



Hochschule für Angewandte Wissenschaften Hamburg
Hamburg University of Applied Sciences

Faculty of Life Sciences

Module manual

Bachelor of Nutrition & Home Economics



Hochschule für Angewandte Wissenschaften Hamburg
Hamburg University of Applied Sciences

Module manual

Bachelor's degree programme for

Nutrition & Home Economics

Faculty of Life Sciences
Department of Nutrition & Home Economics

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Objectives of Bachelor's degree programme for Nutrition & Home Economics

The Bachelor's degree programme for Nutrition & Home economics is a multidisciplinary scientific degree programme with a focus on food and nutrition science topics. Upon successful completion of the studies, students are awarded the academic qualification of "Bachelor of Science (B.Sc.)".

This degree programme combines natural, social, and economic science courses and qualifies graduates for independent working with and addressing of the relevant issues in this professional field.

The objectives of the degree programme are oriented towards activities in the following professional fields:

Nutritional counselling, communal catering, appliance industry, home economics, foodstuffs industry, teaching and science, market research, marketing, and PR agencies, pharmaceuticals industry, associations, consumer counselling, publishing companies.

Students will learn planning and rationalisation of work and production processes in the foodstuffs industry, counselling for nutrition issues, imparting of consumer information, development and testing of food, devices, and production processes, implementation and monitoring of food safety and product quality, marketing of relevant products, as well as organisation of services. Due to the multi-disciplinary nature of this degree programme graduates are particularly well-equipped for working at the interfaces of various service and production fields.

The basic principles are taught during the first academic year. The objective of the first academic year is to enable students to master professional basic principles and to understand and apply fundamental methods from the different specialist disciplines.

The objective of the second and third academic years is to obtain more profound professional knowledge, to apply this knowledge to concrete issues of the professional field, and to test and assess it within the scope of projects. For prioritisation and specialisation, students can opt for one of the following areas of concentration:

- Area of concentration A: nutrition, health, counselling
- Area of concentration B: foodstuffs, product development, marketing
- Area of concentration C: catering, services, sustainability
- Area of concentration D: food safety and control.

The areas of concentration are oriented towards fields of professional activity. Depending on the chosen area of concentration, the graduates will have obtained additional specific competences.

If they choose area of concentration A, they obtain special abilities for analysing nutritional behaviour and influencing it through strategic counselling, as well as for journalistic processing of complex topics.

By choosing area of concentration B, students will be qualified for performing product analyses, for assessing and developing food and devices (for private households and large-scale catering) and designing new product lines, as well as working in marketing and market research fields.

Graduates with area of concentration C as a specialist field will be equipped with the knowledge and skills required for planning and managing service departments in communal

catering, the cleaning and laundry industry, and for implementing quality management concepts.

If students choose area of concentration D, they obtain special abilities to ensure and monitor food safety in the food-processing sector and in food retail.

Internship

The internship is an integrated vocational training element of the degree programme with study-oriented contents and is managed and supervised by the university.

Students will serve the internship in a company or institution operating in the professional field of nutrition and home economics. As a general rule, the minimum duration is 16 weeks and these shall be completed in a row. The internship can be performed after completion of the second academic year and after achieving 90 CPs, at the earliest. Students will also take an accompanying seminar and complete the internship by an exam.

During the internship students are going to practically experience the contents of the degree programme and come to know the conjunction of theory and practice in a work environment. In particular, the knowledge and skills obtained during the studies are going to be applied for problems in working practice.

The experience obtained during the internship is intended to illustrate students the opportunities and limits of applicability of theoretical knowledge in working practice. Moreover, the internship is intended to help students understand the technical, economic, and social coherences in a company/institution and to enable them to specify and even reconsider their professional goals.

Students will select the organisation with which they want to do the internship. Organisations that qualify for internships are companies or institutions whose tasks have sufficient bearing on the contents of the degree programme, i.e. that are included in the professional field of nutrition and home economics, such as communal catering companies, enterprises from the foodstuffs and appliances industries, counselling institutes, associations, market research organisations, editorial offices, etc. It is in the interest of students to get to know a possibly large variety of occupational tasks. On the one hand, students shall be given the opportunity to satisfy their demand for information to the required extent, on the other hand they must also be challenged as productive employees. It would be beneficial for interns if they were to take part in a project that prepared them for their Bachelor's thesis; for the Bachelor's thesis should address a task or an issue dealt with at the internship organisation.

Upon successful completion of the internship and the accompanying seminar, students earn 20 CPs.

Bachelor thesis

The Bachelor thesis is a theoretical, empirical and/or experimental analysis which the student conducts and writes up.

By means of the Bachelor thesis students shall demonstrate that they are capable of independently working at a problem from their area of concentration by applying scientific methods and insights.

The period for completion of the Bachelor thesis is eight weeks. For successful completion of the Bachelor thesis students are awarded 10 CPs.

Overview of studies for the Bachelor degree programme of Nutrition & Home Economics

| | | | | | |
|--|--|--|---|--|-----------------|
| First academic year | <p>Compulsory modules</p> <ul style="list-style-type: none"> Basics in business administration Basic principles of chemistry Empirical social research and statistics Ergonomics Nutritional physiology Human biology Communication, psychology, sociology Food science and dietetics Food commodity economics and process technology Mathematics, physics, EDP Organic chemistry and biochemistry Science and practice foundations | | | | First semester |
| | | | | | Second semester |
| Second and third academic year | <p>General compulsory programme modules</p> <ul style="list-style-type: none"> Nutritional concepts Managerial accounting and controlling Food chemistry Microbiology and toxicology of foodstuffs Physics and engineering Project management | | | | Third semester |
| | <ul style="list-style-type: none"> Quality and risk management Human resource management Project | | | | Fourth semester |
| | <p>Modules for area of concentration A (nutrition, health, counselling)</p> <ul style="list-style-type: none"> Occupational health management Dietetics Eating behaviour Health promotion in daycare facilities / schools Counselling methods Public Health and nutrition | <p>Modules for area of concentration B (foodstuffs, product development, marketing)</p> <ul style="list-style-type: none"> Food marketing Sensory analysis Food technology Market research Consumer behaviour Product development | <p>Modules for area of concentration C (catering, services, sustainability)</p> <ul style="list-style-type: none"> Catering services Catering and cleaning engineering Household engineering, energy and environment Organisation and human resources development Hospitality and facility management Residential and domestic engineering | <p>Modules for area of concentration D (food safety and control)</p> <ul style="list-style-type: none"> General administrative law I Catering services Catering and cleaning engineering Foodstuffs and occupational hygiene Technology of commodities, cosmetics, tobacco products Food and feed law, consumer product law I | |
| | <p>Compulsory elective modules: General administrative law II, occupational health and safety management, adult education, device assessment and measuring technology, communication and conflict intervention, marketing, sustainable energy management, public relations (PR), pathophysiology, food and feed law, consumer product law II, special dietetics, consumer policies.</p> | | | | |
| <p>16-week internship and Bachelor thesis</p> | | | | Sixth semester | |

Module descriptions for the Bachelor degree programme of Nutrition & Home Economics

First academic year – compulsory studies

12 compulsory modules with 5 CP / module = 60 CP

Bachelor of Nutrition & Home Economics First academic year – compulsory studies

| | |
|---|---|
| Module index number 1001 | Basics in business administration |
| Module coordination / module supervision | Prof. Dr. Petra Naujoks |
| Lecturers | Prof. Dr. Petra Naujoks, Prof. Dr. Birgit Käthe Peters |
| Period / semester / interval | First semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | none |
| Course language | German |

Competences to be acquired / learning objectives

Function- / content-related and methodical competences

Students are able to ...

- explain and properly apply basic principles from the field of economic sciences;
- explain economic concepts;
- describe the structure and hierarchy of enterprises and companies;
- state the major legal forms of companies and their respective characteristics;
- solve economic problems by mathematical methods;
- describe the tasks of internal and external accounting;
- independently perform bookings for business cases within an exemplary company and create the annual balance sheet as well as a profit and loss statement for that company;
- determine the effect that inventory movements, including finished and semi-finished products, have on profit;
- analyse and assess the chosen method of depreciation against the background of the performance record of a company, by means of comparison;
- explain the function principle of the German VAT system;
- record VAT for purchases and sales and to determine the sales tax liabilities and/or input tax surplus;
- transfer the contents learnt to new/not previously trained processes in companies.

Social and self-competence

Students are able to ...

- reflect on subject contents and formulate questions to that respect;
- work with case studies, either by themselves or in teamwork with other students, and present appropriate solutions;
- hold and defend their judgements, assessments, and solutions within the scope of a discussion;
- react in an objective and appreciative manner to controversial or contradicting opinions or assessments.

Learning contents

- basic principles and basic concepts of business administration
- basic principles of company management
- legal forms of companies and groups of companies
- company organisation
- investment and finance
- accounting
 - tasks and sub-domains of accounting
 - legal foundations of external accounting
 - stocktaking, inventory, final balance, opening balance, profit and loss statements
 - bookings on asset accounts and profit/loss accounts
 - balancing of accounts
 - depreciations
 - inventory changes
 - VAT
 - private accounts

Teaching and learning forms / methods / media formats

Attendance studies: seminar lectures, group work, e-learning, demonstrations, student speeches, excursions
Self-studies: preparation and evaluation, exam preparation

Study and examination credits

One examination credit: paper, written exam, oral exam or presentation;
The type of examination is specified by the examiner at the beginning of the course.

Literature / work material

Handout
Additionally:
Olfert, K., Rahn, H.-J. (2010). Einführung in die Betriebswirtschaftslehre. Herne: Kiehl Verlag.
Schmalen, H., Pechtl, H. (2009). Grundlagen und Probleme der Betriebswirtschaftslehre. Stuttgart: Schäffer-Poeschel Verlag.
Schmolke, S., Deitermann, M. (2013). Industrielles Rechnungswesen IKR. Braunschweig: Winklers Verlag.
Wöhe, G. (2010). Einführung in die Allgemeine Betriebswirtschaftslehre. Munich: Franz Vahlen Verlag.
E-learning platform EMIL: auxiliary material

| Bachelor of Nutrition & Home Economics First academic year – compulsory studies | |
|---|---|
| Module index number 1002 | Basic principles of chemistry (incl. laboratory training) |
| Module coordination / module supervision | Prof. Dr. Michael Häusler |
| Lecturers | Prof. Dr. Michael Häusler, Dr. Ilse Hollnagel, Dipl.-Ing. Klaus Kösling |
| Period / semester / interval | First semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | none |
| Course language | German |
| <p>Competences to be acquired / learning objectives</p> <p>Function- / content-related and methodical competences</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • explain elementary foundations of general and inorganic chemistry and of organic chemistry; • apply and use these basic insights and principles for more complex issues in advanced science lectures or courses throughout the degree programme; • meet the occupational and safety requirements for working in chemical laboratories; • apply the practical basic operations for working in chemical laboratories; • perform basic chemical laboratory tests and experiments. <p>Social and self-competence</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • comprehend the presented subject knowledge and understand the systematic correlations and coherences; • reflect on subject contents and formulate questions to that respect; • solve special content-related problems together with fellow students in the form of group work and to present and explain solutions and results during lectures; • hold and defend their judgements, assessments, and solutions within the scope of a discussion; • openly respond to arguments from others; • during internship, present and explain methods, experiment sequences and results in a well-structured manner; • perform independent research in technical literature. | |

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| Learning contents <ul style="list-style-type: none"> • General and inorganic chemistry: Structure of matter, atoms, elements, periodic table, bonds, molecules, formula units, ions, reaction equations, stoichiometric calculations, chemical equilibriums, law of mass action, reaction speed, reaction rate/temperature rule, catalysis, precipitation reactions, acid-base reactions, redox reactions, complex formation. • Laboratory training: Basic operations in a chemistry laboratory, separative operations, precipitation reactions, detection reactions, concentrations, portions, stoichiometry, enthalpy, reaction speed, law of mass action, catalysis. • Organic chemistry: Carbon chemistry, structures of organic compounds, classification and nomenclature, representation of formulae, isomerism, functional groups, classification of chemical reactions, hydrocarbons, alcohols, phenols, ethers, carbonyl compounds, carboxylic acids, thiols, amines, heterocyclic compounds. | |
| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures and laboratory training Self-studies: preparation and evaluation, exam preparation |
| Study and examination credits | One pre-exam credit: successful completion of the laboratory training; One study credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | Beyer, H., Walter, W. (2004). Lehrbuch der Organischen Chemie. Stuttgart: Hirzel Verlag. Mortimer, C.E. (2003/2009/2010). Basiswissen der Chemie. Stuttgart: Thieme Verlag. Riedel, E. (2004/2010). Allgemeine und anorganische Chemie. Berlin: de Gruyter Verlag. Schore, N. E. (2012). Arbeitsbuch Organische Chemie. Weinheim, Wiley-VCH Verlag. |

| Bachelor of Nutrition & Home Economics First academic year – compulsory studies | |
|---|--|
| Module index number 1003 | Empirical social research and statistics |
| Module coordination / module supervision | Prof. Dr. Sibylle Adam |
| Lecturers | Prof. Dr. Sibylle Adam, Prof. Dr. Christine Färber, Dipl.-Ges.wirt Gunnar Paetzelt, Prof. Dr. Zita Schillmöller |
| Period / semester / interval | Second semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | none |
| Course language | German |
| <p>Competences to be acquired / learning objectives</p> <p>Function- / content-related and methodical competences</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • classify survey and assessment methods in the field of social sciences; • critically reflect on empirical survey and assessment instruments/channels; • develop own research and application ideas; • integrate statistics science into the research process of a study; • perform univariate and bivariate calculations; • evaluate the results of descriptive statistics; • compare and correlate calculated results with statistical results from technical literature. <p>Social and self-competence</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • develop their own research ideas and options; • discuss the calculated results within a group; • jointly describe tables and graphic charts in a group. | |
| <p>Learning contents</p> <ul style="list-style-type: none"> • Empirical social research: <ul style="list-style-type: none"> • objectives and applications, problems and history of empirical social research • variables, hypotheses, theories • survey design: planning and sequence • measuring, scaling, indexes • research design: cross-sectional and longitudinal data, experiments, random samples • data acquisition: interviews, quantitative and qualitative methods, contents analysis; • observation, non-reactive methods • data evaluation: contents analysis, descriptive statistics • Statistics: | |

| | |
|--|---|
| | <ul style="list-style-type: none"> • definition of statistical concepts and their prerequisites • mathematical calculation of univariate analysis parameters • mathematical calculation of parameters for bivariate correlation analyses • creation of tables and diagrams • significance description • description and interpretation of statistical results <ul style="list-style-type: none"> ▪ student's calculations ▪ professional articles ▪ selected diagrams |
| Teaching and learning forms / methods / media formats | <p>Lecturers will formulate the objectives and requirements. They initiate the work processes and mainly assume the function of consultants and guide students towards independent working.</p> <p>Attendance studies: seminar lectures, including case studies; seminar, including task performance, assessment and reporting, practice at the computer</p> <p>Self-studies: preparation and evaluation, exam preparation</p> |
| Study and examination credits | <p>One pre-exam credit,</p> <p>One examination credit: paper, written exam, oral exam or presentation;</p> <p>The type of examination is specified by the examiner at the beginning of the course.</p> |
| Literature / work material | <p>Diekmann, A. (2009). Empirische Sozialforschung: Grundlagen, Methoden, Anwendungen. Reinbek: Rowohlt Taschenbuch Verlag.</p> <p>Quatember, A. (2005). Statistik ohne Angst vor Formeln. Munich: Pearson Studium.</p> |

| Bachelor of Nutrition & Home Economics First academic year – compulsory studies | |
|---|---|
| Module index number 1004 | Ergonomics (incl. laboratory training) |
| Module coordination / module supervision | Head of department |
| Lecturers | Prof. Dr. Gabriele Perger, Dipl.-Ing. Frank Simon |
| Period / semester / interval | Second semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: Anthropobiology module |
| Course language | German |
| <p>Competences to be acquired / learning objectives</p> <p>Function- / content-related and methodical competences</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • link and relate acquired knowledge from the field of anthropobiology to the new subject field; • identify correlations between load and stress; • relate the acquired knowledge to new approaches and issues for designing of work systems; • independently work on solutions on the basis of test and experiment designs. <p>Social and self-competence</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • independently assesses acquired detailed knowledge; • formulate their knowledge and interpretations deduced thereof; • work in a team; • assume responsibility for their own performance; • present their results; • face up to being assessed by a professional board. | |
| <p>Learning contents</p> <ul style="list-style-type: none"> • Concepts, approaches, and models of ergonomics • Load/stress concepts with regard to ergonomics • Scientific and practice-oriented approaches of ergonomic and engineering disciplines, e.g. vocational and occupational education, occupational and organisational psychology • Laboratory practice, including execution of occupational health and ergonomics experiments focusing on: experiment design, measurement, protocols, assessments, interpretation, presentation • Development of concepts for prevention | |

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| Teaching and learning forms / methods / media formats | Attendance studies: 2 hours per week of seminar lectures, 2 hours per week of laboratory training; group work, use of digital and print media Self-studies: preparation and evaluation, preparation of presentations, exam preparation |
| Study and examination credits | One pre-exam credit: successful completion of the laboratory training; One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | Luczak, H., Volpert, W. (2002). Handbuch Arbeitswissenschaft. Stuttgart: Schäffer-Poeschel Verlag. Nerdinger, F., Blickle, G., Schaper, N. (2011). Arbeits- und Organisationspsychologie. Heidelberg: Springer Verlag. Schlick, C. M., Bruder, R., Luczak, H. (2010). Arbeitswissenschaft. Heidelberg: Springer Verlag. <i>E-learning platform EMIL: Lecture presentation files</i> |

| Bachelor degree programme for Nutrition & Home Economics First academic year – compulsory studies | |
|---|---|
| Module index number 1005 | Nutritional physiology |
| Module coordination / module supervision | Prof. Dr. Sibylle Adam |
| Lecturers | Prof. Dr. Sibylle Adam |
| Period / semester / interval | Second semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: Anthropobiology modules, as well as food science and dietics |
| Course language | German |
| <p>Competences to be acquired / learning objectives</p> <p>Function- / content-related and methodical competences</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • deduce and interpret the functions of macro- and micro-nutrients for maintenance of health and vitality / fitness on the basis of fundamental knowledge of the intermediary metabolism; • develop and assess reference values for supply of nutrients as well as recommendations for nutrition. <p>Social and self-competence</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • develop nutrition-physiological and dietical principles as well as the impact of macro- and micro-nutrients in cooperation with lecturers and tutors; • competent and responsible assessment and action with regard to healthy and health-promoting nutrition for themselves and others. | |
| <p>Learning contents</p> <ul style="list-style-type: none"> • Purposes of nutrition, energy requirement and influential factors • Functions of macro- and micro-nutrients • Secondary plant constituents and their health-promoting impacts | |
| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, e-learning Self-studies: preparation and evaluation, exam preparation |
| Study and examination credits | One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |

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|-----------------------------------|--|
| Literature / work material | <p>Biesalski, H.-K., Bischoff, S.-C., Puchstein, C. (2010). Ernährungsmedizin: Nach dem Curriculum Ernährungsmedizin der Bundesärztekammer und der DGE. Stuttgart: Georg Thieme Verlag.</p> <p>D-A-CH (Hrsg.) (2012). Referenzwerte für die Nährstoffzufuhr (2008-2012). Frankfurt: Umschau/Braus.</p> <p>Elmadfa, I. (2009). Ernährungslehre (2. Auflage). Stuttgart: UTB Verlag.</p> <p><i>E-learning platform EMIL: Nutritional physiology module</i></p> |
|-----------------------------------|--|

| Bachelor of Nutrition & Home Economics First academic year – compulsory studies | |
|--|--|
| Module index number 1006 | Human biology |
| Module coordination / module supervision | Head of department |
| Lecturers | Prof. Dr. Jürgen Lorenz |
| Period / semester / interval | First semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | none |
| Course language | German |
| <p>Competences to be acquired / learning objectives</p> <p>Function- / content-related and methodical competences</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • describe the structure (anatomy) and function (physiology) of the human organism; • identify aspects of environment-man interactions by means of normal functions and dysfunctions of the human body and to integrate findings into prevention approaches; • consider health and diseases in the context of influences from the living environment (work, leisure). <p>Social and self-competence</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • formulate questions in a team; • contribute personal experiences into the context and cooperate in a team to develop generally applicable design principles; • use different types of learning media (literature, internet, print media); • present results of individual and/or group work in a suitable and proper form. | |
| <p>Learning contents</p> <ul style="list-style-type: none"> • Structure and function of important basic building blocks of the human organism, such as cell biology, blood, genes • Structure and function of major organs and organ systems, such as the cardiovascular system, digestive organs, musculoskeletal system, the skin, respiration organs, sensory organs, nervous system, immune system • Root causes and functional disorders of diseases of the metabolic organs, the cardiovascular system, the immune system | |
| Teaching and learning forms / methods / media formats | <p>Attendance studies: seminar lectures, including group work and short presentations</p> <p>Self-studies: preparation and evaluation, preparation of a short presentation</p> |

| | |
|--------------------------------------|--|
| Study and examination credits | <p>One examination credit: paper, written exam, oral exam or presentation;</p> <p>The type of examination is specified by the examiner at the beginning of the course.</p> |
| Literature / work material | <p>Faller, A., Schinke, G. (2005). Der Körper des Menschen. Stuttgart: Thieme Verlag.</p> <p>Huppelsberg, J., Walter, K. (2005). Kurzlehrbuch Physiologie. Stuttgart: Thieme Verlag.</p> <p>Schmidt, R., Lang, F., Thews, G. (2005). Physiologie des Menschen mit Pathophysiologie. Heidelberg: Springer Verlag.</p> <p>Sobotta, J. (2000). Atlas der Anatomie. Munich: Urban & Fischer Verlag.</p> <p>Speckmann, E.-J., Wittkowski, W. (2006). Praxishandbuch Anatomie. Erfstadt: Area Verlag.</p> <p><i>E-learning platform EMIL</i>: Lecture presentation files and handout</p> |

Bachelor of Nutrition & Home Economics
First academic year – compulsory studies

| | |
|---|---|
| Module index number 1007 | Communication, psychology, sociology |
| Module coordination / module supervision | Prof. Dr. Anne Flothow |
| Lecturers | Prof. Dr. Anne Flothow, Prof. Dr. Christine Färber |
| Period / semester / interval | First semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | none |
| Course language | German |

Competences to be acquired / learning objectives

Function- / content-related and methodical competences

Students are able to ...

