Subject name: Machine Learning	Code EC: INFO06-APPR
Number of hours per student: 22H (CM: 14.00h, TP: 8.00h)	ECTS Number: 2.5
Reference Teacher: Christian RAYMOND	

Generalities

Objectives *(2000 characters)*

The course focuses on supervised learning. The objective is to learn how to build and evaluate a supervised classification system.

Description *(2000 characters)*

The course provides an overview of classification algorithms:
- Overview of Classification Algorithms (decision trees, Naïve Bayes, KNN, SVM, CRF)
- Meta-learning: boosting, bagging

It presents the protocol to follow to build and evaluate a classifier:
- Cross-validation
- Model selection (tuning)
- Metrics

It concludes with an introduction to Deep Learning, on the use of neural networks in learning
- Multilayer perceptron
- Autoencoders
- Convolutional networks
- Recurrent networks

Requirements *(2000 characters)*

None

Course requirements and assessments

Teaching Language *(2000 characters)*

French

Teaching methods *(500 characters)*

Cliquez ou appuyez ici pour entrer du texte.

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

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

Evaluation *(200 characters)*

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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.

Subject name: Computer Graphics	Code EC: INF06-COMPX
Number of hours per student: 28	ECTS Number: 2.5
Reference Teacher: Maud MARCHAL	

Generalities

Objectives *(2000 characters)*

- Introduction to the concepts of algorithms complexity;
- Evaluation of the complexity of algorithms and use appropriate paradigms;
- Measurement of performances;
- Understanding of complexity classes.

Description *(2000 characters)*

- Design of algorithms with different paradigms: divide and conquer, dynamic programming, greedy algorithms;
- Metaheuristics and optimization problems;
- Complexity classes;
- Measurements of performances;

Requirements *(2000 characters)*

Basic notions of algorithmics

Course requirements and assessments

Teaching Language *(2000 characters)*

French

Teaching methods *(500 characters)*

Courses, practical courses

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

CM: 8
TD: 18
TP: 2
PR:
CONF:
Autres:

Evaluation *(200 characters)*

Written exam

Bibliography

Bibliography *(2000 characters)*

Cliquez ou appuyez ici pour entrer du texte.

Contacts

Contacts *(2000 characters)*

Maud.Marchal@insa-rennes.fr

Other information

Other information

Cliquez ou appuyez ici pour entrer du texte.

Subject name: Industrial conferences	Code EC: INF06-CONF
Number of hours per student: 4	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:
- Quantum computing
- Introduction to project management
- The offshore model in IT service companies
- New trends in customer relations
- An introduction to the research environment
- Testimonials from INSA alumni and industry professionals

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

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: 4
TD:
TP:
PR:
CONF:
Autres:

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

Nom de la matière : étude pratique	**Code EC: INF06-EP**
Volume horaire total par étudiant: 15h	**Nombre crédits ECTS : 1.5**
Responsable(s) : Valérie Gouranton	

Généralités

Objectifs, finalités *(2000 caractères)*

The second part of the practical study is the practical implementation. In this design and development phase, the functional specifications are defined along with the external operation of the application, the software architecture, and the coding of the application.

Description *(2000 caractères)*

Independent personal work is required.

Pré-requis *(2000 caractères)*

INF05-EP

Modalités du cours et des évaluations

Langue d'enseignement *(2000 caractères)*

French and english

Modalités d'enseignement *(500 caractères)*

Per project

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

CM :
TD :
TP :
PR : 8
CONF :
Autres : dont 2h ST²

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

The practical implementation part requires a presentation in French, a final report, and documentation (technical and user).

Bibliographie

Bibliographie *(2000 caractères)*

Cliquez ou appuyez ici pour entrer du texte.

Contacts

Contacts *(2000 caractères)*

Valerie.Gouranton@insa-rennes.fr

Autres

Autres informations

Cliquez ou appuyez ici pour entrer du texte.

Subject name: Graphs and algorithmic	Code EC: INF 06-GA
Number of hours per student: 14h CM + 18h TD + 4h TP	ECTS Number: 3
Reference Teacher: Peggy Cellier	

Generalities

Objectives *(2000 characters)*

Graphs are a fundamental model in many fields, particularly in computer science.
This course aims to provide the basic concepts of graph theory.
We examine the main types of problems encountered on graphs and present the classical algorithms used to solve them.
The study first focuses on unweighted graphs, and then on weighted graphs.

