Courses in English for exchange students

Table of contents

Computing Science, Multimedia and Internet :

NAME	ID
Introduction to database	CSMI1-01
Data Structures and Fundamental Algorithms	CSMI1-02
Introduction to Algorithms and Programming	CSMI1-03
Writing for digital media	CSMI1-04
Web integration	CSMI1-05
Computer Science English	CSMI1-06
Multimedia and Internet English	CSMI1-07
Advanced object-oriented design and programming	CSMI3-01
Writing for digital media III	CSMI3-02
Network Services	CSMI3-03
Methodology for the production of applications	CSMI3-04
Object oriented programming	CSMI3-05
Server Side Web Programming (PHP)	CSMI3-06
Web development	CSMI3-07
Internship/ Professional project in Computer Science	CSMI5-01
Basis of object-oriented programming	CSMI2-01
Basis of Object-Oriented Design	CSMI2-02
Writing for digital media II	CSMI2-03
Graph Theory and Regular language	CSMI2-04
Development	CSMI2-05
Web integration	CSMI2-06
Computer Science English	CSMI2-07
Multimedia and Internet English	CSMI4-01
Image processing and video analysis	CSMI4-02
Distributed Programming	CSMI4-03
Rich clients	CSMI4-04
Internship / Professional project in Computer Science	CSMI6-01

Food Biology and Mechanics:

NAME	ID
Food/biology english	FB1-01
unit operation in food industry	FB3-01
bacterial stress and adaptation	FB3-02
bacterial stress and adaptation	FB3-03
internship / professional project in food / biology	FB5-01
culture of rat brain astrocytes	FB5-02
RNA interferance and CRISPR-CAS	FB5-03
Analysis of organic compounds	FB2-01
Food / Biology English	FB2-02
Study of the enzymes, their class, kinetics, structure, and function, as well as their relation to each other	FB4-01
Packaging: material and process, an over-view	FB4-02
Industrial microbiology and genetics	FB4-03
internship / professional project in food / biology	FB6-01
Material Properties	M1-01
Mechanical Machining (introduction)	M1-02
Mechanical Machining (introduction)	M1-03
Engineering English	M1-04
Mechanical Design	M1-05
Internship/ Professional project in Mechanical and Production Engineering	M5-01
Mechanical and Production Engineering English	M2-01
Special Machining (composite forming)	M2-02
Mechanical Design	M2-03
Internship/ Professional project in Mechanical and Production Engineering	M6-01

Business Administration and Management:

NAME	ID
Fundamental Concepts	BAM1-01
Business English	BAM1-02
Cross activities	BAM1-03
Business English	BAM3-01
Cross activities	BAM3-02
Cross-cultural management	BAM3-03
Computer Science	BAM5-02
Logistics and SCM	BAM5-03
Marketing study and business plan	BAM5-04
Cross activities	BAM5-05
Business English	BAM2-01
Professional and Personal Project (PPP)	BAM2-02
Internship/Professional Project	BAM2-03
Business english	BAM4-01
Internship/Professional Project	BAM4-02
Strategy and innovation	BAM6-01
Business trade and international development	BAM6-03

Core Courses:

NAME	ID
Current Affairs and General Culture	GC3-01
Cutural Visits	GC3-02
FLE (fees : 40)	GC3-03
Intercultural Program for European Credits	GC3-04
Communicating in Organisations	GC4-01
Cutural Visits	GC4-02
FLE (fees : 40)	GC4-03
Intercultural Program for European Credits	GC4-04

Networks and Telecommunications :

NAME	ID
Basics in Networks services	NT1-01
Principles and architecture of networks	NT1-02
Networks and Telecommunications English	NT1-03
Access network technologies	NT3-01
Optical Fibers	NT3-02
Internship/Professional Project in Networks and Telecommunications	NT5-01
Database	NT2-01
Networks and Telecommunications English	NT2-02
Triple Play	NT4-01
Internship/Professional Project in Networks and Telecommunications	NT6-01

International Trade and Export Management :

NAME	ID
Materials and technology	ITEM1-01
Basics in Networks services	ITEM1-02
Principles and architecture of networks	ITEM1-03
Networks and Telecommunications English	ITEM1-04
Access network technologies	ITEM1-05
Optical Fibers	ITEM1-06
Internship/Professional Project in Networks and Telecommunications	ITEM1-07
Database	ITEM1-08
Networks and Telecommunications English	ITEM1-09
Triple Play	ITEM2-01
Internship/Professional Project in Networks and Telecommunications	ITEM2-02

CSMI

DATABASES
Introduction to database

Objectives:
Understand what a relational data base is. Learn some commands from SQL: create tables and query them, mainly data definition language et data manipulation language. Know the first 4 normal forms.

Skills:
Gathering data in tables, combining tables from the same database, querying tables.

Prerequisite:
No prerequisites. Organization skills would be appreciated.

Hours:

Lecture: 10
Tutorial Classes: 12
Practical work: 12

ECTS: 6

CSMI1-01

ALGORITHMS, PROGRAMMING LANGUAGES
Data Structures and Fundamental Algorithms

Objectives:
Know how to move from the design of an algorithm to its implementation in a programming language, be aware of strategies to reuse and to ensure quality

Skills:
Technical design of a computer solution.
Production of a computer solution.
Validation tests for a computer solution.

Prerequisite:
Knowing how to break down a problem into simpler sub-problems and define simple types to structure a data problem, paying attention to programming quality criteria.