- describe the major communication models and theories from a psychological and sociological point of view;
- specify the basic principles of psychology and sociology;
- apply basic psychological and sociological knowledge to issues from the field of nutrition & home economics
- develop their own psychological and/or sociological research questions and problems;
- do research in special technical literature according to scientific standards;
- write a paper according to scientific standards.

Social and self-competence

Students are able to ...

- reflect on their own communication behaviour;
- work in a team.

Learning contents

- **Communication**
Basic principles of interpersonal communication, communication models, techniques of communication and conversation
- **Psychology**
Psychology as an empirical science, general psychology (e.g. learning, motivation), personality psychology (e.g. intelligence), developmental psychology (e.g. aptitude-environment), health psychology (e.g. stress and health), psychodiagnostics, clinical psychology and psychological therapy (e.g. eating disorders)
- **Sociology**
Fundamentals of sociology, culture, social inequality, migration, gender, family, urbanisation, work, and economy

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| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, group projects, e-learning Self-studies: preparation and evaluation, exam preparation The course is accompanied by a tutorial course. |
| Study and examination credits | One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | Joas, H. (2007). Lehrbuch der Soziologie. Frankfurt a. M./New York: Campus-Verlag. Renneberg, B., Hammelstein, P. (2006). Gesundheitspsychologie. Heidelberg: Springer-Medizin-Verlag. Schulz von Thun, F. (2011). Miteinander reden 1-3. Reinbek: Rowohlt-Verlag. Zimbardo, P.G., Gerrig, R.J. (2008). Psychologie. Munich: Pearson-Verlag. <i>E-learning platform EMIL: auxiliary material</i> |

| Bachelor of Nutrition & Home Economics First academic year – compulsory studies | |
|---|---|
| Module index number 1008 | Food science and dietics (incl. laboratory training) |
| Module coordination / module supervision | Prof. Dr. Sibylle Adam |
| Lecturers | Prof. Dr. Sibylle Adam, Dr. Elke Arms, B.Sc. Jacqueline Harms |
| Period / semester / interval | First semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | none |
| Course language | German |
| <p>Competences to be acquired / learning objectives Function- / content-related and methodical competences Students are able to ...</p> <ul style="list-style-type: none"> • compile daily dietary plans making sure that food is varied, balanced and tasty; • analyse dietary records; • compile and optimise dietary plans; • use and assess nutrition software; • analyse and assess individual nutrient supply in comparison with reference values; • assess food by its nutrition-psychological quality and use it strategically for the compilation of balanced and tasty dietary plans. <p>Social and self-competence Students are able to ...</p> <ul style="list-style-type: none"> • reflect on subject contents and formulate questions to that respect; • develop and present specialist topics; • hold and defend their judgements, assessments, and solutions in discussions with others. | |
| <p>Learning contents</p> <ul style="list-style-type: none"> • Properties of macro-nutrients and selected micro-nutrients, as well as their occurrence in food • Food pyramid and D-A-CH recommendations for nutrients supply • Nutrition-psychological quality of various types of food from the different food groups and categories • Reference values for macro-nutrients • "Ebispro" and "OptiDiet" nutrition software • Calculation, optimisation (on the basis of D-A-CH: "Reference values for nutrients supply"), preparation and presentation of daily dietary plans • Calculation and optimisation of weekly dietary plans | |

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| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, including group work, laboratory training (EW and EDP) Self-studies: preparation and evaluation, exam preparation |
| Study and examination credits | One pre-exam credit: successful completion of the laboratory training; One study credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | Biesalski, H.K., Grimm, P. (2011). Taschenatlas der Ernährung. Stuttgart: Thieme. D-A-CH (Hrsg.) (2008). Referenzwerte für die Nährstoffzufuhr. Frankfurt a. M.: Umschau Verlag. Elmadfa, I. et al. (2012). Die große GU Nährwert Kalorien Tabelle. Munich: Gräfe und Unzer. Rimbach G. et al. (2006).: Grundlagen der Lebensmittellehre. Hamburg: Behr's Verlag. Rimbach, G., Möhring; J., Erbersdobler; H.F. (2010). Lebensmittel-Warenkunde für Einsteiger. Heidelberg: Springer. Schek, A. (2013). Ernährungslehre kompakt. Sulzbach: Umschau Zeitschriftenverlag. "Ebispro", "OptiDiet" nutrition software <i>E-learning platform EMIL: auxiliary material</i> |

Bachelor of Nutrition & Home Economics
First academic year – compulsory studies

| | |
|---|---|
| Module index number 1009 | Food commodity economics and process technology (incl. laboratory training) |
| Module coordination / module supervision | Dipl.oec.troph. Holger Koopmann |
| Lecturers | Dipl.oec.troph. Holger Koopmann, Dr. Karolin Schacht |
| Period / semester / interval | Second semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | none |
| Course language | German |

Competences to be acquired / learning objectives

Function- / content-related and methodical competences

Students are able to ...

- apply criteria for assessment of food quality;
- outline process steps in food production;
- apply criteria for assessment of sustainability;
- analyse the availability and variety of food for private consumers;
- strategically apply procedures for preparation and processing of food;
- develop and evaluate recipes.

Social and self-competence

Students are able to ...

- reflect on subject contents and formulate questions to that respect;
- develop and present specialist topics;
- hold and defend their judgements, assessments, and solutions in discussions with others.

Learning contents

- Food production and processing
- Storage, preservation
- Legal rules and regulations
- Criteria for food quality
- Ingredients, physiological impact
- Sustainability in nutrition
- Market overview, consumption, price checks
- Process engineering for food preparation and processing
- Evaluation of recipes
- Modification of nutrients during preparation and processing

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| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, including group work, laboratory training Self-studies: preparation and evaluation, exam preparation |
| Study and examination credits | One pre-exam credit: successful completion of the laboratory training; One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | Rimbach et al (2010). Lebensmittel-Warenkunde für Einsteiger. Berlin/Heidelberg: Springer Verlag. Schuchmann, H.P., Schuchmann, H. (2005). Lebensmittelverfahrenstechnik. Rohstoffe, Prozesse, Produkte. Weinheim: Wiley-VCH Verlag. Ternes, W. (1990). Naturwissenschaftliche Grundlagen der Lebensmittelzubereitung. Hamburg: Behr's Verlag. Ternes, W. et al. (2005). Lebensmittel-Lexikon. Hamburg: Behr's Verlag. Wisker et al (2006). Grundlagen der Lebensmittel-Lehre. Hamburg: Behr's Verlag. |

Bachelor of Nutrition & Home Economics
First academic year – compulsory studies

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|---|---|
| Module index number 1010 | Mathematics, physics, EDP (incl. laboratory training) |
| Module coordination / module supervision | Prof. Dr. Jörg Andreä |
| Lecturers | Prof. Dr. Jörg Andreä, Dipl.oec.troph. Silvia Elfers, Dipl.oec.troph. Fritz Kropholler |
| Period / semester / interval | Second semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | none |
| Course language | German |

Competences to be acquired / learning objectives

Function- / content-related and methodical competences

Students are able to ...

- explain the required mathematical methods;
- handle and work with aids, such as a PC and MS EXCEL in the scope required;
- understand the major physical correlations and coherences in the fields of mechanics, acoustics, and optics.
- explain variables and units, as well as relevant procedures for quantitative measurement of physical properties;
- analyse, document, and discuss experimental tests in a professional and appropriate manner;
- correctly report on physical principles, as well as measurement and analysis methods.

Social and self-competence

Students are able to ...

- organise themselves for working in large and small groups;
- identify division of work and responsibilities as goal-oriented and implement this principle in a productive way;
- further develop individual opportunities in the field of natural science and engineering.

Learning contents

- Mathematics: solving of equations, simple functions, elements of differential and integral calculation, trigonometry and statistics;
- EDP: Excel as a tool for evaluation and analysis of measurement results
- Scientific approaches and physical models
- Systems of units, quantities, units of measure, representation
- Experiments, measurements, analyses, documentation

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| <ul style="list-style-type: none"> • Kinematics, dynamics, strength of materials, pressure, flowing media, basic principles of acoustics and optics <p>Laboratory training</p> <ul style="list-style-type: none"> • Preparation and execution of practical measurement tasks based on the learning contents of the module; evaluation and recording of results | |
| <p>Teaching and learning forms / methods / media formats</p> | <p>Attendance studies: seminar lectures, including exercises and presentations, laboratory training</p> <p>Self-studies: preparation and evaluation, preparation of presentations, production of records and logs, exam preparation</p> |
| <p>Study and examination credits</p> | <p>One pre-exam credit: successful completion of the laboratory training;</p> <p>One study credit: paper, written exam, oral exam or presentation;</p> <p>The type of examination is specified by the examiner at the beginning of the course.</p> |
| <p>Literature / work material</p> | <p>Duden. Basiswissen Schule. Physik Abitur (2007). Mannheim: Bibliographisches Institut.</p> <p>Erbrecht, R. (2007). Das große Tafelwerk interaktiv. Berlin: Cornelsen Verlag.</p> <p>Heywang, F., Treiber, H. (1992). Physik für Fachhochschulen und technische Berufe. Hamburg: Handwerk und Technik (only available in libraries).</p> <p>Leute, U. (1995). Physik und ihre Anwendungen in Technik und Umwelt. Munich: Hanser Verlag.</p> <p>Meschede, D. (2010). Gerthsen Physik. Berlin/Heidelberg: Springer Verlag.</p> <p>Tipler, P. A. (2000). Physik. Heidelberg: Spektrum Akad. Verlag.</p> <p><i>E-learning platform EMIL</i>: Lecture presentation handout, set of exercises, auxiliary material</p> |

Bachelor of Nutrition & Home Economics
First academic year – compulsory studies

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|---|---|
| Module index number 1011 | Organic chemistry and biochemistry (including laboratory training) |
| Module coordination / module supervision | Prof. Dr. Michael Häusler |
| Lecturers | Prof. Dr. Michael Häusler, Dr. Ilse Hollnagel, Dipl.-Ing. Klaus Kösling |
| Period / semester / interval | Second semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: Basic principles of chemistry module |
| Course language | German |

Competences to be acquired / learning objectives

Function- / content-related and methodical competences

Students are able to ...

- specify the major functional classes of substances of organic compounds;
- specify the properties and reactions of the major classes of substances of organic compounds;
- perform basic chemical and analytical laboratory experiments;
- specify the basic principles of biochemical metabolic correlations and processes;
- explain the principles of chemical processes in living organisms;
- specify the applicability of general chemical laws to the field of living organisms;
- confidently handle biochemical formulas and reaction cycles;
- explain the major metabolic pathways;
- explain the chemical and substance-based principles and correlations in the field of nutrition physiology and dietetics.

Social and self-competence

Students are able to ...

- comprehend the presented subject knowledge and understand the systematic correlations of the special contents;
- reflect on subject contents and formulate questions to that respect;
- solve special content-related problems together with fellow students in the form of group work and to present and explain solutions and results during lectures;
- hold and defend their judgements, assessments, and solutions in discussions with others;
- openly respond to arguments from others;
- during internship, present and explain methods, experiment sequences and results in a well-structured manner;
- perform independent research in technical literature.

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| Learning contents <ul style="list-style-type: none"> • Organic chemistry: Lipids and lipoids, saccharides, amino acids, peptides, proteins, glycolipids, lipoproteins, glycoproteins, structures, properties, reactions, changes, functions • Laboratory training: Quantitative analysis, chemical-physical properties of organic compounds, reactions and verification of functional groups, analysis of food ingredients • Biochemistry: Thermodynamics of biochemical reactions; enzymes and biocatalysis, digestion of carbohydrates, proteins and lipids; resorption and distribution; deposition; glycolysis, pentose phosphate cycle, β-oxidation, transamination, urea cycle, citric acid cycle, respiratory chain, fasting metabolism, formation of ketone bodies, gluconeogenesis, protein biosynthesis, fatty acid biosynthesis, control and endocrine regulation | |
| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures and laboratory training Self-studies: preparation and evaluation, exam preparation |
| Study and examination credits | One pre-exam credit: successful completion of the laboratory training; One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | Beyer, H., Walter, W. (2004). Lehrbuch der Organischen Chemie. Stuttgart: Hirzel Verlag. Christen, P., Jaussi, R. (2005). Biochemie. Berlin: Springer Verlag. Falbe, J., Regitz, M. (Hrsg.) (1995). Römpp-Chemie-Lexikon. Stuttgart: Thieme Verlag. Horn, F. et al. (2012). Biochemie des Menschen. Stuttgart: Thieme Verlag. Koolman, J., Röhm, K.H. (2002/2009). Taschenatlas der Biochemie. Stuttgart: Thieme Verlag. |

| Bachelor of Nutrition & Home Economics First academic year – compulsory studies | |
|---|---|
| Module index number 1023 | Science and practice foundations |
| Module coordination / module supervision | Dipl.oec.troph. Christiane Theophile |
| Lecturers | Dipl.-Bibl. Susanne Gaßl, Lehrbeauftragte der G 20, Dipl.oec.troph. Christiane Theophile |
| Period / semester / interval | First semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | none |
| Course language | German |
| <p>Competences to be acquired / learning objectives</p> <p>Function- / content-related and methodical competences</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • do research for compiling scientific papers and to evaluate the sources; • meet the formal, stylistic, and layout requirements for compilation of scientific papers and documents; • specify types of quoting and presenting references and appropriately use them in scientific papers; • present a prepared topic to a work group; • implement safety and hygiene regulations for canteens / catering facilities; • assess the quality of food; • process food correctly and in a nutrient-protecting manner, as well as properly store food-stuffs and food; • chose and apply nutrient-protecting cooking methods. <p>Social and self-competence</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • reflect on module contents and formulate questions to that respect; • communicate within a team, judge and evaluate their own role, and assume responsibility; • give and receive feedback and handle it in a constructive and positive manner; • work in a group on provided topics; • hold and defend their judgements, assessments, and solutions in discussions with others; | |
| <p>Learning contents</p> <p>Scientific principles (exercise)</p> <ul style="list-style-type: none"> • Research for information and information processing and assessment • Text types used in an academic context • Formal requirements for scientific papers • Quotes, sources and references, bibliography | |

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|---|---|
| <ul style="list-style-type: none"> • Structure and layout of scientific papers • Basics of scientific writing <p>Practical foundations (laboratory training)</p> <ul style="list-style-type: none"> • Hygiene regulations for canteens / catering facilities, accident prevention when handling kitchen utensils, compilation of a group work schedule • Handling of cooking knives and special tools and appliances • Presentation of various cooking devices and cooking methods • Exemplary structure of a work place, appropriate and correct handling of food and foodstuffs • Visual and sensory differences of food with equal recipes • Arrangement methods and arrangement techniques for dishes served on plates, structure / order of courses for meal planning • Dough production, dough development and ripening, cooking and baking, professional shaping | |
| <p>Teaching and learning forms / methods / media formats</p> | <p>Attendance studies: Exercises and tasks, short presentations, practical applications at the computer; laboratory training</p> <p>Self-studies: preparation and evaluation, preparation of short presentations, exam preparation</p> |
| <p>Study and examination credits</p> | <p>One pre-exam credit: successful completion of the laboratory training;</p> <p>One study credit: Exercise certificate</p> |
| <p>Literature / work material</p> | <p>Bünting, K.-D., Bitterlich, A., Pospiech, U. (2006). Schreiben im Studium: mit Erfolg. Berlin: Cornelsen Verlag Scriptor.</p> <p>Franck, N., Stary, J. (Hrsg.) (2008). Die Technik wissenschaftlichen Arbeitens. Paderborn: Schöningh Verlag.</p> <p>Pabst-Weinschenk, M. (2004). Reden im Studium. Berlin: Cornelsen Verlag Scriptor.</p> <p>Rossig, W.E., Prätisch, J. (2006). Wissenschaftliche Arbeiten. Weyhe: Teamdruck.</p> <p>Theisen, M.R. (2006). Wissenschaftliches Arbeiten. Munich: Verlag Franz Vahlen.</p> <p><i>E-learning platform EMIL: auxiliary material, recipes and information on laboratory training</i></p> |

Second and third academic year – general compulsory programme modules

9 compulsory modules with 5 CP / module = 45 CP

Bachelor degree programme of Nutrition & Home Economics**Second and third academic year – general compulsory programme modules**

