

# 1st Year: Core Curriculum

## Sem 1: Sept to Feb (S5)

Title	ECTS	Student hours
<b>UE_1501 - Chemistry 1</b>	<b>5</b>	<b>46</b>
GENERAL CHEMISTRY 1		16
ORGANIC CHEMISTRY		30
<b>UE_1502 - Chemistry 2</b>	<b>5</b>	<b>45</b>
INSTRUMENTAL ANALYSIS		45
<b>UE_1503 - Physics 1</b>	<b>5</b>	<b>52</b>
FLUID MECHANICS 1		16
THERMODYNAMICS 1		16
MATERIAL RESISTANCE 1		20
<b>UE_1504 - Engineering Science 1</b>	<b>5</b>	<b>77</b>
PREREQUISITES		7
SCIENTIFIC ENGINEERING BASES 1		43
IT AND NUMERICAL TOOLS FOR ENGINEERS		27
<b>UE_1505 - Engineer in a company 1</b>	<b>5</b>	<b>67</b>
ECONOMICAL ENVIRONMENT, ENTERPRISES AND MARKETS		14
HEALTH AND SAFETY		11
ACCOUNTING MANAGEMENT		21
INTRODUCTION TO SDSR		12
CONTRACT AND COMPANY RIGHTS		9
<b>UE_1506 - Engineer in a company 2</b>	<b>5</b>	<b>68</b>
ENGLISH 1		31
SOFT SKILLS		4
SEXIST AND SEXUAL VIOLENCES		3
COMMUNICATION		12
DOCUMENT RESEARCH 1		9
SUSTAINABLE DEVELOPMENT		4
HUMANITIES MEETING		6

# 1st Year: Core Curriculum

## Sem 2: Feb to June (S6)

Title	ECTS	Student Hours
<b>UE_1601 - Polymer Science 1</b>	<b>5</b>	<b>70</b>
MATERIAL ANALYSIS		32
INTRODUCTION TO POLYMERS		22
INTRODUCTION TO SPECIALISATION TRADES		16
<b>UE_1602 - Chemistry 3</b>	<b>5</b>	<b>54</b>
MATERIAL PROPERTIES		20
PHOTOCHEMISTRY		20
GENERAL CHEMISTRY 2		14
<b>UE_1603 - Physics 2</b>	<b>5</b>	<b>72</b>
FLUID MECHANICS 2		20
THERMODYNAMICS 2		18
MATERIAL RESISTANCE 2		20
HEAT TRANSFER		14
<b>UE_1604 - Engineering Science 2</b>	<b>5</b>	<b>72</b>
STATISTICS		22
SCIENTIFIC ENGINEERING BASES 2		23
EXPERIMENTAL RESOLUTION METHODOLOGY		18
INDUSTRIAL DRAWING 1		9
<b>UE_1605 - Engineer in a Company 3</b>	<b>5</b>	<b>44</b>
WORK LEGISLATION		9
CHEMICAL NORMS AND REACH PROGRAMME		4.50
MARKETING		15
NEGOCIATION		15.50
<b>UE_1606 - Engineer in a Company 4</b>	<b>5</b>	<b>78</b>
HUMANITIES 1: ASPECTS OF INNOVATION		26
EMOTIONAL INTELLIGENCE		4
ENGLISH 2		29
DOCUMENT RESEARCH 2		14
PREPARATION FOR INTERNATIONAL EXPERIENCES		4
SEMESTER ABROAD BRIEFING		1

