

Module Manual
International Online Semester
1 September 2026 – 14 March 2027

University of Applied Sciences Weihenstephan-Triesdorf COURSES

General English - B2 (GeR)

Susanne Kroner

Aims:

- Students will be able to understand and appropriately use the language in written and spoken forms at an upper-intermediate level in a certain number of professional, academic, and higher education-related situations.
- They will be able to perceive cultural differences in the professional and higher education domains and to respond appropriately and comprehensibly.

Contents:

- Development of language skills (listening and reading comprehension, speaking, writing, grammar, vocabulary).
- Training of professional and academic communication forms (presentations, role-plays, writing functional emails, phone calls, writing a CV, etc.).
- Talking about practical everyday topics and intercultural questions such as preparation for a stay abroad (short texts of simple to moderate difficulty and projects on practical everyday topics, role-plays, reading short texts of intermediate complexity on current events, TV shows, etc.).

Modul number: 960700010A

Hours per week / Credits

4 SWS / 5 ECTS

Exam

Written exam (Listening: 25%; Reading: 25%; Text production: 25%; Oral presentation: 25%)

Professional Communication Skills (B2 Ger)

Thomas Bartl

Competency goals

- Can understand the main ideas of complex text on both concrete and abstract topics, including technical discussions in their field of specialisation.
- Can interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible without strain for either party.
- Can produce clear, detailed text on a wide range of subjects and explain a viewpoint on a topical issue giving the advantages and disadvantages of various options.
- Can utilize a significant vocabulary and is able to paraphrase to compensate for gaps.
- Can utilize appropriate special terminology.
- Can participate in interviews and conversations on a variety of topics.
- Can identify differences in communication conventions and adapt their own communication appropriately.
- Can structure texts effectively.
- Can use punctuation consistently and effectively.
- Can present a complex topic in a well-structured and clear manner.
- Can structure presentations in a manner that allows the audience to follow easily.
- Can use presentation tools appropriately and effectively.

Content:

- Written communication in the professional world (e.g. e-mail, social networks, memos, etc.)
- Presentation types, tools, and techniques
- Proofreading and editing
- 'Classic' application documents (e.g. CV and cover letter) and modern versions
- Oral interactions (e.g. different types of individual or group interviews, meetings, Zoom sessions, etc.)

5 ECs

4 SWS/hours a week

Grading/Evaluation: 2 assignments (1 written, 1 oral) due over the course of the semester, 1 exam (60 minutes) at end of semester

English UNCert® II - Practical English for the Workplace (B2 Ger)

Susanne Kroner

Aims:

- Students will be able to understand and appropriately use the language in written and spoken forms at an upper-intermediate level in a certain number of professional, academic, and higher education-related situations.
- They will be able to perceive cultural differences in the professional and higher education domains and to respond appropriately and comprehensibly.

Contents:

- Development of language skills (listening and reading comprehension, speaking, writing, grammar, vocabulary).
- Training of professional and academic communication forms (presentations, role-plays, writing functional emails, phone calls, writing a CV, etc.).

Modul number: 960500140A

Hours per week / Credits

2 SWS / 3 ECTS

Exam

Written exam (Listening: 25%; Reading: 25%; Text production: 25%; Oral presentation: 25%)

German as a Foreign Language - Course 1 (A1 Ger)

Susanne Kroner

Aims:

- Students will be able to manage some simple everyday situations in written and spoken communication forms in the foreign language, as well as to provide basic information about studying, university, and career aspirations.
- They will be able to perceive cultural differences and express themselves in simple statements about them.

Contents:

- Development of language skills (listening and reading comprehension, speaking, writing, grammar, vocabulary).
- Training of professional and academic communication forms (presentations, role-plays, composing functional emails, making phone calls, writing a resume, etc.)

Modul number: 960400030A

Hours per week / Credits

4 SWS / 5ECTS

Exam

Written exam (Listening: 25%; Reading: 25%; Text production: 25%; Oral presentation: 25%)

Data Collection

PhD in Economics, Associate Professor Alina Brychko

Abstract

Information is the basis of management. Marginal analysis is a modern method of economic analysis used when making decisions about profitability / business efficiency in various sectors of the economy. At the same time, the success of such an analysis is determined by the reliability, relevance, reliability, sufficiency and accuracy of the information used. This course is aimed at forming a system of necessary theoretical knowledge and practical skills for collecting internal and external information necessary for making management decisions using the methodology of marginal analysis at agricultural enterprises of various organizational and legal forms and forms of ownership in market conditions. Studying this course ensures that students learn the basic principles and methods of organizing and conducting research on the collection of production data; acquiring practical skills in working with statistical reporting of enterprises, conducting surveys, searching for data on markets and prices, forming databases of production and economic information. This course will be useful to students of various fields of knowledge and specialties, contributing to their acquisition of data collection competencies for decision-making at various levels of the management hierarchy, in various areas of the economy, as well as when organizing their own business.

Course structure

Topic 1. Introduction to the discipline (purpose of collecting production data at the enterprise; principles of marginal analysis).

Topic 2. The format of the production data base.

Topic 3. Types and sources of data in economic analysis.

Topic 4. Data collection: legal and ethical aspects.

Topic 5. Methods of data collection and data processing.

Topic 6. Formation of a database on intra-farm processes (main indicators for various types of production processes in agriculture, work with reporting, research preparation, questionnaire preparation).

Topic 7. Formation of databases of information about markets and prices.

