FH JOANNEUM
University of Applied Sciences

INTERNATIONAL PROGRAMME

Summer Semester, 2020

FH JOANNEUM, Campus Kapfenberg

Study your dream

INTERNATIONAL PROGRAMME

Summer Semester, *24.02-2020 - 30.06.2020*

FH JOANNEUM, Campus Kapfenberg

Kapfenberg is the right place for you ...

The four degree programmes offered at the Kapfenberg Campus of the University of Applied Sciences JOANNEUM and the International Relations Office have joined forces to create and offer you a programme in English.

ECM (Electronics and Computer Engineering, Master)

EMU (Energy Mobility and Environmental Management, Bachelor)

MET (Energy and Transport Management, Master)

ITM (Internet Technology, Bachelor)

IMS (IT & Mobile Security, Master)

IRM (IT Law & Management, Master)

IWI (Industrial Management, Bachelor)

IIM (International Industrial Management, Master)

INT (International Relations Office)

Please note: IMS, IRM, IIM and ECM are part time programmes. This means that the courses may also take place in the evenings and on Saturdays. Courses of the programmes IMS and IRM are partly conducted online via eLearning.

MET and ECM are taught entirely in English. Should applicants fulfil the course requirements, they may choose courses from the ECM and MET curricula which are not listed in the International Programme. **Please bear in mind that there is a limited number of places in some courses so that only a limited number of incoming students can be accepted!**

Hand in:

· A filled-in application form

· A transcript of records

· Your learning agreement

and spend a semester in Austria, Kapfenberg!

Application deadline

31st of October 2019. The number of participants for this programme is limited.

CONTACT INFORMATION

Phone number: +043 316 5453 8835
E-mail: international-kbg@fh-joanneum.at
Homepage: www.fh-joanneum.at

List of all courses offered in the International Programme

Deg.prog.	Semester	Course no	Course	ECTS
ECM	2	K_AEE_090421_S2_07	Scientific working	2
ECM	2	K_AEE_090421_S2_03	Model based software development	5
ECM	2	K_AEE_090421_S2_04	Data structures and algorithms	4
ECM	4	K_AEE_090421_S4_02	International Technology Management	3,5
ECM	4	K_AEE_090421_S4_01	Innovation Management	1,5
				16
EMU	2	180326210	English II – Focus on environment	2
EMU	4	180326411	English IV – focus on energy	2
MET	2	190592204	Industrial Energy Efficiency	4
MET	2	190592206	International Traffic Management and Transport log.	4
MET	2	190592207	Smart Urban and Regional Planning	4
MET	2	190592212	International Project Development and Management*	4
				20
ITM	2	180418211	Business management and organisation	3
ITM	2	1804182019	IT Industry English	2
ITM	4	180418405	IT-Project Work	5
ITM	4	180418406	3D-Programming	3
ITM	4	180418407	Dynamic Web	2
ITM	4	180418409	Key competences in IT	2
IMS	2	180419205	Mobile Cross-Platform Development	5
IMS	2	180419202	Secure software design	3
IMS	2	180419208	Native mobile apps	3
IRM	2	140472204	Data privacy law	4
IRM	2	140472205	Legal English	4
IRM	2	140472208	Entrepreneurship	2
IRM	2	140472202	e-business applications	2
				40
IWI	6	170589605	Scientific project work (BT 2 + Seminar BT 2)	12
IWI	6	080589603	Industrial Projects	8
IWI	2	170589212	Language of meetings (English II)	2
IWI	6	170589607	Cross-cultural Communication	3
IWI	4	170589411	Negotiation & Argumentation (English IV)	2
				27
INT	Flexible	0502101 or 0502112	German beginners (A1/1 or A1/2)	5
INT	Flexible	0502103 or 0502113	German intermediate (A2/1 or A2/2)	3
INT	Flexible	0502120 or 0502106	German advanced (B1/B2: Speaking or Writing)	3
INT	Flexible	0502133	Tandem+ Programme	2
INT	flexible		Cultural Diversity at FH JOANNEUM	2
				15
			Total ECTS	118

K_AEE_090421_S2	Scientific Working	2 ECTS

Course type: Seminar
Location of the course in the curriculum: S2
Learning outcome:
The students improve their understanding of scientific research and paper writing and get the tools for writing bigger scientific documents (i.e. master thesis) in a scientifically appropriate manner. They are able to apply Maxwell's theory in electronics, scientific work methods and are familiar with the criteria and rules of scientific publishing.
Prerequisites and requirements:
Course content:
This course deepens the knowledge about scientific working and includes the following topics:

- Scientific methods
- Literature research
- Technical and scientific description and documentation
- Scientific publishing

Required/necessary literature:
Hehl: Foundations of classical electrodynamics. Charge, Flux and Metric
Jackson: Classical Electrodynamics
Zobel: Writing for Computer Science
Journals:
Physics Today
The Industrial Physicist
Teaching activities and methods:
Assessment: Continuous assessment

