
ENGINEERING IN THE FIELD OF CONSTRUCTION AND PUBLIC WORKS

2022-2023

Year 3

PROGRAMME SUPERVISOR
Jean-Sebastien LE BRIZAUT



PROGRAMME ENGINEERING IN THE FIELD OF CONSTRUCTION AND PUBLIC WORKS - Year 3

Year 3

Course unit	ECTS Credits	Course type	Course code	Title
UE300	30			
		Core course	BTP3_ENT	Business Skills
UE301	4			
		Core course	BTP3_SSAT	Social sciences applied to work
UE302	4			
		Core course	BTP3_CRENT	Business creation and takeover
		Core course	BTP3_DTRA	Code of work
		Core course	BTP3_MAPRI	Private and public contracts
		Core course	BTP3_PATH	Pathologies expertise
UE303	4			
		Core course	BTP3_ACV	Life cycle analysis
		Core course	BTP3_GEBU	Project budget
		Core course	BTP3_PROC	Project management
UE304	6			
		Core course	BTP3_COME	Steel construction
		Core course	BTP3_DYNA	Paraseismic engineering
		Core course	BTP3_MOUV	Structures Behaviour Modelling
		Core course	BTP3_SCOM	Complex structures
UE305	4			
		Core course	BTP3_ARCH	Architecture
		Core course	BTP3_BOIS	Wood construction
		Core course	BTP3_MAREHB	Rehabilitation of civil engineering structures
		Core course	BTP3_MAREHT	Construction and Public works upkeep and Renovation
UE306	7			
		Core course	BTP3_MARI	Civil engineering works, fluvial and coastal works
		Core course	BTP3_PCOME	Metal construction Project
		Core course	BTP3_PROJB	Building project
UE307	1			
		Core course	BTP3_PSI	International Experience Project

ENGINEERING IN THE FIELD OF CONSTRUCTION AND PUBLIC WORKS

Year 3 - UE300

Business Skills [BTP3_ENT]

LEAD PROFESSOR(S): Jean-Sebastien LE BRIZAUT / Marie GOUGEON

Objectives

Course contents

Course material

Assessment

Individual assessment: EVI 1 (coefficient 1)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
French	-	6 hrs	0 hrs	0 hrs	0 hrs	0 hrs

ENGINEERING IN THE FIELD OF CONSTRUCTION AND PUBLIC WORKS

Year 3 - UE301

Social sciences applied to work [BTP3_SSAT]

LEAD PROFESSOR(S): Fabien THOMAS / Jean-Sebastien LE BRIZAUT

Objectives

Acquire a rational approach to questioning within the framework of a practice related to human work; acquire a methodology of data collection adapted to this questioning; appropriate knowledge related to a practice related to human work; make join "practical" and "theories" based on the professional experience of engineering students in apprenticeship (in conjunction with the practice analysis sessions); transforming this knowledge into professional know-how

Course contents

Information Systems and Work; Welfare and Labour; Intercultural Management; Macroeconomics and Labour. Apprentices must carry out a micro-memory on work, people and organization in their company.

Course material

Henri MINTZBERG, Danièle LINHART, Frédéric MISPELBLOM-BEYER, Eric DELAVALLEE, Frédéric LORDON, Thomas PIKETTY, Renaud SAINSAULIEU, Vincent DE GAULEJAC, Jean-François DORTIER, Mathew CRAWFORD, Alain DENEULT, Marie-Anne DUJARIER, Barbara STIEGLER, Marie PEZE, Christophe DEJOURS, etc.

Assessment

Individual assessment: EVI 1 (coefficient 1)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
French	-	0 hrs	0 hrs	56 hrs	0 hrs	0 hrs

ENGINEERING IN THE FIELD OF CONSTRUCTION AND PUBLIC WORKS

Year 3 - UE302

Business creation and takeover [BTP3_CRENT]

LEAD PROFESSOR(S): Jean-Sebastien LE BRIZAUT

Objectives

- Answer questions: Why, with whom, how to start a business?
- Alert about the choices to be made (legal status, associated social security schemes, etc.)
- Leading the way in creating/taking over a business
- Identify the actors facilitating business creation
- Illustrate the steps of creation using real cases
- Build the creator's tool box