Modul number: 950400010

Hours per week / Credits

2 hours of contact work / 3 ECTS

Exam

Written examination

Academic Research and Writing

PhD in Economics, Associate Professor Tetiana Kharchenko

Abstract

Scientific research is the driver of human development. It is in the higher school the skills of carrying out scientific research are formed and developed, which as a whole corresponds to the mission of the academic community in society. Scientific research in any branches of science are distinguished by their problem-targeted character, methodology, and style specific to scientific texts. This course aims to provide students with the necessary knowledge about the organization, methodology of scientific research and presentation features results (both in publications and during presentations) and develop relevant skills. The course provides for the study of the basic rules of formulating a scientific problem, research goals and objectives; the main methods of scientific research that exist universal; stylistics and lexical constructions that are characteristic of scientific style; rules of text structuring, presentation of results research in the form of abstracts of reports, scientific articles, presentations before the speech. In the know an overview of the most common social networks connecting scientists is also given all over the world and serve as a "business card" of the researcher. Studying the course lays the foundations for further improvement of scientific research skills at the next levels of education and in relevant institutions, preparation of academic and analytical texts, contributing better professional realization of the future specialist.

The course is offered in a 3 ECTS.

Course structure

1. Problem-target aspect of scientific research.
2. Research preparation, work with literary sources.
3. Methodology of scientific research.
4. Academic writing style.
5. Preparation of tabular and graphic research material.
6. Preparation of scientific texts (theses of reports, scientific article).
7. Presentation of research results in a report.
8. Digital ecosystem of scientists.

Modul number: 950100040

Hours per week / Credits

2 hours of contact work / 3 ECTS

Exam

Written examination

Project management

D.Sc. in Public Administration, Associate Professor Tetiana Kharchenko

PhD in Economics, Associate Professor Alina Brychko

Abstract

The course is designed to acquire knowledge and skills that provide the opportunity to participate in the implementation of projects of various orientations in the course of performing one's professional activities by specialty. The structure of the course envisages the study of the following aspects of managerial activity: mastering skills in planning and executing projects, forming and complying with requirements for project product quality, identifying and managing project risks, methods of making managerial decisions. Studying this course allows future specialists to form a theoretical and methodological base necessary for the organization and management of labor, material, financial and other project resources, ensuring the achievement of defined goals; acquisition of practical management decision-making skills in the process of implementing project activities. This course will be useful to students of various fields of knowledge and specialties, contributing to their acquisition of competencies in the development and implementation of projects and the ability to manage them, to show initiative and entrepreneurship; the ability to make management decisions and ensure the conditions for their implementation in order to ensure the quality of the project.

Course structure

1. Introduction to the "Project Management" course. General characteristics of project management.
2. Methodology, tools and project assessment criteria.
3. The main forms of the organizational structure of the project
4. General approaches to project planning and control
5. Project structuring
6. Planning of the project in time
7. Project management
8. Project marketing. Ecological analysis of projects
9. Risk management in projects
10. Project quality management
11. Project team management
12. Project communications management. Project management process software

Modul number:

Hours per week / Credits

4 SWS / 5 ECTS

Exam

Written examination

Business Management

D.Sc. in Economics, Professor Larysa Kalachevska
PhD in Economics, Associate Professor Svitlana Lukash

Abstract

The Business Management course provides a comprehensive understanding of fundamental principles, theories, essential concepts, principles, and practical applications related to managing businesses effectively. Students will explore topics such as cost and revenue analysis, factors of production, personnel management, business ethics, and managerial analysis of economic activities. The course aims to equip learners with the knowledge and skills needed to make strategic decisions, optimize resources, and drive organizational success.

Course structure

1. Scientific and Economic Foundations of Business Management.
2. Concepts of Business Ethics.
3. Benchmarking in Business management.
4. Business Models and Business Modelling.
5. Factors of Production and Value.
6. Costs and Revenues Assumptions.
7. Fixed Assets: Essence and Effectiveness of Their Use.
8. Basic Aspects of the Economy of Labour Resources. Personas.
9. Personnel Management, Remuneration Systems.
10. Motivation Theory, Conflict Resolution, Leadership and Team Management.
11. Marketing Strategy.
12. Production and Operations Management.
13. Financial Management. Cash Flow Analysis.
14. Innovation Strategies and Business Development.
15. Risk Management and Entrepreneurship Challenges.

Modul number:

Hours per week / Credits
4 SWS / 5 ECTS

Exam

Written examination

Introduction to Investment Theory

D.Sc. in Economics, Professor Larysa Kalachevska

Abstract

Investment Theory is a foundational course designed to provide students with a comprehensive understanding of the principles and techniques essential for evaluating investment opportunities and making informed financial decisions. This course explores key concepts in investment analysis and decision-making, focusing on static and multiperiod profitability calculations, payment flows, periods, and cash flow management, as well as the principles of compounding interest and discounting. Additionally, it delves into profitability criteria in multiperiod investment calculations, including the significance of decision-making criteria and the application of Net Present Value (NPV) methodology. Through lectures, case studies, and practical exercises, students will develop the analytical skills necessary to assess investment opportunities, quantify risks, and optimize returns. Emphasis will be placed on applying theoretical concepts to real-world scenarios and understanding the implications of investment decisions on financial performance.