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|--|---|
| Module index number 2100 | Nutritional concepts |
| Module coordination / module supervision | Prof. Dr. Sibylle Adam |
| Lecturers | Prof. Dr. Sibylle Adam |
| Period / semester / interval | Third semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: Basic principles of chemistry, ergonomics, anthropobiology, food science and dietics, nutritional physiology, organic chemistry and biochemistry modules |
| Course language | German |
| Competences to be acquired / learning objectives | |
| Function- / content-related and methodical competences | |
| Students are able to ... | |
| <ul style="list-style-type: none">• deduce scientifically profound nutritional recommendations for various age and occupational groups or athletes;• develop and assess nutritional concepts for different situations and performance requirements and to perform critical analyses of special sports nutrition. | |
| Social and self-competence | |
| Students are able to ... | |
| <ul style="list-style-type: none">• act reasonably and responsibly with regard to their own and others' nutritional behaviour;• independently develop nutritional concepts for various age and performance groups taking into account Blended Learning;• extrapolate concrete nutritional recommendations and guidelines in teamwork with students groups and together with lecturers and tutors using scientific orientation guidelines and case studies. | |
| Learning contents | |
| <ul style="list-style-type: none">• Reference values for nutrient supply• Nutrition recommendations for various age groups, such as elderly people, mothers to be, nursing mothers, babies, special occupational groups and athletes• Compilation and assessment of nutrition plans | |

| | |
|---|---|
| <ul style="list-style-type: none"> • Analysis of food supplements for athletes | |
| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, including exercises, e-learning Self-studies: preparation and evaluation, completion of e-learning exercises, exam preparation |
| Study and examination credits | One pre-exam credit, One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | <p>Biesalski, H.-K. et al. (Hrsg) (2010). Ernährungsmedizin. Stuttgart: Thieme Verlag.</p> <p>Deutsche Gesellschaft für Ernährung, Österreichische Gesellschaft für Ernährung, Schweizerische Gesellschaft für Ernährung, Schweizerische Vereinigung für Ernährung (Hrsg.) (2008). Referenzwerte für die Nährstoffzufuhr. Frankfurt a. M.: Umschau Verlag.</p> <p>Deutsche Gesellschaft für Ernährung (collection of loose leaves) Beratungs-Standards. Troisdorf: Rautenberg Media und Print Verlag KG.</p> <p>Geiss, K. R., Hamm, M. (2000). Handbuch Sportlerernährung. Hamburg: Behrs Verlag.</p> <p>Hamm, M. (2012). Die richtige Ernährung für Sportler. Munich: Riva Verlag.</p> <p>Kasper H.(2009). Ernährungsmedizin und Diätetik. Munich: Urban und Fischer.</p> <p>Kersting M. (Hrsg.) (2009). Kinderernährung aktuell. Sulzbach im Taunus: Umschau Zeitschriften Verlag.</p> <p>Müller, M. J. (2007). Ernährungsmedizinische Praxis. Heidelberg: Springer Medizin.</p> <p><i>E-learning platform EMIL: Nutritional physiology and nutritional concepts module</i></p> |

| Bachelor of Nutrition & Home Economics Second and third academic year – general compulsory programme modules | |
|--|---|
| Module index number 2500 | Managerial accounting and controlling |
| Module coordination / module supervision | Prof. Dr. Petra Naujoks |
| Lecturers | Prof. Dr. Petra Naujoks |
| Period / semester / interval | Third semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: General business administration module |
| Course language | German |
| <p>Competences to be acquired / learning objectives</p> <p>Function- / content-related and methodical competences</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • distinguish expenditure from cost, revenue from output; differentiate between operational result, neutral result, and overall result, as well as between the different cost calculation systems; • describe fixed cost, variable cost, individual cost, overhead cost and to verify these concepts by practical examples; • compile a cost function, turnover function, and profit function from a case description and to determine the break-even point; • determine the operational result from case descriptions, distribute the costs to the different cost centres using generally accepted methods, and calculate production cost, primary costs, and possible sales prices by means of suitable calculation methods; • critically assess the different cost calculation systems in terms of suitability for sales price calculation; • extrapolate and substantiate economically justifiable decisions for short-term and long-term applications. <p>Social and self-competence</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • implement learning contents on the basis of exemplary companies or case studies; • make use of the cost calculation instruments presented during lectures and assess the results in terms of decision-making; • jointly develop and present solutions in group work; • hold and defend their point of view within the group for different results; • integrate insecure students into group work and motivate them; • accept the alleged otherness of fellow students as a difference in personality or culture; • promoting a productive learning environment through mindful and respectful behaviour. | |
| Learning contents | |

| | |
|--|--|
| | <ul style="list-style-type: none"> • Differentiation between external and internal accounting • Basic principles of cost calculation (fixed cost, variable cost, individual cost, overhead cost, calculatory cost) • Cost function, turnover function, profit function, break-even analysis • Cost calculation systems • Full cost accounting, marginal cost accounting • Cost type, cost centre, cost unit accounting (calculation methods) • Contribution costing as decision-making calculations (product portfolio design, additional orders, in-house manufacturing / outsourcing, short-term minimum price limit) • Multi-state fixed cost accounting (multi-stage contribution costing). • Controlling cycle • Planned cost calculation as a controlling instrument |
| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, group work, e-learning, student speeches Self-studies: preparation and evaluation, exam preparation |
| Study and examination credits | One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | Däumler, K.-D., Grabe, J. (2008). Kostenrechnung 1 und 2. Berlin: Verlag Neue Wirtschaftsbriefe (NWB). Haberstock, L. (2008). Kostenrechnung 1. Berlin: Erich Schmidt Verlag. Schmolke, S., Deitermann, M. (2013). Industrielles Rechnungswesen IKR. Braunschweig: Winklers Verlag. <i>E-learning platform EMIL: auxiliary material</i> |

| Bachelor of Nutrition & Home Economics Second and third academic year – general compulsory programme modules | |
|---|---|
| Module index number 2400 | Food chemistry (incl. laboratory training) |
| Module coordination / module supervision | Prof. Dr. Michael Häusler |
| Lecturers | Prof. Dr. Michael Häusler, Dipl.-Ing. Klaus Kösling |
| Period / semester / interval | Third semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: Basic principles of chemistry as well as organic chemistry and biochemistry, including laboratory training |
| Course language | German |
| <p>Competences to be acquired / learning objectives</p> <p>Function- / content-related and methodical competences</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • explain the major and minor components of food and their chemical, sensory, nutrition-physiological, technological, toxicological, and sensory properties; • apply and use this knowledge for issues and problems with regard to quality assurance, product development, and food analytics; • analyse food using the trained basic skills and qualifications; <p>Social and self-competence</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • comprehend the presented subject knowledge and understand the systematic correlations of the special contents; • reflect on subject contents and formulate questions to that respect; • solve special content-related problems together with fellow students in the form of group work and to present and explain solutions and results during lectures; • hold and defend their judgements, assessments, and solutions within the scope of a discussion; • openly respond to arguments from others; • perform independent research in technical literature. | |
| <p>Learning contents</p> <ul style="list-style-type: none"> • Water, proteins, lipids, carbohydrates, including dietary fibres • Vitamins, minerals, fat constituents, secondary plant substances • Flavouring substances, colouring substances, enzymes, additives • Properties, modifications, functionality of substances in terms of quality, shelf life, sensory properties, processing, nutritional value, toxicology, and analytics • Fundamentals of food and additives law • Preservation of food; hurdle technology | |

| | |
|--|--|
| <ul style="list-style-type: none"> • Basic operations and methods of food analytics | |
| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures and laboratory training Self-studies: preparation and evaluation, compilation of protocols and logs, exam preparation |
| Study and examination credits | One pre-exam credit: successful completion of the laboratory training; One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | Baltes, W. (2007/2011). Lebensmittelchemie. Berlin: Springer Verlag. Also available on-line Heiss, R., Eichner, K. (2002). Haltbarmachen von Lebensmitteln. Berlin: Springer Verlag. Matissek, R., Steiner, G. (2006/2010). Lebensmittelanalytik. Berlin: Springer Verlag. Also available online Ternes, W. (2005/2008). Naturwissenschaftliche Grundlagen der Lebensmittelzubereitung. Hamburg: Behr's Verlag. |

| Bachelor of Nutrition & Home Economics Second and third academic year – general compulsory programme modules | |
|---|---|
| Module index number 2200 | Microbiology and toxicology of foodstuffs |
| Module coordination / module supervision | Prof. Dr. Michael Häusler |
| Lecturers | Prof. Dr. Michael Häusler, Dr. Nina Kopra, Prof. Dr. Katharina Riehn |
| Period / semester / interval | Third semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: Basic principles of chemistry as well as organic chemistry and biochemistry, including laboratory training |
| Course language | German |
| <p>Competences to be acquired / learning objectives</p> <p>Function- / content-related and methodical competences</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • explain profound knowledge on food-relevant basic principles of hygiene, infectious diseases, micro-organisms, toxicology, hygiene concepts, technological procedures and measures for control and containment of risks; • solve practice-oriented problems and case studies from the field of food microbiology and toxicology; • make use of consulting and methods competences with regard to food microbiology and toxicology; • examine surfaces, commodities, room air, and food for their microbial burdens using culture-collection techniques; • classify micro-organisms through microscopy and staining techniques; • differentiate between different types of micro-organisms through selective culture media and biochemical methods; • correctly disinfect their hands, tools and objects, and surfaces. <p>Social and self-competence</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • comprehend the presented subject knowledge and understand the systematic correlations of the special contents; • reflect on subject contents and formulate questions to that respect; • solve special content-related problems together with fellow students in the form of group work and to present and explain solutions and results during lectures; • hold and defend their judgements, assessments, and solutions in discussions with others; • openly respond to arguments from others; • perform independent research in technical literature. | |

Learning contents

Food toxicology

- Toxic effects, risk awareness and identification
- Toxicological test methods, risk evaluation, determination of limits
- Toxicokinetics and toxicodynamics of hazardous substances in food
- Legal requirements, food monitoring, consumer protection
- Pesticide and insecticide residues, residues from animal health products, environmental contaminants, contaminants originating from production and processing, as well as biogenic hazardous substances in food, occurring in selected groups of substances

Food microbiology

- Impact, morphology, properties, growth, inhibition, and inactivation of micro-organisms; basic principles of genetic engineering
- Technological use of micro-organisms
- Basics of infectious diseases; food infections and intoxications
- Microbiological test methods; verification, quantification, and differentiation of micro-organisms
- Physical and chemical methods for inhibition and inactivation of micro-organisms
- Hygiene factors, such as air, space, work place, commodities, personnel
- Basic principles of drinking water hygiene and food hygiene
- Hygiene concepts and controls in hospitals, canteens / catering facilities, food production

Food microbiology training

- Cleaning and disinfection of hands and surfaces
- Determination of total microbial count and culture-related selective processes
- Identification of germs using enterotube and other methods
- Determination of total aerobic microbial count and surface marking
- Microscopy and staining reactions

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| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, laboratory training Self-studies: preparation and evaluation, exam preparation |
| Study and examination credits | One pre-exam credit: successful completion of training One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | Fülgraff, G. (1989). Lebensmittel-Toxikologie. Stuttgart: UTB. Holzapfel, W.H. (Hrsg.) (2004). Lexikon Lebensmittel-Mikrobiologie und -Hygiene. Hamburg: Behr's Verlag. Krämer, J. (2007/2011). Lebensmittel-Mikrobiologie. Stuttgart: Ulmer Verlag. Reichl, F.-X. (2002). Taschenatlas der Toxikologie. Stuttgart: Thieme Verlag. Sinell, H.-J. (2004). Einführung in die Lebensmittelhygiene. Stuttgart: Parey Verlag. Steinbüchel et al (2013). Mikrobiologisches Praktikum. Berlin-Heidelberg: Springer Verlag, available on-line |

| Bachelor of Nutrition & Home Economics Second and third academic year – general compulsory programme modules | |
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| Module index number 2700 | Human resource management |
| Module coordination / module supervision | Prof. Dr. Birgit Käthe Peters |
| Lecturers | Prof. Dr. Birgit Käthe Peters, Prof. Dr. Andrea Berger-Klein |
| Period / semester / interval | From fourth semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study Blended Learning: 150 h, of which 30 h attendance study, 60 h guided e-learning, and 60 h self-study |
| Prerequisites / previous knowledge | Recommended: Modules of the first academic year |
| Course language | German during winter semester, German and English during summer semester |
| <p>Competences to be acquired / learning objectives</p> <p>Function- / content-related and methodical competences</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • understand the strategies and practical aspects of human resource management; • assess and characterise the positions involved in human resource management and versedly handle and treat employees; • understand and practically implement the approaches for employee management; • evaluate and apply managerial instruments. <p>Social and self-competence</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • productively communicate with employees and colleagues; • assume self-responsibility; • create a positive image of the managerial role and managerial relationship; • present contents in a confident and competent way. | |
| <p>Learning contents</p> <ul style="list-style-type: none"> • Function, activities, and processes in human resource management • Personnel planning, personnel procurement, personnel deployment planning • Basic principles of occupational law and corporate co-determination • Work remuneration • Human behaviour in social systems • Motivation theories / the myth of motivation / self-responsibility • Theory and history of management and leadership concepts • Communication and conversation, team formation, goal-oriented management | |

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| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, group work, e-learning, case studies, student speeches, excursions Self-studies: preparation and evaluation, exam preparation Blended Learning (held in English during summer semester) Attendance-based events: seminar lectures, including students' workshops and on-line tests for learning success Self-studies: On-line learning phases, including interactive e-learning module, completion of topic-oriented exercise papers on the EMIL learning platform, preparation of topic-oriented, multi-media workshops |
| Study and examination credits | One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. Examination credits in the blended learning course: Preparation of a topic-oriented workshop, including practical exercises, completion of exercise papers, interactive tasks within the scope of the course |
| Literature / work material | Attendance course: Handout <i>E-learning platform EMIL</i> : auxiliary materials. Blended learning course: E-learning module HRM available at professore.eu; handout and auxiliary materials at EMIL. Armstrong, M. (2012). A handbook of human resource management practice. London: Kogan Page. Becker, M. (2009). Personalentwicklung. Stuttgart: Schäffer-Poeschel Verlag. Berger, P., Berger-Klein, A. u.a. (2004). Human Ressource Management und Arbeitsgestaltung – Erfolgsfaktoren und betriebliche Erfahrungen. Düsseldorf: Symposion Publ. Berger, P., Berger-Klein, A. u.a. (2007). Human Resource Management in Veränderungsprozessen. Konstanz: Christiani Verlag. Bröckermann, R. (2009). Personalwirtschaft. Stuttgart: Schäffer-Poeschel-Verlag. Jung, H. (2003). Personalwirtschaft. Munich: Oldenbourg Verlag. Scholz, C. (2011). Grundzüge des Personalmanagements. Munich: Franz Vahlen Verlag. |

| Bachelor of Nutrition & Home Economics Second and third academic year – general compulsory programme modules | |
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| Module index number 2800 | Physics and engineering (incl. laboratory training) |
| Module coordination / module supervision | Prof. Dr. Jörg Andreä |
| Lecturers | Prof. Dr. Jörg Andreä, Dipl.oec.troph. Silvia Elfers, Dipl.oec.troph. Fritz Kropholler |
| Period / semester / interval | Third semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: Mathematics, physics, EDP module |
| Course language | German |
| <p>Competences to be acquired / learning objectives</p> <p>Function- / content-related and methodical competences</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • explain the fundamental correlations and interdependencies in the fields of thermodynamics and electricity; • apply the physical correlations for quantitative measurement required for storage, cooking and processing of food; • specify the basic principles of the relevant technical devices; • implement measuring methods for determination of device properties (e.g. cooking devices, hot-water preparation); • assess measurement faults and apply error calculation methods; • handle specialist technical literature. <p>Social and self-competence</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • organise themselves for working in large and small groups; • identify division of work and responsibilities as goal-oriented and implement this principle in a productive way; • further develop individual opportunities in the field of natural science and engineering. | |
| <p>Learning contents</p> <ul style="list-style-type: none"> • Temperature and thermal quantities, phase transitions, heat transfer • electrostatics, power circuits, magnetic fields, electromagnetic waves • Application of physical principles in engineering • Technical solutions in practice • Measuring methods in practice (sensors, measured data acquisition, evaluation, among others) • Error calculation | |

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| Laboratory training | |
| <ul style="list-style-type: none"> • Preparation and execution of practical measurement tasks based on the learning contents of the module; evaluation and recording of results | |
| Teaching and learning forms / methods / media formats | <p>Attendance studies: seminar lectures, including exercises, presentations, and discussion, laboratory training</p> <p>Self-studies: tutorial, preparation and evaluation, exam preparation</p> |
| Study and examination credits | <p>One pre-exam credit: successful completion of the laboratory training;</p> <p>One examination credit: paper, written exam, oral exam or presentation;</p> <p>The type of examination is specified by the examiner at the beginning of the course.</p> |
| Literature / work material | <p>Erbrecht, R. (2007). Das große Tafelwerk interaktiv. Berlin: Cornelsen Verlag.</p> <p>Halliday, D., Resnick, R., Walker, J. (2007). Halliday Physik: Bachelor Edition. Wiley-VCH.</p> <p>Leute, U. (1995). Physik und ihre Anwendungen in Technik und Umwelt. Munich: Hanser Verlag.</p> <p>Lindner, H. (2006). Physik für Ingenieure. Munich: Fachbuchverlag Leipzig im Carl Hanser Verlag.</p> <p><i>E-learning platform EMIL</i>: Lecture presentation handout, set of exercises, auxiliary material</p> |

| Bachelor of Nutrition & Home Economics Second and third academic year – general compulsory programme modules | |
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| Module index number 5150 | Project |
| Module coordination / module supervision | Head of department |
| Lecturers | depending on the actual task, all full-time lecturers of the department and the assistant lecturers |
| Period / semester / interval | Fifth semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: Modules from the first academic year, project management module |
| Course language | German |
| <p>Competences to be acquired / learning objectives</p> <p>Function- / content-related and methodical competences</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • solve a complex problem from a company or an organisation; • apply professional competence for solving the problem and implement the project management; • identify objectives, demonstrate approaches for solution and achieve representative results. <p>Social and self-competence</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • independently perform research; • work in small teams; • establish appropriate division of work in large groups and make correct and professional decisions; • present the results for the problem to non-team members and discuss solutions. | |
| <p>Learning contents</p> <p>Contents change and depend on the concrete tasks or problems. In every semester, several projects are offered for selection. The contents depend on the professional specialisation fields and areas of concentration</p> <ul style="list-style-type: none"> • nutrition, health, counselling • foodstuffs, product development, marketing • catering, services, sustainability • food safety and control. | |

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| Teaching and learning forms / methods / media formats | <p>Lecturers shall assume the role of a coach</p> <p>Attendance studies: project work, including planning and execution of the project, group work, decision-making processes in large groups, status reports</p> <p>Self-studies: preparation and evaluation of the attendance meetings, exam preparation</p> |
| Study and examination credits | <p>One study credit: completion of the project, including project report and project presentation</p> |
| Literature / work material | <p>Literature and work material depend on the respective topics</p> |

| Bachelor of Nutrition & Home Economics Second and third academic year – general compulsory programme modules | |
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| Module index number 5150 | Project management |
| Module coordination / module supervision | Prof. Dr. Christoph Wegmann |
| Lecturers | Prof. Dr. Christoph Wegmann, Prof. Dr. Ulrike Pfannes (parallel courses) |
| Period / semester / interval | Third semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | none |
| Course language | German during winter semester, German and English during summer semester |
| <p>Competences to be acquired / learning objectives</p> <p>Function- / content-related and methodical competences</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • independently plan projects and implement the instruments of project management; • work with small to medium-sized projects, assuming the role of project managers; • perform task-oriented work within the scope of projects; • identify critical situations over the course of a project or in the project status and extrapolate suitable solutions. <p>Social and self-competence</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • successfully handle conflict situations within the scope of projects; • know and understand the requirements applicable to leading positions within the scopes of projects; receive feedback and handle this information in a constructive manner, and give feedback. | |
| <p>Learning contents</p> <ul style="list-style-type: none"> • Determination and definition of goals • Context analyses • Project sequence planning and critical path analysis • Qualitative and quantitative human resources planning • Cost planning • Project organisation • Project controlling • Team management • Conflict management • Use of software in project management | |