Course contents

Introduction:

- What does entrepreneurship mean to you?
- What is a Project Leader
- Context and statistics

I- From Idea to Project

- Techniques for finding ideas
- Create or resume?
- Protect your idea
- The franchise
- Test your idea
- Stress analysis
- Written and oral presentations of the project

II- From Project to Creation

- Market research
- Determine your strategy
- Financial forecasts
- The search for funding
- Start-up aids
- Choice of legal structure
- Start-up formalities

Course material

<https://bpifrance-creation.fr/>

Assessment

Individual assessment: EVI 1 (coefficient 1)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
French	-	16 hrs	0 hrs	0 hrs	0 hrs	0 hrs

ENGINEERING IN THE FIELD OF CONSTRUCTION AND PUBLIC WORKS

Year 3 - UE302

Code of work [BTP3_DTRA]

LEAD PROFESSOR(S): Jean-Sebastien LE BRIZAUT

Objectives

Objectives:

This course must allow them to master the main HR topics that they will face as engineers (including employment contract, temporary, paid leave, employee representatives, discipline, etc.) but also to make apprentices aware of the legal framework in which they operate in the world of work: what are the standards? How and with whom are they defined? Where to go for legal information? etc.

Course contents

I Collective labour relations

- a- The different actors in the company (the employer, the social and economic committee (CSE), the trade union representative...)
- b- Sources of Law

II Individual labour relations

- a- The indefinite employment contract
- b- The fixed-term contract
- c- Acting
- d- Subcontracting
- e- Leave with pay
- f- Exercise of disciplinary authority

Course material

Labour Code and Social Security Code mainly, social liaison, legislative editions, the law of social and economic committees and group committees (Maurice Cohen, Laurent Milet)

Assessment

Individual assessment: EVI 1 (coefficient 1)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
French	-	32 hrs	0 hrs	0 hrs	0 hrs	0 hrs

ENGINEERING IN THE FIELD OF CONSTRUCTION AND PUBLIC WORKS

Year 3 - UE302

Private and public contracts [BTP3_MAPRI]

LEAD PROFESSOR(S): Jean-Sebastien LE BRIZAUT

Objectives

At the end of this teaching the learner must be able to:

Know and apply the general rules on the award and monitoring of public contracts (works and intellectual services).

Course contents

Training Program:

Performance of public works contracts,
 The different connections,
 The preparation period,
 The deadlines,
 Modifying works (amendments - decisions to exceed the initial mass),
 The settling of accounts,
 The reception,
 Guarantees and disputes in public procurement,
 The calls for guarantees,
 The powers of the administration,
 Settlement of disputes and disputes.

Knowledge Check:

1 2 hour evaluation.

Course material

Assessment

Individual assessment: EVI 1 (coefficient 1)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
French	-	20 hrs	0 hrs	0 hrs	0 hrs	0 hrs

ENGINEERING IN THE FIELD OF CONSTRUCTION AND PUBLIC WORKS

Year 3 - UE302

Pathologies expertise [BTP3_PATH]

LEAD PROFESSOR(S): Emmanuel ROZIERE / Jean-Sebastien LE BRIZAUT

Objectives

Course contents

Course material

Assessment

Individual assessment: EVI 1 (coefficient 1)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
French	-	16 hrs	0 hrs	0 hrs	0 hrs	0 hrs

ENGINEERING IN THE FIELD OF CONSTRUCTION AND PUBLIC WORKS

Year 3 - UE303

Life cycle analysis [BTP3_ACV]

LEAD PROFESSOR(S): Emmanuel ROZIERE / Patrice PALIOTTI

Objectives

Identify the guidelines and principles of life cycle analysis (LCA), regulations applicable to construction products and equipment

Understand the structure of related standards

Identify the most relevant parts of the LCA standards to be able to quickly respond pragmatically to the environmental issue of a product/service and construction equipment

Use standard 14040 and 14044 to qualify and quantify the associated environmental aspects and impacts: initiation, prioritization, qualitative and quantitative assessments

Identify the main labels for evaluating and communicating the environmental performance of products/services on their life cycle perspective.