Course structure

- 1 Key principles
 - 1.1 Static and multiperiod profitability calculations
 - 1.2 Payment flows, periods and cash flow
 - 1.3 Compounding interest and discounting
 - 1.4 Present value
- 2 Profitability criteria in multiperiod investment calculations
 - 2.1 Significance of decision-making criteria
 - 2.2 Net Present Value (NPV)
 - 2.3 Equivalent annuity
 - 2.4 Internal rate of return
 - 2.5 Payoff period
 - 2.6 Benefit-Cost Ratio (BCR)
 - 2.7 Net benefit-investment ratio (NBIR)
 - 2.8 Comparing interpretations of the different profitability criteria
- 3 Sensitivity analyses
- 4 Differentiated method of determining cash flow

Modul number:

Hours per week / Credits

2 SWS / 3 ECTS

Exam

Written examination

Machinery Cost

ADOM Mèwèzènon

Vadym Petrenko

Objectives of the course

The goal of the course is to provide the theoretical basis for decision-making in production and the subsequent illustration on specific practical examples. In this case, the course deals primarily with the issue of purchasing long-term means of production such as tractors. In the process, the question is addressed whether the long-term means of production should preferably be purchased or leased. With the example of such questions, the theoretical basics of economic decisions are illustrated and discussed. Subsequently the developed theoretical principles are applied to specific practical examples. The results are discussed and evaluated from the perspective of decision-makers. Additionally, the course is utilizing Moodle. For each module, there is time for questions and discussions in a virtual chat room scheduled, to which all users have access to.

Next to acquiring theoretical knowledge, students will conduct a project based on the course content: students will calculate typical machinery combination of their country and presents the results.

Learning outcome:

- To accurately define costs, to explain cost categories and to apply the terms to typical examples of agriculture
- To define and apply machinery costs, procedural costs and comparative costs
- To calculate and appropriately interpret the total costs per year and costs per unit of output such as tractors hours or hectares
- To calculate the Minimum Extent of Utilization for machinery, equipment and typical agricultural means of production and to appropriately evaluate the results

Modul number: 951300050

Hours per week / Credits

2 SWS / -5 ECTS

Exam

The module is examined by a written exam 45 min (50%) and the presentation of the project (50%).

Transdisciplinary Research Projects

Dr. Kateryna Tuzhyk

Carsten Hümmer

Objectives of the course/Learning outcome

Students are enabled to answer agricultural related questions in a scientific manner. During this course all steps of scientific work will be realized: starting with the formulation of a research question, stating a hypothesis, identification of suitable methods to answer proposed questions, data collection and “re-search”, summarizing and presenting results, and finally prepare a written document in paper format.

The following topics are proposed:

- Water-Food-Energy-Nexus,
- Principles of sustainable agriculture,
- Climate-Smart Agriculture,
- Caring about the “unseen” – soils and groundwater
- Agriculture in 2050

Course format: Seminar / working groups of 4-5 students

Modul number: 950900020

Hours per week / Credits

4 SWS / 5 ECTS

Exam

Project paper and oral presentation

Sustainable food processing: Trends and Innovations

Prof. Dr. habil. agr. Dr. Ing. Dr. Iryna Smetanska

Brief description of the course:

The module provides an overview of emerging trends and innovative practices of sustainable processing technologies for the production of nutraceuticals, functional and customized food.

The module **Objectives** include understanding by students the latest trends and innovations in food technology as non-thermal processing technologies, meat and milk substitutes, valuable food ingredients from microorganisms, algae and in vitro cultures. As the issue of food quality and safety remains a priority for food producers, this course will provide an overview of the regulatory requirements related to quality standards, principles of quality assurance, and hazard analysis of critical control points.

Module Content:

1. Current trends in the food industry.
2. Key drivers influencing food technology innovations (consumer demand, sustainability, food safety).
3. Advanced food processing technologies (ultrahigh-pressure, pulsed electric fields, ohmic heating, cold plasma, ultrasound, microwave, nanotechnologies).
4. Novel ingredients and functional foods (plant-based meat and milk substitutes, algae-based products, in vitro cultures of plants, cultured meat, cellular agriculture).
5. Functional ingredients for health and wellness (probiotics, prebiotics, antioxidants).
6. Regulatory and ethical considerations (food quality and safety, organizations and authorities, food standards, food labeling, ethical issues).

Learning outcome:

By the end of the course, participants will be able to:

- Analyze the challenges and opportunities associated with new food technologies.
- Estimate the role of innovation for sustainability, health, and consumer preferences.
- Demonstrate knowledge in innovative processing methods and techniques.
- Estimate A critical point in terms of food quality and safety requirements.
- To develop critical thinking and problem-solving skills in evaluating food technology innovations.
- To use the acquired technical and methodological skills for the production of innovative food commodities with the required quality parameters.

Modul number: 930600070

Hours per week / Credits

4 SWS / 5 ECTS

Exam

an individual project presentation and an oral examination.

Analysis of Economic Activity

PhD, Associate Professor Tetyana Kuts

Abstract

The purpose of studying the course "Analysis of Economic Activity" is to form in students modern analytical thinking and a system of special knowledge in the theory, methodology and practice of economic analysis, which are used to develop, make and support management decisions.

Course structure:

1. Analysis of economic activity in the enterprise management system.
2. Methodological foundations of the analysis of economic activity and its information support.
3. Analysis of business conditions.
4. Analysis of land resources.
5. Analysis of current and fixed assets.
6. Analysis of labor resources.
7. Analysis of the production.
8. Analysis of the cost of production.
9. Analysis of the financial results of the enterprise.
10. Analysis of solvency and liquidity of enterprise assets.
11. Analysis of the structure and dynamics of financial resources. Assessment of the dynamics and forecasting of the effectiveness of the use of financial resources.
12. Analysis of the probability of bankruptcy and assessment of the financial condition of insolvent enterprises.

Hours per week / Credits

4 hours of contact work / 5 ECTS

Exam

Written examination

Personal branding and social media strategies for business

Oksana Vitriak

Aims:

- Participants will be able to understand where to start building a personal brand (your brand as a specialist, business person or just a good person).
Why there needs to be a brand philosophy and what it is.
- They will be able to create and maintain social media. Participants will learn how to create photos and videos for brand promotion and how to write captions to promote their brand.