Description *(2000 characters)*

Unweighted Graphs:
* Definitions, representations, operations, and properties of graphs, with a focus on connectivity and cycles

* Trees and spanning trees

* Stable sets, cliques, dominating sets, and graph coloring

Weighted Graphs:
* Minimum-cost spanning trees

* Optimal path problems (Dijkstra, Bellman-Ford, Prim, and Kruskal)

* Applications: scheduling, transportation networks, and flow problems in logistics or communication systems

Requirements *(2000 characters)*

None

Course requirements and assessments

Teaching Language *(2000 characters)*

French

Teaching methods *(500 characters)*

Further study of the course material and tutorials, and preparation of exercises.

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

CM: 14h
TD: 18h
TP: 4h
PR:
CONF:
Autres:

Evaluation *(200 characters)*

Final exam

Bibliography

Bibliography *(2000 characters)*

* Algorithmique des graphes. J.M. Hélary, polycopié IFSIC, Juin 1999
* Graphes et algorithmes. M. Gondran, M. Minoux. Lavoisier, 2009 (4ème édition)
* Types de données et algorithmes. C. Froidevaux, M.C. Gaudel, M. Soria. Ediscience international, 1994.

Contacts

Contacts *(2000 characters)*

Peggy Cellier

Other information

Other information

Cliquez ou appuyez ici pour entrer du texte.

Subject name: Computer Hygiene	Code EC: INF05-HI
Number of hours per student: 26	ECTS Number: 1.5
Reference Teacher: Gildas Avoine	

Generalities

Objectives *(2000 characters)*

This course aims to present the major security problems that we all face every day in our professional or personal environment. Among the topics covered, viruses, spam, passwords, information leakage, geolocation, certificates, etc. Countermeasures and best practices to keep your computer system in good health will also be presented.

Description *(2000 characters)*

The content of the course is as follows :

- Security Primer
- Information Leakage 1
- Information Leakage 2
- Fraud on Internet
- Darkweb / Tor / Tails
- Spam and antispam software
- Malware and antivirus software
- Introduction to cryptography
- Passwords
- Disk encryption
- TLS and Certificates
- Secure mailing
- Geolocation / Competitive intelligence

Requirements *(2000 characters)*

Motivated and good spirit.

Course requirements and assessments

Teaching Language *(2000 characters)*

Spoken French, but slides and written documents are in English.

Teaching methods *(500 characters)*

This course consists exclusively of ex cathedra lectures.

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

CM: 26 hours
TD:
TP:
PR:
CONF:
Autres:

Evaluation *(200 characters)*

A 2-hour written exam. Documents, personal notes, and electronic devices are prohibited during the exam.

Bibliography

Bibliography *(2000 characters)*

"Cybersécurité et hygiène numérique au quotidien", Gildas Avoine et Pascal Junod, 2024, Dunod

Contacts

Contacts *(2000 characters)*

Gildas Avoine

Other information

Other information

Cliquez ou appuyez ici pour entrer du texte.

Subject name:	Code EC: INF06-PARAL
Number of hours per student: 26	ECTS Number: 2
Reference Teacher: Jean-Louis PAZAT	

Generalities

Objectives *(2000 characters)*

This course aims to introduce the fundamental knowledge necessary for the efficient implementation of numerical computing programs on multi-core architectures (CPU and CPU/GPU). Upon completion of this course, students will be able to transform a sequential program into a parallel program and measure its performance in terms of acceleration and computation time.

Description *(2000 characters)*

The course covers the following concepts:

- Introduction to parallel architectures;
- Performance, speedup, Amdahl's law;
- Dependencies and parallelization for multicore architectures with OpenMP;
- SPMD computing, GPU usage, CUDA language.

Requirements *(2000 characters)*

- Mastering C programming language
- Basic knowledge of algorithms
- Basic Knowledge on hardware architectures

Course requirements and assessments

Teaching Language *(2000 characters)*

French

Teaching methods *(500 characters)*

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

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

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

Evaluation *(200 characters)*

Written exam (2 h)

Bibliography

Bibliography *(2000 characters)*

Parallel Programming in C with MPI and OpenMP, Michael Quinn. McGraw-Hill Science, Engineering & Mathematics2004. ISBN 978-0072822564
Programming Massively Parallel Processors: A Hands-on Approach, David B. Kirk, Wen-mei W. Hwu, Morgan Kaufmann, December 21, 2016. ISBN 9780128119860
NVIDIA CUDA C Programming Guide, https://docs.nvidia.com/cuda/cuda-cprogramming-guide/
Optimizing parallel reduction inCUDA, M. Harris, NVIDIA, 2007

Contacts

Contacts *(2000 characters)*

Cliquez ou appuyez ici pour entrer du texte. Jean-Louis Pazat (Jean-Louis.Pazat@insa-rennes.fr)
Nikolaos Parlavantzas (Nikolaos.Parlavantzas@insa-rennes.fr)

Other information

Other information

Cliquez ou appuyez ici pour entrer du texte.

