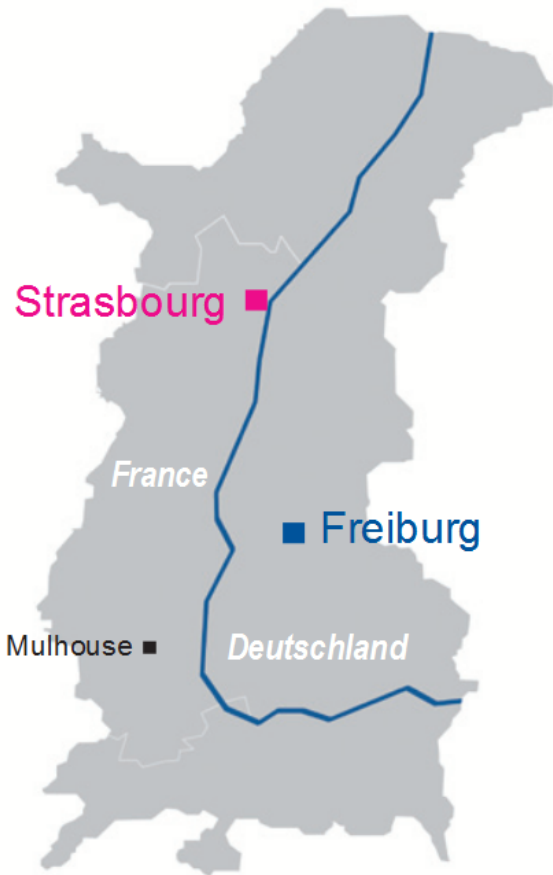


International Master Polymer Science



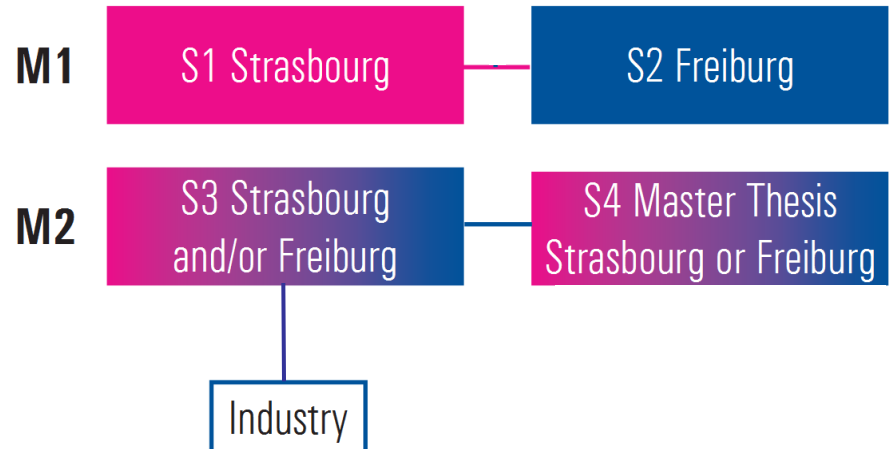
Heads: Strasbourg:
V. Le Hou rou
(+ J. Baschnagel)

Freiburg:
P. Shastri

Coordinators: F. Ehles
francine.ehles@unistra.fr

V. Ragot
koordination-master-international@cup.uni-freiburg.de

Programme:



Semester 1: Strasbourg

M1

S1 Strasbourg

S2 Freiburg

M2

S3 Strasbourg
and/or Freiburg

S4 Master Thesis
Strasbourg or Freiburg

Industry

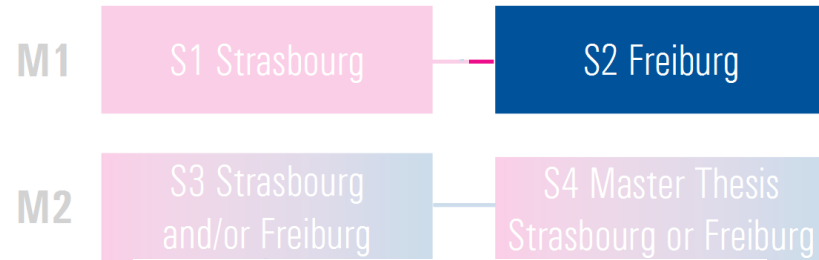
Compulsory Modules 24 ECTS

1. <i>Introduction to Polymer and Soft Matter Science</i> 1.1 Introduction to Soft matter 1.2. Polymer science 1.3. Coilloidal science	6	Joerg Baschnagel jorg.baschnagel@ics-cnrs.unistra.fr
2. <i>Polymer Characterization</i>	5	Maurice Brogly maurice.brogly@uha.fr
3. <i>Chemistry of Macromolecular Materials</i>	5	Delphine CHAN SEN Delphine.Chan-Seng@ics-cnrs.unistra.fr
4. <i>Introduction to Fluid and Materials Mechanics</i> 4.1 Rheology 4.2 Mechanics of Materials	5	Vincent Le Hou�rou v.lehouerou@unistra.fr
5. <i>Languages – French/German</i>	3	Mireille Leyendecker mireille.leyendecker@unistra.fr

