

1st Year: Core Curriculum

Sem 1: Sept to Feb (S5)

Title	ECTS	Student hours
UE_551 - Chemistry 1	5	50
GENERAL CHEMISTRY		20
ORGANIC CHEMISTRY		30
UE_552 - Chemistry 2	5	68
CHROMATOGRAPHY ANALYSIS		15
SPECTROSCOPY ANALYSIS		15
PRACTICAL ANALYTICAL CHEMISTRY INSTRUMENTATION		38
UE_553 - Physics 1	5	65,5
FLUID MECHANICS 1		18
THERMODYNAMICS 1		19,5
MATERIAL RESISTANCE		28
UE_554 - Engineering Science 1	5	65
MATHEMATICAL TOOLS		26
IT, ALGORITHMICS AND DATA TREATMENT		19
NUMERICAL MATHEMATICAL METHODS		20
UE_555 - Engineer in a company 1	5	51
ECONOMICAL ENVIRONMENT, ENTERPRISES AND MARKETS		14
HEALTH AND SAFETY		11
ACCOUNTING MANAGEMENT		17
CONTRACT AND COMPANY RIGHTS		9
UE_556 - Engineer in a company 2	5	73
ENGLISH 1		31
COMMUNICATION		16
MICRO-PROJECT AND INTRODUCTION TO BIBLIOGRAPHY		20
SUSTAINABLE DEVELOPMENT		4
HUMANITIES CONFERENCE		6

1st Year: Core Curriculum

Sem 2: Feb to June (S6)

Title	ECTS	Student Hours
UE_651 - Polymers Science 1	5	75,5
MATERIAL ANALYSIS		32
INTRODUCTION TO POLYMERS		22
POLYMER APPLICATIONS		21,5
UE_652 - Chemistry 3	5	61,5
PROPERTIES OF MATERIALS		21
PHOTOCHEMISTRY		20
THERMOCHEMISTRY - KINETICS		20,5
UE_653 - Physics 2	5	56
FLUID MECHANICS 2		18
THERMODYNAMICS 2		22
HEAT TRANSFER		16
UE_654 - Engineering Science 2	5	45
STATISTICS		18
EXPERIMENTAL RESOLUTION METHODOLOGY		18
INDUSTRIAL DRAWING 1		9
UE_655 - Engineer in a Company 3	5	45,5
INTRODUCTION TO BUSINESS START-UPS		2
WORK LEGISLATION		9
CHEMICAL NORMS AND REACH PROGRAMME		4,5
MARKETING		15
NEGOCIATION		15
UE_656 - Engineer in a Company 4	5	59
HUMANITIES 1: ASPECTS OF INNOVATION		24
ENGLISH 2		31
PREPARATION FOR INTERNATIONAL EXPERIENCES		4

2nd YEAR: Core Curriculum & Specialisation

PALSTIC MATERIALS

Sem 1: Sept to Jan (S7)

Exchange Semester with Partner University

Curriculum and hours vary depending on location

Title	ECTS	Student Hours
UE_751 - Polymers Science 2	5	80
POLYMER CHEMISTRY 2		50
POLYMER PHYSICS AND MORPHOLOGY		17
POLYMERS PRACTICALS		13
UE_753 - Physical Chemistry 1	5	73
ADDITIVES		10
COMPOSITES		15
MECHANICAL PROPERTIES OF MATERIALS		13
APPLIED RHEOLOGY		20
INTRODUCTION TO NANOTECHNOLOGY		15
UE_753 – Physical Chemistry 2	5	56
PHYSICAL CHEMICAL PROPRIETIES OF SURFACES		25
COLLOIDS		20
COLORIMETRY		11
UE_754 - Research and Innovation 1	5	70
TECHNOLOGY WATCH / BIBLIOGRAPHY		70
UE_755 - Engineer in a company 6	5	54
HUMANITIES 2 : GLOBALISATION AND DIVERSITY		24
PROJECT MANAGEMENT		30
UE_756 - International Experience	5	1
INTERNATIONAL INTERNSHIP EXPERIENCE		1

2nd YEAR: Core Curriculum & Specialisation

PLASTIC MATERIALS

Sem 2: Feb to May (S8)

Title	ECTS	Student Hours
UE_851 - Research and Innovation 2	3	30
RESEARCH PROJECT 1		30
UE_852 - Engineer in a Company 7	4	90
FUNCTIONAL ANALYSIS		10
BUSINESS MODEL SIMULATION		18
ENGLISH 3		28
INDUSTRIAL PROPERTY (PATENTS)		9
PRODUCTION MANAGEMENT		35
UE_853 – English Language Level Validation	3	3
ENGLISH TEST		3
UE_881 - Plastic Materials 1	7	61
RAW MATERIALS (PLASTIC MATERIALS)		18
EXTRUSION 1		31
CHARACTERISATION 1		12
UE_882 - Plastic Materials 2	7	111
INJECTION 1		61
COMPUTER AIDED CONCEPTION AND DESIGN		50
UE_883 - Plastic Materials 3	6	46
INDUSTRIAL IMAGING 2 AND FUNCTIONAL DIMENSIONNING		20
OTHER IMPLEMENTATION PROCEDURES		26

3rd YEAR: Advanced Specialisation

PLASTIC MATERIALS

Sem 1: Sept to Jan (S9)

Title	ECTS	Student Hours
UE_951 - Engineering Internship	8	1
ENGINEERING INTERNSHIP		1
UE_952 - Engineer in a company 8	3	46
HUMANITIES 3 : WORK ENVIRONMENT OF ENGINEERING		18
PROFESSIONAL ENGLISH		20
PREPARATION FOR A PROFESSIONAL CARREER - EMPLOYMENT		8
UE_953 - Engineer in a company 9	4	59
QUALITY		16
HR MANAGEMENT		30
SUSTAINABLE DEVELOPMENT, LIFE CYCLE ANALYSES, ECO-CONCEPTION		13
UE_954 - Research and Innovation 3	4	120
RESEARCH PROJECT		120
UE_981 - Plastic Materials 4	4	70
EXTRUSION 2		14
PLASTIC MATERIALS CONFERENCES		10
PLASTIC MANUFACTURING PRACTICALS		33
COMPOSITE REINFORCEMENT AND CONCEPTION		13
UE_982 - Plastic Materials 5	4	75
INJECTION 2		50
FINISHING TCHNIQUES		25
UE_983 - Plastic Materials 6	3	90,5
CONTAINER-CONTENT REGULATION (PACKAGING)		5,5
PIECEWORK CONCEPTION AND EQUIPMENT		68
COMPUTER AIDED CONCEPTION – RHEOLOGY SIMULATIONS		11
THERMAL		6

Sem 2: Feb to Aug (S10)

Final Year Engineering Project

Title	ECTS
UE_999 - Engineering Project	30
FINAL YEAR PROJECT	