable(s) : Muriel PRESSIGOUT	

Généralités

Objectifs, finalités *(2000*

PFE internships take place in companies or laboratories for a recommended period of at least 8 weeks. The internship is a way of learning about life in a company and preparing for entry into the world of work. The internship should enable students to gain practical experience in computer science in a professional environment by developing their communication and teamwork skills and improving their observation and integration abilities. The inetrn should write a report at the end of the inetrnship.

Description *(2000 caractères)*

- Duration: minimal duration is settled by the INSA internal regulations
- Period: Preferably at the end of the 4th year, possibly at the end of the 3rd year, possibly both
  - If a student completes two or more internships, the first one will be credited by 8 ECTS, the next ones by up to 4 ECTS according to the INSA internal regulations
- Expected level: Computer science engineer (five years of higher education).
- Host organisation: SMEs, large corporations, universities and research laboratories.
- Location: World wide
- Administrative formalities: This internship is subject to an agreement between INSA Rennes and the host organisation. Further information can be obtained from the Internship Department.

Pré-requis *(2000 caractères)*

- Student at the Computer Science department

Modalités du cours et des évaluations

Langue d'enseignement *(2000 caractères)*

Depends on the language spoken in the host organization

The intern is present full-time within the company, the internship agreement settling out the terms and conditions of the internship. Please note that 100% remote working is not permitted.

The intern is managed by a supervisor at the host organisation and by their internship correspondent from the training organisation.

Volume horaire par type de cours : (2000 caractères)

Autres : 240h

Modalités d'évaluation / coefficient (200 caractères)

A mark taking into account the work carried out within the company and the quality of the report assesses the intern's work. This mark is taken into account in the forth-year jury's decision. The procedures are described in the internal regulations specific to the Computer Science department.

Bibliographie

Bibliographie (2000 caractères)

Cliquez ou appuyez ici pour entrer du texte.

Contacts

Contacts (2000 caractères)

mail: prenom.nom @ insa-rennes.fr

Responsable des stages du département Informatique : Muriel PRESSIGOUT - bureau 121, bâtiment 18

Autres
Autres informations
Cliquez ou appuyez ici pour entrer du texte.

Subject name: Natural Language Processing and Language Interaction	Code EC: INF08-TALIL
Number of hours per student: 26	ECTS Number: 2
Reference Teacher: Pascale SÉBILLOT	

Generalities

Objectives (2000 characters)

Language, in its written or spoken form, is the most common modality of interaction and information transmission. The aim of the course is to equip students with the knowledge necessary to acquire additional skills in natural language processing (NLP) in order to access information contained in large volumes of documents and understand how a computer can produce natural language, both written and spoken. On the one hand, it presents the fundamental elements of automatic language generation and large language models (generation based on statistical language models, attention mechanisms, Transformers). On the other hand, it focuses on some of the main applications of natural language processing that enable the management of large volumes of data and the extraction of specific information from their content.

Description (2000 characters)

The module focuses on the following topics:
- Information extraction
- Text and natural language generation;
- Large language models
- Automatic summarization

Requirements (2000 characters)

- Fundamentals of machine learning (e.g., 3rd year ML module (INF06-APPR))
- Fundamentals of natural language processing ((e.g., 3rd year NLP module (INF06-TALEO))

Course requirements and assessments

Teaching Language (2000 characters)

- French
- Handout in English

Teaching methods (500 characters)

Two-hour lectures presenting fundamental concepts.
Illustration of these fundamental concepts through two-hour practical sessions.

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

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

Evaluation *(200 characters)*

A one-hour written examination at the end of the semester, and some lab work

Bibliography

Bibliography *(2000 characters)*

- Jacob Eisenstein. *Introduction to Natural Language Processing*. The MIT Press, 2019
- Daniel Jurafsky, James H. Martin. *Speech and Language Processing: An Introduction to Natural Language Processing, Computational Linguistics, and Speech Recognition*, https://web.stanford.edu/~jurafsky/slp3/, (2025)
- Yoav Goldberg. *Neural Network Methods for Natural Language Processing*. Morgan & Claypool, 2017
- Christopher D. Manning, Hinrich Schütze. *Foundations of Statistical Natural Language Processing*. MIT Press, Cambridge, MA, 1999

Contacts

Contacts *(2000 characters)*

Pascale Sébillot : pascale.sebillot@insa-rennes.fr

Other information

Other information

Target: fourth-year students in the INFO department taking the Artificial Intelligence track

Subject name: AI for Games	**Code EC: INFT2-IAJ**
Number of hours per student: 26h	**ECTS Number: 2**
Reference Teacher: Pascal Garcia	

Generalities

Objectives *(2000 characters)*

Presentation of artificial intelligence algorithms for solving single-player and two-player games.