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| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, including case studies, group practice, presentations and discussions as a preparation for the practical work required for the specialist project, the internship and for a professional career. Self-studies: preparation and evaluation, preparation of presentations, exam preparation |
| Study and examination credits | One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | Portny, S.E. (2007). Projektmanagement für Dummies. Weinheim: Wiley-VCH. Wegmann, C., Winklbauer, H. (2006). Projektmanagement für Unternehmensberatungen. Wiesbaden: Gabler. <i>For lectures with English as a course language:</i> Kerzner, H. (2013). Project Management: A Systems Approach to Planning, Scheduling, and Controlling, 11. A. Chichester: John Wiley. Roberts, P. (2007). Guide to Project Management. London: The Economist. Set of slides, set of cases and tasks <i>E-learning platform EMIL: auxiliary materials</i> |

| Bachelor of Nutrition & Home Economics Second and third academic year – general compulsory programme modules | |
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| Module index number | Quality and risk management |
| Module coordination / module supervision | Prof. Dr. Ulrike Pfannes, Prof. Dr. Katharina Riehn |
| Lecturers | Prof. Dr. Ulrike Pfannes, Prof. Dr. Katharina Riehn |
| Period / semester / interval | From fourth semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: Modules of the first academic year |
| Course language | German |
| <p>Competences to be acquired / learning objectives</p> <p>Function- / content-related and methodical competences</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • specify legal foundations for establishing risk-based concepts in food and food-processing companies; • explain various risk and quality management systems; • define risk characteristics and risk matrix; • illustrate the basic principles of the Hazard Analysis Critical Control Point (HACCP) concept; • outline the structures and basics of risk-based food monitoring; • describe fields of activity for quality management; • outline norms and standards for QM systems; • describe and evaluate suitable instruments of QRM; • plan the introduction of QRM in (small) companies; • explain integrated QM systems. <p>Social and self-competence</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • evaluate different QRM systems; • provide risk-based solution proposals for problems in the field of food safety; • perform risk-based planning of control and monitoring intervals for food and food-processing companies; • develop and present an in-house QRM system (for small companies) on the basis of standards, norms and legal requirements; • utilise, critically evaluate and implement instruments of QRM. | |
| <p>Learning contents</p> <ul style="list-style-type: none"> • Basic principles of risk management: legal foundations, risk characteristics and risk matrix, HACCP | |

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| <ul style="list-style-type: none"> • Basic principles of operational QRM: DIN EN ISO 22000:2005, IFS Food, DIN EN ISO 9000f, TQM / EFQM • Official and governmental structures to be taken into account for implementation of risk assessment, management and communication in Europe and Germany • Fundamentals of official monitoring of food and food-processing companies • Correlations between and distinctive characteristics of QM and RM • Instruments and methods • Phases of QM: policy, planning, control, inspection, documentation, improvement • Introduction (implementation) of QRM: procedures, problems, and solutions • Integrated management systems (IMS) | |
| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, group work, e-learning, demonstrations, student speeches, excursions Self-studies: preparation and evaluation, exam preparation |
| Study and examination credits | One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | Arens-Azevêdo, A., Joh, H. (2012). Mit HACCP sicher ans Ziel!: Hygienemaßnahmen und Qualitätssicherung in Gastronomie und Gemeinschaftsverpflegung. Stuttgart: Matthaes Verlag. DIN EN ISO 9001 (2008). Qualitätsmanagementsysteme – Anforderungen. Berlin: Beuth Verlag. DIN EN ISO 22000 (2005). Managementsysteme für die Lebensmittelsicherheit – Anforderungen an Organisationen in der Lebensmittelkette. Berlin: Beuth Verlag. IFS Management Deutschland (Hrsg.) (2012). IFS Food – Standard zur Beurteilung der Qualität und Sicherheit von Lebensmitteln. Berlin (download). Pfaff, S. (Hrsg.) (2012). Integriertes Managementsystem Food, Grundwerk 2001, Stand 11/2012. Hamburg: Behrs Verlag. Pfeifer, T., Schmitt, R. (2007). Masing – Handbuch Qualitätsmanagement. Aachen: Carl Hanser Verlag. <i>E-learning platform EMIL: auxiliary materials.</i> |

Second and third academic year – area of concentration

Students must opt for one of the four areas of concentration available.

All modules from the chosen area of concentration must be taken; i.e. 6 area of concentration modules with 5 CP / module = 30 CPs.

Area of concentration A – nutrition, health, counselling

Bachelor degree programme of nutrition & home economics / second and third academic year

Area of concentration / field of studies A – nutrition, health, counselling

| Module index number | Occupational health management |
|---|---|
| Module coordination / module supervision | Prof. Dr. Anne Flothow |
| Lecturers | Prof. Dr. Anne Flothow |
| Period / semester / interval | From fourth semester, module offered every year |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: Ergonomics, nutritional concepts |
| Course language | German |

Competences to be acquired / learning objectives

Function- / content-related and methodical competences

Students are able to ...

- classify life-science as well as health- and occupational psychological theories and concepts in view of the correlation between work and health;
- assess the impact of such concepts on the acquisition of health competences;
- outline the most important prerequisites and structures for control of occupational processes for maintenance and promotion of employees' health;
- assess analysis instruments for identification and assessment of health-related risks/stresses and resources during operation;
- design central measures for modification of health-related behaviour and/or health-related conditions (focus on food and nutrition);
- describe instruments of health controlling in operation;
- develop concepts for workplace health promotion / workplace health management (WHP/WHM) for companies from different industries and of various sizes.

Social and self-competence

Students are able to ...

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| <ul style="list-style-type: none"> • reflect on their role as health consultant in companies; • develop counselling concepts based on demand, recipients, and situations. | |
| <p>Learning contents</p> <ul style="list-style-type: none"> • Health, prevention, workplace health promotion and workplace health management in a "company setting" • Legal foundations, institutions, and entities involved in WHP and WHM • Interdependence of work and health (e.g. demand-control model, ERI model, load / stress model) • Health reporting, hazard assessment, employee survey, identification of work conditions, health circle • Best-practice concepts (health, physical activity, mental health) • WHP concepts for specific target groups (apprentices, men / women, employees above a certain age) or specific sectors (crafts, industry, and services) • Forms of intervention (presentation, counselling, seminar, workshop) • Evaluation | |
| <p>Teaching and learning forms / methods / media formats</p> | <p>Attendance studies: seminar lectures, group work, e-learning, presentations, excursions, if opportunities arise</p> <p>Self-studies: preparation and evaluation, exam preparation</p> |
| <p>Study and examination credits</p> | <p>One examination credit: paper, written exam, oral exam or presentation;</p> <p>The type of examination is specified by the examiner at the beginning of the course.</p> |
| <p>Literature / work material</p> | <p>Bamberg, E., Ducki, A., Meth, A.M. (Hrsg) (2011). Gesundheitsförderung und Gesundheitsmanagement in der Arbeitswelt. Ein Handbuch. Göttingen: Hogrefe.</p> <p>Faller, G. (Hrsg) (2010). Lehrbuch Betriebliche Gesundheitsförderung. Bern: Huber-Verlag.</p> <p>Uhle, T., Treier, M. (2011). Betriebliches Gesundheitsmanagement. Berlin und Heidelberg: Springer-Medizin-Verlag.</p> <p>Ulich, E., Wülser, M. (2012). Gesundheitsmanagement im Unternehmen. Arbeitspsychologische Perspektiven. Wiesbaden: Springer Gabler.</p> <p><i>E-learning platform EMIL: auxiliary materials.</i></p> |

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| Bachelor degree programme of nutrition & home economics / second and third academic year | |
| Area of concentration / field of studies A – nutrition, health, counselling | |
| Module index number 3010 | Dietetics |
| Module coordination / module supervision | Prof. Dr. Silya Nannen-Ottens |
| Lecturers | Prof. Dr. Silya Nannen-Ottens |
| Period / semester / interval | Fourth semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: Modules of the first academic year |
| Course language | German |
| <p>Competences to be acquired / learning objectives</p> <p>Function- / content-related and methodical competences</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • extrapolate and assess dietic-therapeutic recommendations from diseases and health conditions that are (partly) attributed to nutrition; • critical assessment of different forms of diet and recommendations <p>Social and self-competence</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • act reasonably and responsibly with regard to their own and others' nutritional behaviour; • independently develop nutritional principles and concepts against the background of different diseases/health conditions; • extrapolate concrete nutritional recommendations and guidelines in teamwork with students groups and together with lecturers and tutors by means of scientific orientation guidelines and case studies. | |
| <p>Learning contents</p> <ul style="list-style-type: none"> • Pathophysiological changes in different diseases / health conditions (obesity, fasting / fasting metabolism, metabolic syndrome, diabetes mellitus, hyperlipidaemia, hypertension, hyperuricaemia / gout, arteriosclerosis, tumors, etc.) • Extrapolation of dietic recommendations • Impact of alternative forms of diet and health-promoting food | |
| Teaching and learning forms / methods / media formats | <p>Attendance studies: seminar lectures, group work, e-learning, demonstrations, student speeches</p> <p>Self-studies: preparation and evaluation, exam preparation</p> |

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| Study and examination credits | <p>One examination credit: paper, written exam, oral exam or presentation;</p> <p>The type of examination is specified by the examiner at the beginning of the course.</p> |
| Literature / work material | <p>Biesalski, H.-K. et al. (Hrsg) (2010). Ernährungsmedizin. Stuttgart: Thieme Verlag.</p> <p>Deutsche Gesellschaft für Ernährung (Loseblattsammlung) Beratungs-Standards. Troisdorf: Rautenberg Media und Print Verlag KG.</p> <p>Kasper, H. (2009). Ernährungsmedizin und Diätetik. Munich: Urban und Fischer.</p> <p>Ledochowski, M. (Hrsg.) (2010). Klinische Ernährungsmedizin. Munich: Springer Verlag.</p> <p><i>E-learning platform EMIL: auxiliary material</i></p> |

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| Bachelor degree programme of nutrition & home economics / second and third academic year | |
| Area of concentration / field of studies A – nutrition, health, counselling | |
| Module index number 3020 | Eating behaviour |
| Module coordination / module supervision | Head of department |
| Lecturers | Prof. Dr. Sibylle Adam, Prof. Dr. Joachim Westenhöfer |
| Period / semester / interval | From fourth semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | none |
| Course language | German during winter semester, English during summer semester |
| <p>Competences to be acquired / learning objectives</p> <p>Function- / content-related and methodical competences</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • classify and implement scientific-theoretical contents of nutritional psychology and sociology as well as practical and methodical aspects with regard to health promotion, counselling and therapy; in particular: <ul style="list-style-type: none"> ○ describe physiological, psychological, social, and cultural determinants and consequences of nutritional behaviour and assess professional and scientific literature from this field; ○ plan, execute, and evaluate measures for health promotion and nutritional counselling, as well as therapeutical elements related to nutritional behaviour for cases of obesity, disturbed eating behaviours and eating disorders; ○ describe and apply methods for life-long learning in this field of operation. <p>Social and self-competence</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • understand and work with issues from the fields of nutritional behaviour and psychology; • independently and responsibly extrapolate the basic principles of health-promoting nutritional behaviour and be able to act and judge correctly with regard to the respective nutritional behaviour of themselves and others | |
| <p>Learning contents</p> <ul style="list-style-type: none"> • Nutritional psychology and sociology: Basic principles of nutritional behaviour, sociocultural and socio-political context / background • Applied nutritional psychology: Controlled eating behaviour, eating disorders (anorexia nervosa, bulimia nervosa, binge eating, EDNOS) and obesity: Fundamentals, prevention, counselling, and therapy | |

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| <ul style="list-style-type: none"> • Nutritional counselling: Behaviour-oriented nutritional counselling and modification of behaviour, quality management and evaluation | |
| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, including group work (working with / solving of special issues and presentation of the results), (literature) projects where appropriate (research, execution, summary, oral and written presentation) Self-studies: preparation and evaluation, exam preparation |
| Study and examination credits | One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | Pudel, V., Westenhöfer, J. (2003). Ernährungspsychologie. Eine Einführung. Göttingen: Hogrefe Verlag. |

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| Bachelor degree programme of nutrition & home economics / second and third academic year | |
| Area of concentration / field of studies A – nutrition, health, counselling | |
| Module index number | Health promotion in daycare facilities / schools |
| Module coordination / module supervision | Prof. Dr. Anne Flothow |
| Lecturers | Prof. Dr. Anne Flothow |
| Period / semester / interval | From fourth semester, module offered every year |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: nutritional concepts, dietics |
| Course language | German |
| <p>Competences to be acquired / learning objectives</p> <p>Function- / content-related and methodical competences</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • describe the basic principles of health education, health promotion, and prevention; • specify central entities and institutions of health education and promotion; • critically contemplate the results of studies on child health; • assess prerequisites based on learning and developmental psychology with regard to acquisition of health competences; • critically reflect on existing concepts for health education and promotion in various settings (family, daycare, school); • specify criteria for successful concepts; • design and develop health education concepts in the operative field of nutrition; • identify measures for efficiency, for ensuring knowledge transfer, and for sustainability. <p>Social and self-competence</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • develop measures for health education and promotion specifically targeted to demand, target groups and situations through teamwork. | |
| <p>Learning contents</p> <ul style="list-style-type: none"> • Fundamentals of health education, health promotion, prevention • Salutogenesis, resilience • Learning and developmental psychology • Child health • Entities and institutions in the field of health education and health promotion • Concepts for health education (focus on nutrition) • Methods for verifying efficiency and sustainability | |

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| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, group work, e-learning, presentations, excursions, if opportunities arise Self-studies: preparation and evaluation, exam preparation |
| Study and examination credits | One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | <p>Bundeszentrale für gesundheitliche Aufklärung (2006). Leitbegriffe der Gesundheitsförderung. Gamburg: BzGA.</p> <p>Lohaus, A., Domsch, H. (2009). Psychologische Interventionsprogramme für das Kindes- und Jugendalter. Heidelberg: Springer-Medizin-Verlag.</p> <p>Naidoo, J., Wills, J. (2010). Lehrbuch der Gesundheitsförderung. Gamburg: BzGA .</p> <p>Wulfhorst, B., Hurrelmann, K. (2009). Handbuch Gesundheits-erziehung. Bern: Huber-Verlag.</p> <p><i>E-learning platform EMIL: auxiliary materials</i></p> |

Bachelor degree programme of nutrition & home economics / second and third academic year

Area of concentration / field of studies A – nutrition, health, counselling

| | |
|---|---|
| Module index number | Counselling methods |
| Module coordination / module supervision | Prof. Dr. Anne Flothow |
| Lecturers | Prof. Dr. Anne Flothow |
| Period / semester / interval | From fourth semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: nutritional concepts, dietics |
| Course language | German |

Competences to be acquired / learning objectives

Function- / content-related and methodical competences

Students are able to ...

- describe methods for individual and group counselling;
- develop various approaches for counselling (client- / patient-related, cognitive-behavioural, systemic);
- formulate counselling objectives adapted to the personal situation of a client / patient;
- plan counselling benchmarks based on concrete counselling criteria;
- strategically apply various counselling approaches against the background of the counselling criteria for specific clients / patients;
- correctly apply their specialised knowledge from the fields of (patho)physiology, nutritional concepts and dietics in counselling situations;
- perform structured individual and group counselling scenarios in exercise situations;
- select appropriate media for motivation and information of clients / patients.

Social and self-competence

Students are able to ...

- display empathy and appreciative behaviour in counselling situations;
- reflect on their own role in counselling as well as the counsellor-client / patient relationship;
- contemplate their own strengths and weaknesses in the light of specialised, social, and methodical competences.

Learning contents

- Approaches for counselling (client- / patient-related, cognitive-behavioural, systemic)
- Methods for individual and group counselling
- Framework conditions, objectives, limits, structure, and process of counselling
- Counsellor's role and counsellor-client / patient relationship

| | |
|--|---|
| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, group work, e-learning, demonstrations, student speeches, (excursions) Self-studies: preparation and evaluation, exam preparation |
| Study and examination credits | One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | DGE (2009). DGE-Beratungsstandards, 10. Aufl.. Bonn: DGE. Klotter, C. (2010). Einführung in die Ernährungspsychologie. Stuttgart: UTB. Nußbeck, S. (2010). Einführung in die Beratungspsychologie. Stuttgart: UTB. <i>E-learning platform EMIL: auxiliary materials.</i> |

| | |
|--|---|
| Bachelor degree programme of nutrition & home economics / second and third academic year | |
| Area of concentration / field of studies A – nutrition, health, counselling | |
| Module index number 3070 | Public Health and Nutrition |
| Module coordination / module supervision | Head of department |
| Lecturers | M.A. Johanna Buchcik, Prof. Dr. Joachim Westenhöfer |
| Period / semester / interval | From fourth semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: Modules of the first academic year |
| Course language | German during winter semester, English during summer semester |
| <p>Competences to be acquired / learning objectives</p> <p>Function- / content-related and methodical competences</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • describe and assess the significance of nutrition for Public Health; • apply Public Health Nutrition Action Cycle; • read and understand literature on nutritional epidemiology. <p>Social and self-competence</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • independently and responsibly extrapolate the basic principles of health-promoting nutrition and be able to act and judge correctly with regard to the respective nutritional behaviour of themselves and others; • read and understand literature on nutritional epidemiology. | |
| <p>Learning contents</p> <ul style="list-style-type: none"> • Nutrition epidemiology: identification of nutritional condition, biostatic processes, adjustment and corrective methods, error sources • Important nutrition epidemiology studies: Framingham, Nurses Health Study, EPIC, Monica • Public Health Nutrition Action Cycle • Selected Public Health nutrition problems: supernutrition, malnutrition, cardiovascular disease, diabetes, cancer | |
| Teaching and learning forms / methods / media formats | <p>Attendance studies: seminar lectures, practical exercises at the computer in the field of epidemiology/biostatistics</p> <p>Self-studies: preparation and evaluation, literature studies, exam preparation</p> |

| | |
|--------------------------------------|---|
| Study and examination credits | <p>One examination credit: paper, written exam, oral exam or presentation;</p> <p>The type of examination is specified by the examiner at the beginning of the course.</p> |
| Literature / work material | <p>Gibney, M.J. et al. (2004). Public Health Nutrition. Oxford UK: Blackwell.</p> <p>Müller, M.J., Trautwein, E.A. (2005). Gesundheit und Ernährung. Public Health Nutrition. Stuttgart: Eugen Ulmer.</p> |

Area of concentration B – foodstuffs, product development, marketing

| Bachelor degree programme of nutrition & home economics / second and third academic year – area of concentration Area of concentration B – foodstuffs, product development, marketing | |
|--|---|
| Module index number 4020 | Food marketing |
| Module coordination / module supervision | Prof. Dr. Christoph Wegmann |
| Lecturers | Prof. Dr. Christoph Wegmann |
| Period / semester / interval | Fourth semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: General business administration module |
| Course language | German during winter semester, German and English during summer semester |
| Competences to be acquired / learning objectives Function- / content-related and methodical competences Students are able to ... <ul style="list-style-type: none"> • understand the special aspects of food sales and extrapolate distinctive features for marketing; • develop marketing concepts and a marketing mix for food from the food industry's point of view. • design trade-oriented and end consumer-oriented marketing concepts; • consider advantages and disadvantages of the various courses of action for instrument use. Social and self-competence Students are able to ... <ul style="list-style-type: none"> • structure, design, and give speeches and presentations; • critically reflect on the use of marketing instruments for selling and marketing of food products; receive feedback and handle it in a constructive and positive manner; | |
| Learning contents <ul style="list-style-type: none"> • Structures of the nutrition industry and food marketing • Direct selling of food and foodstuffs • Trade marketing • Product innovation processes • Identification marking and labelling • Packaging design • Advertisement and promotion of food and foodstuffs | |

| | |
|--|---|
| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, including case studies, group work, exercises, presentations, and discussions The method for communication of knowledge is reasonable and beneficial for preparing students for jobs in product management of food-producing companies. Self-studies: preparation and evaluation, preparation of presentations, exam preparation |
| Study and examination credits | One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | Ahlert, D., Kenning, P. (2007). Handelsmarketing. Berlin: Springer Verlag. Fill, C. (2006). Harlow et al.: Pearson Education LTD. Nagle, T.T., Hogan, J.E. (2006). The Strategy and Tactics of Pricing. Upper Saddle River: Prentice Hall. Strecker, O., Strecker, O.A., Elles, A., Weschke, H.-D., Kieblisch, C. (2010). Marketing für Lebensmittel und Agrarprodukte, 4. A., Frankfurt am Main: DLG Verlag. Wagner, P. (2001). Marketing in der Agrar- und Ernährungsindustrie. Stuttgart: Ulmer Verlag. Set of slides (approx. 300 pages), set of cases and problems <i>E-learning platform EMIL</i> : auxiliary materials |

Bachelor degree programme of nutrition & home economics / second and third academic year – area of concentration
Area of concentration B – foodstuffs, product development, marketing

| | |
|---|---|
| Module index number 4050 | Sensory analysis |
| Module coordination / module supervision | Prof. Dr. Andrea Bauer |
| Lecturers | Prof. Dr. Andrea Bauer, Dr. Karolin Schacht |
| Period / semester / interval | From fourth semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: Modules of the first academic year |
| Course language | German during winter semester, German and English during summer semester |

Competences to be acquired / learning objectives

Function- / content-related and methodical competences

Students are able to ...