K_AEE_090421_S2	Model based software development	5 ECTS

Course type: Integrated Couse
Location of the course in the curriculum: S2
Learning outcome:
Graduates

- are proficient in the fundamentals of modern digital signal processing
- are proficient in the fundamentals of digital control engineering
- are able to design digital controllers and implement them in microcontroller systems
- are familiar with the workflow for the development of software from MatLab/Simulink models
- are familiar with the workflow for the development of VHDL code from MatLab/Simulink models

Prerequisites and requirements:
Students need a good understanding of Control engineering (continuous and discrete time) and of electromechanical systems including their math.
Students have to have a basic understanding of embedded systems including FPGA and of the modeling and simulation tool MATLAB/Simulink or willingness to self-study
Students will have to prove that they will be able to follow the course in a short discussion with the professor at the beginning of the semester.
Course content:
The course gives an overview on electrical components in vehicles.
The content is structured as follows:

- On-board generation of electric energy
- Energy storage (batteries, super-caps, hydrogen with fuel cell)
- Board-net architectures and board-net control
- Auxiliaries (air-condition, fans, pumps, etc.)
- Automotive sensors

Required/necessary literature:

- Dorf: Modern Control Systems
- Oppenheim: Discrete-Time Signal Processing
- Matlab Courseware: "Introduction to Model-Based System Design"
- Matlab Courseware: "Advanced Model-Based System Design"
- IEEE Transactions on Control Systems Technology

Teaching activities and methods: Integrated course
Assessment: 50% report of lab exercises, 50% final exam

K_AEE_090421_S2	Data structures and algorithms	4 ECTS

Course type: Integrated course
Location of the course in the curriculum: S4
Learning outcome:
Graduates are
- proficient in advanced programming techniques
- familiar with the structure of operating systems,
- proficient in the basic mechanisms for the implementation of real-time systems
- familiar with the major programming techniques in terms of data structures and algorithms.

Prerequisites and requirements:

Course content:

- Integer arithmetic
- Sorting and selection
- Hash tables
- Graph representation
- Shortest paths
- Practical examples

Required/necessary literature:
Books:

- Silberschatz, Galvin, Gagne: Operating System Concepts with C & C++
- Tanenbaum: Modern Operating Systems
- Tanenbaum: Structured Computer Organization
- Melhorn, Sanders: Algorithms and Data structures
- Sedgewick, Sanders: Algorithms

Journals:

- ACM Transactions in Embedded Computing Systems

Teaching activities and methods: Integrated course
Assessment: Continuous assessment

K_AEE_090421_S4	International Technology Management	3,5 ECTS

Course type: Integrated course
Location of the course in the curriculum: S4
Learning outcome:
Graduates

- are familiar with the development processes in electronics
- are familiar with the basic economic relationships in terms of globally active technology companies
- are familiar with the fundamentals of innovation management
- are able to present the results of their work in a comprehensible manner.

Prerequisites and requirements:
Course content:
- Global technology companies (structures, legal basis)
- Examples of globally active technology companies (Intel, Infineon, AT&S, AVL)
- Financing of international projects, financing of the internationalisation process
- Corporate management, corporate culture in international technology companies

Required/necessary literature:
Teaching activities and methods: Integrated Course
Assessment: Continuous assessment

K_AEE_090421_S4	Innovation Management	1,5 ECTS

Course type: Lecture
Location of the course in the curriculum: S4
Learning outcome:
Graduates are
- familiar with the development processes in electronics,
- familiar with the basic economic relationships in terms of globally active technology companies
- familiar with the fundamentals of innovation management
- able to present the results of their work in a comprehensible manner.

Prerequisites and requirements:
Course content:
- Evolution economics
- Theory of inventive problem solving (TRIZ)
- Systematic implementation of innovations
- Intellectual property management

Required/necessary literature:
- Burgelman, Christensen, Wheelwright: Strategic Management of Technology and Innovation
- Dodgson, Gann,Phillips: The Oxford Handbook of Innovation Management

Teaching activities and methods: Integrated Course
Assessment: Continuous assessment

180326210	English II - Focus on the environment	2 ECTS

Course type: Seminar
Location of the course in the curriculum: S4
Learning outcome:
Enhanced range of vocabulary in the specialization area "environmental management"
Ability to talk and write about statistics and graphs
Ability to conduct and/or participate in a business meeting
Ability to research concepts or technologies online and give short presentations in English

Prerequisites and requirements: English B2 level
Course content:
This course is designed to enhance the students' oral communication skills and combines existing vocabulary knowledge with technical terminology related to environmental impacts and technologies. Technical vocabulary as well as current issues in the field will be discussed with the help of articles and videos. This practice-oriented course also provides an interdisciplinary link to a technical course of the 2nd Semester (Environmental Chemistry)