Contents:

- Branding basics for creation, brand philosophy
- The role of media & concrete planning
- Create and maintain social media
- Develop the right mindset
- Photo and video making for the for brand promotion in social media
- Develop a right captions for your brand promotion

Hours per week / Credits

4 SWS / 5 ECTS

Exam:

0.4 * In-class examination results + 0.6 * Online course results (project)

AI Tools for Education

PhD in Economics, Associate Professor Svitlana Lukash
D.Sc. in Economics, Professor Larysa Kalachevska

Abstract

Artificial Intelligence (AI) is revolutionizing the way students learn, work, and create. AI Tools for Education course comprehensively explores AI-powered applications designed to enhance productivity, streamline workflows, and foster innovation. Participants will gain insights into AI education tools, productivity-enhancing chatbots, and AI-driven applications for text enhancement, content creation, and visual media generation. The course also covers AI-powered search engines and social media management applications. Additionally, learners will explore AI tools for research and data analysis, AI-powered presentations, and note-taking apps. Ethical considerations, data privacy, and compliance in AI usage will also be discussed. By the end of the course, participants will be equipped with practical knowledge and hands-on experience to integrate AI into their academic endeavors effectively.

Course structure

1. What is Artificial Intelligence and its Benefits for Students? An Overview of AI Education Tools
2. AI productivity tools: the best AI Chatbots.
3. AI apps for content creation and AI apps for text enhancement
4. AI tools for generating visual content. AI for Presentation and Report Creation
5. AI searching engines. AI for Research and Data Analysis
6. AI apps for image generation. AI apps for social media management.
7. Data management and protection. Ethics and compliance

Hours per week / Credits
2 SWS / 3 ECTS

Exam

Written examination

Agroecosystems management

PhD in Agronomy, Associate Professor Vladyslav Kovalenko

Abstract

Formation of students' knowledge and skills regarding the rational and effective use of soil and climatic conditions. Studying the possibilities of managing agrocenosis to create an effective balance in the agrocenosis to provide cultivated plants with all the necessary elements for growth and development during ontogenesis, regardless of the challenges of the surrounding environment.

Course structure

1. Background: exploring the agroecology path.
2. Challenges for agroecosystem management in the twenty-first century.
3. Best management practices: soil testing.
4. Diagnosis of the content of nutrients, acidity and other agrochemical parameters in the soil.
5. Climate risk assessment and management in agriculture.
6. Crop production management.
7. The big five risks faced by farmers.
8. Insect resistance to Bt be developed with the widespread use of Bt crops.
9. Sustainability and innovation in agriculture.
10. Agriculture: future of farming technology.
11. Agrocenosis as an ecosystem.
12. The agroecological assumptions.
13. What would agroecology mean for different countries?
14. Agrocenosis and their differences from natural ecosystems.
15. Biotechnology and its role in sustainable agriculture.

Hours per week / Credits

2 SWS / 3 ECTS

Exam

Written examination

Organic farming

PhD in Agronomy, Associate Professor Vladyslav Kovalenko

Abstract

Organic and regenerative farming principles, and at a top level, why are they so important – in a nutshell, we will start to explore what contributions these agroecological farming practices can make to the future of food and farming. Students will discuss the origins of organic, the aims of organic, and what it means to be organic. Students will go into more detail about organic principles and regenerative farming principles, and later on in this weeks study time, you can explore these in more detail. Organic Agriculture is a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity, and cycles adapted to local conditions rather than using inputs with adverse effects. Organic Agriculture combines tradition, innovation, and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved.

Course structure

1. Principles of organic and regenerative farming.
2. Organic is a system of farming and food production.
3. Organic Agriculture and the Sustainable Development Goals.
4. Organic livestock systems.
5. Organic as a whole farm system.
6. Assessing animal welfare in organic systems.
7. Biological Pest Control..
8. Soil management on organic farms.
9. Green manures – effects on soil nutrient management.
10. Organic Certification.
11. Organic Crop Rotations.
12. Organic farming and biodiversity.
13. Organic Weed Management.
14. Biotechnology in the agri-food sector.
15. Organic Market Report.

Hours per week / Credits

4 SWS / 5 ECTS

Exam

Written examination

Production economics

ADOM Mèwèzènon

Prof. Dr. Enildo Osmani Abreu Cruz

Prof. Dr. Joaquín Aramís García Dihigo

Prof. Dr. Leonel Marrero Artabe

Abstract

The main aim of the proposed course is to get knowledge of objective laws, conditions, processes and specific features of economic activity and development of agriculture, agrarian trade, as well as acquiring skills for their practical application.

1. Knowledge of the methodical bases of the production economy
2. Ability to distinguish and assess important trends of development and production and economic problems of crop production
3. Ability to determine the natural and monetary data of the most important processes of agricultural production, discuss and critically evaluate the results of activities in the context of the entire enterprise, general economic and social development
4. Ability to apply computer information management systems

Course structure

1. Impact of climate change on agriculture in Togo
2. Fundamentals of production economics.
3. Methodology of Assessment of Farm Enterprises
4. Economic evaluation of the production of marketable plant production
5. Economic evaluation of the production of fodder crops
6. Economic evaluation of the production processes: dairy farming
7. Economic evaluation of the production processes: Cattle breeding (fattened bull, heifer).
8. Economic evaluation of the production processes: Sow breeding (piglets production).
9. Economic evaluation of the production processes: Fattening pigs.
10. Determination of the capital requirements for livestock and current assets.
11. Simplified planning of the enterprise's economic activity using software planning I.