Hours:

Lecture: 9
Tutorial Classes: 16
Practical work: 16

ECTS: 5

CSMI1-02

Spring

Autumn

CSMI

CSMI1-03

ALGORITHMS, PROGRAMMING, LANGUAGES
Introduction to Algorithms and Programming

Objectives:
Know how to break a problem down into simpler sub-problems and define simple types to structure a data problem, pay attention to programming quality criteria

Skills:
Technical design of a computer solution.
Production of a computer solution.
Validation tests for a computer solution.

Hours:

Lecture:	9
Tutorial Classes:	20
Practical work:	30

ECTS: 6

CSMI1-04

DIGITAL COMMUNICATION
Writing for digital media

Objectives:
Analyze and design an interface (navigation, ergonomics, accessibility, design of the user experience – UX).

Skills:
Knowing how to develop a scenario for a web or a multimedia object.
Knowing how to apply the foundations of web ergonomics.
Designing the usability of an interface.
Having a general culture of multimedia.

Hours:

Lecture:	9
Tutorial Classes:	10.5
Practical work:	8

ECTS: 4

■ Spring

■ Autumn

CSMI

CSMI1-05

WEB
Web integration

Objectives:
Learn the basics of html (html5)
and css basis

Skills:
Design and production of websites

Hours:

Lecture: 3
Tutorial Classes: 8
Practical work: 12

ECTS: 4

CSMI1-06

ENGLISH
Computer Science English

FOR NON-NATIVE SPEAKERS

Hours:

Lecture: 9
Tutorial Classes: 16
Practical work: 16

ECTS: 5

■ Spring

■ Autumn

CSMI

CSMI1-07

ENGLISH
Multimedia and Internet English

FOR NON-NATIVE SPEAKERS

ECTS: 5

CSMI3-01

ANALYSIS, DESIGN AND APPLI-
CATIONS DEVELOPMENT
Advanced object-oriented design
and programming

Objectives:
Produce a detailed design by
applying design patterns, Imple-
ment it using object-oriented
programming good practices.

Skills:
Producing a detailed design by ap-
plying design patterns, implementing
it using object-oriented programming
good practices.

Prerequisite:
Object-oriented design, object-
oriented programming

Hours:

Lecture:	12
Tutorial Classes:	18
Practical work:	14

ECTS: 5

■ Spring

■ Autumn

CSMI

DIGITAL COMMUNICATION
Writing for digital media III

Objectives:

Know issues, concepts, theories and practices of community management

Skills:
Demonstrating invention and creativity in the use and the management of community tools.
Using strategic information networks.

Hours:

Lecture:	9
Tutorial Classes:	10.5
Practical work:	12

ECTS: 4

HARDWARE ARCHITEC-
TURE, OPERATING SYSTEMS,
NETWORKS
Network Services

Objectives:

Interconnect networks and implement services.

Skills:
Administration of systems, software and networks.
Advice and technical assistance for users, clients and services.
Preparation of quantitative and qualitative diagnostics, software technical support.

Prerequisite:
Network Achitecture and Technology
Local Networks

Hours:

Lecture:	8
Tutorial Classes:	10
Practical work:	12

ECTS: 4

Spring

Autumn

CSMI

CSMI3-04

METHODOLOGY AND PRO-JECTS
Methodology for the production of applications

Objectives:
Analyze the requirements for the design and development of information systems in an orga-nization. Organize and manage a project

Skills:
Analysis of a computer solution. Tech-nical design of a computer solution. Production of a computer solution.

Prerequisite:
Knowledge of algorithmics, database, programming, network and system architecture are required to understand this course. Pragmatism and logical thinking are welcome.

Hours:

Lecture:	24
Tutorial Classes:	22
Practical work:	24

ECTS: 6

CSMI3-05

WEB DEVELOPMENT
Object oriented programming

Objectives:
Learn the basics of object oriented programming in the context of web development

Skills:
Being able to design a multimedia pro-duct using OOP

Prerequisite:
Programming basics, functions

Hours:

Lecture:	3
Tutorial Classes:	9
Practical work:	16

ECTS: 4

Spring

Autumn

CSMI

CSMI3-06

WEB, INTERNET, MOBILITY
Server Side Web Programming (PHP)

Objectives:
Know how to develop a server side Web application

Skills:
Technical design of a computer solution.
Production of a computer solution.
Preparation of quantitative and qualitative diagnostics, software technical support.

Prerequisite:
Basic knowledge of algorithms and object-oriented programming. Basis of Databases (SQL)

Hours:

Lecture:	12
Tutorial Classes:	14
Practical work:	14

ECTS: 5

CSMI3-07

WEB, SERVER SIDE PROGRAMMING LANGAGE, DATABASES, OBJECT ORIENTED PROGRAMMING
Web development

Objectives:
Design dynamic websites, taking care of ergonomics or navigation constraints ; sessions ; introduction to security concepts ; OOP and design patterns

Skills:
Technical design and production of websites

Prerequisite:
being able to create static webpages with html ; having some relational databases knowledge (sql statements), knowing programming bases.

Hours:

Lecture:	1.5
Tutorial Classes:	20
Practical work:	16

ECTS: 5

Spring

Autumn

CSMI

CSMI5-01

COMPUTER SCIENCE
Internship/ Professional project in Computer Science

Objectives:
Internship in a research lab of the university.