Required/necessary literature:
Brieger , N., & Comfort, J. (2003). BEC Vantage - Masterclass Upper Intermediate. Oxford: Oxford University Press.
Powell, M. (2014). Incompany 3.0 - Intermediate. Deutschland: Hueber Verlag.
Strutt, P. (2005). Market Leader - Business Grammar and Usage. Harlow: Pearson Education Limited.
Spotlight Magazine
Business Spotlight Magazine
The Economist
Teaching activities and methods: Seminar
Assessment: Continuous assessment with additional written/oral examinations

180326411_	English IV - Focus on Energy	2 ECTS

Course type: Seminar
Location of the course in the curriculum: S4
Learning outcome:
This module provides the skills required for applications and company presentations, innovation management and occupational safety and enables students to make a successful appearance in addition to their high-level technical education. The English language training focuses on the topic of energy so that our graduates have profound and comprehensive language skills in the fields of energy, mobility and environment.
Prerequisites and requirements: B2 level
Course content:
This course is designed to enhance the students' writing skills with a special focus on formal and scientific writing. Existing vocabulary knowledge is combined with technical terminology related to energy and energy technologies. The group project is aimed at applying the technical vocabulary and language devices learned on the course.
1) Focus on written communication:
- Focus on paragraphing and summarizing
- Focus on scientific language and scientific writing
2) Focus on current events and trends
- the world of green energy
- the big players in the energy industry (companies, commodity trading,
- discussion of articles with a focus on renewable energy, nuclear power, etc.
3) Project assignment: (Linked to one of the courses of the semester)
- group project consisting of a project paper and a group presentation
- focus on topics related to energy (e.g.: energy transition, the future of energy, etc.)
Required/necessary literature:
Teaching activities and methods: Seminar
Assessment: Continuous assessment with additional written/oral examinations

190592204	Industrial Energy Efficiency	4 ECTS

Course type: Integrated course
Location of the course in the curriculum: S2
Learning outcome:
This module provides students with sound knowledge concerning the planning and implementation stages in the area of applied energy plant planning and energy efficiency measures, including the development of energy management systems. Students learn how to carry out planning and maintenance of electrical installations or industrial plants, the principles applying to these stages and how improvement suggestions are prepared, on the basis of practical tasks
Prerequisites and requirements:
Course content:
This integrated lecture deals with the procedures, planning approaches, implementation measures and corresponding controlling measures for the increase of energy efficiency measures with special emphasis on

industrial plants. Students will learn about operational energy management systems and other technologies for increasing energy efficiency.

Required/necessary literature:

Elgerd: Electric Power Engineering, Chapter 6: The Electric Power Network, Springer Science, 1998

Teaching activities and methods: Integrated course

Assessment: written and/or oral exam

190592206	International Traffic Management and Transport Logistics	4 ECTS

Course type: Lecture

Location of the course in the curriculum: S2

Learning outcome:

Module MOB2 focuses on the practical application of different simulation programmes for traffic networks and traffic flows in the context of an extended laboratory tutorial. In addition, students discuss aspects of international traffic management, gain insight into traffic policy and develop possible traffic solutions for individual modes of transport as well as optimization possibilities in transport logistics. The methods of spatial planning and possible spatial planning concepts for smart urban and rural areas complete this module.

Prerequisites and requirements:

Course content:

This lecture provides students with a sound understanding of both, international and national transport policy. Students deal with transport solutions for road, rail, shipping and air transport, taking into account technical, political and financial implications. Topics like, for instance, local, regional, national and international mechanisms of traffic flow control as well as "soft policies" regarding traffic behaviour and choice of means of transport complement this lecture.

Another focus of this lecture is the ideal use of resources (vehicles and personnel) by means of suitable routes, driving and duty schedules for the supply of regions and cities (distribution & logistics) including a detailed consideration of disposition concepts with appropriate evaluation of the advantages and disadvantages. In particular, the use of different means of transport in terms of economic efficiency and environmental impact is discussed with the students.

Required/necessary literature:

White paper – Roadmap to a single European Transport area, towards a competitive and resource efficient transport system; European Commission, 2011

Lowe: The Dictionary of Transport and Logistics; Kogan Page; The Institute of Logistics and Transport, 2002

Lowe/Pidgeon: Lowe's Transport Manager's & Operator's Handbook 2018; Kogan Page, 2018

Monios/ Bergqvist: Intermodal Freight Transport & Logistics; CRC Press Taylor & Francis Group, 2017

Teaching activities and methods: Tutorial

Assessment: written and/or oral exam

0190592207	Smart urban and regional planning	4 ECTS

Course type: Integrated course

Location of the course in the curriculum: S2

Learning outcome:

Module MOB2 focuses on the practical application of different simulation programmes for traffic networks and traffic flows in the context of an extended laboratory tutorial. In addition, students discuss aspects of international traffic management, gain insight into traffic policy and develop possible traffic solutions for individual modes of transport as well as optimization possibilities in transport logistics. The methods of spatial planning and possible spatial planning concepts for smart urban and rural areas complete this module.