Nom de la matière : Introduction to Logic	**Code EC: INFO6-PRED**
Total hours per student: 20h	**ECTS credits : 1.5**
Responsable(s) : Pascal Garcia	

Généralités

Objectifs, finalités *(2000 caractères)*

Introduction to logic.

Description *(2000 caractères)*

We study propositional logic and predicate logic (first-order logic), showing the semantic and syntactic aspects of these logics. Algorithms are illustrated using the Ocaml language. At the end of the course, we arrive at an automatic theorem prover for the formal system of resolution. A small piece of software is provided to help students with demonstrations (it uses several algorithms seen during the course): https://github.com/lascar-pacagi/Resolution.

Pré-requis *(2000 caractères)*

Ocaml (https://ocaml.org/).

Modalités du cours et des évaluations

Langue d'enseignement

French.

Modalités d'enseignement

Course with exercices.

Volume horaire par type de cours :

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

Modalités d'évaluation / coefficient

1h30 paper-based exam.

Bibliographie

Bibliographie

John Harisson. Handbook of Practical Logic and Automated Reasoning.

René David, Karim Nour, Christophe Raffalli. Introduction à la logique. Théorie de la démonstration.

Forever Undecided. A Puzzle Guide to Gödel. Raymond Smullyan.

Contacts

Contacts

pgarcia@insa-rennes.fr

Autres

Autres informations

Subject name: Computer Networking	Code EC: INF06-RES
Number of hours per student: 20	ECTS Number: 1.5

Reference Teacher: Marin BERTIER

Generalities

Objectives *(2000 characters)*

Understanding the layered system of network management and the function of each of its layers.
Being able to program a multi-threaded client/server application.

Description *(2000 characters)*

The layered management system

- Presentation of the Internet structure

The role of the application layer

- Illustrated by the protocols HTTP, SMTP, DNS, SSH, FTP
- Operation and handling of network sockets

The role of the transport layer

- Operation of TCP and UDP
- Ensuring reliability over an unreliable communication channel
- Flow control

The role of the network layer

- Operation of IPv4, IPv6, ICMP, DHCP
- Concepts of routing
- Unicast, multicast, and broadcast communication

The role of the data link layer

- Channel sharing management
- Management of wired networks
- Management of wireless networks

Management of mobility in Wi-Fi and 4G

Requirements *(2000 characters)*

Programming in C and Java

Course requirements and assessments

Teaching Language *(2000 characters)*

French

Teaching methods *(500 characters)*
Cliquez ou appuyez ici pour entrer du texte.

Number of hours per course type: *(2000 characters)*
CM: 10h
TD:
TP: 10h
PR:
CONF:
Autres:

Evaluation *(200 characters)*
2 hours exam

Bibliography

Bibliography *(2000 characters)*
Computer Networking: A Top-Down Approach
8th edition
Jim Kurose, Keith Ross
Pearson, 2020

Contacts

Contacts *(2000 characters)*
marin.bertier@insa-rennes.fr

Other information

Other information

Cliquez ou appuyez ici pour entrer du texte.

Subject name: Statistics	Code EC: INF06-SD
Number of hours per student: 26h	ECTS Number: 2.00
Reference Teacher: Pierrette CHAGNEAU	

Generalities

Objectives *(2000 characters)*

The course is intended to familiarize the students :

- with statistical inference (point estimation, hypothesis testing) in parametric models,
- with linear regression modelling (simple and multiple linear regression, ANOVA) including estimation, model validation and interpretation of the outputs of statistical software.

Computational skills with software R will be developed.