Skills:
Software developement in computer vision.

Prerequisite:
Basics in Computer Vision.

ECTS: 6

CSMI2-01

ALGORITHMS, PROGRAMMING, LANGUAGES, ANALYSIS, DESIGN AND DEVELOPMENT OF APPLICATIONS
Basis of object-oriented programming

Objectives:
Develop a program using an object-oriented programming language from a detailed design.

Skills:
Technical design of a computer solution.
Production of a computer solution.
Validation tests for a computer solution.

Prerequisite:
Data Structure and Fundamental Algorithms in any programming language.

Hours:

Lecture:	10
Tutorial Classes:	20
Practical work:	28

ECTS: 6

Spring

Autumn

CSMI 🖥

ANALYSIS, DESIGN AND APPLICATIONS DEVELOPMENT
Basis of Object-Oriented Design

CSMI2-02

Objectives:
To understand and model a detailed design, produce the associated unit tests and implement it with an object-oriented programming language

Skills:
Analysis of a computer solution.
Technical design of a computer solution
Production of a computer solution
Validation tests for a computer solution

Prerequisite:
Basic knowledge of algorithmic and programming skills

Hours:

Lecture:	10
Tutorial Classes:	14
Practical work:	18

ECTS: 5

DIGITAL COMMUNICATION
Writing for digital media II

CSMI2-03

Objectives:
Structuring the information
(tree structure, contents, sections, links ...),
Respect the rules of writing for the web,
Disseminate and communicate information according to the rules in force.

Skills:
Design of an editorial line of publications, contents of messages, communication supports.
Writing of an editorial charter especially in the case of collaborative writing
Adminisitrate the content of a website
Update of the share data and realization of the balance sheet of the communication actions
Website optimization for SEO

Prerequisite:
The applicant must know (or have a culture of) how to write the webdesign documents of a project: webdesign brief document, personas, wireframes, scenari.

Hours:

Lecture:	4.5
Tutorial Classes:	10.5
Practical work:	8

ECTS: 3

Spring

Autumn

CSMI

MATHEMATICS, ALGORITHMS,
PROGRAMMING
Graph Theory and Regular lan-
guage

Objectives:

Know some basic definitions
and properties about graphs
and automata in order to be
able to understand and imple-
ment classic algorithms like
Dijkstra and simple AI based on
automata.

Skills:
Modeling simple problems with graph
theory
Production of a computer solution for
simple graph problems.

Prerequisite:
Basic knowledge of discrete mathema-
tics (logic, relations) and linear algebra
(matrix). Basic knowledge of object
programming.

Hours:

Lecture: 10
Tutorial Classes: 16
Practical work: 18

ECTS: 5

WEB DEVELOPMENT
Development

Objectives:
Learn the basics of PHP

Skills:
Client-server communication, using
mysql databases

Prerequisite:
being able to create dynamic pages
with php, using forms

Hours:

Lecture: 9
Tutorial Classes: 16
Practical work: 16

ECTS: 5

Spring

Autumn

CSMI

WEB DEVELOPMENT
Web integration

Objectives:

Learn advanced css and javas-
cript, CMS

Skills:
Creating a website using a CMS; inte-
racting with the DOM; jquery; ajax

Prerequisite:
Basics of html, css and javascript

Hours:

Lecture:	9
Tutorial Classes:	12
Practical work:	20

ECTS : 5

ENGLISH
Computer Science English

FOR NON-NATIVE SPEAKERS

ECTS: 5

Spring

Autumn

CSMI

CSMI2-08

ENGLISH
Multimedia and Internet English

FOR NON-NATIVE SPEAKERS

ECTS: 5

CSMI4-01

APPLIED COMPUTER SCIENCE
Image processing and video analysis

Objectives:
Introduction to image processing and computer vision. Understand how to represent and manipulate digital images and videos, understand the principles of compression standards and classical image processing algorithms. The second objective is to provide an introduction and overview of
2 standard tools in image and video processing (Matlab / Scilab, OpenCV).

Skills:
Image and video compression
Low level image processing
OpenCV - Scilab/Matlab

Prerequisite:
Intermediate level of expertise in C++

Hours:

Lecture: 8
Tutorial Classes: 12
Practical work: 8

ECTS: 4

Spring

Autumn

CSMI

HARDWARE ARCHITECTURE, OPERATING SYSTEMS, NETWORKS, ANALYSIS, DESIGN AND DEVELOPMENT OF APPLICATIONS
Distributed Programming

Objectives:
Program a distributed application.

Skills:
Production of a computer solution.
Validation tests for a computer solution.
Operation and maintenance of a computer application.

Prerequisite:
Knowledge in Networks Protocols (IP, TCP). Knowledge of algorithms and object-oriented programming.

Hours:

Lecture: 8
Tutorial Classes: 12
Practical work: 8

ECTS: 4

WEB PROGRAMMING
Rich clients

Objectives:
Know and use web technologies to develop rich client side interfaces for web applications.

Skills:
Client side Web Languages
Web technologies (Ajax, Canvas, WebGL, WebAssembly)
Node.js

Prerequisite:
HTML, CSS (PHP)

Hours:

Lecture: 4
Tutorial Classes: 12
Practical work: 8

ECTS: 4

Spring

Autumn

CSMI

WEB, INTERNET, MOBILITY
Design and development of mobile applications

Objectives:
Learn how to develop applications on mobile devices.