Prerequisites and requirements:

Course content:

In the course of this integrated lecture, students are introduced to the topic of smart urban and regional planning. For this purpose concepts of spatial and urban planning serve as the basis for the development of future scenarios for an optimal design of habitats and regions. Students deal with the objectives and methods of spatial planning as well as planning concepts for the smart development of urban and regional areas,

considering different optimization requirements such as economic efficiency, social justice and a healthy environment, with the help of practical examples.

Required/necessary literature:

Books: White paper – Roadmap to a single European Transport area, towards a competitive and resource efficient transport system; European Commission, 2011

Lowe: The Dictionary of Transport and Logistics; Kogan Page; The Institute od Logistics and Transport, 2002

Lowe/Pidgeon: Lowe's Transport Manager's & Operator's Handbook 2018; Kogan Page, 2018

Monios/ Bergqvist: Intermodal Freight Transport & Logistics; CRC Press Taylor & Francis Group, 2017

Macharis/Melo/Woxenius/Van Lier: Transport and Sustainability - Sustainable Logistics; Volume 6; Emerald Group Publishing Limited, 2014

Teaching activities and methods: Integrated course

Assessment: written and/or oral exam

190592210	International Project Development and Management	4 ECTS

Course type: Integrated Course

Location of the course in the curriculum: S2

Learning outcome:

This module offers complementary and in-depth course content as a combination of electives. Students choose their additional training area and deepen their core competences by choosing adequate electives. Courses are offered in the areas of special environmental laboratory analyses, environmental and plant law, control engineering, data security aspects, international project management and traffic safety aspects.

Prerequisites and requirements:

Course content:

This integrated course is used to illustrate proven practise-oriented methods of active project development and control. Therefore, strategic and operative planning components, analysis models and different corporate and management strategies are presented. Furthermore, the course will deal with performance progress measurement of projects and relevant risk management. In addition, advanced knowledge in terms of technical and economic risk assessment will be imparted and applied with the help of case studies.

Required/necessary literature:

Harper-Smith/Derry: Project Management, Pearson Education Limited, 2009

Lundanes/Reubsaet/Greibrokk: Chromatography: Basic Principles, Sample Preparations and Related Methods, Wiley-VCH, 2013

Teaching activities and methods: Integrated course

Assessment: written and/or oral exam

180418211	Business management and organisation	3 ECTS

Course type: Lecture with self-study units for incomings

Location of the course in the curriculum: S4

Learning outcome:

Students are able to understand organisations, the management process and the strategic work

Prerequisites and requirements:

Course content:

Introduction Entrepreneur, leadership and organization, management process, strategic management, planning process and planning methods and organisational structure

Required/necessary literature:

Teaching activities and methods: Supervision

Assessment: Lecture, discussion and examination at the end of the lecture

180418405	IT-Project Work	5 ECTS

Course type: Seminar
Location of the course in the curriculum: S4
Learning outcome:
By working independently on projects of average difficulty students learn to apply project management skills.
Prerequisites and requirements:
Course content:
The students will have to develop, execute and finalize an IT-project.
Required/necessary literature:
Teaching activities and methods: Supervision
Assessment: Project Assessment and final presentation (including demonstration and modification of the code)

1804182019	IT Industry English	2 ECTS

Course type: Seminar
Location of the course in the curriculum: S4
Learning outcome:
On completion of the course, students have profound knowledge on Web languages. Current developments in this field are interpreted and discussed in English.
Prerequisites and requirements:
Course content:
The target is to
- enable students to express themselves adequately in technical and work-related terms in an IT business environment with English as the target language.
- be able to make a short presentation in English without reading
- enhance student's language proficiency
- improve student's English skills in the context of reading, listening, speaking and writing
- write a summary of a previously read text
- professional topics: applied hacking, crowdfunding, ditigal detox, life on demand, cyber security
Required/necessary literature:
Duckworth, M. (2003). Business Grammar and Practice.
Gairn, R. & Redman, S. (2009). Oxford Word Skills Advanced.
Gairn, R. & Redman, S. (2009). Oxford Word Skills Intermediate.
McCarthy, M. (2003) Academic English in Use.
Teaching activities and methods:
learner-centred approach, interactive in-class work, self-study
Assessment:
grade participation [60%], grade final written exam [40%]
Both grades have to be positive (>60%) for the overall performance assessment.

