Faculty of Technology

ENGLISH lectures & projects
Academic Year 2021/22

MECHANICAL ENGINEERING (required language level B1) BACHELOR LEVEL Subject to change /status March 2021	Description	Lecturer	CP / ECTS	Term (Semester)
LECTURE: **Soft Skills**	Communicating and presenting basics of communication psychology, leading conversations and negotiations, leading teams and working groups (including motivations and tools, meeting management, creativity in teams, discussion situations, mastering appraisal interviews, leadership role, task and instruments, skills, learning and implementing conversation.	Mr Schmidt	5	fall (5)
LECTURE: **Quality Management & Quality Assurance**	Introduction to quality management; QM philosophies; QM standards: general QM methods and tools; problem solving tools; management tools; quality costs; quality and law. Basics of statistics; acceptance sampling inspection; capability studies and characteristics; control charts; CAQ; supplier selection and evaluation; quality costs.	Mrs Blattmeier	5	fall (5)
LECTURE: **System Engineering & Automation**	Components of automated handling systems, product design suitable for assembly, design of the assembly organization, manual and automated assembly, material supply, availability, planning and evaluation, factory simulation, employee qualification.	Mr Lünemann	5	fall (5)
LECTURE: **Logistic & Supply Chain Management**	Knowledge of the role and activities of supply chain and logistics management as key elements for the successful management of companies; understanding the importance of customer thoughts in the entire chain; understanding of entire value-added networks, their planning and control techniques; understanding of the many instruments for analysis and problem solving in logistics chains.	Mr Schleuter	5	fall (5)
LECTURE: **Project Management**	Fundamentals of Project Management, Work Breakdown Structures, Project Scheduling and Budgeting, Earned Value Method, Risk Analysis in Projects, Project Organisations, Project Closure and Audit, PCSimulation	Ms Wolf	5	fall (5)
LECTURE: **International Marketing** **Prerequisites**:Sufficient knowledge of English and basic knowledge of marketing is required	International marketing activities are explored; international market research, strategic issues, international marketing mix; additional aspects such as generic internationalization strategies, methods of evaluating and selecting countries as target markets, and market entry modes extend the scope of contents to entirely new fields; exercises and case studies are used to apply learned contents to real-life scenarios.	Mr. Hummels	5	fall (5)
LECTURE: **Advanced Project Management for Engineers**	Master level (available upon request)	Mr Haja	5	fall

SUSTAINABLE ENERGY SYSTEMS **Interdisciplinary programme from departments of MECHANICAL ENGINEERING and NATURAL SCIENCES** **BACHELOR LEVEL** **(required language level B2)** **Subject to change /status March 2021**	**Description**	**Lecturer**	**CP / ECTS**	**Term (Semester)**
LECTURE: **Intodruction to modelling and simulation**	Types of numerical models, scientific computing, programming of simple models in Matlab	Mr Herráez	5	fall (5)
LECTURE: **Simulation of energy systems**	Modelling, simulation and analisys of local energy systems with producers, consumers and prosumers	Ms Pechmann	5	fall (5)
LECTURE: **Energy storage**	Storage of thermal, chemical, electrical and kinetic energy, as well as potential energy. Fuel cell and hydrogen storage.	Mr Illing	5	fall (5)
LECTURE: **Wind turbines**	Design of wind turbines and wind farms, aerodynamics, structural dynamics, wind ressource and site assesment	Mr Herráez	3	spring (4)
LECTURE: **Aerolastic simulation of wind turbines**	Numerical computation of the aerodynamic and structural behaviour of wind turbines	Mr Herráez	2	spring (4)
LECTURE**: Solar Thermal Energy**	Solar resource, design of solar thermal systems, performance analysis	Mr Herráez	2,5	spring (4)
LECTURE: **Photovoltaics**	Physical principles of the use of photovoltaic energy, components of photovoltaic installations, design of photovoltaics systems	Mr. Herráez	2,5	spring (4)
LECTURE: **Bioenergy**	Utilization and potentials of biomass, energy plants and harvesting, combustion of biomass, frame conditions	Mr Habermann	2	fall (4)
LECTURE: **Sustainable Production**	Globalization and climate change, production systems and production management systems, requirements for sustainable production	Mrs Pechmann	5	spring (4)
LECTURE: **Thermal Power Plants**	Types of Thermal Power Plants, heat sources, power machines, efficiency, emissions, power density	Mr. Jakiel	5	spring (6)
LECTURE: **Energy Process Technology**	Optimization of energy-relevant process, analysis of thermodynamics, chemical and biological aspects	Mr Paul	5	spring (6)
LECTURE: **Process modelling and energy optimization**	Modeling of chemical and environmental processes, commercial process simulators, development and optimization of energy processes	Mr Steinigeweg	3	spring (6)
LECTURE: **Sustainable energy generation**	Energy supply chains and their technical, enviromental and economic dimensions	Mr. Paul	2	spring (6)
PROJECT: **Technical Project**	Technical Project (wide range of topics possible)	Mr Herráez and others	5	fall and spring
PROJECT: **Sustainable energy project**	Technical Project (focus on sustainable energy)	Mr Herráez and others	7	fall and spring