Hours per week / Credits

4 hours of contact work / 5 ECTS

Exam

Written examination

Spanish UNlcert® Basis – A1 (CEFR)

Dr. Gabriel Dorta

Aims:

- Students will be able to cope with some simple everyday situations in the foreign language in written and spoken forms of communication.
- They can recognise cultural differences and comment on them in simple statements.
- They will expand their learning strategies to further develop student's language skills (listening and reading comprehension, speaking, writing, grammar, vocabulary).

Contents:

- Talking about your own university and giving information about student's numbers, study courses, your faculty, etc.
- Talking about and asking for personal information.
- Describing friends and relatives.
- Explaining your eating habits.
- Learning how to describe a city and talk about your daily routine.

Hours per week / Credits

4 hours / 5 ECTS

Evaluation

Written exam (Listening: 25%; Reading: 25%; Text production: 25%; Oral presentation: 25%)

Bavarian Virtual University COURSES

English for Studying, Working, and Living Abroad (B2.2)

Emma Phelan, Anna Tüchert, Vincenzo Spagnolo
Julius-Maximilians-Universität Würzburg

Abstract

This is an online skills course for students from all academic fields. This course is designed for the student that would like to go abroad to study and/or work and is oriented on the B2 level of the Common European Framework. “English for Studying, Working, and Living Abroad” will concentrate on covering letters, email communication and banking, housing/accommodation, and survival skills all with a touch of intercultural training. It is a task-based course where students learn to identify key vocabulary in job adverts and assess their skills using a SWOT (strengths, weaknesses, opportunities, and threats) analysis. The participants write a covering letter and improve email writing skills through:

- email register
- correct word usage

Furthermore, they improve intercultural skills through vocabulary and terminology in:

- banking
- finding accommodation
- arranging a medical appointment and going to the doctor

Course structure

1. Job Descriptions and Covering Letters
2. Email Communication
3. Banking/Housing/Accommodation and Dealing with Medical Appointments

Hours per week / Credits

2 SWS / 3 ECTS

Exam

Modular tests

German as a Foreign Language A1: German After English

German as a second foreign language –

a German course using the English language knowledge of the learners

Dr. Thomas Stahl

Universität Regensburg

Abstract

Based on tertiary language didactics, the course provides basic knowledge on the A1 level for learners of German who want to learn German quickly and efficiently with the help of their English skills. The focus is on receptive skills.

Course structure Module 1: Vocabulary

- Internationalisms and anglicisms
- Similar words, important differences
- Strategies for vocabulary learning
- The verb in focus
- The noun in focus
- The adjective in focus
- Reading strategies
- Different text types e.g. advertisements, e-mails, articles
- Travel
- Food
- At the university

Hours per week / Credits

2 SWS / 3 ECTS

Exam

Assessed tasks and module tests (online)

Deep Learning for Beginners

Prof. Dr. Thomas Meier

Friedrich-Alexander-Universität Erlangen-Nürnberg

Abstract

Deep Learning (DL) has attracted much interest in a wide range of applications such as image recognition, speech recognition, and artificial intelligence, both from academia and industry. In this course, you will learn the core elements of neural networks and deep learning, such as convolutional layers, activation and loss functions, and regularization techniques.

Course structure

1. Introduction
2. Signal Processing
3. Image Processing
4. Feedforward Networks
5. Loss and Optimization
6. Activations, Convolution and Pooling
7. Regularization
8. Common Practices
9. Architectures
10. Unsupervised Learning
11. Segmentation and Object Detection

Hours per week / Credits

2 SWS / 2,5 ECTS

Exam

Written examination

Advanced Business English (C1)

Prof. Dr. Thomas Steger, Dr. Thomas Stahl
Universität Regensburg

Abstract

This advanced English language course is designed for students of business, economics or related disciplines with the objective of improving their use of Business English for academic and professional purposes. It consists of five units focusing on listening, reading and writing skills. The content is based on real-world scenarios within a wide range of business contexts, generating functional language which can be instantly transferred to your academic or business setting.

Course structure Orientation

Unit 1: Leadership in Contemporary Business Unit 2: Culture in International Business

Unit 3: Digital Innovation

Unit 4: Strategic Branding and Financial Performance Unit 5: Succeeding in Business

Team Assignment

Thank you and Evaluation

Hours per week / Credits

2 SWS / 3 ECTS

Exam

The course assessment includes five unit tests (counts 50% of your final grade, to be completed in weeks 1-10) and one team assignment (counts 50% of your final grade, to be completed in weeks 11-14). For your team assignment, you will have to complete numerous activities together. All activities are based on course materials from our course.

SoundAdvice. A university training course for the pronunciation of American English

Dr. Gunter Lorenz

Friedrich-Alexander-Universität Erlangen-Nürnberg

Abstract

“SoundAdvice” is an intensive training course for the main features of the pronunciation of American English. The course was specifically designed for German-speaking English students who are familiar with the main theoretical concepts of English phonetics. Students from other fields with a high proficiency level of English (B2+), however, are perfectly welcome to join “SoundAdvice”, too. This online course serves as a learning tool for the pronunciation of American English; it seeks to support and strengthen the following areas of proficiency:

- accurate pronunciation
- self-monitoring and -correction
- reading skills/structuring longer text passages
- familiarity with authentic speech contexts and idiomaticity
- spoken English fluency

Course Structure

- A. Learning to See the Bigger Picture
- B. Individual Sounds
- C. Intonation

Hours per week / Credits

2 SWS / 2.5 ECTS

Exam

Oral Examination

Data Collection Methods in the Social and Behavioral Sciences

Prof. Dr. Klaus Moser
Friedrich-Alexander-Universität Erlangen-Nürnberg

Abstract

This course provides students with a broad overview of data collection methods in the social and behavioral sciences. The goal is to prepare students to write a thesis in which the collection and/or evaluation of primary data on individuals, groups, or organizations plays a key role. Students will therefore learn where to find these methods and how to evaluate them, but will also gain insight into their application in scientific research. Furthermore, examples from HR, organizational psychology and consumer research will prepare them for using the methods appropriately in their future careers.