180418406	3D-Programming	3 ECTS

Course type: Integrated course
Location of the course in the curriculum: S4
Learning outcome:
Students gain basic knowledge in programming with 3D APIs like Vulkan, Direct-X and WebGL. Furthermore, they can operate 3D development environments like the Unity, the jMonkey engine or Three.js for their 3D projects. In addition, students can plan and develop 3D applications in areas such as augmented and virtual reality.
Prerequisites and requirements:
Profound programming knowledge
Basic C/C++ and good Java/C# knowledge
Understanding of object-oriented concepts

Course content:
Basics of 3D Graphics: Coordinate System, Vertices, Vectors, Matrices, Transformations, Quaternions, Graphics-Pipeline, Scene Graph, Shader
Graphics Libraries: OpenGL(Vulkan) DirectX, WebGL, etc. as an overview
3D Engines (Middleware): Overview on actual software, Differences/Unique properties
Focus on 3D Programming in the Web
New Technologies: AR, VR
Final Project
Teaching activities and methods: Lecture and Tutorial
Required/necessary literature:
Direct3D
"Three.js Essentials", Jos Dirksen, Packt Publishing Ltd. July,2014
"Professional WebGL Programming", Andreas Anyuru, John Wiley & Sons, 2012
Unity Engine Documentation (https://docs.unity3d.com/Manual/index.html)
Sites: jmonkeyengine.org, unity.com, unrealengine.com, khronos.org
Assessment: Continuous assessment

180418407	Dynamic Web	2 ECTS

Course type: Integrated course
Location of the course in the curriculum: S4
Learning outcome:
Students gain basic knowledge in the design, implementation, performance analysis and debugging of web servers for the planning of a synchronous server communication. In addition, students can plan and develop 3D applications in areas such as augmented and virtual reality.
Prerequisites and requirements: business project management
Course content:
This course focuses on the server side technologies of dynamic webpages and on the communication duties between web client and web server: HTTP Request/Response, Sessions, Cookies, Mimetypes, User Input, Up- and Download, Mail, Database connection, AJAX.
Teaching activities and methods: lecture
Required/necessary literature:
Node.js Design Patterns by Mario Casciaro and Luciano Mammino
Edition 2, Publisher Packt Publishing Ltd, 2016.
"Three.js Essentials", Jos Dirksen, Packt Publishing Ltd. July,2014
"Professional WebGL Programming", Andreas Anyuru, John Wiley & Sons, 2012
jmonkeyengine.org, unity.com, unrealengine.com, khronos.org
Assessment: Final exam, Continuous Assessment

180418409	Key Competences in IT	2 ECTS

Course type: Seminar
Location of the course in the curriculum: S4
Learning outcome:
On completion of the course, students have fundamental knowledge about Big-Data systems and analysis.
Prerequisites and requirements:
Course content:
Focus is put on key competences for future IT professionals. Consolidation of relevant skills for the students' later professional careers: Improvement of negotiation and meeting skills, critical reflection of relevant topics from the fields of business, law and engineering; English for specific purposes: specific language used in meetings and negotiations; simulated meetings in class. Further emphasis is put on application, interviews and training for assessment centres.

Required/necessary literature:
Books: EMC Education Services, Data Science and Big Data Analytics
Professional Journals: ACM Transactions on Database Systems, Journal of Big Data, BI-SPEKTRUM
Teaching activities and methods: Seminar
Assessment: Continuous assessment

180419205	Mobile Cross-platform development	5 ECTS

Course type: Integrated course
Location of the course in the curriculum: S2
Learning outcome:
Students gather knowledge of design, development and evaluation of secure mobile applications on different platforms.
Prerequisites and requirements:
Course content:
Selected aspects of mobile development like cross-plattform code generation are presented in this lecture.
Required/necessary literature:
A book apart (http://books.alistapart.com/),
HTML5 and JavaScript Web Apps (ISBN-13: 978-1449320515)
Effective JavaScript (ISBN-13: 978-0-321-81218-6)
Journals: ACM
Teaching activities and methods: Lecture and tutorial
Assessment: Continuous assessment and final exam

180419202	Secure software design	3 ECTS

Course type: Integrated course
Location of the course in the curriculum: S2
Learning outcome:
Students know the most important Secure Design Principles. Students can create a threat model for an existing software system. The students know the details of the HTTP and HTTPS protocol.
The students are able to analyze and implement the security-relevant aspects of a server-side web application.
Prerequisites and requirements:
Students have to have a very good knowledge of Java programming
Course content:

- Architectural Risk Analysis
  - Security Design Principles
  - Threat Modeling
- Secure Web Application Design
  - Web Application Risk Analysis
  - HTTP Protocol
  - Client-Side Controls
  - Access Controls
- (Authentication, Session Management, Authorization)
  - Data Stores
  - XSS Protection
  - CSRF Protection

Examples for this lecture can be found on https://github.com/teiniker/teiniker-lectures-securedesign
Required/necessary literature:
Teaching activities and methods: Integrated course
Assessment: exam

180419208	Native mobile apps	3 ECTS

Course type: Tutorial
Location of the course in the curriculum: S2
Learning outcome:
The graduate has detailed knowledge about the architecture and development of secure software in general and secure mobile applications on different platforms in particular
Prerequisites and requirements:
Course content:
System near apps using the competences acquired in "Mobile Operating Systems" (C-Programming). Mobile Platform Native app development for several mobile operating systems (iOS, WP8, ...) including their special approaches and differences are covered.
Required/necessary literature:
Gary McGraw, Software Security – Building Security In, Addison-Wesley, 2006
HTML5 and JavaScript Web Apps (ISBN-13: 978-1449320515)
N. Elenkov: Android-Security-Internals, 2014
J. Drake et. al.: Android Hacker's Handbook, 2014
Teaching activities and methods: Lecture and tutorial
Assessment: continuous assessment and final exam