Skills:
Technical design of a computer solution.
Production of a computer solution.

Prerequisite:
Human-Machine interface, object-oriented programming

Hours:

Lecture:	8
Tutorial Classes:	12
Practical work:	8

CSMI4-04

ECTS: 4

COMPUTER SCIENCE
Internship / Professional project in Computer Science

Objectives:
Internship in a research lab of the university

Skills:
Software developement in computer vision

Prerequisite:
Basis in Computer Vision

Hours:

Lecture:	9
Tutorial Classes:	16
Practical work:	16

CSMI6-01

ECTS: 6

Spring

Autumn

FBM

ENGLISH
Food / Biology English

FOR NON-NATIVE SPEAKERS

ECTS: 5

FOOD PROCESSING AND SCIENCES
Unit operations in food industry

Objectives:
Applied thermodynamics, Heat transfers theory and processes: heat exchangers, steam production, cold production, fluids and energies for food industry

Skills:
Understanding the mechanism of heat transfer, skill in calculation of heat/enegry consumption during food processing

Prerequisite:
Basics in physics

Hours:

Lecture:	9
Tutorial Classes:	10

ECTS: 4

Spring

Autumn

FBM

FB3-02

MICROBIOLOGY
Bacterial stress and adaptation

Objectives:
Know how to develop experimental protocols from literature survey. Collaborative work will be required in designing protocols, in implementing the protocols in the lab and in data interpretation

Skills:
Scientific reading, design of experiments, manipulation of bacteria following good laboratory practice

Prerequisite:
Basic microbiology

Hours:

Tutorial Classes: 2
Practical work: 5

ECTS: 2

FB3-03

MICROBIOLOGY
Bacterial stress and adaptation

Objectives:
Scientific communication. Be able to construct a proper powerpoint slide show. Be able to make a scientific oral presentation

Skills:
Computing skills, communication

Hours:

Tutorial Classes: 2

ECTS: 4

■ Spring

■ Autumn

FBM

FB5-01

FOOD / BIOLOGY
Internship/ Professional project in Food / Biology

ECTS: 6

FB5-02

CELL CULTURE
Culture of rat brain astrocytes

Objectives:
Generate a primary culture of glial cells from new born rat brains. Enrich cell culture in astrocytes. Visualize in response to injury induced by scratch the astrocytes migration in vitro by immunofluorescence technique

Skills:
Dissection of a new born rat brain. Establishment of primary cell culture. Plating cells, immunofluorescence technique, microscopic observations, purification procedures of mixed cells

Prerequisite:
Basics in cell culture techniques and cellular biology

Hours:

| Lecture: | 3 |
| Practical work: | 23 |

ECTS: 5

Spring

Autumn

FBM

FB5-03

MOLECULAR BIOLOGY TOOLS
RNA interference and CRISPR-CAS

Objectives:
Know how to manipulate gene expression using two different approaches : RNAi and CRISPR-CAS. The student will attend the lectures and assist Practical works (demonstrations)

Skills:
Improvement of theoretical knowledge concerning modulation of gene expression. Validation tests of gene expression manipulation.

Prerequisite:
Basics in molecular and cellular biology

Hours:

Lecture: 7
Practical work: 20

ECTS: 5

M1-01

MATERIALS SCIENCE
Materials Properties

Objectives:
Defining and selecting mechanical tests to identify materials. Linking material characterisation and mechanical behaviour.

Skills:
Perform destructive and non-destructive tests.
Identify mechanical behaviour.
Perform a test in the field of material structure.

Prerequisite:
Material properties

Hours:

Practical work: 12

ECTS: 2

Spring

Autumn

FBM

M1-02

TURNING , MILLING , DRIL-
LING , TAPPING
Mechanical Machining (intro-
duction)

Objectives:
Know how to shape a part by
using machine-tools such as
lathes or milling machines.

Skills:
Be able to choose a manufacturing
process according to part specifica-
tions

Prerequisite:
Be able to read a design drawing. It is
preferable for students to attend the
two modules of mechanical machining
in order to mix theory and practice

Hours:

Tutorial Classes: 10

ECTS: 2

M1-03

TURNING , MILLING , DRIL-
LING , TAPPING
Mechanical Machining (intro-
duction)

Objectives:
Shape a part by using machine-
tools such as lathes or milling
machines.

Skills:
Use a manufacturing process according
to part specifications

Prerequisite:
Be able to read a design drawing. It is
preferable for students to attend the
two modules of mechanical machining
in order to mix theory and practice

Hours:

Practical work: 26

ECTS: 3

Spring

Autumn

FBM

M1-04

ENGLISH
Mechanical and Production Engineering English

Objectives:
Communicative English for industry.

FOR NON-NATIVE SPEAKERS

Hours:

Practical work:	14
Tutorial classes:	14

ECTS: 5

M1-05

Mechanical design

Objectives:
-CAD modelling methodology (revolving and extrusion parts, assemblies)

-Studies of different real mechanical systems (disassembly, technological solutions, mechanisms, materials,...)

-Detailed study and CAD-modelling of a system

Skills:
-Use a CAD software programme for simple mechanical parts and assemblies

-Understand the behaviour of simple mechanical systems

Prequisites:

-Basics technical drawing knowledge

-Mechanical notions (kinematics)

Hours:

Practical work:	40

ECTS: 5

Spring

Autumn

FBM

MATERIALS SCIENCE
Materials Properties

Objectives:
Define and using a method to select materials in design product.