The course is offered in a 3 ECTS version and in a 6 ECTS version. You will receive more detailed information inside the course.

Course structure

- I. BACKGROUND
 - I.1 Basics of data collection in the social and behavioral sciences
 - I.2 The process of empirical research
- II. DATA COLLECTION METHODS IN THEORY AND PRACTICE
 - II.1 Interviewing I
 - II.2 Interviewing II
 - II.3 Rating, judging, comparing
 - II.4 Psychological testing I
 - II.5 Psychological testing II
 - II.6 Observation and simulation
 - II.7 Unobtrusive measures
 - II.8 Physiological measures
- III. LEGAL AND ETHICAL ASPECTS: HANDLING DATA RESPONSIBLY

Hours per week / Credits
2 SWS / 6 ECTS

Exam

Written examination for 3 ECTS
Written examination and case study elaboration for 6 ECTS

Electronic Human Resources Management

Prof. Dr. Sven Laumer
Friedrich-Alexander-Universität Erlangen-Nürnberg

Abstract

The course deals with the management of one of the most important resources in a company: its employees. In addition to teaching the basics of Human Resources Management (HRM), the course focuses on the use and development of digital technologies and considers how digital work systems are changing HRM. The fundamentals of strategic and electronic human resources are discussed, the use of social media in HR is considered, data-driven approaches and their use in HR are addressed, and the challenges and opportunities of electronic human resources management (E-HRM) are discussed.

Course structure

1. Fundamentals of strategic and electronic HRM
 - The Digital HR Organization
 - Human Resources Information Systems
 - Workflow Management and HRM
2. Social Media
 - Enterprise Social Media and Network Analysis for HRM
 - Social Media, Employer Branding, and Gamification
3. Data-driven approaches and their use in HRM
 - People Analytics – Big Data, AI, and HRM
 - Recommender Systems
 - Chatbots in HRM
4. Challenges and opportunities of E-HRM
 - E-Performance, E-Learning, and employer development
 - Technology Acceptance

Hours per week / Credits
4 SWS / 6 ECTS

Exam
Written examination

Elementary Quantitative Risk Assessment

Prof. Dr. Rainer Göb
Julius-Maximilians-Universität Würzburg

Abstract

There are often considerable methodological deficits in risk management, for example when, in a popular but simplistic approach, risks are assessed as a mathematical product of probability of occurrence and impact of damage. If a very low probability and a very high impact of damage are used to quantify the current situation, this would result in a low to moderate risk. It is obvious that such risk measures are illusive. In practice, there are still considerable differences between existing risk management and effective risk management. Effective risk management therefore goes far beyond simplistic approaches and requires – in addition to a practiced risk culture in the company – a deeper understanding and correct use of quantitative risk assessment procedures. Quantitative assessment procedures and simulations based thereon can provide valid statements about a company's overall risk position (e.g., in the form of risk measures). Only then the company's capital requirements (= risk buffer) required for the risk situation can reasonably be determined. However, this requires that risk managers are also familiar with the necessary mathematical-statistical procedures. This challenge is addressed by the present course, which teaches these competencies at a basic level for bachelor students.

Course structure

Learning module 1: Concepts and terminology of quantitative risk modeling. Learning module 2: Mathematical and Statistical Foundations of Risk Modelling

- A) Data
- B) Mathematical and statistical principles of risk modelling
- C) Distribution parameters as risk indicators
- D) Right tail behaviour of distributions Learning module 3 | Stochastic Risk Measures
 - A) The purpose of stochastic risk measures
 - B) The Value at Risk
 - C) Conditional Value at Risk (CVaR)

Hours per week / Credits
2 SWS / 3 ECTS

Exam
Written examination

Global Retail Logistics

Prof. Dr.-Ing. Evi Hartmann
Friedrich-Alexander-Universität Erlangen-Nürnberg

Abstract

This course offers specific insights on the logistic processes in the global retail industry. Upon completion of the course, the students should understand the peculiarities of logistics for fast moving consumer goods. The course consists of ten lectures, which are enriched by case studies, additional readings as well as exercises and tests.

Course structure

1. Overview
2. Characteristics & basics
3. Trends & challenges
4. Point of sale & E-Commerce
5. Interfaces
6. Load units & transport logistics
7. Cross docking
8. Warehousing & distribution
9. Food supply chain
10. Sustainability

Hours per week / Credits

4 SWS / 6 ECTS

Exam

Written examination

International Marketing

Prof. Dr. Dirk Holtbrügge
Friedrich-Alexander-Universität Erlangen-Nürnberg

Abstract

The participants acquire detailed expertise in the field of international marketing. Effective international marketing is increasingly important for companies due to rising international connectivity between countries and companies, and companies' need to grow by selling their products and services globally. They can understand, explain, reflect, and apply the theories, concepts, and terminology of the field and are familiar with empirical studies in the field of international marketing. The participants understand the challenges of international marketing and can independently develop solutions for problems to questions of standardization and differentiation in an international context, of international market entry, and of the design of the marketing mix in an international context. They also understand these aspects with regard to different industries (B2B, B2C) and different countries. Special attention is paid to the transfer of theoretical contents to practical examples. Therefore, different country and company case studies are included in the form of video interviews. The participants are provided with interesting insights into the international marketing activities of several international companies headquartered in the Nürnberg Metropolitan Area.