- select and train testers for sensory panels and monitor panel performance so that a suitable measurement instrument is obtained;
- correctly select and apply sensory methods for specific issues and problems;
- plan, prepare, and execute sensory sessions by means of special EDP programmes or papers;
- evaluate the results using various EDP programmes or conventional methods and present the results to the client in the form of a report in a readily understandable way.

Social and self-competence

Students are able to ...

- independently perform research;
- extrapolate assessments and defend/justify them within the scope of discussions;
- illustrate and explain results from sensory examinations by means of presentation techniques;
- give recommendations for product developments or marketing decisions on the basis of the results.

Learning contents

- Fundamentals of sensory perception
- Selection of testers, structuring and training of a test panel for sensory examinations
- Design of a sensory testing lab
- Methods for examination of taste sensitivity
- Methods for identification of colour or odour, texture perception
- Descriptive methods
- Discrimination tests

| | |
|--|---|
| | <ul style="list-style-type: none"> • Hedonic / affective methods • Methods for quality assurance • Statistic methods for data evaluation • Evaluation of results • Communication of sensory results |
| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, group work, e-learning, demonstrations, student speeches Self-studies: preparation and evaluation, exam preparation |
| Study and examination credits | One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | Lawless, H. T., Heymann, H. (2010). Sensory Evaluation of Food: Principles and Practices. Heidelberg: Springer. Meilgaard, M. C., Civille, G.V. et al., Eds. (2007). Sensory Evaluation Techniques. Boca Raton: CRC Press. O'Mahony, M. (1986). Sensory Evaluation of Food: Statistical Methods and Procedures. New York: Marcel Dekker. Stone, H., Bleibaum, R. et al. (2012). Sensory Evaluation Practices. London: Academic Press. <i>E-learning platform EMIL: auxiliary material</i> |

Bachelor degree programme of nutrition & home economics / second and third academic year – area of concentration
Area of concentration B – foodstuffs, product development, marketing

| | |
|---|---|
| Module index number 4060 | Food technology |
| Module coordination / module supervision | Prof. Dr. Jan Fritsche, Prof. Dr. Katharina Riehn |
| Lecturers | Prof. Dr. Jan Fritsche, Prof. Dr. Katharina Riehn |
| Period / semester / interval | From fourth semester, module offered every year |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: modules from the first and second academic year |
| Course language | German |

Competences to be acquired / learning objectives

Function- / content-related and methodical competences

Students are able to ...

- understand the basic principles of food technology (e.g. basic operations) and to comprehend complex, food-technological production processes in practice;
- analyse production processes in food economics with regard to various aspects of resource optimisation (both product- and environment-related);
- analyse production processes in food economics with regard to various aspects of animal welfare and consumer protection;
- understand and classify the advantages and disadvantages of different production processes for product quality.

Social and self-competence

Students are able to ...

- independently comprehend food technology processes and develop process optimisation suggestions at their own responsibility;
- analyse food technology aspects and parameters in interdisciplinary project teams and provide qualified consulting for neighbouring disciplines (e.g. sensory aspects, food law, quality management, product development).

Learning contents

- Basic principles of food processing and preservation
- Modern food conservation and preservation processes (e.g. UHP)
- Production and processing of cooking fats and oils
- Fat modification processes and margarine production process
- Cereal processing and modern milling industry processes for cereal refinement
- Dairy processing and cheese production
- Functional modification of dairy proteins

| | |
|--|---|
| <ul style="list-style-type: none"> • Fish processing and limits of the fishing industry (MSC) • Meat production, meat processing, technology of meat products • Biotechnology and green genetic engineering | |
| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, including discussions and case studies Self-studies: preparation and evaluation, exam preparation |
| Study and examination credits | One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | Heiss, R. (Hrsg.) (2004). Lebensmitteltechnologie: Biotechnologische, chemische, mechanische und thermische Verfahren der Lebensmittelverarbeitung. Berlin: Springer Verlag. Tscheuschner, H.D. (1986). Lebensmitteltechnik. Darmstadt: Steinkopff Verlag. Ternes, W. (2000). Naturwissenschaftliche Grundlagen der Lebensmittelzubereitung. Hamburg: Behr's Verlag. Handout |

Bachelor degree programme of nutrition & home economics / second and third academic year – area of concentration

Area of concentration B – foodstuffs, product development, marketing

| | |
|---|---|
| Module index number | Market research |
| Module coordination / module supervision | Prof. Dr. Helmut Laberenz |
| Lecturers | Prof. Dr. Helmut Laberenz, M.A. Birgit Menz |
| Period / semester / interval | From fourth semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: Modules of the first academic year |
| Course language | German during winter semester, English during summer semester |

Competences to be acquired / learning objectives

Function- / content-related and methodical competences

Students are able to ...

- illustrate modern methods and techniques of quantitative and qualitative market research;
- explain the fields of application as well as potential advantages and disadvantages of the different methods of data acquisition;
- understand the structure and layout of questionnaires;
- differentiate between and evaluate the methods of sampling;
- understand the concepts for research projects;
- independently develop, implement, and analyse a small market research survey.

Social and self-competence

Students are able to ...

- reflect on subject contents and formulate questions to that respect;
- interpret the results of market research projects;
- assess the quality of market research studies;
- develop concepts for research measures;
- develop and test questionnaires;
- present the results of field research in the form of reports and presentations;
- hold and defend their judgements, assessments, and solutions in discussions with others.

Learning contents

- Basic principles of market and social research (ethical problems, overview of methods for social research)
- Methods of market research (concepts of market and social research measures, methods of quantitative and qualitative field research, sampling, organisation and execution of field research)

| | |
|---|---|
| <ul style="list-style-type: none"> • Reporting (compilation of research reports, critical assessment of research publications, assessment of validity, reliability, objectivity) | |
| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, including group work phases (project: student's survey) Self-studies: preparation and evaluation, preparation of their surveys, exam preparation |
| Study and examination credits | One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | Weis, H.C., Steinmetz, P. (2012). Marktforschung. Ludwigshafen (Rhine): Kiehl Verlag. <i>E-learning platform EMIL: auxiliary materials.</i> |

| Bachelor degree programme of nutrition & home economics / second and third academic year – area of concentration | |
|---|---|
| Area of concentration B – foodstuffs, product development, marketing | |
| Module index number 4080 | Consumer behaviour |
| Module coordination / module supervision | Prof. Dr. Helmut Laberenz |
| Lecturers | Prof. Dr. Helmut Laberenz |
| Period / semester / interval | From fourth semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: Modules of the first academic year |
| Course language | German during winter semester, English during summer semester |
| <p>Competences to be acquired / learning objectives</p> <p>Function- / content-related and methodical competences</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • comprehend the complexity of human behaviour in general and consumer behaviour in particular (with a special focus on food and consumer goods); • explain the purposes, fields of activity, and objectives of consumer research; • illustrate the relevance of findings for marketing, social marketing, politics and consumer protection; • illustrate the sequence of purchase decision-making processes of individuals and groups; • illustrate the major individual and social influential factors of consumer behaviour and to highlight their relevance for action. <p>Social and self-competence</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • reflect on subject contents and formulate questions to that respect; • understand and explain real behaviour on the basis of the findings from consumer research and to reflect on their own consumer behaviour; • analyse and evaluate marketing measures of companies; • develop exemplary concepts for influencing consumer behaviour; • perform secondary research on selected topics about consumer behaviour, record the results in a report and present them in public. | |
| <p>Learning contents</p> <ul style="list-style-type: none"> • Households as economic entities (the role and position of private households in the economy) • Decision-making behaviour (individual decision-making behaviour, decisions of groups (e.g. private households)) | |

| | |
|--|---|
| <ul style="list-style-type: none"> • Psychological determinants of consumer behaviour (system of psychological variables, activating determinants (activation, emotion, motivation, attitude) and cognitive determinants (receipt, processing, and saving of information)) • Environmental determinants of consumer behaviour (system of environmental variables, influence of the near and far social environment, influence of the physical environment) | |
| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, group work, Self-studies: preparation and evaluation, exam preparation |
| Study and examination credits | One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | Solomon, M. (2013). Consumer behaviour Financial Times. Harlow: Prentice Hall. Solomon, M. (2013): Konsumentenverhalten, Harlow: Pearson. <i>E-learning platform EMIL: auxiliary materials.</i> |

Bachelor degree programme of nutrition & home economics / second and third academic year – area of concentration

Area of concentration B – foodstuffs, product development, marketing

| | |
|---|---|
| Module index number 4040 | Product development |
| Module coordination / module supervision | Prof. Dr. Andrea Bauer |
| Lecturers | Prof. Dr. Andrea Bauer |
| Period / semester / interval | From fourth semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: Modules of the first academic year |
| Course language | German |

Competences to be acquired / learning objectives

Function- / content-related and methodical competences

Students are able to ...

- select and use ingredients and additives from the industry for special issues and combine their properties in a suitable, required manner;
- develop and optimise products in practical experiments, making use of selected examples;
- compile recipes, method guidelines and specifications for industrially manufactured products;
- classify products in terms of food law and verify their composition.

Social and self-competence

Students are able to ...

- independently perform research;
- extrapolate assessments and defend/justify them within the scope of discussions;
- make decisions on the basis of proper criteria and present these decisions in a plausible way.

Learning contents

- Fundamentals and procedures for product development in the industrial sector
- Getting to know selected ingredients and additives (flavouring agents, types of amyllum and other hydrocolloids, colourants, sweeteners, and other functional ingredients) in theory and practice
- Fundamentals of food law
- Working on recipes for selected product examples applying methodology procedures and implement them to obtain products
- Compliance with technological, sensory, and economic aspects

| | |
|--|---|
| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, laboratory training, group work, e-learning, demonstrations, student speeches Self-studies: preparation and evaluation, exam preparation |
| Study and examination credits | One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | Brody, A. L., Lord, J. B. (Hrsg.) (2007). Developing New Food Products for a Changing Marketplace. Boca Raton (Florida): CRC Press. Moskowitz, H. R., Saguy, S. et al. (Hrsg.) (2009). An Integrated Approach to New Food Product Development. Boca Raton: CRC Press. <i>E-learning platform EMIL: auxiliary material</i> |

Area of concentration C – catering, services, sustainability

| Bachelor degree programme of nutrition & home economics / second and third academic year – area of concentration Area of concentration C – catering, services, sustainability | |
|---|---|
| Module index number | Catering services |
| Module coordination / module supervision | Prof. Ulrike Pfannes |
| Lecturers | Prof. Ulrike Pfannes |
| Period / semester / interval | From fourth semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: Modules of the first academic year |
| Course language | German during winter semester, English during summer semester |
| <p>Competences to be acquired / learning objectives</p> <p>Function- / content-related and methodical competences</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • describe the impact that communal catering (CC) has on health promotion and maintenance; • explain and evaluate different catering systems, supply and presentation systems; • specify legal regulations and basic principles for design of health-promoting diets, and to assess typical menus for CC; • specify aspects of sustainability in CC and apply them for different fields, such as foodstuffs and food, resources and equipment, or waste; • describe the framework conditions of CC in typical spheres of life, such as child daycare facilities, schools, enterprises, old-age care facilities, and hospitals, and to apply the principles of quality management to the field of catering; • interpret and explain the DGE quality standards for different spheres of life, identify their scientific foundation and extrapolate suitable measures for implementation into those spheres of life; • develop suitable measures for scenarios with different framework conditions, ensuring high quality of catering. <p>Social and self-competence</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • independently perform research; • make assessments and defend/justify them within the scope of discussions; • present systematic procedures using a practical example and implementing production in a team using the canteen as their location; in this context, make decisions on the basis of proper criteria and present these decisions in a plausible way. | |

| | |
|--|---|
| <ul style="list-style-type: none"> critically reflect on implementation into practice. | |
| Learning contents <ul style="list-style-type: none"> Situation of CC in Germany and Europe, national plan of action Catering systems (fresh and mixed cooking, Cook & Chill, frozen meals / products, warm meal catering), supply and presentation systems (cafeteria line, Free Flow, etc.) Aspects of menu design, including legal foundations Impact of cultural and ethnic influences on menu design Assessment of convenience products Sustainability in CC Framework conditions of catering in specific spheres of life (child daycare facilities, schools, enterprises, shift and night work, canteens, old-age care facilities, meals on wheels, hospitals and convalescent hospitals) DGE quality standards for catering, food-based recommendations and D-A-CH reference values for CC Other quality standards, such as the Optimix concept of FKE Evaluation of catering, use of check-lists, healthy-meal index, etc. | |
| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, group work, e-learning, demonstrations, student speeches, excursions Self-studies: preparing a menu concept for a canteen, development of a suitable marketing strategy, exam preparation |
| Study and examination credits | One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | Arens-Azevedo, U. (2013). Die Bedeutung der D-A-CH Referenzwerte für die Gemeinschaftsverpflegung in Elmadfa, I. (Hrsg.): Referenzwerte für die tägliche Nährstoffzufuhr, Stuttgart: wissenschaftliche Verlagsgesellschaft S. 159-167. Cousin, J. et.al. (2011). Food and Beverage Management. Oxford: Goodfellow Publisher. Davis, B.et.al (2012). Food and Beverage Management, 5th edition. Oxford: Elsevier. DGE (Hrsg.) (2012). 12. Ernährungsbericht. Bonn. DGE (Hrsg.) (2011). Quality standards for catering in child daycare facilities, schools, enterprises, meals on wheels, stationary old-age care facilities, hospitals and convalescent hospitals. Bonn. <i>E-learning platform EMIL: auxiliary material</i> |

Bachelor degree programme of nutrition & home economics / second and third academic year – area of concentration
Area of concentration C – catering, services, sustainability

| | |
|---|---|
| Module index number 5020 | Catering and cleaning engineering |
| Module coordination / module supervision | Prof. Dr. Jörg Andreä |
| Lecturers | Prof. Dr. Jörg Andreä |
| Period / semester / interval | From fourth semester, module offered every year |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: Modules from the first academic year, physics and engineering module |
| Course language | German |

Competences to be acquired / learning objectives

Function- / content-related and methodical competences

Students are able to ...

- explain the technical and physical principles of devices and appliances used in canteen / commercial kitchens;
- specify and evaluate the devices and technologies used for cleaning of canteen / commercial kitchens;
- applying basic principles of measuring engineering for acquisition of process variables.

Social and self-competence

Students are able to ...

- organise themselves for working in large and small groups;
- identify division of work and responsibilities as goal-oriented and implement this principle in a productive way;
- further develop individual opportunities in the field of natural science and engineering;
- apply the acquired knowledge to concrete working situations.

Learning contents

- Energy requirements for canteen / commercial kitchens
- Device engineering for canteen / commercial kitchens:
 - machines for preparation and cooking
 - cooking and reheating systems
 - cooling and freezing devices
 - water processing
 - hot-drink dispensers / vending machines
- Catering and supply systems:
 - overview of systems
 - device engineering (for Cook & Chill, part. steam cookers, quick cooling units)

| | |
|---|---|
| <ul style="list-style-type: none"> • Hygiene requirements (implementation of HACCP, among others) • Use of EDP technology for canteen / commercial kitchens • Cleaning technology: <ul style="list-style-type: none"> ○ commercial dish-washing ○ industrial cleaning technology • Laboratory training: Preparation and execution of practical measurement tasks based on the learning contents of the module; evaluation and recording of results | |
| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, including exercises, presentations, and discussions, laboratory training Self-studies: preparation and evaluation, exam preparation |
| Study and examination credits | One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | aid (Hrsg.) (2005). Küche und Technik. Bonn: aid infodienst. Wagner, C., Hildt, U. (2002). Die Großküche: Raum, Geräte und Installation, Einrichtung und Organisation, Arbeitshygiene. Hamburg: Handwerk und Technik. Wetterau, J. Seidl, M., Fladung, U. (Hrsg.) (2008). Modernes Verpflegungsmanagement. Frankfurt am Main: Deutscher Fachverlag. <i>E-learning platform EMIL</i> : Lecture presentation handout, set of exercises, auxiliary material |

Bachelor degree programme of nutrition & home economics / second and third academic year – area of concentration
Area of concentration C – catering, services, sustainability

| | |
|---|---|
| Module index number 5060 | Household engineering, energy and environment |
| Module coordination / module supervision | Prof. Dr. Jörg Andreä |
| Lecturers | Prof. Dr. Jörg Andreä, Dipl.oec.troph. Fritz Kropholler |
| Period / semester / interval | From fourth semester, module offered every year |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: mathematics, physics, EDP, as well as physics and engineering modules |
| Course language | German |

Competences to be acquired / learning objectives

Function- / content-related and methodical competences

Students are able to ...

- illustrate and evaluate the functionality and applications of device technology in households; focus on household appliances from the field of food processing and preparation!
- explain basics of power supply for private households;
- explain and apply general principles of relevant measurement technology for testing and analysis of device properties;
- explain the energy consumption and application in private households (generation and use of energy, environmental aspects);
- assess cumulated energy and ecological footprints of household appliances.

Social and self-competence

Students are able to ...

- organise themselves for working in large and small groups;
- identify division of work and responsibilities as goal-oriented and implement this principle in a productive way;
- further develop individual opportunities in the field of natural science and engineering;
- apply the acquired knowledge to concrete working situations.

Learning contents

- Introduction to household device engineering
- Environmental aspects (resources, greenhouse effect, etc.)
- Laboratory training: Preparation and execution of practical measurement tasks based on the learning contents of the module; evaluation and recording of results

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| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, including exercises, presentations, and discussions Practical experiments Self-studies: preparation and evaluation, exam preparation |
| Study and examination credits | One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | aid (Hrsg.) (2010). Lebensmittelverarbeitung im Haushalt, Bonn: aid infodienst. Pichert, H. (1996). Grundlagen der Haushalttechnik. Stuttgart: Ulmer Verlag. Pichert, H. (2001). Haushalttechnik: Verfahren und Geräte. Stuttgart: Ulmer Verlag. Wegner, G. E. (2008). Elektrische Haushaltsgeräte: Technik und Service. Heidelberg: Hüthig & Pflaum. <i>E-learning platform EMIL</i> : Lecture presentation handout, auxiliary material |

Bachelor degree programme of nutrition & home economics / second and third academic year – area of concentration

Area of concentration C – catering, services, sustainability

| | |
|---|---|
| Module index number 5210 | Organisation and human resources development |
| Module coordination / module supervision | Prof. Dr. Birgit Käthe Peters |
| Lecturers | Prof. Dr. Birgit Käthe Peters |
| Period / semester / interval | From fourth semester, module offered every year |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: general compulsory programme modules |
| Course language | German |

Competences to be acquired / learning objectives

Function- / content-related and methodical competences

Students are able to ...

- analyse and plan the framework conditions, actual situation, demands and requirements of organisational and human resource development;
- compile measures and recommendations for human resource development;
- design measures and recommendations for organisation (structure and sequence organisation)
- understand that organisation and human resource development are indispensable prerequisites for all successful companies, regardless of their industry or size;
- identify human resource development as a person-oriented approach and organisation development as a structure-oriented approach of change and to establish relations between the two;
- describe forms of operational change, as well as analyse and contribute towards processes of change management.