COMPUTER SCIENCE (required language level B2) MASTER LEVEL Subject to change /status March 2021	FOR MASTER STUDENTS ONLY ! Description	Lecturer	CP / ECTS	Term
LECTURE: **Engineering ICPS (Industrial Cyber-Physical Systems)**	Principles and the standard IEC 62890, the students will learn, using examples and case studies from real industrial ICPS, the product and production system engineering life cycle with the value streams it contains.	Mr Colombo /Mr Veltink	5	fall
LECTURE: **Robotic Systems**	Overview of different types of robots including structural and behavioral specifications: working-space, energy-sources, etc. Introduction to Robotic	Mr Colombo / Mr Kane	5	fall
LECTURE: **Digital Economy & Society**	Boundaries between countries and cultures increasingly lose their importance. This course deals on the one hand with change management of the digitization in organizations and businesses.	Mr Mäkiö / Ms Krüger-Basener	5	fall
LECTURE: **Analytics & Mathematics**	The lecture approaches concepts, algorithms and technology for the analysis of a large amount of data Numerical methods for solving high-dimensional linear and non-linear systems of equations, as well as the process for calibration and Maximum-Likelihood will be addressed.	Mr Colombo/mr Wings	5	fall
LECTURE: **Digitalization & Virtualization of ICPS**	A description of how development processes, production lines, manufacturing machinery, field devices and the products themselves can be digitalized and configured as Industrial Cyber-Physical components will be introduced	Mr Colombo / Ms Pechmann	5	spring
LECTURE: **Innovation Management**	Software development, creative problem solving and idea generation, idea evaluation techniques, write workshop, major characteristics of the Open Innovation paradigm (OI2.0).	Mr Colombo / Mr Mäkiö	5	spring
LECTURE: **Industrial Cyber-Physical Systems (ICPS)**	A set of technologies and architectural patterns to enable the specification, implementation and operation of industrial cyber-physical systems under the DIN SPEC 91345:2016-04 (RAMI4.0: Reference Architecture Model for Industry 4.0) and Industrial Internet-Reference Architecture (IIRA) standards will be a core part of the lecture´s contents.	Mr Colombo	5	spring
LECTURE: **Industrial Data Transport Technologies**	Ensure end-to-end digital integration of actuator and sensor signals across different levels right up to the upper levels of an enterprise. It is also necessary to develop modularization and reuse strategies in order to enable ad hoc networking and re-configurability of ICPS systems.	Mr Colombo	5	spring

NATURAL SCIENCES (required language level B2) MASTER LEVEL of 'Applied Life Sciences' (MALS) Subject to change /status March 2021	MASTER LEVEL	Description	Lecturer	CP / ECTS	Term
PROJECT: **Normal Histology of Plants, Project**		**in preparation**	**Mr Kauer**	**5**	**fall and spring**
PROJECT: **Normal Histology of Vertebrates, Project**		**in preparation**	**Mr Kauer**	**5**	**fall and spring**
PROJECT: **Pathological Histology of Plants, Project**		**in preparation**	**Mr Kauer**	**5**	**fall and spring**
PROJECT: **Pathological Histology of Vertebrates, Project**		**in preparation**	**Mr Kauer**	**5**	**fall and spring**
LECTURE: **Products from renewable resources**		**in preparation**	**Mr Rüsch gen. Klaas**	**5**	**fall and spring**
LECTURE: **Soft skills**		**on process**	**all lecturers**	**5**	**fall and spring**
LECTURE: **Soil analysis**		**on process**	**Mr Walker**	**5**	**fall and spring**
LECTURE: **Water and Waste Water**		**in preparation**	**Mr Habermann**	**5**	**fall term**