170472204	Data privacy law	4 ECTS

Course type: lecture
Location of the course in the curriculum: S2
Learning outcome:
understanding of data protection in the EU in theory and practice
Prerequisites and requirements: none
Course content:
The General Data Protection Regulation of the EU (GDPR) - in theory and practical examples to certain aspects of the GDPR
Required/necessary literature:
The GDPR (available online)
Teaching activities and methods:
lecture and group activities (group activities in class and at home)
Assessment: attendance (prerequisite), activities during the course (50%), test (50%); grades: 1 (90%-100%), 2 (80% to 89%), 3 (70% to 79%), 4 (60% to 69%), 5 (less than 60%)

140472205	Legal English	4 ECTS

Course type: Seminar
Location of the course in the curriculum: S2
Learning outcome:
The students learn to understand legal texts and hold informed discussions about legal aspects in business and IT. They will develop skills, such as negotiating in English and writing formal reports, that will help them to assert themselves in their fields.
Prerequisites and requirements: Legal English 1 or similar courses
Course content:
- Negotiations
- Report writing
- Data protection
- Intellectual property rights
- The language of licence agreement
- Sale of goods, esp. warranties
- Cybercrime

Required/necessary literature:
http://www.thefreedictionary.com
http://www.just-the-word.com
Teaching activities and methods:
Assessment: formative assessment and final exam

140472208	Entrepreneurship	2 ECTS

Course type: Seminar
Location of the course in the curriculum: S2
Learning outcome:
Prerequisites and requirements:
Course content:
Entrepreneurs generate substantial economic growth by pursuing innovations, introducing new products and services, opening new markets as well as adapting themselves to new knowledge. Therefore, the present course focuses on starting and growing new businesses. We investigate concepts, tools, and practices of entrepreneurship by assessing the value of a new venture, writing a business plan, and selected guest speakers. Above that we identify and exercise entrepreneurial skills and behaviours that lead to firm performance and growth.
Required/necessary literature:
Teaching activities and methods:
The course consists of two modules:
MODULE 1: Entrepreneurial concepts, tools, and practices
MODULE 2: Entrepreneurial skills and behaviours
Assessment: paper

140472202	E-business applications	4 ECTS

Course type: Integrated course
Location of the course in the curriculum: S2
Learning outcome:
Prerequisites and requirements:
Course content:
E-business models are the theoretical basis for e-business applications. In this lecture the focus is on the practical implementation of e-business concepts. This implementation occurs via the use of appropriate software engineering methods, such as specifications, requirements specification, project plan, schedule, resource plan. E-business Applications also includes the implementation and testing of the developed concept. You will have to do a project on your own.
Required/necessary literature:
Marcia Robinson; Strategies for e-business success, Bryn Jolfsson, Glen Urban; Electronic Commerce 2002, Efraim Turban; .Net e-Business Architecture
Teaching activities and methods:
Assessment: Name: Continuous assessment

170589605	Scientific project work (Bachelor Thesis 2 & Seminar Bachelor Thesis 2)	12 ECTS

Course type: Seminar (max. 3 Students)
Location of the course in the curriculum: S6
Learning outcome:
Students are able to
• evaluate a professionally relevant complex problem independently in accordance with scientific criteria
• display new findings and research questions in writing
• independently apply the basic principles of scientific writing (referencing, formal structure etc.)
Prerequisites and requirements:
Course content: -

Required/necessary literature:
The lecturer agrees to pass on an updated list of recommended literature to the students in accordance with the syllabus.
Journals
Teaching activities and methods: BA /SC
Assessment: Evaluation of the Scientific's Thesis Paper

170589603	Industrial Projects	8 ECTS

Course type: Seminar / (max. 2 Teams a 4 Students)
Location of the course in the curriculum: S6
Learning outcome: The students are able to analyse professionally relevant problems posed within projects, derive suggestions for solutions and assess processed results.
Prerequisites and requirements: -
Course content: Working in a project in industry or working on a topic in research relevant to the study programme.
Required/necessary literature: The lecturer agrees to pass on an updated list of recommended literature to the students in accordance with the syllabus.
Teaching activities and methods: PR
Assessment: continuous assessment

170589212	Language of meetings (English II)	2 ECTS

Course type: Integrated lecture
Location of the course in the curriculum: S2
Learning outcome:
Students are able to
• express themselves adequately in technical and business terms.
• describe basic material properties and industrial processes.
• use English for general business communication (i.e. in meetings).
• write a letter of application & to adequately communicate one’s goals, strengths, and experiences.
• spontaneously discuss and describe professions and processes in industrial companies.
• use conditionals in all tenses.
• apply the grammatical rules and structures acquired in English 1.
Prerequisites and requirements:
Course content:
• Meetings and moderation with multi-cultural participants.
• Language functions in English as a participant, moderator or chairperson.
• Telephone conferences
• Plan of action
• Describing basic material properties and industrial processes
Required/necessary literature:
• Tullis/Trappe: Intelligent Business, Longman
• Vince: English Grammar in Context, Macmillan
• Various up-to-date materials from media resources
• Literature adapted in accordance with the guidelines of CEFR for second language acquisition.
The lecturer agrees to pass on an updated list of recommended literature to the students in accordance with the syllabus.
Teaching activities and methods: Integrated lecture
Assessment: continuous assessment