Justify the choice of an organic polymer, a ceramic, a metal alloy or a composite in relation to the required proper¬ties, the behaviour laws and the implementation possibilities for a given application.

Skills:
Select materials.

Link a scientific model to a work situation.

Identify the interactions at play in a system and between the system and the environment in which it is set.

Take materials properties and behaviours into account within a system.

Prerequisite:
-Material properties

Hours:

Tutorial classes: 14

ECTS: 2

MECHANICAL AND PRODUCTION ENGINEERING
Internship/ Professional project in Mechanical and Production Engineering

ECTS: 6

Spring

Autumn

FBM

FB2-01

ORGANIC CHEMISTRY
Analysis of organic compounds

Objectives:
Perform syntheses in organic chemistry while respecting the safety rules. Develop the basic knowledge in organic chemistry to master the successive reactions.

Skills:
Theorical knowledge in the reaction mechanism. Use of various analysis tools.

Prerequisites:
Organic chemistry

Hours:

Lecture:	2
Tutorial Classes:	7
Practical work:	20

ECTS: 4

FB2-02

ENGLISH
Food / Biology English

FOR NON-NATIVE SPEAKERS

ECTS: 5

Spring

Autumn

FBM

ENZYMOLOGY
Study of the enzymes, their class, kinetics, structure, and function, as well as their relation to each other

Objectives:
Know the application of enzymes in food industry, the production and purification of enzymes and the different enzyme kinetics

Skills:
Improvement of theoretical knowledge concerning the structure and fonction of enzyme uses in food industry. Mathematical description of enzyme action developed by Michaelis and Menten model and the determination of kinetics parameters of enzyme in presence or absence of effecteur

Prerequisite:
Basics in chemistry and food biochemistry

Hours:

Lecture:	8.5
Practical work:	16

ECTS: 5

FOOD PROCESSING AND SCIENCES
Packaging: material and process, an overview

Objectives:
An overview of packaging sciences and technologies: economy of packaging industries, how packaging material are produced (paper, glass, metal, plastics and biopackagings), material shaping, packaging functions, primary , secondary and tertiary packaging, ...

Skills:
General knowledge and basic tools to choose the adequate packaging according the food product to pack

Hours:

Lecture:	6
Practical work:	4

ECTS: 4

Spring

Autumn

FBM

FB4-03

BIOPROCESS
Industrial microbiology and genetics

Objectives:
Know how to use the techniques dedicated to
biotechnologies and genetic engineering.

Skills:
Improvement of practical knowledge concerning the tools used in bioprocess. Improvement of theorical knowledge concerning gene manipulation in industries.

Prerequisite:
Basics in molecular biology and bioprocess

Hours:

Lecture: 20
Tutorial Classes: 12
Practical work: 28

ECTS: 5

FB6-01

FOOD / BIOLOGY
Internship/ Professional project in Food / Biology

ECTS: 6

Spring

Autumn

FBM

M2-01

ENGLISH
Mechanical and Production Engineering English

Objectives:
Communicative English for industry

FOR NON-NATIVE SPEAKERS

Hours:

Tutorial Classes: 14
Practical work: 12

ECTS: 5

M2-02

MATERIALS FORMING PRO-CESSES
Special Machining (composite forming, injection molding, gear cutting, electrical discharge machining.)

Objectives:
Introduction to special machining used in order to shape a part.

Hours:

Pratical work: 12

ECTS: 2

Spring

Autumn

FBM

M2-03

Mechanical design

Objectives:
CAD modelling methodo-
logy (advanced functions, 2D-
drawings).

Detailed study and CAD model-
ling of advanced systems.

Skills:
Use a CAD software programme for
more complex mechanical parts and
assemblies .
2D-drawings.
Understand the behaviour of mechani-
cal systems.

Prequisites:
Autumn courses or equivalent.

Hours:

Pratical work: 36

ECTS: 4

M6-01

MECHANICAL AND PRODUC-
TION ENGINEERING
Internship/ Professional pro-
ject in Mechanical and Produc-
tion Engineering

ECTS: 6

Spring

Autumn

BAM

BAM1-01

ACCOUNTANCY
Fundamental concepts

Objectives:
Understand the fundamental accountancy rules
To read and understand an income statement and a balance sheet

Skills:
Understand the stakes of accounting: register and classify
information (balance sheet, income statement)

Hours:

Lecture:	15
Tutorial Classes:	20

ECTS: 6

BAM1-02

ENGLISH
Business English

Objectives:
Develop written and spoken competence in English (general).

Skills:
Introduce a person, present a company …
Understand in a global way, documents of current events or general interest (oral or written) and communicate about main ideas
Discover the business world vocabulary
Acquire notions and know-how in work situations

Prerequisite:
Level B1

Hours:

Tutorial Classes:	15
Practical work:	15

ECTS: 5

Spring

Autumn

BAM

BAM1-03

MANAGEMENT
Cross activities

Objectives:
Discover how we manage an organization, its different functions, departments and team management.