BUSINESS STUDIES in cooperation with department of MECHANICAL ENGINEERING (required language level B2) **BACHELOR LEVEL** Subject to change /status March 2021	Lecturer	CP / ECTS	Term (Semester)
LECTURE: **ERP – Systems** (Enterprise-50:60Resource-Planning Systems e.g. SAP)*	Mr Ihnen	5	fall (5,7)
Block Seminar: **General Management "Planspiel" (simulation game in English language)***	Mr Dorozalla	5	fall (5,7)
LECTURE**: International Management for SMEs***	Ms Alvares-Wegner	5	fall (5)
LECTURE: **International Strategic Leadership (Master)***	Ms Alvares - Wegner	5	fall (3)
SEMINAR**: Digital Marketing*** **Prerequisites**:**Sufficient knowledge of English and basic knowledge of marketing is required**	Mr Hummels	5	fall (5)
LECTURE: **International Project Management***	Grautmann/Schulte	5	fall (5) spring (4)
LECTURE: **Computer - Aided Management and Financial Control**	Mr. Schulte	5	fall (5) spring (4,6)
LECTURE: **Project Finance**	Ms Wolf	5	fall (4)
LECTURE: **Financial Instrument Accouting**	Mr. Henkel	5	fall (5)
LECTURE: **Logistics and Supply Chain Management**	Mr. Schleuter	5	fall (5)
LECTURE**: Organisation & Human Resources**	Mr. Passenheim	5	spring (6)
LECTURE: **Communication & Presentation Skills***	Ms Alvares- Wegner	5	spring (4)
LECTURE: **Sustainability Management***	Mr .Schlaak	5	spring (4)
LECTURE: **Crisis Management in International Mergers and Acquisitions*** **Prerequisites: Sufficient knowledge of English and good basis in general management theory required**	Ms Alvares-Wegner	5	spring (4,6)
LECTURE: **International Marketing**	Mr. Schößler	5	spring (4,6)
Block Seminar: **Entrepreneurship**	Ms Wolf	5	spring (4,6)
LECTURE: **Management Control Systems (Master)**	Mr. Wilken	5	spring (2)
LECTURE: **International Human Ressource Management*** **Prerequisites: sufficient knowledge of English; good written and oral communication skills and basic knowledge of management required**	Ms Alvares-Wegner	5	spring (4,6)

* **Please check language and knowledge prerequisites for the *marked business lectures in cooperation with the Faculty of Business Studies here:** https://www.hs-emden-leer.de/en/faculties/wirtschaft/studies/international-faculty-office-for-business-studies/english-programme/

Faculty of Social Work and Health

ENGLISH lectures & projects
Academic Year 2021/2022

SOCIAL WORK (required language level B2) **BACHELOR LEVEL** Subject to change /status March 2021	Description	Lecturer	CP / ECTS	Term (Semester)
LECTURE: Trauma Informed Psycho-social Care	This in-depth mod-ule focuses on spe-cial methods for so-cial workers and other professionals interacting with in-dividuals affected by trauma and PTSD. It will explore the latest scientific studies on trauma in various fields. Students will gain a theoretical under-standing of the field of trauma studies, as well as attain a more practical insight into trauma-sensitive care.	Mrs. Lindert	3	spring (4/6)
LECTURE: **Conversational skills and counseling techniques**	This course is an introduction to basic principles of counseling practice. You will learn to develop a repertoire of key counseling skills and qualities, such as active listening, empathy, genuineness and acceptance. First counseling sessions will be trained and reflected in small groups.	Mrs. Scheumann	3	spring (4/6)
LECTURE: **Best practice of residential care for children and young people in difficult situation**	The workshop will start with an input about the legal context of the youth care system in Germany. We will take a closer look on children's residential care and fostering as substantial part of the social services for child protection and family support. Further elements are case studies as examples for social intervention as well as the presentation of specific child and youth welfare services as examples of best practice.	Mrs. Mejia Gil	3	spring (4/6)
LECTURE: **Communication through body-language and contact-improvisation**	In this workshop, we will experiment with different approaches to somatic movement and perception exercises. Apart from theoretical background, the main focus is the individual and personal exploration and inner process. By consciously expanding our range of movement, we aim for higher body-awareness and self-confidence.	Mrs. Krause and Mr. Schmid	5	spring (2/4/6)
LECTURE: **International University Week**	The University of Applied Sciences Emden/Leer is a member of SocNet98, a network of Faculties of Social Work/Social Pedagogics in Europe. Together with local students, you have the opportunity to participate in the annual International University Week of SocNet98 either in Germany or in another European Country.	Mrs. Hübner	3	spring (2/4/6)
LECTURE / PROJECT: **Project development and practice**	Together with other participants of the exchange program, you will get the chance to design and implement a project in the field of social work or health under the tutelage of an expert in the respective field.	Mr. Bunk	8	spring (4/6)
LECTURE: **German Language Course**	German language courses incl. Grammar | Level: Beginner and Advanced level	N.N. (IO)	5	spring (4/6)

Faculty of Maritime Sciences (location: Leer)

ENGLISH lectures **& projects**

Academic Year 2021/2022

MARITIME SCIENCES (required language level B2) BACHELOR LEVEL Subject to change /status March 2021	Study course	Lecturer	CP / ECTS	Term (Semester)
LECTURE:**Safety & Emergency Management**	Nautical Science	Mr Kreutzer	6	fall and spring (7)
LECTURE: **Cargo Operations 1**	Nautical Science	Mr Bergmann	4	fall and spring (7)
LECTURE: **Energy-Efficient Ship Handling**	Nautical Science	Mr Kreutzer/Mr Plawenn	5	fall and spring (7)
LECTURE: **Manoeuvring**	Nautical Science	Mr Vahs	5	fall and spring (7)
LECTURE: **Cargo Operations 2**	Nautical Science	Mr Bergmann	5	fall and spring (8)
LECTURE: **Ship Handling & Simulator**	Nautical Science	Mr Vahs/Mr Tomaschek/Mr Kreutzer	8	fall and spring (8)