Description *(2000 characters)*

In this course, we will study the following algorithms: A* and iterative deepening with different types of heuristics, alpha/beta minmax search with transposition tables, algorithms for games with hidden information such as poker, tree search algorithms using the Monte Carlo tree search (MCTS) method, genetic algorithms applied to the game of Tetris (https://github.com/lascar-pacagi/TetrisAI), neural networks to represent the evaluation function in a game, and the Alpha Zero method (https://nikcheerla.github.io/deeplearningschool/).

Requirements *(2000 characters)*

Java.

Course requirements and assessments

Teaching Language *(2000 characters)*

French.

Teaching methods *(500 characters)*

Lectures/practical classes and a project.

Number of hours per course type: (2000 characters)

CM: 8h
TD:
TP:18h
PR:
CONF:
Autres:

Evaluation (200 characters)

Project (1 to 3 students by group), with the final deliverable being the code and a short explanatory video.

Bibliography

Bibliography (2000 characters)

Contacts

Contacts (2000 characters)

pgarcia@insa-rennes.fr

Other information

Other information

Subject name: Internet of Things	**Code EC: INFT2-IOT**
Number of hours per student: 26	**ECTS Number: 2**
Reference Teacher: Quentin Perez	

Generalities

Objectives (2000 characters)

The objective of this course is to introduce the fundamentals of the Internet of Things (IoT) and connected environments (home automation, assistance for people with disabilities or vulnerabilities, environmental measurement and control, etc.). This module teaches the use of home automation and automation platforms (HomeAssistant, NodeRed) as well as the implementation of sensors and actuators on the M5Stack platform (ESP32 SoC) using the C language.l

Description (2000 characters)

lThis course aims to:
- Understand the fundamental concepts of IoT (interoperability, security, cloud/edge computing, networks, etc.)
- Learn to program an embedded platform (M5Stack)
- Implement analog and digital sensors and actuators
- Deploy a network of sensors and actuators by connecting them to platforms such as MQTT brokers.

Requirements (2000 characters)

Basic knowledge of C programming and networking.

Course requirements and assessments

Teaching Language (2000 characters)

French

Teaching methods (500 characters)

Lectures and conferences; practical work in small groups on innovative technologies (tutorials and practical sessions).

Number of hours per course type: (2000 characters)

CM:
TD: 26
TP:
PR:
CONF:
Others: Including 18h ST²

Evaluation (200 characters)

Evaluation based on a group project / weight: 2

Bibliography

Bibliography (2000 characters)

Contacts

Contacts (2000 characters)

quentin.perez@insa-rennes.fr

Other information

Other information

Cliquez ou appuyez ici pour entrer du texte.

Subject name: Mobile programming	**Code EC: INFT2-PM**
Number of hours per student: 26h	**ECTS Number: 2**
Reference Teacher: Laurence Rozé	

Generalities

Objectives *(2000 characters)*

The objective of this module is to become familiar with Android mobile programming and to be able to develop applications adaptable to different devices. This course introduces the basic concepts of Android programming, such as activities, activity lifecycle, intents, and services. This module is primarily practical.

Description *(2000 characters)*

Programming is done in Kotlin using Jetpack Compose. A project common to all students must be completed and submitted at the end of the course. In addition, a presentation must be given at the end of the semester.
The work is divided into several steps:

- Getting started with Kotlin
- First Android application
- Navigation
- Creating a second screen
- Searching for elements
- Managing favorites
- Switching to an online API

Requirements *(2000 characters)*

Basic programming knowledge
Object-oriented programming concepts

Course requirements and assessments

Teaching Language *(2000 characters)*

French

Teaching methods *(500 characters)*

Practical sessions (TP)

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

CM:
TD:
TP: 22
PR:
CONF:
Other: 4

Evaluation *(200 characters)*

Attendance, attitude during lab sessions
Project submission
Presentations

Bibliography

Bibliography *(2000 characters)*

Cliquez ou appuyez ici pour entrer du texte.

Contacts

Contacts *(2000 characters)*

Laurence Rozé
roze@insa-rennes.fr

Other information

Other information

Supervision by external contributors working in mobile programming within companies.

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)*

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-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)*

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-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

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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)*

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)*

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Continuous assessmen
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Bibliography

Bibliography *(2000 characters)*

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