Course contents

Lesson 1: The environmental quality of construction products/services and equipment

Lesson 2: Challenges for the company and integrated approach to the development process

Lesson 3: Regulatory and normative context applicable to projects

Lesson 4: Evaluation of environmental aspects related to projects

Lesson 5: Qualitative Method for Life Cycle Analysis of Construction Products and Equipment

Lesson 6: Quantitative method of Life Cycle Assessment according to ISO 14040 and ISO 14044 standards

Lesson 7: Communicating environmental performance to customers

Course material

Assessment

Individual assessment: EVI 1 (coefficient 1)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
French	-	12 hrs	0 hrs	0 hrs	0 hrs	0 hrs

ENGINEERING IN THE FIELD OF CONSTRUCTION AND PUBLIC WORKS

Year 3 - UE303

Project budget [BTP3_GEBU]

LEAD PROFESSOR(S): Benoit HILLOULIN / Maheswarsingh TAJOO

Objectives

Objectives:

Understand the goals and principles of budgetary control,

Understand the importance of the operating result of the site in the overall management of the company,

Knowing how to budget a project,

Know how to establish a monthly control,

Know how to analyze this control and the operating account,

Know how to determine the results at the end of construction and propose corrective measures.

Course contents

Training Program:

General Concepts:

Aims and definitions of the budget and budgetary control,

Purpose and definition of the hours budget,

Concept of discount and price revision,

The construction site in the company.

Establishing a budget:

Similarities and differences with the price study (against study),

The different types of expenditure,

Selection of imputations, impact on edit.

Budgetary control:

Principle,

The situation of works,

Monthly budget and accounting management tasks,
 Expenditure entitlements (vested),
 Concept on the stock (TNF and TFA),
 Expenses, charges, corrections, inventories,
 Analysis of the dashboards,
 Establishment of the projection at the end of the project,
 The corrective measures,
 Incorporate modifying work.

Knowledge Check:

Evaluation of work carried out during teaching,
 Development of acquired rights, calculation of expenditure and budgetary control based on a case study.

Course material

Assessment

Individual assessment: EVI 1 (coefficient 1)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
French	-	32 hrs	0 hrs	0 hrs	0 hrs	0 hrs

ENGINEERING IN THE FIELD OF CONSTRUCTION AND PUBLIC WORKS

Year 3 - UE303

Project management [BTP3_PROC]

LEAD PROFESSOR(S): Benoit HILLOULIN

Objectives

Objectives:

At the end of this 112-hour module, the learner will be able to prepare, organize and execute a project. Coordinate the bodies of states and the different stakeholders of a project.

Course contents

Training Program:

1. Preparation, Organization

History, table of contents,
Principle of work analysis,
Production of industrial type,
Productivity,
Production and building,
General information on site preparation,
Conduct of the studies,
Critical analysis of a project,
Simulation of operation,
Constructive mode,
Comparative study,
Crane load,
Formwork and shoring equipment,
Rotations - process and application,
Construction site installation,
The times,
Elaboration of elementary times,
The judgment of pace,
Coefficient of rest and synchronisation,
Exploitation of the measures,
Breakdown of the works,
Establishment of the implementing budget,
Task Balancing Daily Chart,
Types and definitions of schedules,
The bar chart or Gantt,
The railway schedule,
The case schedule,
The synoptic schedule,
Planning software learning: PROJECT (initial planning and follow-up),
Launch of the teams,
The incentive pay.

2. Coordination - Enforcement

Decision planning,
Monitoring of the schedule,
TCE synthesis plans,

Management of execution documents.

Knowledge Check:

Evaluation of 4 hours in second year.

Course material

Assessment

Collective assessment: EVC 1 (coefficient 0.5)

Individual assessment: EVI 1 (coefficient 0.5)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
French	-	52 hrs	0 hrs	0 hrs	8 hrs	0 hrs

ENGINEERING IN THE FIELD OF CONSTRUCTION AND PUBLIC WORKS

Year 3 - UE304

Steel construction [BTP3_COME]

LEAD PROFESSOR(S): Jean-Sebastien LE BRIZAUT / Pascal ROUGERON

Objectives

Objectives:

At the end of this teaching the learner must be able to design and size and realize complex metal structures from the Eurocode 3 rules.