Social and self-competence

Students are able to ...

- independently work with case studies and problems, including qualified research;
- develop suggestions for decision-making on the basis of criteria and present them to others;
- develop an understanding of their own professional career (human resource development);
- develop and extrapolate ways of action through discussion with fellow students and lecturers;
- reflect on dealing with change (anxieties, chances, risks, openness);
- assess professional and managerial tasks in change processes and reflect on personal abilities and skills in this context.

Learning contents

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| <p>Organisation</p> <ul style="list-style-type: none"> • Formal organisation: Organisational structure (job creation, guidance system, management system, information and communication system, process organisation (process design, process forms, time management) • Informal organisation (analysis, impact, advantages, disadvantages) • Framework conditions and triggers for organisation development and modification • Organisation and gender <p>Human resource development</p> <ul style="list-style-type: none"> • Human resource development as part of human resource management • Objectives, bearers, concepts, demand and requirements for human resource development • Instruments and planning of measures • Control of human resource development measures <p>Change management: Design and structure of company change</p> <ul style="list-style-type: none"> • Link between organisation and human resource development • Stocktaking, concept development, implementation, control • Change design • Anxieties and resistance; handling of negative reactions on change | |
| <p>Teaching and learning forms / methods / media formats</p> | <p>Attendance studies: seminar lectures, group work, e-learning, demonstrations, student speeches, excursions</p> <p>Self-studies: preparation and evaluation, exam preparation</p> |
| <p>Study and examination credits</p> | <p>One examination credit: paper, written exam, oral exam or presentation;</p> <p>The type of examination is specified by the examiner at the beginning of the course.</p> |
| <p>Literature / work material</p> | <p>Handout</p> <p>Becker, M. (2009). Personalentwicklung, Stuttgart: Schäffer-Poeschel Verlag.</p> <p>Bröckermann, R., Müller-Vorbrüggen, M. (2008). Handbuch Personalentwicklung. Stuttgart: Schäffer-Poeschel-Verlag.</p> <p>Doppler, K., Lauterburg, C. (2005). Change Management – den Unternehmenswandel gestalten. Frankfurt a. M.: Campus Verlag.</p> <p>Fischermanns, G. (2006). Praxishandbuch Prozessmanagement. Gießen: Verlag G. Schmidt.</p> <p>König, O., Schattenhofer, K. (2012), Einführung in die Gruppendynamik. Heidelberg: Carl-Auer Verlag.</p> <p>Mentzel, W. (2005). Personalentwicklung. München: dtv.</p> <p><i>E-learning platform EMIL: auxiliary materials.</i></p> |

| Bachelor degree programme of nutrition & home economics / second and third academic year – area of concentration | |
|--|---|
| Area of concentration C – catering, services, sustainability | |
| Module index number | Hospitality and facility management |
| Module coordination / module supervision | Prof. Dr. Ulrike Pfannes |
| Lecturers | Prof. Dr. Ulrike Pfannes |
| Period / semester / interval | from the fourth semester, module offered every year |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: Modules of the first academic year |
| Course language | German |
| <p>Competences to be acquired / learning objectives</p> <p>Function- / content-related and methodical competences</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • describe the significance, impact, and special aspects of home economics services and facility management; • explain the various perspectives and possibilities for action in terms of sustainability (economy, ecology, social aspects) in the field of home economics and infrastructural FM; • outline task fields and activities in FM and home economics against different backgrounds or settings (child daycare, schools, hospitals, old-age care) and for different types of organisations (social facilities, industrial or service companies); • critically evaluate concepts for supply and services (with a focus on home economics) in facilities; • work with case studies and problems and provide solutions. <p>Social and self-competence</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • do research in technical literature (print and digital) and professional journals and to make use of such media for working on relevant topics; • utilise and assess guidelines, recommendations, regulations and standards for home economics and FM; • develop and present service concepts. | |
| <p>Learning contents</p> <p>Supply management with a focus on home economics services</p> <ul style="list-style-type: none"> • Impact of every-day and person-related services on public services and everyday culture • Supply in connection with private households, social services and home economics companies | |

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| <ul style="list-style-type: none"> • Sustainability and home economics • Gender perspective and social impact of supply services • Overview of services in facilities and companies: communal catering, cleaning and hygiene, structuring of the environment, textiles cleaning and care, personal care services <p>Facility management (FM) with a focus on infrastructural FM</p> <ul style="list-style-type: none"> • Overview of facility management (basic concepts, sector, developments, perspectives, providers) • Overlap with the fields of home economics, facility cleaning, communal catering and infrastructural facility management • Basic principles of infrastructural facility management: hygiene and cleaning management, among others • Facility management in the field of care (hospitality management) • Sustainability and infrastructural FM | |
| <p>Teaching and learning forms / methods / media formats</p> | <p>Attendance studies: seminar lectures, group work, e-learning, demonstrations, student speeches, excursions</p> <p>Self-studies: preparation and evaluation, exam preparation</p> |
| <p>Study and examination credits</p> | <p>One examination credit: paper, written exam, oral exam or presentation;</p> <p>The type of examination is specified by the examiner at the beginning of the course.</p> |
| <p>Literature / work material</p> | <p>Bräunig, D. (2007). Der Großhaushalt im Versorgungsverbund, Baltmannsweiler: Schneider Verlag Hohengehren.</p> <p>Deeken, I. (2009). Eigenerstellung oder Fremdvergabe von Versorgungsleistungen im Alter. Baltmannsweiler: Schneider Hohengehren.</p> <p>Feulner, M., Pfannes U. (2/2012), Betreuung und Versorgung – zwei Säulen der Hauswirtschaft für die Weiterentwicklung von sozialen Einrichtungen und Diensten, in: Hauswirtschaft und Wissenschaft (HuW), S.93-104.</p> <p>Kummert, K., May, M., Pelzeter, A. (Hrsg.) (2013). Nachhaltiges Facility Management. Berlin: Springer Verlag.</p> <p>Leicht-Eckardt, E. (Hrsg.) (2006). Bewohnerorientierte Hauswirtschaft. Munich: Verlag Neuer Merkur.</p> <p><i>E-learning platform EMIL: auxiliary materials.</i></p> |

Bachelor degree programme of nutrition & home economics / second and third academic year – area of concentration
Area of concentration C – catering, services, sustainability

| | |
|---|---|
| Module index number 5070 | Residential and domestic engineering |
| Module coordination / module supervision | Prof. Dr. Jörg Andreä |
| Lecturers | Prof. Dr. Jörg Andreä |
| Period / semester / interval | From fourth semester, module offered every year |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: general compulsory programme modules |
| Course language | German |

Competences to be acquired / learning objectives

Function- / content-related and methodical competences

Students are able to ...

Residential:

- residential ecology: identify and reflect on interaction between people and their residential environment;
- explain and contribute towards development of residential concepts for communal living, residential communities, assisted living using house economics services;
- describe and contribute towards development of residential requirements and standards for different target groups (e.g. barrier-free living);
- be familiar with and evaluate options for residential support by technology.

Domestic engineering

- explain and evaluate the technical aspects of supply systems installed in the facility;
- apply their knowledge of basic legal regulations for energy-saving construction and facility engineering (e.g. energy-saving regulation), assess and implement responsible handling of resources;
- explain and evaluate ergonomic aspects of operation of technical devices.

Social and self-competence

Students are able to ...

- reflect on their own residential biography, develop their own residential ideas and requirements;
- make responsible decisions in terms of technical supply systems and living;
- do research and contemplate on relevant issues in an independent manner, act responsibly;
- develop and extrapolate ways of action that are relevant for planning and counselling situations, during discussions with fellow students and lecturers;
- independently work with case studies and problems.

| | |
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| <p>Learning contents</p> <p><u>1. Residential</u></p> <ul style="list-style-type: none"> • historic development: change of living and residential concepts • the way of living during different life phases: residential space, residential buildings, residential environment • forms of residential living: individual living (living in private households), residential communities (living within the service organisation, e.g. stationary old-age care facility), shared living (e.g. temporary residential communities, multi-generation living) • living with special needs: e.g. low-barrier and barrier-free living • technology-assisted living: smart home, ambient assisted living • residential counselling / adjustment, e.g. in old age <p><u>2. Domestic engineering</u></p> <ul style="list-style-type: none"> • Kitchen planning, ergonomics and barrier-free design • General principles of energy-saving construction • Installation and technical equipment of residential spaces for the purpose of heating (fossil and renewable fuels, regenerative forms of energy), ventilation and air conditioning, lighting, hot-water supply, safety and security, facility bus systems, communication systems | |
| <p>Teaching and learning forms / methods / media formats</p> | <p>Attendance studies: seminar lectures, including exercises, speeches, discussions, presentations and case studies, practical domestic engineering experiments for training purposes</p> <p>Self-studies: preparation and evaluation, preparation of presentations, exam preparation</p> |
| <p>Study and examination credits</p> | <p>One examination credit: paper, written exam, oral exam or presentation;</p> <p>The type of examination is specified by the examiner at the beginning of the course.</p> |
| <p>Literature / work material</p> | <p>aid (Hrsg.) (2001). Haushaltsgeräte und Küchen. aid-Heft 1422. Bonn: aid-Vertrieb DVG.</p> <p>Deutsche Gesellschaft für Hauswirtschaft e.V. (Hrsg.) (2004). Wohnformen – Beiträge zu einer zukunftsorientierten Wohnversorgung. Wallenhorst: dgh.</p> <p>Fachausschuss Haushaltstechnik der DGH, Arbeitskreis Barrierefreie Hausgeräte (Hrsg.) (1996 – 2000). Checklisten Barrierefreie Hausgeräte. Heidelberg: Energie-Verlag.</p> <p>KDA (Hrsg.) (2008). Vom Pflegeheim zur Hausgemeinschaft – Wohnmodelle für pflegebedürftige Menschen. Köln: KDA.</p> <p>Mitschek, C. (Hrsg.) (2000). Planen, Bauen, Wohnen. Köln: Stam Verlag.</p> <p>Rughöft, S. (1992). Wohnökologie – Grundwissen. Stuttgart: Ulmer Verlag.</p> <p>RWE Energie AG (Hrsg.) (2004). RWE Bau-Handbuch. Heidelberg: Energie-Verlag.</p> <p><i>E-learning platform EMIL</i>: Lecture presentation handout, auxiliary material</p> |

Area of concentration D – food safety and control

| Bachelor degree programme of nutrition & home economics / second and third academic year – area of concentration Area of concentration D – food safety and control | |
|---|---|
| Module index number | General administrative law I |
| Module coordination / module supervision | Prof. Dr. Martin Holle |
| Lecturers | Prof. Dr. Martin Holle |
| Period / semester / interval | From fourth semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: general compulsory programme modules |
| Course language | German |
| <p>Competences to be acquired / learning objectives</p> <p>Function- / content-related and methodical competences</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • interpretation of EU law with regard to EU structures and responsibilities; • explain the basic principles of state and constitutional law, German legislation, legal sources, as well as administrative and procedural law; • explain administrative action on the basis of administrative and procedural law, including law enforcement; • delineate administrative methods, particularly application of law; • explain the rights and obligations of employees in civil service; • illustrate and explain the major provisions of European and German administrative law and constitutional law. <p>Social and self-competence</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • independently do research on administrative law information and put that information into practice; • appropriately evaluate practical examples based on administrative law in group discussions; • identify changes in administrative law by means of their own research and extrapolate their impact for professional practice. | |
| <p>Learning contents</p> <ul style="list-style-type: none"> • General legal studies and methods for application of law • General principles of administrative law and European Community Law • General administrative law and procedural law • Basic principles of public safety and order law and of commercial law | |

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| <ul style="list-style-type: none"> • Basic principles of civil service law | |
| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, including exercises Self-studies: preparation and evaluation, exam preparation |
| Study and examination credits | One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | Literature and work material depend on the respective topics |

Bachelor degree programme of nutrition & home economics / second and third academic year – area of concentration
Area of concentration D – food safety and control

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|---|---|
| Module index number | Catering services |
| Module coordination / module supervision | Prof. Ulrike Pfannes |
| Lecturers | Prof. Ulrike Pfannes |
| Period / semester / interval | From fourth semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: Modules of the first academic year |
| Course language | German during winter semester, English during summer semester |

Competences to be acquired / learning objectives

Function- / content-related and methodical competences

Students are able to ...

- describe the impact that communal catering (CC) has on health promotion and maintenance;
- explain and evaluate different catering systems, supply and presentation systems;
- specify legal regulations and basic principles for design of health-promoting diets, and to assess typical menus for CC;
- specify aspects of sustainability in CC and apply them for different fields, such as foodstuffs and food, resources and equipment, or waste;
- describe the framework conditions of CC in typical spheres of life, such as child daycare facilities, schools, enterprises, old-age care facilities, and hospitals, and to apply the principles of quality management to the field of catering;
- interpret and explain the DGE quality standards for different spheres of life, identify their scientific foundation and extrapolate suitable measures for implementation into those spheres of life;
- develop suitable measures for scenarios with different framework conditions, ensuring high quality of catering.

Social and self-competence

Students are able to ...

- independently perform research;
- make assessments and defend/justify them within the scope of discussions;
- present systematic procedures using a practical example and implementing production in a team using the canteen as their location; in this context, make decisions on the basis of proper criteria and present these decisions in a plausible way.
- critically reflect on implementation into practice.

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| <p>Learning contents</p> <ul style="list-style-type: none"> • Situation of CC in Germany and Europe, national plan of action • Catering systems (fresh and mixed cooking, Cook & Chill, frozen meals/products, warm meal catering), supply and presentation systems (cafeteria line, Free Flow, etc.) • Aspects of menu design, including legal foundations • Impact of cultural and ethnic influences on menu design • Assessment of convenience products • Sustainability in CC • Framework conditions of catering in specific spheres of life (child daycare facilities, schools, enterprises, shift and night work, canteens, old-age care facilities, meals on wheels, hospitals and convalescent hospitals) • DGE quality standards for catering, food-based recommendations and D-A-CH reference values for CC • Other quality standards, such as the Optimix concept of FKE • Evaluation of catering, use of check-lists, healthy-meal index, etc. | |
| <p>Teaching and learning forms / methods / media formats</p> | <p>Attendance studies: seminar lectures, group work, e-learning, demonstrations, student speeches, excursions</p> <p>Self-studies: preparing a menu concept for a canteen, development of a suitable marketing strategy, exam preparation</p> |
| <p>Study and examination credits</p> | <p>One examination credit: paper, written exam, oral exam or presentation;</p> <p>The type of examination is specified by the examiner at the beginning of the course.</p> |
| <p>Literature / work material</p> | <p>Arens-Azevedo, U. (2013). Die Bedeutung der D-A-CH Referenzwerte für die Gemeinschaftsverpflegung in Elmadfa, I. (Hrsg.): Referenzwerte für die tägliche Nährstoffzufuhr. Stuttgart: wissenschaftliche Verlagsgesellschaft S. 159-167.</p> <p>Cousin, J. et.al. (2011). Food and Beverage Management. Oxford: Goodfellow Publisher.</p> <p>Davis, B.et.al (2012).Food and Beverage Management, 5th edition. Oxford: Elsevier.</p> <p>DGE (Hrsg.) (2012). 12. Ernährungsbericht. Bonn.</p> <p>DGE (Hrsg.) (2011). Quality standards for catering in child daycare facilities, schools, enterprises, meals on wheels, stationary old-age care facilities, hospitals and convalescent hospitals. Bonn.</p> <p><i>E-learning platform EMIL: auxiliary material</i></p> |

Bachelor degree programme of nutrition & home economics / second and third academic year – area of concentration
Area of concentration D – food safety and control

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|---|---|
| Module index number 5020 | Catering and cleaning engineering |
| Module coordination / module supervision | Prof. Dr. Jörg Andreä |
| Lecturers | Prof. Dr. Jörg Andreä |
| Period / semester / interval | From fourth semester, module offered every year |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: Modules from the first academic year, physics and engineering module |
| Course language | German |

Competences to be acquired / learning objectives
Function- / content-related and methodical competences
 Students are able to ...

- explain the technical and physical principles of devices and appliances used in canteen / commercial kitchens;
- specify and evaluate the devices and technologies used for cleaning of canteen / commercial kitchens;
- applying basic principles of measuring engineering for acquisition of process variables.

Social and self-competence
 Students are able to ...

- organise themselves for working in large and small groups;
- identify division of work and responsibilities as goal-oriented and implement this principle in a productive way;
- further develop individual opportunities in the field of natural science and engineering;
- apply the acquired knowledge to concrete working situations.

Learning contents

- Energy requirements for canteen / commercial kitchens
- Device engineering for canteen / commercial kitchens:
 - machines for preparation and cooking
 - cooking and reheating systems
 - cooling and freezing devices
 - water processing
 - hot-drink dispensers / vending machines
- Catering and supply systems:
 - overview of systems
 - device engineering (for Cook & Chill, part. steam cookers, quick cooling units)

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| <ul style="list-style-type: none"> • Hygiene requirements (implementation of HACCP, among others) • Use of EDP technology for canteen / commercial kitchens • Cleaning technology: <ul style="list-style-type: none"> ○ commercial dish-washing ○ industrial cleaning technology • Laboratory training: Preparation and execution of practical measurement tasks based on the learning contents of the module; evaluation and recording of results | |
| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, including exercises, presentations, and discussions, laboratory training Self-studies: preparation and evaluation, exam preparation |
| Study and examination credits | One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | aid (Hrsg.) (2005). Küche und Technik. Bonn: aid infodienst. Wagner, C., Hildt, U. (2002). Die Großküche: Raum, Geräte und Installation, Einrichtung und Organisation, Arbeitshygiene. Hamburg: Handwerk und Technik. Wetterau, J., Seidl, M., Fladung, U. (Hrsg.) (2008). Modernes Verpflegungsmanagement. Frankfurt am Main: Deutscher Fachverlag. <i>E-learning platform EMIL</i> : Lecture presentation handout, set of exercises, auxiliary material |

Bachelor degree programme of nutrition & home economics / second and third academic year – area of concentration
Area of concentration D – food safety and control

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|---|---|
| Module index number | Foodstuffs and occupational hygiene |
| Module coordination / module supervision | Prof. Dr. Katharina Riehn |
| Lecturers | Prof. Dr. Katharina Riehn |
| Period / semester / interval | From fourth semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: Modules of the first academic year |
| Course language | German |

Competences to be acquired / learning objectives

Function- / content-related and methodical competences

Students are able to ...

- specify the relevant communal and national laws and legal bases for hygiene in food-processing companies;
- outline the regulations for quality assurance of production processes and production environment (GHP and GMP) in production;
- delineate the origins of health-/hygiene-related influence of food in view of the food supply chain;
- explain the principles of reproduction and tenacity of micro-organisms in food, as well as influences on those aspects due to food-technology processes;
- illustrate various aspects of food-associated onset of diseases;
- specify the relevant legal foundations for infection protection;
- name various processes for cleaning and disinfection in food-processing companies;
- develop concepts for cleaning and disinfection in small-scale food-processing companies.

Social and self-competence

Students are able to ...