Description *(2000 characters)*

- Introduction to inferential statistics
  - Parameter estimation
  - Hypothesis testing (t-test, F-test)
- Simple linear regression
- Multiple linear regression
- One-way ANOVA
- Two-way ANOVA

Requirements *(2000 characters)*

Probability courses from the undergraduate program of INSA (STP04-PROBA)
The course “Probability” from the Computer Science department (INF05-PROB)

Course requirements and assessments

Teaching Language *(2000 characters)*

French

Teaching methods *(500 characters)*

Lectures, tutorials and practical work with R

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

CM: 12h
TD: 4h
TP: 10h
PR:
CONF:
Autres:

Evaluation *(200 characters)*

One written examination of 2h (50%) and a practical examination (50%)

Bibliography

Bibliography *(2000 characters)*

- Azaïs, J.M et Bardet, J.M. le modèle linéaire par l'exemple. DUNOD, 2005.
- Cornillon, P.A et Matzner-Lober, E. Régression avec R. Springer, 2011
- Daudin, J.J. et al. Statistique inférentielle : Idées, démarches, exemples. PUR, 2001.
- Husson, F et Pagès, J. Statistiques générales pour utilisateur 2- Exercices et corrigés. PUR, 2005.
- Lejeune, M. Statistique : la théorie et ses applications. Springer, 2005.
- Pagès, J. Statistiques générales pour utilisateurs 1- Méthodologie. PUR, 2005.

Contacts

Contacts *(2000 characters)*

Pierrette.Chagneau@insa-rennes.fr

Other information

Other information

Cliquez ou appuyez ici pour entrer du texte.

Subject name: Computer system vulnerabilities	Code EC: INF06-SECU
Number of hours per student: 26	ECTS Number: 2
Reference Teacher: FILA Barbara	

Generalities

Objectives *(2000 characters)*

Securing a system requires to first learn about its weak points (vulnerabilities) and understand how they can be exploited (attacks). This course deals with the security of systems, data and communication. An overview of main vulnerabilities and related attacks will be given. We will also talk about classical solutions to counter them.

Description *(2000 characters)*

- Fundamentals and historical facts
- Web and cloud security
- SQL injections
- XSS attacks
- Secure messaging with PGP
- Cryptographic protocols for confidentiality, authentication and privacy
- Man in the middle attack
- Privacy (dining cryptographers problem, three judges problem, oblivious transfer)
- Security of electronic passports
- Maths for security (prime numbers, factorisation problem, discrete logarithm problem, Euler's theorem)

Requirements *(2000 characters)*

Validation of the Computer Hygiene course during S5

Course requirements and assessments

Teaching Language *(2000 characters)*

French (English upon request)

Teaching methods *(500 characters)*

Revision of the lecture notes. Preparation for laboratory sessions.
This course is given by two teachers: a researcher from INSA and an industrial contributor.

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

CM: 20h
TD:
TP: 6h
PR:
CONF:
Autres:

Evaluation *(200 characters)*

A two-hour written examination at the end of the semester, based on the content of the lectures and laboratory sessions.

Bibliography

Bibliography *(2000 characters)*

Computer System Security, Gildas Avoine, Pascal Junod et Philippe Oechslin, 2009, 260 pages, CRC Press/EPFL Press.

Cryptography: Theory and Practice, Third Edition, D. Stinson, Chapman & Hall, 2005. Security engineering, Ross Anderson, 2008, 1080 pages, Wiley

Computer Security: Principles and Practice, Second Edition, W. Stallings, l. Brown, Pearson, 2012.

Introduction to Computer Security, M. Bishop, Addison-Wesley Professional, 2004.

Operational Semantics and Verification of Security Protocols, Cas Cremers and Sjouke Mauw, Springer 2012.

Contacts

Contacts *(2000 characters)*

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

Other information

Other information

Cliquez ou appuyez ici pour entrer du texte.

Subject name: Written and Spoken Natural Language Processing	**Code EC: INF06-TALEO**
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 exchange. The ever-increasing amount of text, audio, and video documents containing speech, whether on the web or in companies, makes it necessary to master the techniques for accessing the content of this data. The course aims to provide students with the skills necessary to analyze the information contained in these documents. On the one hand, the fundamental principles of automatic written text processing (potentially resulting from speech transcription) necessary to access the content of documents are described: representations of words and documents, language modeling, and the main tools for natural language processing. On the other hand, the application of these fundamental principles and tools to certain key domains and applications of natural language processing is presented.