Course contents

1. Service Limit States.

Ultimate limit states:

Classification of sections,
Resistance of the sections,
Buckling and dumping,
Compressed and flexed elements,
Voilement,
Assemblies under static loads.

2. Study of a bridge according to European regulation EC3.

3. Practical aspects of construction:

workshop preparation,
mounting,
audit.

Knowledge Check:

1 evaluation of 2 hours, 1 mini project including a method part.

Course material

Eurocode 3 part 1-1
Eurocode 3 part 1-5
Eurocode 3 part 1-8

Assessment

Individual assessment: EVI 1 (coefficient 1)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
French	-	20 hrs	10 hrs	0 hrs	0 hrs	0 hrs

ENGINEERING IN THE FIELD OF CONSTRUCTION AND PUBLIC WORKS

Year 3 - UE304

Paraseismic engineering [BTP3_DYNA]

LEAD PROFESSOR(S): Panagiotis KOTRONIS

Objectives

Raise students' awareness of the seismic risk, learn to analyze the dynamic behavior of a structure, general principles of earthquake-resistant conception and design

Course contents

Dynamics of structures - Seismic risk, seismic zoning - Dynamic equation of a simple oscillator, analytical / numerical resolution - Dynamic equation of a system with several degrees of freedom, numerical resolution - Modal analysis, modal superposition, spectral superposition - Calculation according to the earthquake regulations (EC8), Earthquake-resistant design (capacity design)

Course material

Dynamique des structures - Application aux ouvrages de génie civil, Patrick Paultre, Hermès, Lavoisier, 2004.

Génie parasismique. Volumes I-II-III, Betbeder-Matibet, J., Hermes sciences publ., Lavoisier, 2003.

Dynamics of Structures, Theory and Applications to Earthquake Engineering, Anil K. Chopra, second edition, Prentice-Hall, 2001.

M. Géradin and D. Rixen. Mechanical vibrations. John Wiley and Sons, 1997.

Pratique du calcul sismique guide d'application de l'Eurocode. Sous la direction de V. Davidovici. Eyrolles, Afnor éditions, 2013. <https://educnet.enpc.fr/course/view.php?id=237&userid=guest> (Cours A. Pecker, ENPC)

Assessment

Individual assessment: EVI 1 (coefficient 1)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
French	-	14 hrs	0 hrs	0 hrs	0 hrs	2 hrs

ENGINEERING IN THE FIELD OF CONSTRUCTION AND PUBLIC WORKS

Year 3 - UE304

Structures Behaviour Modelling [BTP3_MOUV]

LEAD PROFESSOR(S): David REMAUD / Syed Yasir ALAM

Objectives

Objectives:

At the end of this teaching the learner must be able to:

Understand the principle of numerical discretization resolution methods (MEF, MDF),
Understand the modelling hypotheses for the simulation of the behaviour of a civil engineering structure,
Master the features of a pre - post processor and a solver for a basic application,
Analyze and interpret results against modelling assumptions.

Course contents

Training Program:

Principle of MEF and MDF.
Application to simple elements (bar, beam),
Specificities of the calculation of civil engineering works: phasing of works, soil-structure interactions, couplings, hydromechanics and thermomechanics, non-linear behaviour,

Knowledge Check:

1 micro memory.

Course material

Assessment

Collective assessment: EVC 1 (coefficient 1)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
French	-	8 hrs	0 hrs	16 hrs	0 hrs	0 hrs

ENGINEERING IN THE FIELD OF CONSTRUCTION AND PUBLIC WORKS

Year 3 - UE304

Complex structures [BTP3_SCOM]

LEAD PROFESSOR(S): Emmanuel ROZIERE

Objectives

Understand how prestressed concrete structures and composite structures work
 Check the design of structural elements under compression and bending
 Discover other construction methods (wood-concrete, composite material reinforcements, etc.)