## 2<sup>nd</sup> YEAR: Sem 1: Sept to Jan (S7)

### Core Curriculum

### Exchange Semester with 1 of 4 Partner Universities

#### Faculty of Chemical Engineering and Technology (FCET)

#### University of Zagreb (Croatia)

Title	ECTS	Student Hours
<b>UE_1711 - Polymers Science 2</b>	<b>5</b>	<b>135</b>
POLYMERS AND POLYMERIZATION PROCESSES		45
POLYMER PHYSICS AND MORPHOLOGY		60
ADDITIVES FOR POLYMER MATERIALS		30
<b>UE_1712 - Physical Chemistry 1</b>	<b>5</b>	<b>50</b>
POLYMER MATRIX COMPOSITES		15
INTRODUCTION TO NANOTECHNOLOGY		15
APPLIED RHEOLOGY		20
<b>UE_1713 – Physical Chemistry 2</b>	<b>5</b>	<b>61</b>
SURFACE ENGINEERING		30
COLORIMETRY		11
COLLOIDS		20
<b>UE_1704 - Research and Innovation 1</b>	<b>5</b>	<b>70</b>
TECHNOLOGY WATCH / BIBLIOGRAPHY		70
<b>UE_1715 - Engineer in a company 5</b>	<b>5</b>	<b>54</b>
HUMANITIES 2 : GLOBALISATION AND DIVERSITY		24
PROJECT MANAGEMENT		30
<b>UE_1706 - International Experience</b>	<b>5</b>	<b>1</b>
INTERNATIONAL INTERNSHIP EXPERIENCE		1

## 2<sup>nd</sup> YEAR: Sem 1: Sept to Jan (S7)

### Core Curriculum

### Exchange Semester with 1 of 4 Partner Universities

#### Atlântica University (Portugal)

Title	ECTS	Student Hours
<b>UE_1721 - Polymers Science 2</b>	<b>5</b>	<b>90</b>
POLYMERS MORPHOLOGY AND ADDITIVES		30
POLYMER PHYSICS AND MORPHOLOGY		60
<b>UE_1723 - Physical Chemistry 1</b>	<b>5</b>	<b>80</b>
COMPOSITE MATERIALS		30
INTRODUCTION TO NANOTECHNOLOGIES		10
MECHANICS OF POLYMER MATERIALS		40
<b>UE_1723 – Physical Chemistry 2</b>	<b>5</b>	<b>71</b>
INTERFACE PHENOMENA		40
COLORIMETRY		11
APPLIED RHEOLOGY		20
<b>UE_1704 - Research and Innovation 1</b>	<b>5</b>	<b>70</b>
TECHNOLOGY WATCH / BIBLIOGRAPHY		70
<b>UE_1725 - Engineer in a company 5</b>	<b>5</b>	<b>54</b>
HUMANITIES 2 : GLOBALISATION AND DIVERSITY		24
PROJECT MANAGEMENT		30
<b>UE_1706 - International Experience</b>	<b>5</b>	<b>1</b>
INTERNATIONAL INTERNSHIP EXPERIENCE		1

## 2<sup>nd</sup> YEAR: Sem 1: Sept to Jan (S7)

### Core Curriculum

### Exchange Semester with 1 of 4 Partner Universities

Engineering School of East-Barcelona (EEBE)

Universitat Politécnica de Catalunya (UPC)  
(Spain)

Title	ECTS	Student Hours
<b>UE_1731 - Polymers Science 2</b>	<b>5</b>	<b>85</b>
POLYMER PROCESSING AND COATING TECHNOLOGIES		20
EXPERIMENTATION AND INSTRUMENTATION		20
CHEMISTRY OF POLYMERIZATION		45
<b>UE_1732 - Physical Chemistry 1</b>	<b>5</b>	<b>85</b>
POLYMER PHYSICS		45
APPLIED RHEOLOGY		20
NANOTECHNOLOGY		20
<b>UE_1733 – Physical Chemistry 2</b>	<b>5</b>	<b>71</b>
ADVANCED MATERIALS		60
COLORIMETRY		11
<b>UE_1704 - Research and Innovation 1</b>	<b>5</b>	<b>70</b>
TECHNOLOGY WATCH / BIBLIOGRAPHY		70
<b>UE_1735 - Engineer in a company 5</b>	<b>5</b>	<b>64</b>
HUMANITIES 2 : GLOBALISATION AND DIVERSITY		24
TECHNOLOGICAL INNOVATION – MANAGEMENT AND ORGANIZATION		40
<b>UE_1706 - International Experience</b>	<b>5</b>	<b>1</b>
INTERNATIONAL INTERNSHIP EXPERIENCE		1