Elective Modules (6 credits at least) 6 ECTS

6. <i>Statistical Physics</i>		
6.1 Introductory course (compulsory for students with no background in SP)	3	Fabrice Thalmann fabrice.thalmann@ics-cnrs.unistra.fr
6.2 Advanced course (<i>in french</i>)	6	Janos Polonyi Janos.Polonyi@iphc.cnrs.fr
7. <i>Quantum Mechanics</i>		
7.1 Introductory course (compulsory for students with no background in QM)	3	Emmanuel Fromager fromagere@unistra.fr
7.2 Advanced course (<i>in french</i>)	6	Rodolfo Jalabert Rodolfo.Jalabert@ipcms.u-strasbg.fr
8. <i>Organic chemistry</i>	3	Nicolas Giuseppone giuseppone@unistra.fr

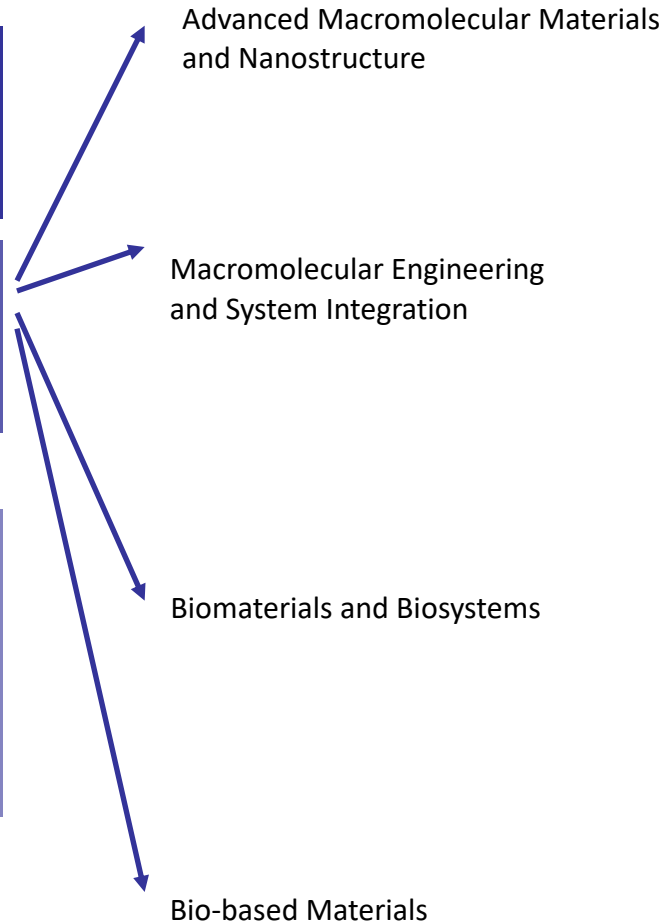
Semester 2: Freiburg



Macromolecular Practical
 (~20/1 – 28/2)
 9 ECTS

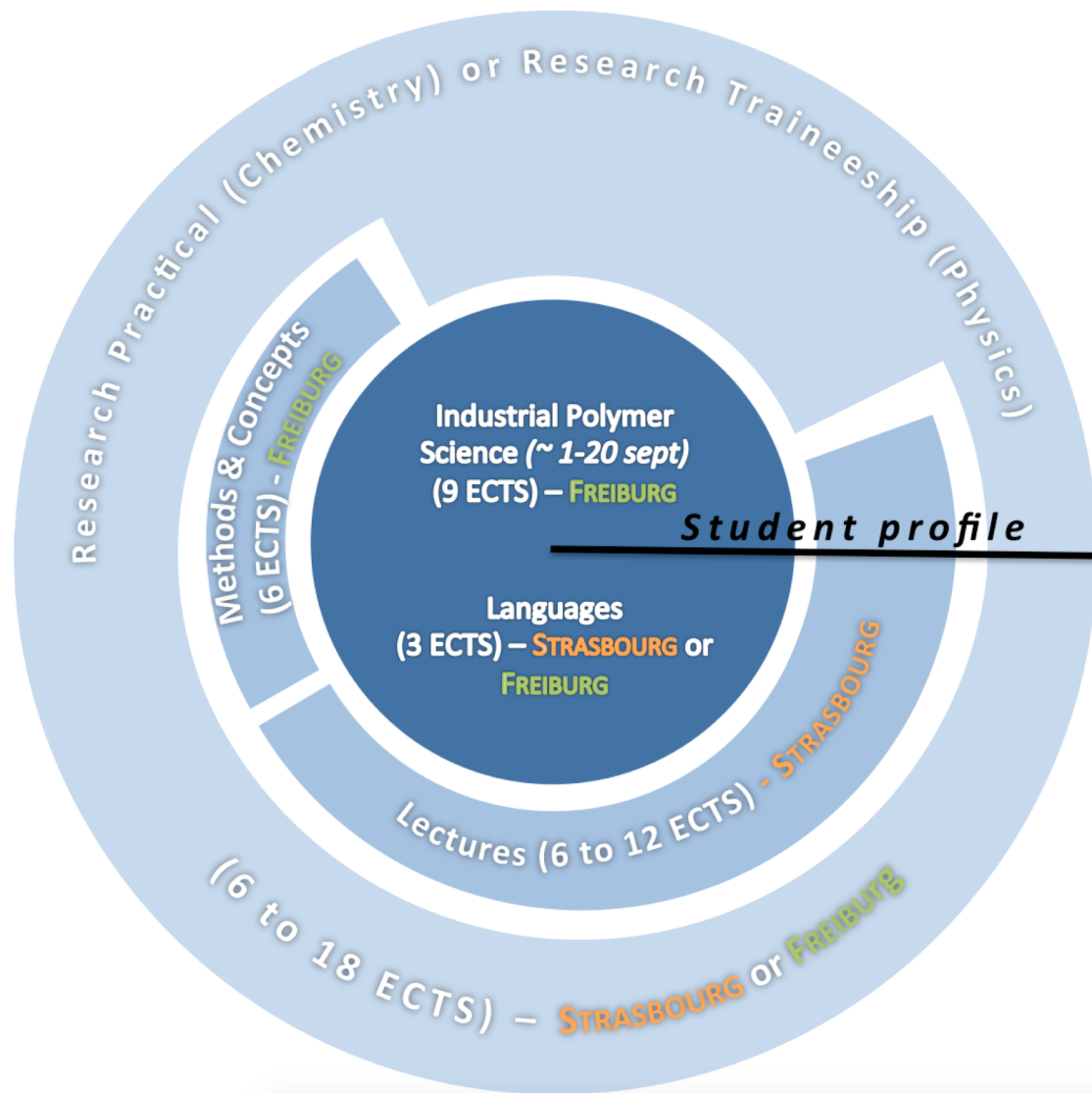
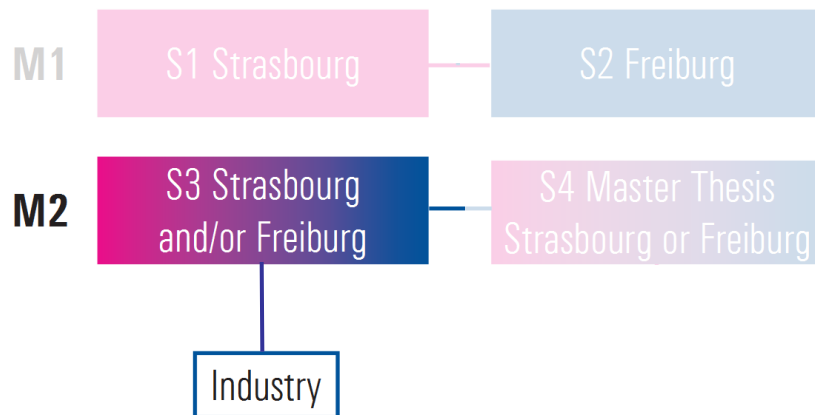
Core Modules
 (~15/4 – 31/7)
 15 ECTS

Methods & Concepts
 Or Term Paper (Physics)
 Language & Intercultural
 (~15/4 – 31/7)
 6 ECTS



Physical Processes of Self-Assembly and Pattern Formation
Physical Processes of Self-Assembly and Pattern Formation - Tutorial
Functional polymers for sustainable development
MC V Soft Matter and Bio Nanosciences
Basic principles of polymer technology
Oberflächenanalyse / Surface Analysis - Vorlesung
