

Module Manual Agriculture and Food Economics

COMPULSORY MODULES AGRICULTURE AND FOOD ECONOMICS		
3AL-KOWA-10	Communication, Presentation and Scientific Work	
The module imparts fundamental cross-disciplinary practices of scientific work. Students learn and practice various techniques for the preparation and delivery of presentations. In addition, the module examines the foundations of interpersonal communication for everyday academic and working life.	1st Semester	4 ECTS
3AL-GBWL-10	Foundations of Business Administration	
Students are familiarized with the foundations of general business administration. They are able to evaluate the constitutive decisions of companies. Moreover, they understand the principles of entrepreneurial activity and are familiar with the structures and functional areas of companies.	1st Semester	5 ECTS
3AL-WMATH-10	Business Mathematics	
The module focuses on the acquisition of reliable knowledge in the fields of analysis and linear algebra as a basis for the application of selected methods of operational research and for later specialization in financial mathematics and stochastics. For this purpose, previous general knowledge is extended and consolidated. Students are thus able to mathematically formulate and solve economic and engineering problems.	1st Semester	5 ECTS
3AL-BUBI-10	Accounting and Balancing	
The module aims to provide students with the principles of external accounting in a way that enables them to understand the accounting system from a commercial and tax law perspective. They are qualified to properly enter business transactions and actively participate in	1st Semester	5 ECTS

the preparation and in-depth analysis of annual financial statements.		
3AL-BSTL-20	Corporate Taxation	
The module provides an overview of corporate taxation. Students acquire fundamental knowledge of sales tax, income tax, corporate income tax and commercial tax. They learn to differentiate between the types of income. Focus is laid on retained earnings and the methods of determining taxable income, especially for revenues from agriculture and forestry. In addition, the module imparts fundamental knowledge of sales tax.	2nd Semester	5 ECTS
3AL-STEM-20	Statistics and Empirical Methods	
The module focuses on the one hand on the discussion of financial mathematical problems and on the other hand on the acquisition of theoretical and empirical statistical methods for scientific work. Biometric research methods in various field experiments and their evaluation procedures enable students to competently conduct their own investigations in relation to the preparation of their final thesis and future scientific research.	2nd Semester	5 ECTS
3AL-BEN-20	Business English	
This English language module meets the needs of students of a cooperative degree course, provides an introduction to general aspects of economics and agrarian management in a company environment. It systematically develops key language skills for efficient communication in this field. Great emphasis is placed on helping students boost their lexical range (terminology)	2nd Semester	4 ECTS

3AL-FININ-30	Exemplary Financing and Investment	
<p>This module imparts business management problems that are necessary from the point of view of necessary investment and financial decisions. It examines actions and decisions on the use of production factors that are intended to serve the corporate objectives. This requires making decisions on investments and, at the same time, finding funding sources. The ability to interpret key indicators enables students to assess the company's profit relations and independently calculate these indicators. This qualifies the participants for economic decision-making processes. The specifics of companies in the agricultural sector and the food industry are presented on the basis of characteristic agricultural and food industry questions.</p>	3rd Semester	5 ECTS
3AL-KLR-30	Cost and Performance Accounting	
<p>The module provides an introduction to internal accounting. Students understand the differences between external and internal accounting. They are able to critically evaluate and apply basic cost accounting methods.</p>	3rd Semester	5 ECTS
3AL-VWL-30	Macro and Microeconomics	
<p>The module provides students with fundamental macroeconomic knowledge that enables them to analyze and assess business issues from a macroeconomic perspective. They are familiarized with the object, tasks and methods of macroeconomics and the relationships and differences between macroeconomic and management approaches to economic problems. The microeconomic component of the module imparts microeconomic fundamentals (household theory, business theory, market forms, market failures), which enable students to understand and practically apply competition theory and competition policy issues.</p>	3rd Semester	5 ECTS

3AL-SOWAR-30	Operational Software Application	
<p>The module imparts basic knowledge of business software applications and the associated business processes. Special focus is laid on ERP systems as the most concise form of business software applications. In addition to a functional overview, the module deals with the structure and operation of ERP systems. A market overview and current trends round off the subject area. Practical exercises with a suitable ERP system help to apply and consolidate the course contents. Moreover, the module conveys skills for solving business management problems with spreadsheet programs.</p>	3rd Semester	4 ECTS
3AL-ORGPW-40	Organization and HR Management	
<p>Focusing on organization, the module addresses the importance of organization as a management function. Furthermore, it discusses and applies the different methods of designing structural and process organization, concepts of organizational change and organizational techniques. The focus on human resources management aims to provide knowledge of the range of services in human resources management as the sum of employee-related organizational and administrative tasks in the company.</p>	4th Semester	5 ECTS
3AL-BRREC-40	Civil Law (BGB)	
<p>The module provides an introduction to the basic structures of private law in general and civil law in particular. Focus is placed on contract law as the core of private law and the economic system. In addition, an introduction to aspects of public law is given.</p>	4th Semester	5 ECTS