Skills:
Understand a business organization
Integrate and manage teamwork
Identify the roles of manager

Hours:

Lecture: 9
Tutorial Classes: 20
Practical work: 30

ECTS: 6

BAM3-01

ENGLISH
Business English

Objectives:
Improve language knowledge in a business context.
Develop a critical thinking and knowledge about cultural realities (intercultural communication)

Skills:
Develop a critical analysis .
Argue (following studies of press articles, audio or video documents linked to language of speciality, i.e. international transport, banking, on-line marketing, global trade, strategy, accountancy, logistics).
Make a success of an interview (job or studies).
Organize, lead a meeting, report

Prerequisite:
Level B2

Hours:

Tutorial Classes: 15
Practical work: 15

ECTS: 5

Spring

Autumn

BAM

MANAGEMENT
Cross activities

Objectives:
Discover how to manage an organization, its different functions, departments and team management.

Skills:
Integrate team work.

Hours:

Tutorial Classes: 20

ECTS: 5

CROSS-CULTURAL MANAGEMENT
Cross-Cultural Management

Objectives:
Take into consideration how cultural characteristics affect team management.

Skills:
Become more familiar with various cultures.
Understand how traditional cultures can influence team management.
Learn about the specifics of French cultural management.
Develop the ability of working in a cross-cultural environment.

Hours:

Lecture: 15
Tutorial Classes: 7.5

ECTS: 4

Spring

Autumn

BAM

MANAGEMENT PROJECT
Computer Science

Objectives:
Acquire intermediate Microsoft
Office proficiency.

Skills:
Create, modify, and format charts.
Create a template and work with
a design template

Hours:

Lecture: 4
Tutorial Classes: 10

ECTS: 3

MANAGEMENT PROJECT
Logistics and SCM

Objectives:
Understand the links between
business with the supply chain
concept

Skills:
Understand the links between busi-
nesses and the supply chain concept

Hours:

Lecture: 4
Tutorial Classes: 10

ECTS: 3

Spring

Autumn

BAM

BAM5-04

MANAGEMENT PROJECT
Marketing study and Business Plan

Objectives:
Be able to do a market study in order to start up a business and understand the use of business models.

Skills:
Analysis of the opportunities of the market, the market value and the model of revenue

Prerequirements:
Descriptive statistics

Hours:

Lecture: 21
Tutorial Classes: 21

ECTS: 6

BAM5-05

MANAGEMENT PROJECT
Cross activities

Objectives:
Discover how to manage an organization, its different functions, departments and team management.

Skills:
Integrate teamwork components.

Hours:

Tutorial Classes: 21

ECTS: 5

Spring

Autumn

BAM 🤝

ENGLISH
Business English

Objectives:
Deepen written and spoken
competence in Business English

Skills:
Communicate in a company in an international environment.
Study texts and documents about different aspects of the economic activity.
Acquire notions and know-how in work situations.

Prerequisite:
Level B1

Hours:

| Tutorial Classes: | 15 |
| Practical work: | 15 |

ECTS: 5

CAREER PROFILES AND QUALIFICATIONS
Professional and Personal Project (PPP)

Objectives:
Carry out a thorough work analysis in order to find out precisely which jobs are available for the students and which skills and knowledge are required.
Define a coherent study framework adapted to job descriptions.
Acquire guidance methods useful all life long.

Skills:
Discover and integrate the businees world.

Hours:

| Practical work: | 20 |
| Practical work: | 20 |

ECTS: 3

Spring

Autumn

BAM

BAM2-03

INTERNSHIP/PROFESSIONAL PROJECT

Objectives:
Discover an organization and its different activities.

Skills:
Acquire and develop rigor, adaptability, flexibility, capacity of listening and organizational skills and professionalism

Hours:

Tutorial Classes: 140

ECTS: 6

BAM4-01

ENGLISH
Business English

Objectives:
Improve language knowledge in a business context.
Improve knowledge of different communications tools (meetings, video conference, teamwork).
Develop comprehension skills and fluency in conversation .
Develop socializing skills in a business environment.
The cultural and professional dimension.

Skills:
Develop a critical analysis.
Argue (following studies of newspapers, audio or video documents about international transport, banking, online marketing, global trade, strategy, accountancy, logistics).
Prepare for job or course interviews.
Organize, lead a meeting, reports.

Prerequisite:
Level B2

Hours:

Tutorial Classes: 15
Practical Work: 15

ECTS: 5

Spring

Autumn

BAM

INTERNSHIP/PROFESSIONAL PROJECT

Objectives:
Discover an organization and its different activities.

Skills:
Lead specific management actions in large companies and SMEs.

Hours:

Tutorial Classes: 280

ECTS: 6

MANAGEMENT
Strategy and innovation

Objectives:
Give a comprehensive understanding of the issues and techniques of strategy : external and internal analysis and the choice of the strategic position

Skills:
Analysis of the environment and the capabilities of the organisation.
Make a choice for the strategic position

Hours:

Lecture: 7
Tutorial Classes: 14

ECTS: 3

Spring

Autumn

BAM

MANAGEMENT
Business Trade and international
development

Objectives:
Give:
- a definition of cross-cultural
Management, culture
- Cross-cultural understanding a
business environment
- a definition of small and me-
dium-sized enterprise (SME) in
International Trade

Skills:
Manage cross-cultural project teams
Negotiate with foreign suppliers or cus-
tomers

Hours:

Lecture: 2
Tutorial Classes: 5

ECTS: 3

Spring

Autumn

Core Courses

COMMUNICATION
Current Affairs and General Culture

Hours:

Tutorial Classes: 9

GC3-01

ECTS: 2

COMMUNICATION
Cutural Visits

GC3-02

FLE (FEES : 40)