Oberflächenanalyse – Praktikum / Surface Analysis Laboratory
Basic principles of polymer technology
Grenzflächen für bioanalytische Systeme / Interfaces for Bioanalytical Systems - Vorlesung
Von Mikrosystemen zur Nanowelt / From Microsystems to the Nanoworld - Vorlesung
Polymer Processing and Microsystems Engineering - Vorlesung
Methods and Techniques in Biomaterial Science
MC IV Materials in Life Sciences
Progress in Biomaterials Engineering
Progress in Biomaterials Engineering - exercise
Aspects of Freeform Fabrication and 3D-Printing
3D-Printing of Biomaterials
MC V Soft Matter and Bio Nanosciences
Physical and Mechanical Behavior of Wood
Bio-based Polymers
Bioinspirierte Funktionsmaterialien / Bioinspired functional materials - Vorlesung

Semester 3: «à la carte» Strasbourg and/or Freiburg



« à la carte » example:

Industrial Polymer Sc. (FREIBURG)
9 ECTS

Languages (STRASBOURG)
3 ECTS

Lectures (STRASBOURG)
12 ECTS

Research Practical (STRASBOURG)
6 ECTS

= 30 ECTS

International Master Polymer Science



The program includes:

- Master thesis during 4-6 months in lab in S4
- a language course in French or German along the program
- industrial seminars in S3
- S3 « à la carte » for specialization according to individual preferences

International Master Polymer Science