3AL-MAKRO-40	Macroeconomics and International Economics	
In this module, students gain a basic understanding of macroeconomic interrelationships, which includes both real economic and monetary aspects. In this context, macroeconomic interrelationships and the functioning of various alternative macroeconomic models are taught in order to convey the essential findings of the various theories. International aspects such as currencies and foreign trade are discussed as well.	4th Semester	5 ECTS
3AL-PROJ-50	Project Management	
This module imparts basic aspects of the initiation, definition, planning, control and completion of projects. All phases of project management are examined and reflected on an individual project.	5th Semester	5 ECTS
3AL-PROJ-50	Project Management	
The module imparts the basic knowledge of commercial law relevant to the practical part of the program. Focus is placed on commercial and corporate law as well as labor law.	5th Semester	5 ECTS
3AL-UNTCO-60	Corporate Management and Management Accounting	
Students are familiarized with the essential contents and methods of corporate management and management accounting. In the interest of a holistic understanding, the module focuses on the discussion of systemic relationships. The theory-based discussion of the levels of corporate management (normative, strategic and operative) is extended by innovative management and controlling methods from practice.	6th Semester	5 ECTS

3AL-QUPE-60	Personnel Management and Quality Management	
With the focus on personnel management, the module imparts the theoretical foundations for reflecting and evaluating the behavior of employees and managers in business practice and deriving organizational recommendations. In addition, students are familiarized with the approaches and procedures of modern quality management, with special emphasis on the agricultural and food industry.	6th Semester	5 ECTS
COMPULSORY MODULES AGRICULTURAL MANAGEMENT		
3AL-PLTIP1-10	Plant and Animal Production 1	
This module deals with specific agricultural foundations and problems related to animal species such as pigs, poultry and small ruminants. Students are familiarized with the principles and methods of animal and plant production, which are important for taking operational management decisions. The production factors of agricultural enterprises are systematically analyzed and related to natural cycles. The module considers both the requirements of the individual production factors of soil, plants and animals as well as the interactions with environment and society. On this basis, students are prepared for operational management decisions. This includes actions and decisions on the use of production factors that are consistent with the objectives of the company. Ethical responsibility towards animals and the interactions with environment and society are considered. Students are enabled to interpret key process engineering figures in order to measure the success ratios of the company and implement necessary changes in the production structure.	1st Semester	5 ECTS

3AL-PLTIP2-20	Plant and Animal Production 2	
<p>This module deals with the specific agricultural foundations and problems related to the species cattle. Students are familiarized with the principles and methods of animal and plant production, which are important for taking operational management decisions. The production factors of agricultural enterprises are systematically analyzed and related to natural cycles. The module considers both the requirements of the individual production factors of soil, plants and animals as well as the interactions with environment and society. On this basis, students are prepared for operational management decisions. This includes actions and decisions on the use of production factors that are consistent with the objectives of the company. Ethical responsibility towards animals and the interactions with environment and society are considered. Students are enabled to interpret key process engineering figures in order to measure the success ratios of the company and implement necessary changes in the production structure.</p>	2nd Semester	5 ECTS
3AL-AMARK-20	Agricultural Marketing	
<p>This module provides a systematic introduction to the way of thinking in marketing, its principles, decision-making processes, instruments and methods. The specifics of marketing in the agricultural industry are worked out and explored in greater depth by means of examples.</p>	2nd Semester	5 ECTS
3AL-SOMAG-30	Software-assisted Management of Animal and Plant Production	
<p>The implementation and use of specific agricultural software have progressed in agricultural enterprises at different rates. However, it is inevitable for agricultural</p>	3rd Semester	5 ECTS

<p>companies to make increasing use of this form of decision support in order to improve their operational management. The module introduces agricultural programs for herd management in animal farming and the management of arable land in crop production as basic equipment for agricultural companies. Approaches for future further networking of the operational programs to increase complexity are presented. The course is based on module 3AL-SOWAR-20.</p>		
3AL-VERLP-40	Processing of Agricultural Products	
<p>The module provides an introduction to the foundations of raw materials science and product knowledge. For this purpose, basic procedural and technological processes for the production of food are discussed. Moreover, the module deals with food law regulations (vertical regulations) for the marketing of processed food. Based on these fundamentals, the first goods and groups of goods, technological production chains as well as semi-finished and finished products are presented and classified according to their commercial qualities.</p>	4th Semester	5 ECTS
3AL-EGAP-40	Alternative Types of Production and Energy Generation	
<p>The module shows possible income alternatives or income diversifications in the agricultural sector. Focus is laid on the areas of alternative energy production, renewable resources, agro-tourism and agro-environmental education, social services and mechanical services. The module further includes decision-making and conflict management in the process of opening new markets for agricultural businesses.</p>	4th Semester	4 ECTS
3AL-LANDT-50	Agricultural Technology	
<p>This module imparts foundations of the components and functioning of agricultural machinery. Students acquire basic knowledge in the field of energy supply and conversion. They are familiar with the machines used in agriculture and have basic understanding of the application of precision agriculture.</p>	5th Semester	4 ECTS