Course structure

1. Challenges and Opportunities of International Marketing
 2. International Market Research
 - III. Strategies
 3. International Market Entry Strategies
 4. Standardization vs. Differentiation of International Marketing
 - IV. Policies: International Marketing Mix
 5. International Product Policy
 6. International Price Policy
 7. International Placement Policy
 8. International Promotion Policy
- I. Foundations
II. Methods

Hours per week / Credits
2 SWS / 5-6 ECTS

Exam
Seminar paper

International Supply Chain Management

Prof. Dr.-Ing. Jörg Franke

Friedrich-Alexander-Universität Erlangen-Nürnberg

Abstract

Supply chain management “[...] encompasses the planning and management of all activities involved in sourcing and procurement, conversion, and all logistics management activities. Importantly, it also includes coordination and collaboration with channel partners [...]. In essence, Supply Chain Management integrates supply and demand management within and across companies.”

Course structure

1. Integrated Logistics, Procurement, Materials Management, and Production
2. Material Inventory and Material Requirements in the Enterprise
3. Strategic Procurement
4. Management of Procurement and Purchasing
5. In-Plant Material Flow and Production Systems
6. Distribution Logistics, Global Tracking and Tracing
7. Modes of Transport in International Logistics
8. Disposal Logistics
9. Logistics Controlling
10. Network Design in Supply Chains
11. Global Logistic Structures and Supply Chains
12. IT Systems in Supply Chain Management
13. Sustainable Supply Chain Management

Hours per week / Credits

4 SWS / 5 ECTS

Exam

Written examination

Fundamentals of Strategic Management

A Cross-Sectoral Perspective

Prof. Dr. Markus Westner

Ostbayerische Technische Hochschule Regensburg

Abstract

In this course students acquire fundamental knowledge about key aspects of strategic management. The course can be attended without any prerequisites although having attended an introduction course to general management (“Allgemeine Betriebswirtschaftslehre”) can be helpful. The course covers fundamental aspects of strategic management such as main terms, the strategic management process and the corporate environment in which strategic management happens. The subsequent chapters then cover strategic analysis followed by strategy formulation and strategy implementation.

Course structure

1. Fundamentals
 - What is Strategy: Definition of Strategy; Competitive Advantage; Industry vs. Firm Effects; Stakeholder Impact; Stakeholder Strategy
 - Strategic Management: Vision, Mission, and Values; Strategic Management Process; Leadership vs. Management
2. Strategic Analysis
 - External Analysis: PESTEL; the Five Forces Model; Industry Dynamics; Strategic Groups
 - Internal Analysis: Core Competencies; The Resource-Based View; Dynamic Capabilities; Value Chain Analysis
 - Joint analysis: Competitive Advantage; Firm Performance; Business Models
3. Strategy Formulation
 - Business Strategy: Differentiation; Cost Leadership; Blue Ocean Strategy; Innovation; Entrepreneurship
 - Corporate Strategy: Vertical Integration; Diversification; Strategic Alliances; Mergers and Acquisitions; Global Strategy
4. Strategy Implementation
 - Organizational Design: Structure; Culture; Control; Balanced Scorecard
 - Corporate Governance: Values; Governance; Ethics

Hours per week / Credits

4 SWS / 5 ECTS

Exam

Written examination

Tech Writing B2: Computer Science/IT

Dr. Gunter Lorenz/Prof. Dr. Michael Kohlhasse
Friedrich-Alexander-Universität Erlangen-Nürnberg

Abstract

Tech Writing B2: Computer Science/IT is a course developed specifically for students from computer science and IT backgrounds who wish to hone their technical English writing skills.

Course structure

Skills to learn were derived from real-world applications specific to computer scientists for the purpose of improving explanations, sentence and written structure, logic in writing, maintaining objectivity and precision, using online tools for the writing process and data analysis. Further, a brief review of hypotheticals and the appropriateness of active versus passive voice in technical writing is covered.

These topics are covered over the course of four separate modules. The first addresses deepfake technology, which exemplified legitimate versus illegitimate sources. Here, students are introduced to hypotheticals as a review. Next, particularly problematic punctuation in English – commas, semicolons and hyphens – are reviewed. Finally, the module concludes with a guided tour of online writing resources to ease the writing process.

In module 2, students will learn how to write software documentation as well as the appropriate phraseology for this text type. This is accompanied by how students can best draft and revise their written work. Identifying and extracting collocations for students personal expansion of their vocabulary is another core skill of module 2. Finally, typical pitfalls in academic and technical writing are introduced so that students can more closely adhere to conventions of computer science texts. The third module covers data mediation, which involves describing, analyzing and interpreting data in line graphs, bar charts and pie charts. Relevant vocabulary and phraseology are presented and practiced at length there. Further, describing how code works by using pseudocode is a core skill this module covers. Typical structures students can employ and relevant vocabulary for these structures are taught. Finally, sign-posting devices are introduced as a way to ensure structural and logical development in students' writing.

The fourth and final module primarily covers paraphrasing, summarizing and sentence reformulation. Being able to rewrite what others have written but in your own words is a skill required both in research and in professional contexts. It is additionally important for ensuring that others' work is not plagiarized. This skill is complemented by learning how to diversify sentence structure through sign-posting devices and advanced language expressions.

Hours per week / Credits
2 SWS / 2,5 ECTS

Exam Exercises

Design Thinking

Customer-centered Approach to Solving Complex Problems

Prof. Dr. Thomas Groll

Ostbayerische Technische Hochschule Regensburg

Abstract

In this course, you will learn basic theories, concepts, and methods of design thinking. With practical case studies and exercises, you will gain insights into various approaches and applications of design thinking in different industries and functional areas. The course is interdisciplinary and therefore suitable for students of many disciplines. Previous knowledge is not assumed.