Description *(2000 characters)*

The module focuses on the following topics:

- Introduction to Natural Language Processing (NLP);
- Representation of words;
- Representation of documents
- Information retrieval
- Sequence models for tagging tasks
- Statistical language modeling
- Application to Syntactic Analysis

Requirements *(2000 characters)*

Fundamentals of machine learning

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

Subject name: WEB1	Code EC: INF05-WEB1
Number of hours per student: 22h	ECTS Number: 2
Reference Teacher: Arnaud Blouin	

Generalities

Objectives *(2000 characters)*

This module aims to provide software engineering skills related to web application development. The module focuses on the back-end of these applications, and more specifically:
- Knowing how to build a back-end (Java)
- How to define REST routes
- How to test REST routes (and a back-end in general)
- How to set up authentication
- How to define and use marshalling with a DTO API
- How to link a back-end to a database with an ORM
- How to design a REST API with the OpenAPI 3.1 specification

Description *(2000 characters)*

Cliquez ou appuyez ici pour entrer du texte.

Requirements *(2000 characters)*

Good knowledge of Java and software testing (JUnit) is required.

Course requirements and assessments

Teaching Language *(2000 characters)*

French

Teaching methods *(500 characters)*

Cliquez ou appuyez ici pour entrer du texte.

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

CM: 6h
TD:
TP: 16h
PR:
CONF:
Autres:

Evaluation *(200 characters)*

One-hour written exam with authorized course materials.
Attendance at practical and lecture classes will be taken into account in the assessment.

Bibliography

Bibliography *(2000 characters)*

Cliquez ou appuyez ici pour entrer du text.

Contacts

Contacts *(2000 characters)*

arnaud.blouin@irisa.fr

Other information

Other information

Cliquez ou appuyez ici pour entrer du texte.

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-HUMF06-ALL**
Volume horaire total par étudiant: 21heures	**Nombre crédits ECTS :**
	1,5 ECTS
Responsable(s) : Cecile Hölzner-Jacques	

Généralités

Objectives, aims *(2000 caracters)*

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

Description *(2000 caracters)*

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

Pré-requis *(2000 caractères)*

German Level A1: none

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

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

Modalités du cours et des évaluations

Langue d'enseignement *(2000 caractères)*

Cliquez ou appuyez ici pour entrer du texte.

Modalités d'enseignement *(500 caractères)*

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

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

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

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

Continuous assessment, oral examination

Bibliographie

Bibliographie *(2000 caractères)*

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

Contacts

Contacts *(2000 caractères)*

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

Autres

Autres informations

Cliquez ou appuyez ici pour entrer du texte.

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

General information

Objectives and Purposes

General Objectives:

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

Linguistic Objectives:

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

Cliquez ou appuyez ici pour entrer du texte.

Description

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

Prerequisites

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

Course and Evaluation Modalities

Language of Instruction

English

Teaching Methods

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

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

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

Hours by Course Type

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

Evaluation Methods / Coefficient

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

Bibliography

Bibliography

Any English-language materials, whether technical or otherwise.

Contacts

Contacts

plevot@insa-rennes.fr

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

Generalities

Objectives *(2000 characters)*

Targeted skills:

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

Description *(2000 characters)*

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

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

Requirements *(2000 characters)*

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

Course requirements and assessments

Teaching Language *(2000 characters)*

Teaching methods *(500 characters)*

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

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

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

Evaluation *(200 characters)*

S1: Final mark
S2: Oral examination

Bibliography

Bibliography *(2000 characters)*

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

Contacts

Contacts *(2000 characters)*

Other information

Other information

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

Subject name : Introduction to Sustainable Digital Technology	**Code : EC-HUM06-IND**
Number of hours per student: 21 H	**ECTS Number : 1.5**
Reference Teacher: Thibaut MARTY	

Generalities

Objectives *(2000 characters)*

The aim of this course is to raise awareness of the sustainable development challenges facing the electronics and digital industries. The course presents the impacts of these industries on environmental, societal, and technical aspects. The course provides an understanding of how information and communication technologies interact in today's world, and an overview of the scale of their use and impact.

Description *(2000 characters)*

The module consists of lectures, e-learning, and six hours of tutorials specific to each department.

Requirements *(2000 characters)*

None

Course requirements and assessments

Teaching Language *(2000 characters)*

French

Teaching methods *(500 characters)*

Lectures, e-learning, and tutorials.

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

CM : 12 H
TD : 6 H
TP :
PR :
EP :
CONF :
Other : 5 H CM-SPOC

Evaluation *(200 characters)*

The module is validated by attendance at conferences and completion of the e-learning course.

Bibliography

Bibliography *(2000 characters)*

.