GC3-03

ECTS: 5

INTERCULTURAL PROGRAM
FOR EUROPEAN CREDITS

GC3-04

ECTS: 5

Spring

Autumn

Core Courses

GC4-01

COMMUNICATION
Communicating in Organisations

Objectives:
Intercultural communication.
Know the most significant aspects of multicultural behaviors and interactions. Understand differencies and manage them. Leadership styles in different cultural contexts

Skills:
Detect cultural signals and enhanced flexibilty in unexpected reactions Behavioural tool to face critical and unknown situations and to communicate to different types of audience

Hours:

Tutorial Classes: 15
Practical Work: 15

ECTS: 5

GC4-02

COMMUNICATION
Cutural Visits

GC4-03

FLE (FEES: 40)

ECTS: 5

Spring

Autumn

INTERCULTURAL PROGRAM
FOR EUROPEAN CREDITS

GC4-04

ECTS: 5

Spring

Autumn

NT

NETWORKS
Basics in Networks services

Objectives:
This module introduces the basics of network services (DHCP, NFS, SMB, HTTP), and leads to the
implementation and the exploitation of those services.

Skills:
The students will install and configure a DHCP service, a file sharing system, a file transfer server, and a web server.

Prerequisite:
Basics in Operating systems

Hours:

Lecture: 2
Tutorial Classes: 4
Practical Work: 16

ECTS: 4

NETWORKS
Principles and architecture of networks

Objectives:
Understand the architecture of a network and its protocols
Analyse how a protocol works

Skills:
This module shows how to set up a basic network. The students will also capture and analyse basic protocols

Prerequirement:
Architecture of IT equipment

Hours:

Lecture: 8
Tutorial Classes: 8
Practical Work: 9

ECTS: 5

Spring

Autumn

NTA

ENGLISH
Networks and Telecommunica-
tions English

FOR NON-NATIVE SPEAKERS

ECTS: 5

TELECOMMUNICATIONS
Access network technologies

Objectives:
This module helps to unders-
tand the principal architectures
of the local loop (electrical, opti-
cal, and
wireless).

Skills:
The students will analyse, deploy, and
maintain local loop technologies. They
will learn how to set up
access network equipments.

Prerequisite:
Principles and architecture of networks
Digital transmission chain
Networks Operators Technologies

Hours:

Lecture:	6
Tutorial Classes:	6
Practical Work:	12

ECTS: 5

Spring

Autumn

NT

NT3-02

TELECOMMUNICATIONS
Optical Fibers

Objectives:
This module shows the characteristics of optical fibers and the components of optical fiber networks

Skills:
Students will characterize optical links, fibers, and components. They will also identify optical fiber and component types

Prerequisite:
Guided transmission in hyper-frequencies and optics

Hours:

Lecture:	10
Tutorial Classes:	8
Practical Work:	6

ECTS: 5

NT5-01

NETWORKS AND TELECOMMU-NICATIONS
Internship/Professional Project in Networks and Telecommunications

ECTS: 6

Spring

Autumn

NT A

COMPUTER SCIENCE / NETWORKS
Database

Objectives:
This module shows how to use a database, how to write scripts in a query language, and the basics of administrating a DBMS.

Skills:
Students will learn how to create a database in a DBMS, and how to manipulate and interrogate a database. They will install and use a Database Management System (DBMS).

Prerequisite:
Basics in Operating systems

Hours:

Lecture: 4
Tutorial Classes: 6
Practical Work: 16

ECTS: 5

ENGLISH
Networks and Telecommunications English

FOR NON-NATIVE SPEAKERS

ECTS: 5

Spring

Autumn

NT

NT4-01

NETWORKS
Triple Play

Objectives:
This module gives insights about Triple Play architectures (Data-Voice-Video services)

Skills:
Students will learn how to set up a Quality of Service (QoS) system for voice and video services.

Prerequisite:
Principles and architecture of networks
Local networks and active equipments
Internet technologies

Hours:

Lecture: 4
Tutorial Classes: 2
Practical Work: 4

ECTS: 2

NT6-01

NETWORKS AND TELECOMMU-NICATIONS
Internship/Professional Project in Networks and Telecommunica-tions

ECTS: 6

Spring

Autumn

ITEM

Business strategies

Objectives:
Understand the different developments / strategies for the different types of business, know how to benchkmark the competitors to get the best from their ideas. Understand the different options to develop a company and how to handle the different options.

Skills:
Students will research the different options to develop a company on the national and international market. Also how to develop a department or even a job position.

ITEM1-01

Communication

Objectives:
Understand how external communication works for a company in a modern day context. Understanding of marketing and communication tools and tendancies.

Skills:
Students will research, create and present a Communication Plan in English. Importance will be given to the understanding of the market and creativity.

ITEM1-02

Spring

Autumn

ITEM

International negociation

Objectives:
Understand how to deal and negociate with international partners. Be able to manage different situations, know how to write good emails and know how to handle the different emails and the phone calls to negociate

Skills:
Students will learn how to handle the different negociation steps / with different partners and how to make a deal

Leadership

Objectives:
Understand how leadership works in general and also in a company via a look at historic leaders and also business leaders. A look at what makes a good leader.

Skills:
Students will learn how to make a presentation about a Leader in English. They will also research into a Leader's thoughts and acts, and learn how to evaluate a Leader's acts.