- apply the legal specification to concrete situations in the field of food-related and occupational hygiene;
- provide risk-based solution proposals for hygiene problems in the field of food and occupational safety;
- develop and present an in-house system for hygiene management (incl. cleaning and disinfection) on the basis of legal specifications and standards;
- implement planning of self-control systems for small-scale food-processing companies;
- propose suitable food-technology processes for strategic reduction of microbial loads of various foodstuffs:

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| <ul style="list-style-type: none"> • apply the provisions of the law on prevention of infection to concrete, practical case studies in food-processing companies; • compile and present contents for training of employees in the field of food and occupational hygiene. | |
| <p>Learning contents</p> <ul style="list-style-type: none"> • Objectives of food hygiene in Germany and Europe • EU hygiene package as well as national legal foundations • Knowledge about health-related / hygienic impacts and causes of microbial contamination due to food-associated bacteria, viruses, and parasites • Reproduction and tenacity of micro-organisms in food • Food-related technological treatment processes • Risk assessment practice in food-processing companies, dairy and food hygiene, bakery and confectionery hygiene, beverage systems hygiene, measurement engineering (use of test instruments) • Food-related onset of diseases • Hygiene management in food-processing companies • Cleaning and disinfection • Basic principles of infection prevention | |
| <p>Teaching and learning forms / methods / media formats</p> | <p>Attendance studies: seminar lectures, group work, e-learning, demonstrations, student speeches, excursions</p> <p>Self-studies: preparation and evaluation, exam preparation</p> |
| <p>Study and examination credits</p> | <p>One examination credit: paper, written exam, oral exam or presentation;</p> <p>The type of examination is specified by the examiner at the beginning of the course.</p> |
| <p>Literature / work material</p> | <p>DIN EN ISO 22000 (2005). Managementsysteme für die Lebensmittelsicherheit – Anforderungen an Organisationen in der Lebensmittelkette. Berlin: Beuth Verlag.</p> <p>Fries, R. (2009). Nutztiere in der Lebensmittelkette. Stuttgart: UTB.</p> <p>Grove, H. H. (2013). EU hygiene package. Heidelberg: Rehm Verlag.</p> <p>Hamdorf, J. (2011). Die aktuelle Lebensmittelhygiene-Verordnung: Umsetzung in die Praxis. Auflage: 1., Aufl. . Berlin: Beuth Verlag.</p> <p>Krämer, J. (2011). Lebensmittelmikrobiologie. Auflage: 6. völlig überarb. Aufl. . Stuttgart: UTB.</p> <p>Sinell, H. J. (Hrsg.) (2003). Einführung in die Lebensmittelhygiene. Auflage: 4., neubearb. A.. Stuttgart: Parey bei Mvs.</p> <p>Smulders, F. J. M. (2007). Tierproduktion und veterinärmedizinische Lebensmittelhygiene. Wageningen: Academic Publishers.</p> <p><i>E-learning platform EMIL: auxiliary materials.</i></p> |

Bachelor degree programme of nutrition & home economics / second and third academic year – area of concentration
Area of concentration D – food safety and control

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|---|---|
| Module index number | Technology of commodities, tobacco products, and cosmetics |
| Module coordination / module supervision | Prof. Dr. Katharina Riehn |
| Lecturers | Prof. Dr. Katharina Riehn |
| Period / semester / interval | From fourth semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: Modules of the first academic year |
| Course language | German |

Competences to be acquired / learning objectives

Function- / content-related and methodical competences

Students are able to ...

- specify the relevant communal and national laws and legal bases for commodities, tobacco products, and cosmetics;
- classify commodities, tobacco products, and cosmetics into different product categories;
- outline the regulations for quality assurance of production processes and production environment (GMP) in production;
- describe legal foundations and laboratory methods for examination and assessment of materials that come into contact with food;
- name and explain various technologies for production of materials that come into contact with food;
- understand and classify the advantages and disadvantages of different production processes for product quality;
- outline the structure and enforcement of official monitoring of commodities, tobacco products, and cosmetics in Germany;
- delineate the basic principles for risk assessment of selected ingredients of cosmetic substances and hygiene products, materials that come into contact with food, as well as tobacco products.

Social and self-competence

Students are able to ...

- apply the legal provisions for concrete, practical issues from the field of commodities, tobacco products, and cosmetics;
- independently comprehend technology processes and develop process optimisation suggestions at their own responsibility;

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| <ul style="list-style-type: none"> • suggest suitable processes for targeted reduction of contaminants and hazardous substances in materials that come into contact with food; • analyse technological aspects with regard to production of selected commodities, tobacco products, and cosmetics in a professional manner and provide qualified counselling for neighbouring specialist fields (e.g. food hygiene and monitoring, food technology). | |
| <p>Learning contents</p> <ul style="list-style-type: none"> • Knowledge of various products and ingredients from the field of commodities, tobacco products, and cosmetics • Knowledge of applicable legal rules and regulations, both on European and on national level • Structure and enforcement of official monitoring of commodities, tobacco products, and cosmetics in Germany • Product safety of selected <ul style="list-style-type: none"> ○ cosmetic substances and hygiene products ○ packaging and containers for food ○ tobacco products • Risk assessment of various selected constituents of the products described • Packaging technology, including active and smart packaging • Application options for nanotechnology | |
| <p>Teaching and learning forms / methods / media formats</p> | <p>Attendance studies: seminar lectures, group work, e-learning, demonstrations, student speeches, excursions</p> <p>Self-studies: preparation and evaluation, exam preparation</p> |
| <p>Study and examination credits</p> | <p>One examination credit: paper, written exam, oral exam or presentation;</p> <p>The type of examination is specified by the examiner at the beginning of the course.</p> |
| <p>Literature / work material</p> | <p>Buchner, N. (1999). Verpackung von Lebensmitteln. Heidelberg: Springer Verlag.</p> <p>Frede, W. (2010). Handbuch für Lebensmittelchemiker: Lebensmittel – Bedarfsgegenstände – Kosmetika – Futtermittel. Heidelberg: Springer Verlag.</p> <p>Kroh, L. W. (2007). Analytik von Bedarfsgegenständen. Hamburg: Behrs Verlag.</p> <p>Montag, A. (1997). Bedarfsgegenstände. Hamburg: Behrs Verlag.</p> <p><i>E-learning platform EMIL: auxiliary materials.</i></p> |

Bachelor degree programme of nutrition & home economics / second and third academic year – area of concentration
Area of concentration D – food safety and control

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|---|---|
| Module index number | Food and feed law, consumer product law I |
| Module coordination / module supervision | Prof. Dr. Martin Holle |
| Lecturers | Prof. Dr. Martin Holle |
| Period / semester / interval | From fourth semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: general compulsory programme modules |
| Course language | German |

Competences to be acquired / learning objectives

Function- / content-related and methodical competences

Students are able to ...

- comprehensibly outline and explain the central provisions of European and German food law in the field of food safety, as well as fraud protection and organisation, tasks, and authorisations of official food monitoring entities;
- explain the most important regulations of food labelling (including commercial grade law), additives law, calibration and finished packs law, food hygiene law, and law on maximum residues;
- outline the rights and obligations of foodstuffs and feedstuffs entrepreneurs;
- illustrate the basic principles of commodities laws and wine law.

Social and self-competence

Students are able to ...

- independently do research on legally relevant rules and regulations and apply them in practice;
- convincingly demonstrate professional competence in group discussions;
- reflect on practical experience in a self-critical manner.

Learning contents

- Law on movement of foodstuffs, feedstuffs, tobacco products, cosmetic products and commodities (incl. basic principles of wine law)
- Basic principles of hygiene law, particularly with regard to foodstuffs of animal origin
- Commercial grade law, pricing and calibration law
- Basic principles of public safety and order law (hazard prevention law)

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| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, including exercises Self-studies: preparation and evaluation, exam preparation |
| Study and examination credits | One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | Literature and work material depend on the respective topics |

Second and third academic year – compulsory elective modules

From the following selection, students shall choose modules to achieve an overall credit of 15 CPs. Alternatively, it is possible for students to take modules from other (not selected) areas of concentration, from other Bachelor degree programmes of the LS faculty and other faculties of HAW Hamburg, as well as modules offered at other national and international universities.

Bachelor degree programme of nutrition & home economics / second and third academic year – area of concentration

Area of concentration D – food safety and control

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|---|---|
| Module index number | General administrative law II |
| Module coordination / module supervision | Prof. Dr. Martin Holle |
| Lecturers | Prof. Dr. Martin Holle |
| Period / semester / interval | From fourth semester, module offered every year |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: general compulsory programme modules, general administrative law I |
| Course language | German |

Competences to be acquired / learning objectives

Function- / content-related and methodical competences

Students are able to ...

- name and interpret the legal foundations for action in civil administration, in general and for official food monitoring, in particular;
- explain instruments for hazard prevention and enforcement of official food monitoring, particularly questioning, reporting, as well as rights and obligations of a competent witness;
- assess the legal admissibility of concrete measures of authorities;
- illustrate the cooperation of authorities on national and international levels (e.g. within the scope of the EU rapid alert system);
- identify and apply the opportunities of information technology;

Social and self-competence

Students are able to ...

- independently do research on administrative law information and put that information into practice;
- appropriately evaluate practical examples based on administrative law in group discussions;
- justifiably master typical situations from administrative and operational practice by assuming the role of a representative of an authority or a company.

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| Learning contents | |
| <ul style="list-style-type: none"> • General legal studies and methods for application of law • General principles of administrative law and European Community Law • General administrative law and procedural law • Basic principles of public safety and order law and of commercial law • Organisation and authorisations of official food monitoring • General administration regulations • Administrative engineering, including automated data processing and communication technology • Issuing of administrative orders or fine notices • Basic principles of civil service law • Basic principles of criminal law, criminal procedural law, and administrative offences law | |
| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, including exercises, simulations Self-studies: preparation and evaluation, exam preparation |
| Study and examination credits | One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | Literature and work material depend on the respective topics |

| Bachelor of Nutrition & Home Economics Second and third academic year – compulsory elective modules | |
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| Module index number 5110 | Occupational health and safety management |
| Module coordination / module supervision | Head of department |
| Lecturers | Prof. Dr. Gabriele Perger, Prof. Dr. Marc Schütte |
| Period / semester / interval | From fourth semester, module offered every year |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: ergonomics module, incl. laboratory training |
| Course language | German |
| <p>Competences to be acquired / learning objectives Function- / content-related and methodical competences Students are able to ...</p> <ul style="list-style-type: none"> • adapt the acquired knowledge to complex contents in occupational health and safety and operational health management; • assess processes and conditions with regard to occupational health and safety management; • develop scientifically substantiated concepts for action in occupational health and safety management; • apply independently acquired knowledge to complex interdisciplinary approaches; • formulate scientifically profound objectives; • incorporate knowledge from other modules to find solutions for issues from the specialist field. <p>Social and self-competence Students are able to ...</p> <ul style="list-style-type: none"> • form their own opinions and execute communicative and persuasive exchange on an interdisciplinary level; • work in a team and assume responsibility; • assume responsibility for their own performance; • take first steps to confidently and independently represent work results to third parties. <p>Learning contents</p> <ul style="list-style-type: none"> • Change in working environment as interdisciplinary challenge • Basic principles of occupational health and safety as well as in-depth social competences with regard to occupational sciences • Structure of the occupational safety system in Germany, including common German occupational safety strategy | |

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| | <ul style="list-style-type: none"> • Management systems in occupational health and safety (e.g. TQM, EFQM, ASM, BGM), including currently valid rules and regulations as a basis for systematic action in occupational health and safety • Occupational health management as a form of state-of-the-art entrepreneurial strategy and continuous process and planning, analysis, implementation and verification of prevention concepts • Efficiency considerations for occupational health and safety measures • Application of methods and instruments in occupational health and safety, including development of prevention approaches |
| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, including exercise, problem-oriented learning, group work, use of digital and print media Self-studies: preparation and evaluation, preparation of presentations, exam preparation |
| Study and examination credits | One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | Badura, B., Walter, U., Hehlmann, T. (2010). Betriebliche Gesundheitspolitik. Heidelberg: Springer Verlag. Bamberg, E., Ducki, A., Metz A-M (Hrsg.) (2011). Betriebliche Gesundheitsförderung und Gesundheitsmanagement in der Arbeitswelt. Göttingen: Hogrefe. Nerdinger, F., Blickle, G., Schaper, N. (2011). Arbeits- und Organisationspsychologie. Heidelberg: Springer Verlag. Ulich, E. (2011). Arbeitspsychologie. Stuttgart: Schäffer-Poeschel. Ulich, E., Wülser, M. (2010). Gesundheitsmanagement in Unternehmen. Wiesbaden: Gabler Verlag. |

| Bachelor of Nutrition & Home Economics Second and third academic year – compulsory elective modules | |
|---|---|
| Module index number | Adult education |
| Module coordination / module supervision | Prof. Dr. Anne Flothow |
| Lecturers | Prof. Dr. Anne Flothow |
| Period / semester / interval | From fourth semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | none |
| Course language | German |
| <p>Competences to be acquired / learning objectives</p> <p>Function- / content-related and methodical competences</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • describe the basic principles of adult education; • conceptualise seminars, presentations, and workshops; • compile seminar plans (learning objectives, contents, methods, media); • implement (participative) seminar and presentation methods for achieving learning objectives and reaching target groups • describe methods for verification of (sustainable) successful achievement of the learning objective; • describe measure for ensuring application of the acquired knowledge and skills to every-day work; • describe methods for constructive conflict management during lectures and seminars; • practically perform individual seminar sequences in the role of a lecturer. <p>Social and self-competence</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • Impart specialist knowledge in a recipient-, situation-, and needs-oriented manner; • reflect on their role as lecturers • strategically apply feedback rules | |
| <p>Learning contents</p> <ul style="list-style-type: none"> • Basic principles of adult education • Rhetoric and presentation • Moderation and seminar methods • Conceptualisation of seminars and workshops (demand, target group, situation, and didactic analysis; compilation of seminar plans and schedules, success verification) | |

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| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, group projects, learning by teaching, e-learning Self-studies: preparation and evaluation, exam preparation |
| Study and examination credits | One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | Faulstich, P., Zeuner, C. (2010). Erwachsenenbildung. Weinheim und Basel: Beltz-Verlag. Quilling, E., Nicolini, H.J. (2009). Erfolgreiche Seminargestaltung. Strategien und Methoden in der Erwachsenenbildung. Wiesbaden: VS-Verlag. Weidenmann, B. (2008). Handbuch Active Training. Weinheim und Basel: Beltz-Verlag. <i>E-learning platform EMIL: auxiliary materials.</i> |

| Bachelor of Nutrition & Home Economics Second and third academic year – compulsory elective modules | |
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| Module index number 5160 | Device assessment and measuring technology |
| Module coordination / module supervision | Prof. Dr. Jörg Andreä |
| Lecturers | Prof. Dr. Jörg Andreä |
| Period / semester / interval | From fourth semester, module offered every year |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: Modules from the first academic year, as well as physics and engineering module |
| Course language | German |
| <p>Competences to be acquired / learning objectives</p> <p>Function- / content-related and methodical competences</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • evaluate test results (StiWa, Öko-Test ...) in terms of relevance and quality; • prepare, execute, and illustrate device tests and assessments; • identify, choose, and apply test aspects and basic principles for the respective devices; • be familiar with the European testing scene; • design PR measures for marketing of test results. <p>Social and self-competence</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • organise themselves for working in large and small groups; • identify division of work and responsibilities as goal-oriented and implement this principle in a productive way; • further develop individual opportunities in the field of natural science and engineering; • apply the acquired knowledge to concrete working situations. | |
| <p>Learning contents</p> <ul style="list-style-type: none"> • Legal requirements for products within the EU • Product liability, device and product safety law • Standardisation / testing standards • Safety tests of household appliances • Test and assessment of performance characteristics • Relevant associations and organisations / press • Test marks, product certification • Test institutes (excursion) • Laboratory training: Preparation and execution of practical measurement tasks based on the learning contents of the module; evaluation and recording of results | |

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| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, including practical experiments in the laboratory Self-studies: preparation and evaluation, exam preparation |
| Study and examination credits | One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | <p>Berndt, A., Downe, S., Krüger, M. (2011). Stichwörter zur Europäischen Normung. Berlin: Beuth Verlag.</p> <p>Europäische Kommission (2000). Leitfaden für die Umsetzung der nach dem neuen Konzept und dem Gesamtkonzept verfassten Richtlinien (Web-Download / Broschüre).</p> <p>Hartlieb, B., Kiehl, P., Müller, N. (2009). Normung und Standardisierung. Berlin: Beuth Verlag.</p> <p>Wilrich, Th. (2012). Das neue Produktsicherheitsgesetz (ProdSG). Berlin: VDE-Verlag.</p> <p><i>E-learning platform EMIL</i>: Lecture presentation handout, auxiliary material</p> |

| Bachelor of Nutrition & Home Economics | |
|---|---|
| Second and third academic year – compulsory elective modules | |
| Module index number | Communication and conflict intervention |
| Module coordination / module supervision | Prof. Dr. Katharina Riehn |
| Lecturers | Prof. Dr. Anne Flothow, Prof. Dr. Birgit Käthe Peters, Prof. Dr. Katharina Riehn |
| Period / semester / interval | From fourth semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: Modules of the first academic year |
| Course language | German |
| <p>Competences to be acquired / learning objectives</p> <p>Function- / content-related and methodical competences</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • delineate and assess the classification, structure, and impact of national legal rules and regulations for food monitoring against international backgrounds (EU laws); • outline the structure of food monitoring in Germany; • explain the rights and obligations of official / administrative monitoring, on the one hand, and of food-processing companies, on the other hand; • assess the impact of conflicts on professional / occupational situations; • understand and explain elements of conflict and threat management; • assess an upcoming control / evaluation situation in terms of conflict potential and prepare accordingly; • apply communication and de-escalation techniques from the beginning; • describe stress reactions occurring in connection with conflict and threat situations; • methodically document any incidences. <p>Social and self-competence</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • competently work with and solve monitoring law issues; • independently do research for relevant legal information; • discuss complex issues with legal experts; • reflect on the different rights and obligations of individual stakeholders and extrapolate assessments in terms of accruing conflict potentials; • develop conflict strategies and estimate their impact, both in mutual interaction and with regard to target levels; • design preventive and holistic concepts for conflict prevention by teamwork; • reflect on their personal state after a conflict or threat situation and deal with it accordingly. | |
| Learning contents | |

Basic principles of food monitoring

- national and EU legal foundations with regard to official / administrative food controls
- Organisation of food monitoring in Germany
- Tasks and measures of the competent authorities
- Execution of monitoring
- Degree of obligatory tolerance, cooperation, and disclosure required from the food-processing company
- Measures for information of the public

Basic principles of conflict and threat management

- Theory of conflict
- Conflict and threat management (behaviour and relationships)
- Communication methods
- Dealing with conflict situations
- Mental reaction on threat situations (insult / offence / violence / assault)
- Dealing with threat situations (measures for de-escalation / dealing with emergency situations)

Dealing with conflicts and threats in the field of activity of the supervisor / auditor

- Special characteristics of monitoring / assessment situations and of the parties involved
- Preventive measures
- Dealing with profession-specific conflict / threat situations
- Measures to be taken after an incident (psychological first aid, legal action, documentation)

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| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, including exercises, presentations, discussions, and role play Self-studies: preparation and evaluation of the lecture, preparation of presentations, exam preparation |
| Study and examination credits | One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | <i>E-learning platform EMIL</i> : auxiliary materials. |

| Bachelor of Nutrition & Home Economics Second and third academic year – compulsory elective modules | |
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| Module index number 4090 | Marketing |
| Module coordination / module supervision | Prof. Dr. Christoph Wegmann |
| Lecturers | Prof. Dr. Christoph Wegmann |
| Period / semester / interval | From third semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: General business administration module |
| Course language | German |
| <p>Competences to be acquired / learning objectives</p> <p>Function- / content-related and methodical competences</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • understand the basic concept of marketing and apply it in practice; • develop simple marketing strategies; • assess marketing instruments and evaluate their suitability for the intended purpose; • develop a marketing mix for physical products and services; • develop different instrument application strategies for B2C and B2B selling. <p>Social and self-competence</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • formulate questions in a team; • present results of individual and/or group work in a suitable and proper form; • critically reflect on implementation of marketing instruments; • develop and defend marketing concepts; • receive feedback and handle it in a constructive and positive manner; • implement personal experience in this context. | |
| <p>Learning contents</p> <ul style="list-style-type: none"> • Marketing objectives • Basic strategies in marketing • Product policy (utilisation concepts, programme policy, marketing) • Price policy (cost-oriented price policy, market-oriented price policy, dynamic price policy, cross-product price policy) • Distribution policy (distribution channels and distribution channel management) • Communication policy (promotion planning, promotion design, direct marketing, on-line marketing) • Service marketing • Business-to-business marketing | |

