1st Year: Core Curriculum

Sem 1: Sept to Feb (S5)

Title	*ECTS*	Student hours
UE_1501 - Chemistry 1	*5*	**46**
GENERAL CHEMISTRY 1		16
ORGANIC CHEMISTRY		30
UE_1502 - Chemistry 2	*5*	**45**
INSTRUMENTAL ANALYSIS		45
UE_1503 - Physics 1	*5*	**52**
FLUID MECHANICS 1		16
THERMODYNAMICS 1		16
MATERIAL RESISTANCE 1		20
UE_1504 - Engineering Science 1	*5*	**77**
PREREQUISITES		7
SCIENTIFIC EGINEERING BASES 1		43
IT AND NUMERICAL TOOLS FOR ENGINEERS		27
UE_1505 - Engineer in a company 1	*5*	**67**
ECONOMICAL ENVIRONMENT, ENTERPRISES AND MARKETS		14
HEALTH AND SAFETY		11
ACCOUNTING MANAGEMENT		21
INTRODUCTION TO SDSR		12
CONTRACT AND COMPANY RIGHTS		9
UE_1506 - Engineer in a company 2	*5*	**68**
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
UE_1601 - Polymer Science 1	*5*	**70**
MATERIAL ANALYSIS		32
INTRODUCTION TO POLYMERS		22
INTRODUCTION TO SPECIALISATION TRADES		16
UE_1602 - Chemistry 3	*5*	**54**
MATERIAL PROPERTIES		20
PHOTOCHEMISTRY		20
GENERAL CHEMISTRY 2		14
UE_1603 - Physics 2	*5*	**72**
FLUID MECHANICS 2		20
THERMODYNAMICS 2		18
MATERIAL RESISTANCE 2		20
HEAT TRANSFER		14
UE_1604 - Engineering Science 2	*5*	**72**
STATISTICS		22
SCIENTIFIC EGINEERING BASES 2		23
EXPERIMENTAL RESOLUTION METHODOLOGY		18
INDUSTRIAL DRAWING 1		9
UE_1605 - Engineer in a Company 3	*5*	**44**
WORK LEGISLATION		9
CHEMICAL NORMS AND REACH PROGRAMME		4.50
MARKETING		15
NEGOCIATION		15.50
UE_1606 - Engineer in a Company 4	*5*	**78**
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

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

2nd YEAR: Sem 1: Sept to Jan (S7)

Core Curriculum

Exchange Semester with 1 of 4 Partner Universities

Atlântica University (Portugal)

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

2nd YEAR: Sem 1: Sept to Jan (S7)

Core Curriculum

Exchange Semester with 1 of 4 Partner Universities

Engineering School of East-Barcelona (EEBE)

Universitat Polétecnica de Catalunya (UPC) (Spain)

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

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

2nd YEAR: Sem 2: Feb to May (S8)

Specialisation

PLASTIC MATERIALS

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_1831 - Plastic Materials 1	*7*	**76**
RAW MATERIALS (PLASTIC MATERIALS)		18
EXTRUSION 1		22
CHARACTERISATION 1		36
UE_1832 - Plastic Materials 2	*7*	**103**
INJECTION 1		58
COMPUTER AIDED CONCEPTION AND DESIGN		45
UE_1833 - Plastic Materials 3	*6*	**37**
INDUSTRIAL DRAWING 2 AND FUNCTIONAL DIMENSIONNING		20
OTHER IMPLEMENTATION PROCEDURES		17

3rd YEAR: Sem 1: Sept to Jan (S9)

Advanced Specialisation

PLASTIC MATERIALS

Title	*ECTS*	Student Hours
UE_1901 - Engineering Internship	*8*	**1**
ENGINEERING INTERNSHIP		1
UE_1902 - Engineer in a company 7	*3*	**42**
HUMANITIES 3 : WORK ENVIRONMENT OF ENGINEERING		14
PROFESSIONAL ENGLISH		20
PREPARATION FOR A PROFESSIONAL CARREER - EMPLOYMENT		8
UE_1903 - Engineer in a company 8	*4*	**43**
QUALITY		14
GENDER EQUALIY AT WORK AND DISCRIMINATIONS		6
HR MANAGEMENT		23
UE_1904 - Research and Innovation 3	*4*	**120**
RESEARCH PROJECT		120
UE_981 - Plastic Materials 4	*4*	**119.5**
EXTRUSION 2		20
PLASTIC MANUFACTURING PRACTICALS		73
SD&SR APPLIED TO PLASTIC MATERIALS		13
COMPOSITE REINFORCEMENT AND CONCEPTION		13.5
UE_982 - Plastic Materials 5	*4*	**51.5**
INJECTION 2		14
PM CONFERENCES		10.5
FINISHING TCHNIQUES		27
UE_983 - Plastic Materials 6	*86*	**86**
PART AND MOULD CONCEPTION		68
COMPUTER AIDED CONCEPTION – RHEOLOGY SIMULATIONS		14
THERMAL		4

Sem 2: Feb to Aug (S10)

Title	*ECTS*
UE_1949 - Engineering Project	***30***
FINAL YEAR INTERNSHIP	