

2nd YEAR OF THE ENGINEERING DEGREE

= Equivalent to a 1st year of Masters degree

All students may follow management and multicultural oriented **common courses**. In addition to these courses, **all students must choose only one option out of four**:

- Analytical and Biological Chemistry
- Molecular Chemistry
- Materials
- Processes

The exchange offer **corresponds to** the second half of the academic year, **spring semester (from January to March/June)**.

A minimum of **12 ECTS** (European Credit Transfer and Accumulation System) are **required** for the **learning agreement**.

For information on the **requirements of each course**, please check the **syllabus on our [website](#)**.

Please note that **courses** are **place-limited**.

All courses take place at the Chimie ParisTech-PSL Campus, located at: **11 Rue Pierre et Marie Curie, 75005 Paris**

MANAGEMENT AND MULTICULTURAL COURSES

- MH24TC.MRT- **Management and human resource management** (2 ECTS,teaching language:FR)
- MH24TC.ANG-**Scientific and business english** (2 ECTS)
- MHXBLV.FLE-**French as Foreign Language (FLE)** (2 ECTS)
- MH24ES.SI-**Five-month internship** (*~ from April to July*) in a laboratory or in a company)(**12 ECTS**, language: FR or ENG)

OPTION:ANALYTICAL AND BIOLOGICAL CHEMISTRY	
All courses are eligible for selection. From 1 onwards, with the possibility of attending all courses.	Only one course from the list below can be selected.
<ul style="list-style-type: none"> MH24OP.CBI- Bioinorganic chemistry (1 ECTS,teaching language: ENG) MH24OP.MOM- Molecular Modeling (1 ECTS,teaching language:ENG) MH24OP.BIA- Modern analytical chemistry for biotechnology and clinical diagnostics (2 ECTS,teaching language: ENG) MH24OP.CHE- Chemistry probes for bioimaging (2 ECTS,teaching language: ENG) MH24OP.BIC- Basic concepts of cellular biology (2 ECTS,teaching language: ENG) MH24OP.ABC- Practical Biotechnology-Practical Lab (2 ECTS,teaching language: ENG) 	<ul style="list-style-type: none"> MH24MO.PRF- Solid Materials : from formulation to service life (1 ECTS,teaching language:ENG) <p>or</p> <ul style="list-style-type: none"> MH24OP.COM- Organometallic Chemistry (1 ECTS,teaching language: FR)

OPTION: MOLECULAR CHEMISTRY	
All courses are eligible for selection. From 1 onwards, with the possibility of attending all courses.	Only one course from the list below can be selected.
<ul style="list-style-type: none"> MH24OP.CBI- Bioinorganic chemistry (1 ECTS,teaching language: ENG) MH24OP.MOM- Molecular Modeling (1 ECTS,teaching language:ENG) MH24OP.HC- Heteroelements and applied catalysis (2 ECTS,teaching language:ENG) MH24OP.SAR- Asymmetric Synthesis and Retrosynthesis (2 ECTS,teaching language:FR) MH24OP.MOL- Experimental training in molecular chemistry (4 ECTS,teaching language:FR) 	<ul style="list-style-type: none"> MH24MO.PRF- Solid Materials : from formulation to service life (1 ECTS,teaching language:ENG) <p>or</p> <ul style="list-style-type: none"> MH24OP.COM- Organometallic Chemistry (1 ECTS,teaching language: FR)

OPTION:MATERIALS	
All courses are eligible for selection. From 1 onwards, with the possibility of attending all courses.	Only one course per sub-section can be selected.
<ul style="list-style-type: none"> MH24OP.NOR- Inorganic chemistry: from molecules to materials (1 ECTS,teaching language:ENG) MH24OP.PES- Electronic Properties of Solids (2 ECTS,teaching language:ENG) MH24OP.MM- Surface properties and endurance of materials (2 ECTS,teaching language:ENG) MH24OP.ELA- Inorganic materials elaboration (2 ECTS,teaching language: ENG) MH24OP.MAT- Practical work in materials science (2 ECTS,teaching language: ENG) 	<ul style="list-style-type: none"> MH24OP.MOD- Modeling (1 ECTS,teaching language:ENG) <p>or</p> <ul style="list-style-type: none"> MH24MO.BIF -Biointerfaces-At the interface of biomaterials (1 ECTS,teaching language: ENG)
	<ul style="list-style-type: none"> MH24OP.COR- Corrosion (Electrochemical Stability of Materials) (1 ECTS,teaching language:ENG) <p>or</p> <ul style="list-style-type: none"> MH24MO.PRF- Solid Materials : from formulation to service life (1 ECTS,teaching language:ENG)

OPTION:PROCESSES	
All courses are eligible for selection. From 1 onwards, with the possibility of attending all courses.	Only one course per sub-section can be selected.
<ul style="list-style-type: none"> MH24OP.NOR- Inorganic chemistry: from molecules to materials (1 ECTS,teaching language:ENG) MH24OP.SP- Process simulation (2 ECTS,teaching language: FR) MH24OP.OCP-Optimization and process control (2 ECTS,teaching language: FR) MH24OP.FLC-Flow chemistry (2 ECTS,teaching language: FR) MH24OP.PRO- Experimental training for flow chemistry (2 ECTS,teaching language: FR) 	<ul style="list-style-type: none"> MH24OP.MOD- Modeling (1 ECTS,teaching language:ENG) <p>or</p> <ul style="list-style-type: none"> MH24MO.BIF -Biointerfaces-At the interface of biomaterials (1 ECTS,teaching language: ENG)
	<ul style="list-style-type: none"> MH24OP.COR- Corrosion (Electrochemical Stability of Materials) (1 ECTS,teaching language:ENG) <p>or</p> <ul style="list-style-type: none"> MH24MO.PRF- Solid Materials : from formulation to service life (1 ECTS,teaching language:ENG)