You will learn central terms, the historical development, and the necessity based on changing frameworks. Based on the basics, in the second chapter you will get an insight into the theory of Design Thinking, which includes concepts, rules, and principles as well as performance areas. We will then introduce you to the Design Thinking process, which consists of five steps: Emphasize, Define, Ideate, Prototype, and Test. These five steps will be deepened and practiced in chapters three through eight. In addition to the most common methods and tools, you will also gain insights into practical applications for each chapter. At the end of the course, in chapter nine, you will reflect on what you have learned and connect it to related approaches.

Course structure

1. Introduction
2. Theoretical foundations
3. The Design Thinking Process
4. Empathize
5. Define
6. Ideate
7. Prototype
8. Test
9. Reflection and Outlook

Hours per week / Credits

2 SWS / 3 ECTS

Exam

Written examination

Basics Sustainability

Prof. Dr. Robert Feicht

Technische Hochschule Deggendorf

Abstract

The consistent overstepping of planetary boundaries by humans is the cause of many environmental problems and social tensions regionally, globally and between generations. For sustainable development in the sense of a fair distribution of resources, an interdisciplinary approach to solutions and the consideration of the interrelationships of social, ecological and economic factors and actors are indispensable. The course "Basics Sustainability" teaches the most important sustainability models and analysis methods for sustainable development. From environmental and resource economics, basic methods for a fair distribution of environmental goods as well as environmental policy instruments and tools for sustainable spatial design are presented. With regard to materiality, the goal is the use of renewable raw materials for the production of materials and products, the recycling or pollutant-free landfilling of existing products and materials, and the optimisation of natural processes from a material and energy point of view. Against the background of climate change, students learn about current technologies and developments and assess measures in the field of renewable energy systems in the context of grid expansion, energy distribution and storage technologies.

Course structure

1. General principles of sustainability
2. Economic framework for sustainability
3. Materiality and sustainability
4. Energy and sustainability

Hours per week / Credits

4 SWS / 5 ECTS

Exam

Written examination

Fundamentals of Intercultural Communication

Prof. Dr. Rainer Liedtke / PD Dr. Wieland Kranich / Dr. Thomas Stahl Universität Regensburg
(University of Regensburg)

Abstract

Due to the global division of labor and mobility, increasing global tourism as well as the global dimension of digital communication, there is more and more contact between people of different cultures. In different areas, whether in personal experience, in social networks or in international relations, more and more intercultural encounters are taking place. At the same time, in today's professional contexts it is often expected to be able to communicate effectively and appropriately with people from different cultures. Intercultural communication skills are becoming increasingly important in our globalized world, and this key skill is increasingly required and sought after in the job market. The course offers the opportunity to become familiar with the fundamentals of intercultural communication. The course will introduce students to key concepts of intercultural communication and enable them to apply them both in an academic context and in future fields of work. Students will develop their awareness of the challenges and opportunities of intercultural communication. A major goal is to enable students to independently develop their communication skills and their competence to act in cross-cultural situations.

Overall, the course is designed to lay the terminological and conceptual basis for dealing with interculturality in a professional manner in both academic and professional contexts and to foster a key competency for working in an international context.

Throughout, the course will also offer suggestions for in-depth study and independent further work, as well as links to practical training opportunities.

Course structure

1. Introductory Module (organization)
2. Culture(s)
3. Intercultural Encounters
4. Intercultural Interactions
5. Intercultural Communication
6. Applications in academic and professional life
7. Final Module (review and outlook)

Hours per week / Credits 2 SWS / 5 ECTS

Exam Online test

Global Education

Focus on languages

Prof. Dr. Heiner Böttger

Katholische Universität Eichstätt-Ingolstadt

Abstract

GE as a holistic concept provides pedagogic as well as didactical answers to questions on globalization, cultural diversity and the development of the world's society. The roles languages and language acquisition play in this context will be the main focus of the online seminar, which will be held in English only.

Course structure

Unit 1: Global (Language) Skills Unit 2: Media Education

Unit 3: Conflict Resolution

Unit 4: Sustainability Education Unit 5: Workshop I

Unit 6: Workshop I

Unit 7: Global Citizenship

Unit 8: Human Rights & Responsibilities Unit 9: Transcultural Education

Unit 10: Workshop II Unit 11: Workshop II

Hours per week / Credits

2 SWS / 4 ECTS

Exam Portfolio

**English for Sustainable Technologies – Re-newable Energy, Smart Buildings and Electric Mobility
(CEFR Level B2)**

Introductory Course

Prof. Dr. Mona Riemenschneider, Bill Field Hochschule für angewandte Wissenschaften Landshut
(Landshut University of Applied Sciences)

Abstract This course covers the three topics of renewable energy, smart buildings, and e-mobility. The learners will gain a deeper understanding of these topics and their development in Germany, and, very importantly, improve their English skills as they relate to these subjects. Learners will use their listening, reading, writing and grammatical skills in completing the course units for all subjects.

Course structure

Unit 1: Introduction

Module: Renewable Energy

Unit 2: Solar Technologies

Unit 3: Wind Technology

Unit 4: Hydropower

Unit 5: Renewable Energy for the Future

Module: Smart Buildings

Unit 6: Building Design

Unit 7: Building Management Systems

Unit 8: Passive Buildings

Unit 9: Intelligent Workplaces and Dwellings

Module: Electric Mobility

Unit 10: Hybrid Technology

Unit 11: Electric-only Cars

Unit 12: Other Renewable-mobility Technologies

Unit 13: The Future of Transport

Hours per week / Credits

2 SWS / 3 ECTS

Exam Written examination