170589607	Cross-cultural Communication	3 ECTS

Course type: Seminar
Location of the course in the curriculum: S6
Learning outcome:
Students are able to:
• use English for business and socializing in a multicultural world
• enable students to express themselves adequately in technical and financial terms in an industrial business environment with English as the target language.
• use English as the business language for meetings and moderation while understand the differences of communication with multi-cultural participants.

• use English to negotiate while maintaining proper business etiquette with multicultural participants.
• analyse and evaluate information for scientific work when using references.
• apply learned skills to prepare and deliver a professional presentation as a culmination of project or theoretical work.
Prerequisites and requirements: None
Course content:
• Communicative strategies and business etiquette in an international environment.
• Case studies to extract and analyze valuable information, identify problems, plus make creative/realistic solutions during meetings.
• Professional presentation of Industrial Research Project
• Writing an abstract for the Bachelor Thesis
• Writing a term paper
Required/necessary literature:
Books:
• Tullis/Trappe: Insights into Business, Longman
• Various up-to-date materials from media resources
The lecturer agrees to pass on an updated list of recommended literature to the students in accordance with the syllabus.
Teaching activities and methods: Seminar
Assessment: Continuous assessment

170589411	Negotiation & Argumentation (English IV)	2 ECTS

Course type: Seminar
Location of the course in the curriculum: S4
Learning outcome:
In English the students are able to
• express themselves professionally in technical and financial terms in an industrial business environment with English as the target language.
• Use English as the business language for meetings and moderation while understanding the differences of communication with multi-cultural participants.
• understand legal terms and definitions pertaining to contracts and business.
• use English to negotiate while maintaining appropriate business etiquette with international participants.
• analyse and evaluate information for scientific work whilst using references.
Prerequisites and requirements: Name
Course content:
• Professional English
• Negotiations and appropriate business etiquette
•Case Studies
• Argumentation methods

• Quoting and paraphrasing information from different sources
Required/necessary literature:
Books:
• Ibbotson: Cambridge English for Engineering, Cambridge
• Tullis/Trappe: Intelligent Business, Longman
• Pilbeam/O'Driscoll: Market Leader - Logistics Management, Longman
• Vince: English Grammar in Context, Macmillan
• Various up-to-date materials from media resources
• Literature in accordance with CEFR framework.
Teaching activities and methods: Integrated Lecture
Assessment: Final Exam and continuous assessment

0502101 or 0502112	German beginners (A1.1 or A1.2)	5 ECTS

Depending on the number of interested students for each course, we are offering or the course level A1.1 or A1.2.

Course type: Integrated course
Location of the course in the curriculum: flexible
Location of the course: room 203
Learning outcome:

A1.1:
You will learn to greet people, name jobs, talk about your origin (where from? where to?), to count, to tell people your address and phone numbers, how to invite guests, to express your general opinion, to order in a bar or restaurant, to find your way around in a department store, to inform yourself, to name groceries, to give advice and ask favours, to apologise, and much more.
Grammar: Verbs in the present tense, wh-questions and yes/no questions, articles, accusative, dative, personal pronouns in the accusative and dative.

A1.2:
You learn to talk about your work, your and the other's state of health, to give directions, to ask the way, to express date and time, to express preferences and repugnances and much more.
Grammar: recapitulation of Perfekt (perfect tense); Präteritum (past tense) of the auxiliary verbs; possessive articles; modal verbs; imperative; local und temporal prepositions; polite form with subjunctive II; personal pronouns with Akkusativ and Dativ; demonstrative pronouns; verbs with Dativ

Prerequisites and requirements: A1.1: no prerequisites; A1.2: prerequisite: level A1.1

Course content:

- speaking
- listening
- reading
- writing

Required/necessary literature:
Books: Schritte plus (available at your International Relations Office, 15 EUR)
Teaching activities and methods: Integrated course
Assessment: Continuous assessment

0502103 or 0502113	German intermediate (A2/1 or A2/2)	3 ECTS

Depending on the number of interested students for each course, we are offering or the course level A2.1 or A2.2.

Course type: Integrated course
Location of the course in the curriculum: flexible
Learning outcome:

A2.1:
This course will focus on enlarging the student's range of vocabulary and expressions and students will be exposed to more complex issues of grammar at level A2/1 such as: past tense ("Präteritum") from „haben", „sein" and modal verbs, perfect tense ("Perfekt"), making requests using „sollte" and imperatives, comparison
and graduation of adjectives, verbs with Dativ, pronouns with Dativ, position of pronouns, verbs with prepositions, „Wechselpräpositionen", temporal and local prepositions, subordinate clauses with „wenn" and „dass", relative and idefinite pronouns etc.