Spring

Autumn

ITEM

Project Management

Objectives:
Understand the way a project works inside a company. The different people and the structures involved and how they work together for a final result.

Skills:
Students will look closely at a Company in action, and present in English how it undertakes its projects. Students will be asked to analyse success and failure in projects.

GEOPOLITCS AND INTERNATIONAL RELATIONS

Objectives:
Acquire a method for analysing tensions in hot world regions
Anticipate weak signals (anticipate risk)
Acquire a better understanding of the major international issues that determine market (in)stability.
Understand the importance of a method for analysing international events

Skills:
1. Understand the power and domination strategies of certain states and how companies are also actors in the international political game
2. Be able to anticipate the consequences for organizations
3. Be able to analyse a country situation on behalf of an investor
4. Be able to broaden your notions of strategy and go beyond the classic analytical framework of business strategies.

Prerequirements:
an interest in international relations and politics.

ECTS : 3

Spring

Autumn

ITEM

MULTICULTURAL MANAGEMENT

Objectives:
- Make students aware of cultural differences; make them understand that, unintegrated, they are the main and often hidden source of professional risks.
- To make students think about what cultural otherness is; make them aware that any commercial and managerial technique is only once the Other's cultural dimension has been addressed.
- To realise the importance of models (Hofstede,...) but above all their limits; the risk of cultural modelling will be highlighted

Skills:
Be understand cultural facts, their origins and manifestations
Be able to anticipate cultural risks in the workplace
Be able to challenge analysis models.
Be able to gauge the role endorsed by cultural differences and their impact on the overall management of the company.

ECTS: 3

ENGLISH FOR EFFECTIVE BUSINESS WRITING (FOR NON-NATIVE SPEAKERS)

Objectives:
-Help students improve their business English writing skills by developing their use of vocabulary, grammar, understanding of different business writing genres
-Develop students' ability to write professional business documents.

Skills:
Be able to produce the professional business documents
Be able to write an executive summary
Be able to adapt content to purpose, context and audience
Know how to use appropriate style and tone of writing for business purposes.

Prerequisites:
B2 in general written English.

ECTS: 2

■ Spring

■ Autumn

ENGLISH FOR EFFECTIVE BUSINESS WRITING (FOR NON-NATIVE SPEAKERS)

Objectives:

ITEM is a full degree sandwich course taught in the Department of Business at the Auxerre campus offering exchange students the opportunity to be non or degree-seeking students.
Non-degree-seeking students are due to complete only semester only (from late September to January); they are not subject to the internship requirement. Degree-seeking students registered for the year are required to validate the internship for graduation.

Finding an internship: Professors in charge help students in their search and facilitate contact with the local companies.

Internship agreement: The internship is subject to an agreement in accordance with the regulations in force.

Content of the internships: The internships offered by partner companies cover mis-sions like export development, monitoring, customer relations, commercial communi-cation, etc.

Internship period: The internship runs from January to June.

Supervision of the internship: The trainee is supervised both by a company tutor and a professor. The latter validates the content of the internship and monitors its smooth running in conjunction with the host company.

Evaluation of the internship: The internship ends with a report + a thirty-minute oral presentation (English or French).

ECTS: 15

Spring

Autumn

ITEM

STRATEGIC INTELLIGENCE BOOT CAMP

Objectives:
The strategic Intelligence boot camp is an intensive seminar of 2days that allows participants to work in a high-energy immersion into the facts of the business area.
The boot camp incorporates both practical and theoretical elements allowing participants to be ready to use off-the-shelf techniques.

Skills:
Be able to develop a comprehensive 360 ° approach of the topic chosen.
Know how to sort out relevant information focusing on the selected topic.
Be able to produce a pertinent, analytical (oral and written work) in a very limited time.
Be able to make a synthetic presentation of major current and future strategic issues.
Be able to face pressure, meet time commitment and effective, high quality and original work.

ECTS: 6

FRENCH AS A FOREIGN LANGUAGE (FLE)

Objectives:
Make student confident with their initial use of French
Develop students' French skills via the media, surveys, visits...
Develop exchange students' cultural knowledge of the French environment.
The class format is groups of 4 or 5 students of about the same level of French. Grammar exercises and lexical enrichment is done according to the learner's language needs.

Skills:
Be able to produce a clear, basic message for everyday conversations
Be able to reach a basic level of langue autonomy
Know how to culturally interact with the French

Prerequisites:
A2 in French

ECTS: 5

Spring

Autumn

ITEM

ENGLISH FOR EFFECTIVE BUSINESS WRITING (FOR NON-NATIVE SPEAKERS)

Objectives:
-Help students improve their business English writing skills by developing their use of vocabulary, grammar, understanding of different business writing genres
-Develop students' ability to write professional business documents.

Skills:
Be able to produce the professional business documents
Be able to write an executive summary
Be able to adapt content to purpose, context and audience
Know how to use appropriate style and tone of writing for business purposes.

Prerequisites:
B2 in general written English.

ECTS: 2

FRENCH AS A FOREIGN LANGUAGE (FLE)

Objectives:
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The class format is groups of 4 or 5 students of about the same level of French. Grammar exercises and lexical enrichment is done according to the learner's language needs.

Skills:
Be able to produce a clear, basic message for everyday conversations
Be able to reach a basic level of langue autonomy
Know how to culturally interact with the French

Prerequisites:
A2 in French

ECTS: 5

Spring

Autumn