## 2<sup>nd</sup> YEAR: Sem 1: Sept to Jan (S7)

### Core Curriculum

### Exchange Semester with 1 of 4 Partner Universities

### Université de Sherbrooke (Canada)

#### – courses in French

Title	ECTS	Student Hours
<b>UE_751 – Science des Polymères 2</b>	<b>5</b>	<b>95</b>
CHIMIE ET PHYSICO CHIMIE DES POLYMERES		45
CHIMIE DE LA FORMULATION DES POLYMERES		50
<b>UE_752 – Physico-Chimie 1</b>	<b>5</b>	<b>65</b>
INTRODUCTION AUX NANOSCIENCES : ASPECTS PHYSICO-CHIMIQUES		20
METHODES CHIMIQUES DE CARACTERISATION DES POLYMERES		45
<b>UE_753 – Physico-Chimie 2</b>	<b>5</b>	<b>81</b>
INTRODUCTION A LA CHIMIE DES COMPOSITES		30
COLLOIDES ET PHYSICOCHIMIE DES SURFACES		40
COLORIMETRY		11
<b>UE_704 – Recherche et Innovation 1</b>	<b>5</b>	<b>70</b>
INITIATION A LA VEILLE TECHNOLOGIQUE		70
<b>UE_755 – INGENIEUR EN ENTREPRISE 5</b>	<b>5</b>	<b>64</b>
ISH 2 : GLOBALITE ET DIVERSITE		24
GESTION DE PROJET		40
<b>UE_706 – EXPERIENCE A L'INTERNATIONAL</b>	<b>5</b>	<b>1</b>
STAGE A L'INTERNATIONAL		1

## 2<sup>nd</sup> YEAR: Sem 2: Feb to May (S8)

### Specialisation

### LEATHER

Title	ECTS	Student Hours
UE_1801 - Research and Innovation 2	3	30
RESEARCH PROJECT 1		30
UE_1802 - Engineer in a Company 6	4	95
FUNCTONNAL ANALYSIS		10
BUSINESS MODEL SIMULATION		18
ENGLISH 3		28
INDUSTRIAL PROPERTY (PATENTS)		9
LIFE CYCLE ANALYSIS		13
PRODUCTION MANAGEMENT		17
UE_1803 – English Language Level Validation	3	3
ENGLISH TEST		3
UE_1811 - Leather 1	7	45.5
SKIN BIOLOGY		11
RAW MATERIALS (LEATHER)		9
INTRODUCTION TO SHOES AND LEATHER GOODS		25,5
UE_1812 - Leather 2	6	45,5
BEAMHOUSE OPERATIONS		25
BEAMHOUSE OPERATIONS PRACTICALS		17,5
MICROBIOLOGY APPLIED TO LEATHER		3
UE_1813 - Leather 3	7	98.5
TANNING AND WET PROCESS		37
CONFERENCES AND VISITS 1		30
WET-END AND COLOUR PRACTICALS		31.5

## 3<sup>rd</sup> YEAR: Sem 1: Sept to Jan (S9)

### Advanced Specialisation

### LEATHER

Title	ECTS	Student Hours
<b>UE_1901 - Engineering Internship</b>	<b>8</b>	<b>1</b>
ENGINEERING INTERNSHIP		1
<b>UE_1902 - Engineer in a company 7</b>	<b>3</b>	<b>42</b>
HUMANITIES 3 : WORK ENVIRONMENT OF ENGINEERING		14
PROFESSIONAL ENGLISH		20
PREPARATION FOR A PROFESSIONAL CARREER - EMPLOYMENT		8
<b>UE_1903 - Engineer in a company 8</b>	<b>4</b>	<b>43</b>
QUALITY		14
GENDER EQUALIY AT WORK AND DISCRIMINATIONS		6
HR MANAGEMENT		23
<b>UE_1904 - Research and Innovation 3</b>	<b>4</b>	<b>120</b>
RESEARCH PROJECT		120
<b>UE_1911 - Leather 4</b>	<b>4</b>	<b>69</b>
LEATHER FINISHING		21
LEATHER FINISHING PRACTICALS		28
SPECIFICATIONS – RAW MATERIALS		12
LEATHER CONFERENCES AND VISITS 2		8
<b>UE_1912 - Leather 5</b>	<b>3</b>	<b>68.5</b>
LEATHER REGULATIONS AND CHROME 6		7.5
ARTICLE MAKING AND WET-END PRACTICALS		28
SPECIFIC LEATHER		20
SD&SR APPLIED TO LEATHER		13
<b>UE_1913 - Leather 6</b>	<b>4</b>	<b>65</b>
BONDING LEATHERS		3,5
ADVANCED LEATHER GOODS		19,5
OTHER LEATHER GOODS MATERIALS		13
LEATHER GOODS MANUFACTURING PRACTICALS		29

### Sem 2: Feb to Aug (S10)

Title	ECTS
<b>UE_1949 - Engineering Project</b>	<b>30</b>
FINAL YEAR INTERNSHIP	