Contacts

Contacts *(2000 characters)*

Thibaut MARTY

Other information

Other information

Intended audience: 3EII, 3E&T, 3INFO, 3DMA

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

Generalities

Objectives *(2000 characters)*

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

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

Description *(2000 characters)*

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

Requirements *(2000 characters)*

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-HUMF06-ESP
Volume horaire total par étudiant: 21h	Nombre crédits ECTS : 1,5 ECTS
Responsible(s) : Marine Amargos Guilleray	

Généralités

Objectifs, finalités *(2000 caractères)*

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

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

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

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

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

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

- challenges of Spanish-speaking countries.

Description

Speaking and writing skills, listening and reading comprehension.

Pré-requis *(2000 caractères)*

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

Modalités du cours et des évaluations

Langue d'enseignement *(2000 caractères)*

Spanish

Modalités d'enseignement *(500 caractères)*

Face-to-face tutorials

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

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

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

Continuous assessment- Coefficient 1,5

Bibliographie

***Bibliographie** (2000 caractères)*

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

Contacts

***Contacts** (2000 caractères)*

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

Autres

Autres informations

Cliquez ou appuyez ici pour entrer du texte.

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

Generalities

Objectives *(2000 characters)*

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

Description *(2000 characters)*

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

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

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

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

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

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

Requirements *(2000 characters)*

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

Course requirements and assessments

Teaching Language *(2000 characters)*

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

Teaching methods *(500 characters)*

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

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

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

Evaluation *(200 characters)*

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

Bibliography

Bibliography *(2000 characters)*

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

Contacts

Contacts *(2000 characters)*

Dominique.foure@insa-rennes.fr

Other information

Other information

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

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

Generalities

Objectives *(2000 characters)*

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

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

Description *(2000 characters)*

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

Requirements *(2000 characters)*

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

Course requirements and assessments

Teaching Language *(2000 characters)*

Italian language

Teaching methods *(500 characters)*

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

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

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

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

Evaluation *(200 characters)*

S1: Final mark
S2: Oral examination

Bibliography

Bibliography *(2000 characters)*

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

Harraps, Italian Express Method, Vittoria Bowles and Paul Coggle

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

Contacts

Contacts *(2000 characters)*

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

Other information

Other information

INSA RENNES : 2025/2026

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

Generalities

Objectives *(2000 characters)*

Targeted skills:

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

Beginner level (A1):

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

Intermediate level (A2):

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

Advanced level (B1, B2):

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

Description *(2000 characters)*

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

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

Intermediate level (B1, B2):

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

Requirements *(2000 characters)*

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

Course requirements and assessments

Teaching Language *(2000 characters)*

Teaching methods *(500 characters)*

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

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

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

Evaluation *(200 characters)*

A1
S1 and S2: Final mark

A2 and B1
S1: Final mark
S2: Oral examination

Bibliography

Bibliography *(2000 characters)*

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

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

Contacts

Contacts *(2000 characters)*

Other information

Other information

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

Généralités

Objectifs, finalités (2000 caractères)

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

Description (2000 caractères)

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

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

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

Pré-requis *(2000 caractères)*

German Project: German Level B2

Spanish Project: Baccalaureate Level

FLE Project: Levels B1 to C1

Modalités du cours et des évaluations

Langue d'enseignement *(2000 caractères)*

Cliquez ou appuyez ici pour entrer du texte.

Modalités d'enseignement *(500 caractères)*

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

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

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

Modalités d'évaluation :

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

Spanish Project: Written

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

Coefficient: 0.5 (1 for Erasmus exchange students)

Bibliographie

Bibliographie *(2000 caractères)*

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

Contacts

Contacts *(2000 caractères)*

Cliquez ou appuyez ici pour entrer du texte.

Autres

Autres informations

Cliquez ou appuyez ici pour entrer du texte.

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

Generalities

Objectives *(2000 characters)*

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

Description *(2000 characters)*

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

Requirements *(2000 characters)*

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

Course requirements and assessments

Teaching Language *(2000 characters)*

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

Teaching methods *(500 characters)*

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

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

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

Evaluation *(200 characters)*

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

Bibliography

Bibliography *(2000 characters)*

Books

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

Articles and Essays

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

Films and Television

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

Contacts

Contacts *(2000 characters)*

Other information

Other information

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

Generalities

Objectives *(2000 characters)*

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

Description *(2000 characters)*

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

Requirements *(2000 characters)*

Course requirements and assessments

Teaching Language *(2000 characters)*

Teaching methods *(500 characters)*

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

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

Evaluation *(200 characters)*

Final grade (overseen by SUPELEC).

Bibliography

Bibliography *(2000 characters)*

To be seen with the teacher

Contacts

Contacts *(2000 characters)*

Other information

Other information