Course contents

Prestressed concrete
 Composite structures: interest, principles, examples
 Introduction to the calculation of composite steel-concrete structures
 Composite columns: centered compression
 Composite beams
 Composite columns: compression – bending interaction
 Technology, bridges, and other mixed construction methods

Course material

EN 1994-1-1 - Eurocode 4: Design of composite steel and concrete structures - Part 1-1: General rules and rules for buildings

Assessment

Individual assessment: EVI 1 (coefficient 0.5)
 EVI 2 (coefficient 0.5)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
French	-	26 hrs	0 hrs	0 hrs	0 hrs	4 hrs

ENGINEERING IN THE FIELD OF CONSTRUCTION AND PUBLIC WORKS

Year 3 - UE305

Architecture [BTP3_ARCH]

LEAD PROFESSOR(S): Elisabeth PEROT / Jean-Sebastien LE BRIZAUT

Objectives

Course contents

Course material

Assessment

Individual assessment: EVI 1 (coefficient 1)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
French	-	20 hrs	0 hrs	0 hrs	0 hrs	0 hrs

ENGINEERING IN THE FIELD OF CONSTRUCTION AND PUBLIC WORKS

Year 3 - UE305

Wood construction [BTP3_BOIS]

LEAD PROFESSOR(S): Emmanuel KERMORVANT / Jean-Sebastien LE BRIZAUT

Objectives

Objectives:

At the end of this teaching the learner must be able to:

- Know the wood material and its use in wood construction,
- Size and check a wooden structure,
- Sizing the main assemblies encountered in wooden constructions.

Course contents

Course material

Assessment

Individual assessment: EVI 1 (coefficient 1)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
French	-	26 hrs	0 hrs	0 hrs	0 hrs	0 hrs

ENGINEERING IN THE FIELD OF CONSTRUCTION AND PUBLIC WORKS

Year 3 - UE305

Rehabilitation of civil engineering structures [BTP3_MAREHB]

LEAD PROFESSOR(S): Frédéric GRONDIN / Sihem TASCA-GUERNOUTI

Objectives

Objectives:

Know the causes of disorder in buildings, establish a diagnosis and implement technical solutions.

Course contents

Training Program:

Module Reference Course Designation:

Pathology of buildings
Requalification or demolition
Etaisements

Control of Knowledge: 1 project

Course material

Assessment

Individual assessment: EVI 1 (coefficient 1)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
French	-	18 hrs	0 hrs	6 hrs	0 hrs	0 hrs

ENGINEERING IN THE FIELD OF CONSTRUCTION AND PUBLIC WORKS

Year 3 - UE305

Construction and Public works upkeep and Renovation [BTP3_MAREHT]

LEAD PROFESSOR(S): Ferhat HAMMOUM / Giulio SCIARRA

Objectives

Objectives:

Knowledge of diagnostic, maintenance and operating methods.

Course contents

Training Program:

- Rehabilitation and maintenance of roads
- Rehabilitation and maintenance of works of art
- Rehabilitation and maintenance of Maritime and Port Works

Knowledge Check:

1 Project.

Course material

Assessment

Individual assessment: EVI 1 (coefficient 1)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
French	-	24 hrs	0 hrs	0 hrs	0 hrs	0 hrs

ENGINEERING IN THE FIELD OF CONSTRUCTION AND PUBLIC WORKS

Year 3 - UE306

Civil engineering works, fluvial and coastal works [BTP3_MARI]

LEAD PROFESSOR(S): Benoit HILLOULIN / Yves GODET

Objectives

Objectives:

At the end of this teaching, the learner must be able: This course has a double component: technical and technological.

a) Works of Art

To understand the different techniques associated with the main materials (reinforced concrete, prestressed concrete, metal construction, wood, mixed structure) to cross different breaches (rivers, valleys, motorway restorations etc).

b) Underground work

c) Maritime and River Works

To apprehend the different techniques associated with the main materials in order to produce works capable of:

Resist cylindrical or erosion forces (coastal protection structures, gabions, wave damping boxes, etc.).

Resist the efforts of ships to dock (Ducs d'Albe, docks, etc.).

To form the foundations and supports of structures (sheet pile curtain, beaten piles).

But also to address the techniques of aquatic earthmoving (mining, dredging, etc.) associated with the realization of works under rivers (pipes, etc.).

Course contents

Training Program:

Works of Art:

The different types of structures encountered depending on the breaches to be breached and the circulating loads,

Pedestrian walkways: Wood, metal,

Road works: PS/ PI/ Aqueducts/ Mixed bridges/ Bridges in BP caisson/ Exceptional works (suspended guy wires, arches, etc.),

Railway structures: Covered beam bridges/ Prestressed concrete bridges/ Metallic structures/ Caissons, bow-string, etc.).

