UNIVERSITÄT BAYREUTH

INTERNATIONAL OFFICE

General Overview of English-Taught Courses at the University of Bayreuth

Available during Summer Semester 2024

An overview for Winter Semester 2024/25 is expected to be available as of 01.10.2024

Engineering Science

Number	Course Title	Duration	Type	ECTS / Credits	Module Description
00032	Rheology of polymer melts (from SPO 2014)	1	Lec	8	Password for e-learning course "Industrial Rheology": Particle foam
00076	Optimisation CAE 1	2	Lec	5	
00084	Introduction to LaTeX	1	Tut		This course provides information on how to use LaTeX to generate professional-looking PDF documents for your thesis, scientific papers, conference posters, CVs, and more.
00183	Polymer technology P205	2	Lec	9	The students must attend the lectures Perspectives and trends (LV60304) and Rheology of polymer melts (LV00032). Please enrol in the e-learning courses and Cmlife courses: Perspective and Trends and Industrial Rheology. Password for e-learning course: Particle Foam
00183	Fundamentals of Electrical Engineering for Electrochemical Energy Storage Systems	2	Lec	9	
00220	Fundamentals of Electrical Engineering for Electrochemical Energy Storage Systems	2	Tut	5	
00221	Innovation Management 2	2	Lec	3 /6	Lectures will cover the steps in product development process to reach product launch, and different models for product development process. Students will do a lot of hands-on learning, for example, through reading and presenting case studies and by developing and market testing a prototype. For final assessment, students team up to write a report for a chosen topic.
00231	Biomaterials (seminar /exercise)	2	Sem	5	See e-learnig portal: https://elearning.uni-bayreuth.de/course/view.php?id=30570
00367	Bioprocess Engineering	2	Lec	5	
00493	Bioengineering for Tissue Regeneration	2	Lec	5 /7	
00539	Biology for Engineers (compulsory subject)	2	Lec	4 /8	Please register for the course in CampusOnline/CMLife. After registration, you will receive the key for e-learning by e-mail. You will receive lecture material and further information via e-learning. This is a self-learning course. The lecturer(s) will contact you and provide you with further pieces of information. Lecture materials and further information can be obtained in the e-learning virtual class.
00584	Aspects in Processing of Polymeric Materials	2	Lec		
00601	Aspects in Processing of Polymeric Materials	1	Sem		
00603	Processing of Polymeric Materials Practival Course	1	Ins		
00628	Ethics in Science	1	Lec	5	
00629	Bioengineering for Tissue Regeneration (Seminar)	2	Sem	5	
00631	Biomaterials	2	Lec	5	
00632	How to write a paper	3	Tut	5	
00766	Bioprocess Engineering	2	Tut	5	
00780	Quality Management / FTE2	2	Crs	5	

Number	Course Title	Duration	Type	ECTS / Credits	Module Description
00993	Introduction in Polymer Science (subject Biofab)	2	Lec	6	
00994	Summer Academy	2	Lec	5	Summer School programme, mandatory for M.Sc. Biofabrication students
01069	Reception of Scientific Literature	1	Tut	5	See e-learning (link below) https://elearning.uni-bayreuth.de/course/view.php?id=30082
01097	Introduction in Organic and Polymer Chemistry /CPC	2	Lec	5	
01098	Introduction in Organic and Polymer Chemistry / CPC /Seminar	2	Sem		
01099	Simulation of Materials / WSM	2	Lec	5	The course "Materials of Simulation" is dedicated to the numerical methods that are used to study materials properties and dynamics. In the course, useful background information and concepts of simulation techniques are explained. The focus is on information that is necessary to conceive, perform and evaluate materials simulations. Specifically, there will be an introduction and practical applications of molecular dynamics (MD) simulations and finite element methods used for computational fluid dynamics (cfd) as well as field-based transport simulations. Described methods are tested with different simulation packages. Students will perform and evaluate small simulation projects.
01100	Simulation of Materials / WSM /Exercise	2	Tut	5	
01177	Advanced Module (AM) 1 / oral presentation	1	Ins	8	
01178	Advanced Module (AM) 1 / Protocol	1	Ins	8	
60001	Machine Learning in Materials Science	2	Lec	8	
60004	Technical mechanics	2	Tut	11	
60007	Python and data tools for Non-Programmers	4	Lec & Tut	3 /6 /8	This Python course is hands-on in nature and is offered for non-programmers of all areas. In the first part, students will learn the foundations of Python (70 % of the course), followed by the second part, where practical applications in the form of small projects of general interest will be discussed and performed.
60008	Machine Learning in Materials Science	2	Tut	8	
60304	Perspectives and Trends	2	Lec	8	Password for e-learning course: Particle foam
60775	Fundamentals of Tissue Engineering /FTE1	2	Lec	5	
69093	Advanced High Temperature Alloys	1	Lec	8	You can find notes via e-learning: https://elearning.uni-bayreuth.de/course/view.php?id=37530
69095	Advanced High Temperature Alloys	1	Ins	8	-Warm pull test -Gleeble warm pull test -Creep test

Key/Abbreviations:

Crs	Course	Lec	Lecture
ECTS	Credit Points	Sem	Seminar
Ins	Internship	Tut	Tutorial
Lab	Lab course		

Please check availability of your chosen subject/course by contacting the respective faculty.
You can find contact details at **www.uni-bayreuth.de/en/study**

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Contact

University of Bayreuth
International Office
Universitätsstraße 30 | ZUV
95447 Bayreuth

www.international-office.uni-bayreuth.de