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| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, including case studies, exercises, presentations, and discussions Self-studies: preparation and evaluation, exam preparation |
| Study and examination credits | One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | Fritz, W., Oelsnitz, D. von der (2006). Marketing, 4.A., Stuttgart: Kohlhammer. Kotler, P., Armstrong, G., Wong, V., Saunders, P. (2010). Grundlagen des Marketing, 5. A., Munich: Pearson Verlag. Foliensammlung (ca. 300 Seiten), Case- und Aufgabensammlung <i>E-learning platform EMIL: auxiliary materials</i> |

| Bachelor of Nutrition & Home Economics | |
|---|---|
| Second and third academic year – compulsory elective modules | |
| Module index number 5180 | Sustainable energy management |
| Module coordination / module supervision | Prof. Dr. Jörg Andreä |
| Lecturers | Prof. Dr. Jörg Andreä |
| Period / semester / interval | From fourth semester, module offered every year |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: mathematics, physics, EDP, as well as physics and engineering modules |
| Course language | German and English, rotating |
| <p>Competences to be acquired / learning objectives</p> <p>Function- / content-related and methodical competences</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • describe and evaluate forms of energy; • describe and evaluate sources of energy; • describe and evaluate generation of energy; • describe and evaluate distribution of energy; • describe and evaluate application of energy; • describe and evaluate management of energy; • describe and evaluate environmental aspects; • describe and evaluate future energy supply concepts. <p>Social and self-competence</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • organise themselves for working in large and small groups; • further develop individual opportunities in the field of natural science and engineering; • application and communication of special information for sustainable handling of resources in practice. | |
| <p>Learning contents</p> <ul style="list-style-type: none"> • Occurrence of fossil energy reserves • Development of energy demand in Germany and worldwide • Mechanisms of energy management • Basic principles of generation of energy and energy engineering • Perspectives of renewable energy utilisation • Energy and environment (greenhouse effect, etc.) • Energy applications in households, business and industry | |

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| <ul style="list-style-type: none"> • Energy technologies for the future (nuclear fusion, offshore wind farms, hydrogen cycle, power-to-gas, CO₂ capture and storage) | |
| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, including presentations, discussions and exercises, excursions Self-studies: preparation and evaluation, exam preparation |
| Study and examination credits | One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | Buchal, C. (2007). Energie – Natur, Mensch, Technik, Umwelt, Klima, Zukunft. Jülich: Forschungszentrum Jülich. Heinloth, K. (2003). Die Energiefrage. Braunschweig: Vieweg Verlag. MacKay, D. JC. (2008). Sustainable Energy – Without the Hot Air. Cambridge: Uit Cambridge Ltd. Wengenmayr, R., Bürke, T. (2008). Renewable Energy: Sustainable Energy Concepts for the Future. Weinheim: Wiley – VCH Ltd. <i>E-learning platform EMIL</i> : Lecture presentation handout, auxiliary material |

| Bachelor of Nutrition & Home Economics Second and third academic year – compulsory elective modules | |
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| Module index number 5190 | Public relations |
| Module coordination / module supervision | Prof. Dr. Helmut Laberenz |
| Lecturers | M.A. Mark Hübner-Weinhold, Dipl.oec.troph. Kerstin Kamrath |
| Period / semester / interval | From fourth semester, module offered every year |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | none |
| Course language | German |
| <p>Competences to be acquired / learning objectives</p> <p>Function- / content-related and methodical competences</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • identify and substantiate the meaning of company communication, both in-house and external; • describe the methods and instruments of company communication, as well as their advantages / disadvantages and fields of application; • name and describe steps for development of a communication measure; • compile customer-oriented practical texts; • delineate quality criteria for communication measures. <p>Social and self-competence</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • reflect on subject contents and formulate questions to that respect; • assess the quality of PR measures; • develop their own concepts for such communication measures in a structured manner; • develop and present small communication measures in groups; • critically question and defend their own strategies / actions | |
| <p>Learning contents</p> <p>Basic principles of public relations</p> <ul style="list-style-type: none"> • Cognitive processes of perception, particularly reading • Effect of words, sentences, and texts • General rules for easily understandable texts • Theory and practice of figurative language in economics • Company communication and advertisement: basic psychological patterns and neurobiological findings • Photos in public relations | |

- Internet in public relations

Practice of public relations

- Differentiation between PR, advertisement, and marketing
- Objectives of PR measures
- Parties involved in public relations
- Conceptualisation and communication strategies
- PR methods
- Internal and external public relations
- Communication with important target groups, particularly journalists
- Theory and practice of press releases
- Compilation of product information
- Verification of success of PR

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| <p>Teaching and learning forms / methods / media formats</p> | <p>Attendance studies: seminar lecture, interactive presentation of contents with great share of exercise and group-working phases (PR project), workshop in the editorial department of a major daily newspaper</p> <p>Self-studies: preparation and evaluation, exam preparation</p> |
| <p>Study and examination credits</p> | <p>One examination credit: paper, written exam, oral exam or presentation;</p> <p>The type of examination is specified by the examiner at the beginning of the course.</p> |
| <p>Literature / work material</p> | <p><i>Handout</i></p> |

| Bachelor of Nutrition & Home Economics | |
|---|---|
| Second and third academic year – compulsory elective modules | |
| Module index number 5260 | Pathophysiology |
| Module coordination / module supervision | Head of department |
| Lecturers | Prof. Dr. Jürgen Lorenz |
| Period / semester / interval | From fourth semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: Modules of the first academic year |
| Course language | German |
| <p>Competences to be acquired / learning objectives</p> <p>Function- / content-related and methodical competences</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • describe symptoms, afflictions, and findings of nutrition-relevant diseases (e.g. hypertension, diabetes mellitus, metabolic syndrome, bowel diseases, allergies) on the basis of pathophysiological mechanisms; • do research in relevant data and literature sources on these diseases and critically assess their findings in terms of nutrition-therapeutic concepts. <p>Social and self-competence</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • use and assess the options and limits of pathophysiological foundations for development of concepts for nutritional and health counselling; • identify and present pathophysiological foundations for nutrition-relevant diseases, either individually or by group work. | |
| <p>Learning contents</p> <ul style="list-style-type: none"> • Cardiovascular aspects: pathophysiology of hypertension, cardiac insufficiency, myocardial infarction, cardiac arrhythmias, oedema • Metabolic aspects: pathophysiology of diabetes mellitus, lipometabolism, metabolic syndrome • Renal and urinary tract aspects: pathophysiology of acute and chronic renal failure, kidney stone afflictions, acid-base disorders, water-electrolyte imbalance • Digestive system aspects: pathophysiology of inflammatory gastrointestinal diseases (ulcus afflictions, allergic and non-allergic enteropathy, Chron's disease, colitis ulcerosa, diarrhoea, constipation) • Blood and immune system aspects: pathophysiology of anaemia, disturbed haemostatis, immunodeficiency, allergies, autoimmune diseases | |

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| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, group work, e-learning, demonstrations, student speeches, excursions Self-studies: preparation and evaluation, exam preparation |
| Study and examination credits | One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | Huppelsberg, J., Walter, K. (2009). Kurzlehrbuch Physiologie. Stuttgart u.a.: Thieme Verlag. Silbernagl, S., Despopoulos, A. (2003). Taschenatlas der Physiologie. Stuttgart u.a.: Thieme Verlag. Silbernagl, S., Lang, F. (2005). Taschenatlas der Pathophysiologie. Stuttgart u.a.: Thieme Verlag. Übersichtsartikel aus Fachzeitschriften |

Bachelor degree programme of nutrition & home economics / second and third academic year – area of concentration
Area of concentration D – food safety and control

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|---|--|
| Module index number | Food and feed law, consumer product law II |
| Module coordination / module supervision | Prof. Dr. Martin Holle |
| Lecturers | Prof. Dr. Martin Holle |
| Period / semester / interval | From fourth semester, module offered every year |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: general compulsory programme modules, preferably also foodstuffs, feedstuffs, and commodities law I |
| Course language | German |

Competences to be acquired / learning objectives

Function- / content-related and methodical competences

Students are able to ...

- comprehensibly outline and explain the provisions of European and German foodstuffs, feedstuffs, and commodities law in the field of food safety, as well as fraud protection and organisation, tasks, and authorisations of official food monitoring entities;
- explain the regulations of food labelling, food advertisement (in particular the regulations on nutritional value and health-related information), additives law, calibration and finished packs law, food hygiene law, and law on maximum residues;
- give a rough outline of special provisions applicable for specific product categories (e.g. dietary food, food supplements or produce from organic farming);
- explain the instruments for hazard prevention and execution of administrative food monitoring, select the best suitable and appropriate option for specific hazard situations and properly justify their choice;
- illustrate the rights and obligations of foodstuffs and feedstuffs companies, and delineate the consequences for entrepreneurial organisation.

Social and self-competence

Students are able to ...

- independently do research on legally relevant rules and regulations, interpret them and apply them in practice;
- convincingly demonstrate professional competence in group discussions;
- justifiably master typical situations from administrative and operational practice by assuming the role of a representative of an authority or a company;
- give appropriate and comprehensible justifications on the basis of applicable rules and regulations for decisions made;
- reflect on practical experience in a self-critical manner.

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| Learning contents | |
| <ul style="list-style-type: none"> • Law on movement of foodstuffs, feedstuffs, tobacco products, cosmetic products and commodities (incl. basic principles of wine law) • Special legal provisions for specific food categories, such as dietary food products, food supplements, or produce from organic farming • Hygiene law, particularly with regard to foodstuffs of animal origin • Regulation (EC) No 882/2004 on official controls performed to ensure the verification of compliance with feed and food law, AVV (general administrative regulation) for control framework, AVV for rapid alert system • Basic principles of public safety and order law (hazard prevention law) • Basic principles of criminal law, criminal procedural law, and administrative offences law | |
| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, including exercises, simulations Self-studies: preparation and evaluation, exam preparation |
| Study and examination credits | One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | Literature and work material depend on the respective topics |

| Bachelor of Nutrition & Home Economics Second and third academic year – compulsory elective modules | |
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| Module index number 5250 | Special dietetics |
| Module coordination / module supervision | Prof. Dr. Silya Nannen-Ottens |
| Lecturers | Prof. Dr. Silya Nannen-Ottens |
| Period / semester / interval | From fourth semester, module offered every semester |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: nutritional physiology and nutritional concepts module |
| Course language | German |
| <p>Competences to be acquired / learning objectives</p> <p>Function- / content-related and methodical competences</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • describe the anatomy, physiology, hormonal regulation, and pathophysiological changes of the gastrointestinal system; • extrapolate and formulate dietetic and therapeutic recommendations for gastrointestinal diseases and intolerances; • research, analyse, and assess scientific studies and publications in medicine and nutritional science. <p>Social and self-competence</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> • use a variety of teaching media (literature, internet databases, print media, etc.) and do independent research; • process and evaluate the research results in appropriate scientific manner and to present them by themselves or in a team; • work in evidence-based manner. | |
| <p>Learning contents</p> <ul style="list-style-type: none"> • Anatomy and physiology of the gastrointestinal tract • Pathophysiological changes in the gastrointestinal tract due to various diseases • Extrapolation of dietetic and therapeutic recommendations | |
| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, group work, e-learning, demonstrations, student speeches, excursions Self-studies: preparation and evaluation, exam preparation |

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| Study and examination credits | One examination credit: paper, written exam, oral exam or presentation; The type of examination is specified by the examiner at the beginning of the course. |
| Literature / work material | Scientific data bases |

| Bachelor of Nutrition & Home Economics Second and third academic year – compulsory elective modules | |
|--|---|
| Module index number 5100 | Consumer policies |
| Module coordination / module supervision | Prof. Dr. Christoph Wegmann |
| Lecturers | Ass .jur. Edda Castelló |
| Period / semester / interval | From fourth semester, module offered every year |
| Credits | 5 |
| Workload | 150 h, of which 60 h attendance study (4 semester hours per week) and 90 h self-study |
| Prerequisites / previous knowledge | Recommended: Modules of the first academic year |
| Course language | German |
| <p>Competences to be acquired / learning objectives Function- / content-related and methodical competences Students are able to ...</p> <ul style="list-style-type: none"> • give an overview of the emergence, development and current situation of consumer policy; • name and describe the entities involved in consumer policy; • outline the major positions and conflicts in the most important topics and fields of consumer policy; • execute qualified conversations with entities from the field of consumer policy. <p>Social and self-competence Students are able to ...</p> <ul style="list-style-type: none"> • independently perform research; • make assessments and defend/justify them within the scope of discussions; • illustrate and explain the development of positions by means of presentation techniques. | |
| <p>Learning contents</p> <ul style="list-style-type: none"> • Emergence, development, and current situation of consumer policy • Entities, institutions, and network of consumer policy and consumer work • Topics of consumer policy • Positions and conflicts of the parties involved • Impact of consumer policy on the every-day life of consumers and the professional life of ecotrophologists and nutritional scientists | |
| Teaching and learning forms / methods / media formats | Attendance studies: seminar lectures, including work in small groups and case studies, excursions Self-studies: preparation and evaluation, exam preparation |

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| Study and examination credits | <p>One examination credit: paper, written exam, oral exam or presentation;</p> <p>The type of examination is specified by the examiner at the beginning of the course.</p> |
| Literature / work material | <p>Hippel, E. von (1986). Verbraucherschutz. Tübingen: Mohr.</p> <p>Kuhlmann, E. (1990). Verbraucherpolitik. Munich: Vahlen.</p> <p>Müller, E. (2001). Grundlinien einer modernen Verbraucherpolitik. In: Politik und Zeitgeschichte (B 24/2001), Beilage zur Wochenzeitung „Das Parlament“.</p> <p>Reich, N. (1996). Europäisches Verbraucherschutzrecht. Baden-Baden: Nomos.</p> <p>Work material: case studies from the German Federal Ministry of Consumer Production, the consumer advice centre, Federal Association of Consumer Advice Centres, Stiftung Warentest</p> |

| Bachelor of Nutrition & Home Economics | |
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| Module index number 7010 | Internship module |
| Module coordination / module supervision | Prof. Dr. Ulrike Pfannes |
| Lecturers | all full-time lecturers of the department |
| Period / semester / interval | Fifth / sixth semester, module offered every semester |
| Credits | 20 |
| Workload | 600 h / 16 weeks |
| Prerequisites / previous knowledge | Earliest completion upon achievement of 90 CP, of which 60 CP must be from modules of the first academic year |
| <p>Competences to be acquired / learning objectives</p> <p>Function- / content-related and methodical competences</p> <p>Students shall ...</p> <ul style="list-style-type: none"> • expand their professional competences (special knowledge and skills) in a specific field of work; • strategically apply the knowledge and methods acquired during (theoretical) studies and gain practical experience in ecotrophological fields of action; • apply contents of the degree programme in practice (knowledge and methods); thus experience the connection between theory and practice in professional scenarios; • be able to independently solve concretely formulated, specific problems or do small projects; • be capable of (interdisciplinary) cooperation and further develop their teamworking skills; • be able to outline and critically assess the limits of applicability of theoretic knowledge in professional, practical scenarios; • have appropriate insights into operational tasks and the overall operational processes, be able to report and discuss these aspects. <p>Social and self-competence</p> <p>Students shall ...</p> <ul style="list-style-type: none"> • be able to practically work with and solve issues, both individually and in a team; • be able to provide and ask for support for problem-solving tasks and process issues in order to achieve proper results; • gain experience in the field of action relevant for their future career as ecotrophologists or nutrition scientists and be capable of specifying and/or critically assessing their professional goals; • effectively and efficiently solve concrete issues and problems from the chosen field of action, either individually or in a team; • be capable of approaching problems, analysing them and solving them in a methodical and structured way; • be able to identify and describe technical, economic and social coherences in operation, classify and evaluate their impact. | |
| Contents | |

The learning contents depend on the field of activity chosen by the students, which may be from one of the following specialist areas:

- nutrition, health, counselling
- foodstuffs, product development, marketing
- catering, services, sustainability
- food safety and control

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| Teaching and learning forms / methods / media formats | Internship in a relevant facility of professional practice, accompanying seminar |
| Study and examination credits | a study credit: preparatory event, successful completion of the internship and the accompanying seminar, internship report in the form of a paper |
| Literature / work material | <p>Information on companies that offer internships Regulations for completion of a practical semester</p> <p><i>E-learning platform EMIL: Nutrition & home economics internship</i></p> |

| Bachelor of Nutrition & Home Economics | |
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| Module index number 6000 | Bachelor thesis |
| Module coordination / module supervision | Head of department |
| Lecturers | all full-time lecturers of the department, as well as external co-examiners |
| Period / semester / interval | Fifth / sixth semester, module offered every semester |
| Credits | 10 |
| Workload | 300 h / preparation time 8 weeks |
| Prerequisites / previous knowledge | Earliest handout upon achievement of 90 CP, of which 60 CP must be from modules of the first academic year |
| <p>Competences to be acquired / learning objectives</p> <p>Function- / content-related and methodical competences</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> independently work on an issue or topic from the professional field of action of nutrition & home economics using scientific methods and insights, and preparing the thesis within the specified period. <p>Social and self-competence</p> <p>Students are able to ...</p> <ul style="list-style-type: none"> develop proactive behaviour; motivate themselves; create suitable working conditions; compile a schedule for preparation of the thesis; in case of questions or problems, request advice in a timely manner. | |
| <p>Contents</p> <ul style="list-style-type: none"> The Bachelor thesis is a theoretical, empirical and/or experimental analysis which the student conducts and writes up. It is recommendable for students to use an issue or topic dealt with at the internship organisation. | |
| Teaching and learning forms / methods / media formats | Self-studies: execution of tests / research and preparation of the thesis |
| Examination credit | Bachelor thesis |

Rules for resitting of exams

In general, all modules are completed by a course-related exam. If a written exam is assessed to be unsatisfactory, the respective student has the possibility to file an application for oral resitting of an exam, once per examination credit and three times for the entire degree programme (as per: § 23 Item 5 APSO-INGI).

In case that a student is not able to attend an examination due to illness or in case that a student fails an exam, they have the possibility to resit the respective exam at the end of the subsequent semester.

It is also possible to agree on individual oral resitting of exams with the module supervisors.

Lecturers

Professors

Prof. Dr. Adam, Sibylle
Prof. Dr. Andrea, Jörg
Prof. Dr. Bauer, Andrea
Prof. Dr. Berger-Klein, Andrea (imported lecturer)
Prof. Dr. Färber, Christine (imported lecturer)
Prof. Dr. Flothow, Anne
Prof. Dr. Fritsche, Jan
Prof. Dr. Häusler, Michael
Prof. Dr. Holle, Martin
Prof. Dr. Laberenz, Helmut
Prof. Dr. Lorenz, Jürgen (imported lecturer)
Prof. Dr. Nannen-Ottens, Silya
Prof. Dr. Naujoks, Petra
Prof. Dr. Perger, Gabriele (imported lecturer)
Prof. Dr. Peters, Birgit Käthe
Prof. Dr. Pfannes, Ulrike
Prof. Dr. Riehn, Katharina
Prof. Dr. Schillmöller, Zita (imported lecturer)
Prof. Dr. Schütte, Marc (imported lecturer)
Prof. Dr. Wegmann, Christoph
Prof. Dr. Westenhöfer, Joachim (imported lecturer)

Academic staff

Elfers, Silvia
Kösling, Klaus
Koopmann, Holger
Kropholler, Fritz
Dr. Schacht, Karolin
Simon, Frank (imported lecturer)
Theophile, Christiane

Assistant lecturers

Dr. Arms, Elke
Böttcher, Anke
Buchcik, Johanna
Castelló, Edda
Gaßl, Susanne
Harms, Jacqueline
Dr. Hollnagel, Ilse
Hübner-Weinhold, Mark
Kamrath, Kerstin
Dr. Kopra, Nina
Menz, Birgit
Paetzelt, Gunnar