This approach will be linked to construction technology depending on the site (hangers, mobile crews, etc.) and architectural constraints.

An approach to the evolution of structures according to new materials: BHP, wood, etc

Maritime and River Works:

The different types of works encountered depending on their destination,

Foundations and supports for structures, cofferdams, sheet-piling curtains, beaten piles,

Quays and dikes of Alba, gabions,

Natural (for example, riprap, acropods) and man-made (for example, gabions, wave-damping caissons),

Miscellaneous protective structures (gabions, etc.).

Methods and specific equipment (hammers, pontoons, earth-moving machinery, lifting equipment)

Knowledge Check:

1 control of 4 hours (2 hours works of art + 2 hours TMF), 1 micro-memory (or mini-project).

Course material

Assessment

Collective assessment: EVC 1 (coefficient 0.5)

Individual assessment: EVI 1 (coefficient 0.5)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
French	-	52 hrs	0 hrs	0 hrs	20 hrs	0 hrs

ENGINEERING IN THE FIELD OF CONSTRUCTION AND PUBLIC WORKS

Year 3 - UE306

Metal construction Project [BTP3_PCOME]

LEAD PROFESSOR(S): Christophe GILLIOT / Jean-Sebastien LE BRIZAUT

Objectives

Know how to design a common metal structure
 Know how to design a common metal structure using the Robot Structural Analysis software

Course contents

- Requirements for structures
- Principle of verification of structural safety according to the limit state method
- Ruin modes affecting metal structures
- General structural design and typical details
- Metal structure assembly
- Study and design of the framework of an R+2 building

Course material

NF EN 1990 and NF EN 1990/NA
 NF EN 1991-1-3 and NF EN 1991-1-3/NA
 NF EN 1991-1-4 and NF EN 1991-1-4/NA
 NF EN 1993-1-1 and NF EN 1993-1-1/NA
 NF EN 1993-1-8 and NF EN 1993-1-8/NA

Assessment

Collective assessment: EVC 1 (coefficient 1)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
French	-	24 hrs	0 hrs	6 hrs	0 hrs	0 hrs

ENGINEERING IN THE FIELD OF CONSTRUCTION AND PUBLIC WORKS

Year 3 - UE306

Building project [BTP3_PROJB]

LEAD PROFESSOR(S): Benoit HILLOULIN

Objectives

From design to realization, understand the role of the stakeholders in the act of building. The interests and constraints of each are not the same, with convergences and divergences, but always around a common project.

The main objective of the "Building Project" module is to understand the construction from different perspectives.

Arrived in the 3rd year, the high alternating engineers begin to understand the functioning of the act of building, but often with the only point of view of their first experience.

The module «Building project» will allow them with a very concrete look based on multiple examples to take a step back and allow them to discover other points of view.

Course contents

- Identify the construction actors.
- Understanding each stakeholder's role: Project manager, Architect, Company, etc.
- Understand the execution of a construction project over time and know the different phases of construction.
- Follow-up of a real construction operation during the 6 months of training on the basis of a project proposed by the worker in progress.
- Site meeting scenario.
- Plan, organize and imagine the smooth running of this operation.
- Identify the differences, shifts and hazards encountered between the study and the site's reality.
- Visit of the operation studied.
- Analysis of a technical point of the operation in group work.

Course material

Assessment

Collective assessment: EVC 1 (coefficient 1)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
French	-	60 hrs	0 hrs	0 hrs	8 hrs	0 hrs

ENGINEERING IN THE FIELD OF CONSTRUCTION AND PUBLIC WORKS

Year 3 - UE307

International Experience Project [BTP3_PSI]

LEAD PROFESSOR(S): Alan BALL / Jean-Sebastien LE BRIZAUT

Objectives

Preparation of the international stay

Course contents

Course material

Assessment

Individual assessment: EVI 1 (coefficient 1)

LANGUAGE OF INSTRUCTION	ECTS CREDITS	LECTURES	TUTORIALS	LAB	PROJECT	EXAM
French	-	4 hrs	0 hrs	8 hrs	0 hrs	0 hrs