A2.2:
This course will focus on enlarging the student's range of vocabulary and expressions and students will be exposed to more complex issues of grammar at level A2/2 such as: Past tense ("Präteritum"), perfect tense ("Perfekt") (recap); adjective declination; passive voice (present tense); subjunctive II (of haben, sein, modal verbs); temporal and local prepositions; subordinate clauses with "wenn", "weil", "dass"; reported questions; word formation etc.

Course content:

- speaking
- listening
- reading
- writing

Required/necessary literature:
Books: Scripts of FH JOANNEUM (available at your International Relations Office, 15 EUR)
Teaching activities and methods: Integrated course
Assessment: Continuous assessment

0502120 or 0502106	German advanced (Listening and Speaking B1/B2 or Reading and Writing B1/B2)	3 ECTS

Depending on the number of interested students for each course, we are offering or the course Listening and Speaking B1/B2 or the course Reading and Writing B1/B2

Course type: Integrated course
Location of the course in the curriculum: flexible

Learning outcome:

Listening and Speaking B1/B2
You will learn …
•… to understand and to obtain information about a person
•… to understand announcements in buses, department stores etc.
•… to understand and to obtain information about prices, departure times etc.
•… to understand and participate in conversation while shopping
•… to order in a coffee house
•… to understand directions and to describe a route
•… to understand a simple story about a tourist landmark
•… to talk about the city you live in
•… to understand and gather information about the family during conversation
•… to speak about your own living arrangements and to question others on the topic
•… to understand, make, accept and reject suggestions
•… to understand weather and traffic reports

•… to talk about your daily routine and to question others on the topic
•… to understand information provided over the telephone
•… to book a hotel room
•… to talk about your holiday and to question others on the topic
•… to make an appointment over the telephone

Course content:
- speaking
- listening

Required/necessary literature:
Books: Scripts of FH JOANNEUM (available at your International Relations Office, 15 EUR)
Teaching activities and methods:
Communicative Teaching focusing on listening and speaking
Assessment: Continuous assessment

Reading and Writing B1/B2
Learning outcome:
You will learn …
•… to recognise different types of text and write a curriculum vitae
•… to extract important information from a text
•… to compose a summary and to understand a popular science text
•… to apply different styles of reading and to find specific information in a text
•… to understand a scientific text
•… to write an informal letter and to compose a complaint email
•… to understand a fairytale
•… to compile a report and to make notes and write a summary
•… to interpret statistics and summarise them
•… to write a personal statement
•... to identify and correct errors in spelling, grammar and syntax
•… to compose a letter to the editor and to write a story ending

Course content:
- reading
- writing

Required/necessary literature:
Books: Scripts of FH JOANNEUM (available at your International Relations Office, 15 EUR)
Teaching activities and methods:
Communicative Teaching focusing on reading and writing
Assessment: Continuous assessment

0502133	Tandem+ Programme	2 ECTS

Course type: Integrated course
Location of the course in the curriculum: flexible
Learning outcome:
Insights into Austrian Culture and Language and a lot of fun with your Austrian Tandem Partner by joining provided activities.
Course content:
Language, experience and cultural exchange among Austrian and International students.
Required/necessary literature:
No literature, but mandatory participation at: Tandem+ Start-up.
Teaching activities and methods:

Start-up at the beginning of the semester and poster presentation/Tandem Learning Objectives Form at the end of the semester.
The Tandem+ Certificate can also be credited towards the ISC (Intercultural Skills Certificate): https://www.fh-joanneum.at/international/services/intercultural-skills-certificate/
Assessment: Continuous assessment

Please note that for this course you will not receive a mark on the Transcript of Records, but the designation "attended" with the corresponding number of ECTS. Please check in advance with your home university whether this course will be accredited.

	Cultural Diversity at FH JOANNEUM	2 ECTS

Course type: Integrated course
Location of the course in the curriculum: flexible
Learning outcome:
Learning about other cultures, developing new perspectives of the home culture, meeting International and Austrian Students, desire to travel, tasting food of other cultures
Course content:
International degree seeking students and exchange students at FH JOANNEUM Kapfenberg are presenting their own first experiences in Austria - followed by an entertaining country presentation to point out the intercultural diversity at Campus Kapfenberg.
Teaching activities and methods:
Presentations of international students and report at the end of the semester (activities on Moodle platform)
The Certificate for Cultural Diversity at FH JOANNEUM can also be credited towards the ISC (Intercultural Skills Certificate): https://www.fh-joanneum.at/international/services/intercultural-skills-certificate/

Please note that for this course you will not receive a mark on the Transcript of Records, but the designation "attended" with the corresponding number of ECTS. Please check in advance with your home university whether this course will be accredited.