3AL-ASPOL-50	Agricultural and Stability Policy	
<p>This module deals with agricultural political problems that are common to all economic sectors. Actions and decisions related to the company's objectives are examined in terms of the agricultural political framework conditions and the structures and forms of organization of agricultural companies that are determined by agricultural history. Students are trained to interpret essential agricultural political measures thus being able to measure the company's success ratios and make necessary adjustment decisions. This qualifies participants for business management decision-making processes with an agricultural political background. At the same time, students develop an understanding of the close connection between agricultural and stability policy. The complexity of European as well as federal and regional agricultural policy is discussed on the basis of current agricultural issues.</p>	5th Semester	5 ECTS
3AL-ÖKOLB-50	Organic Farming	
<p>The module particularly emphasizes the sustainability of agricultural measures in organic farming. This is the sector where the link between production, animal welfare, environmental protection and land management becomes most evident. Students are familiarized with general aspects of organic farming, its history and the principles of organic farming. The EU Eco Regulation, control systems and organic associations are presented as framework conditions. The production cycle and individual production methods in organic farming are discussed. The module addresses the responsibility of society as a whole in preserving the environment and using natural resources in an economical way. Particular attention is paid to ethical components.</p>	5th Semester	5 ECTS

3AL-AUR-60	Agricultural and Environmental Law	
<p>The management of agricultural enterprises requires compliance with the law, which also includes agricultural and environmental law. The module deals with the framework conditions stipulated by the corresponding laws. From the managerial point of view, compliance with legal regulations in the agricultural and environmental context is important. The economic activities of each agricultural company require compliance with the provisions of agricultural and environmental law. The necessary flexibility of agricultural companies to adapt to changing market conditions implies the use of possibilities which the legislator allows as leeway.</p>	6th Semester	5 ECTS
COMPULSORY MODULES FOOD MANAGEMENT		
3AL-GLML-10	Foundations of Food Science	
<p>The module deals with the foundations of the chemical composition of raw materials and food. This knowledge enables students to assess the nutritional value as well as the reactions and changes in food during its processing, storage and preparation. In addition, the principles of the use of food additives and the role of contaminants in food are discussed.</p>	1st Semester	5 ECTS
3AL-ERZLA-20	Manufacture of Agricultural Products	
<p>This module imparts specific agricultural foundations. The production factors of agricultural companies are discussed and related to natural cycles. The requirements of the individual production factors soil, plant, animal as well as their interactions with the environment and society are examined. On this basis, students are enabled to reflect on the importance of primary production as a supplier of raw materials for the value-added processes in food industry companies.</p>	2nd Semester	5 ECTS

3AL-LMARK-20	Food Marketing	
This module provides a systematic introduction to the way of thinking in marketing, its principles, decision-making processes, instruments and methods. The specifics of marketing in the food industry are worked out and explored in greater depth by means of examples.	2nd Semester	5 ECTS
3AL-WARK1-30	Food Product Knowledge and Technology 1	
The module provides an introduction to the foundations of raw materials science and product knowledge. For this purpose, basic procedural and technological processes for the production of food are discussed. Moreover, the module deals with food law regulations (vertical regulations) for the marketing of processed food. Based on these fundamentals, the first goods and groups of goods, technological production chains as well as semi-finished and finished products are presented and classified according to their commercial qualities.	3rd Semester	5 ECTS
3AL-WARK2-40	Food Product Knowledge and Technology 2	
Based on the procedural, technological and legal foundations from the module "Product Knowledge 1", the module deals with further goods and product groups, the technological production chains and the manufactured semi-finished and finished products with regard to their classification according to their commercial qualities.	4th Semester	5 ECTS
3AL-LMREH-40	Food Law, Food Safety and Hygiene	
This module examines fundamental aspects of food law (especially horizontal regulations), food safety and food hygiene. Students are enabled to understand the aspects of food safety and hygiene as fundamental factors of entrepreneurial responsibility in the food industry thus being able to consider them in business decision making processes.	4th Semester	4 ECTS

3AL-BEVEM-50	Procurement and Sales Management in the Food Industry	
<p>This module imparts fundamental knowledge in the areas of purchasing, materials management and sales. In addition, principles of trade marketing, sales control and customer management are discussed. This includes a targeted reflection of the specifics of the food industry.</p>	5th Semester	5 ECTS
3AL-PROM-50	Production Management in the Food Industry	
<p>The module aims to enhance students' knowledge of planning, organization, enforcement and control of industrial value creation and industrial performance processes in the food industry. In particular, the module addresses questions of program planning, the selection of production methods and the design of the production process with respect to production and cost functions.</p>	5th Semester	4 ECTS
3AL-SENER-50	Food Sensory Analysis, Nutrition and Consumer Psychology	
<p>The module deals with basic aspects and methods of food sensory analysis, nutritional science and consumer psychology. Building on physiological and psychological principles, important aspects of consumer behavior with regard to food selection and possible nutritional concepts can be derived.</p>	5th Semester	5 ECTS
3AL-IMPE-60	Innovation Management and Product Development	
<p>Building on the marketing module, the course imparts advanced knowledge for the planning of new product developments and relaunch projects up to market launch. Along the innovation process, methods for idea generation and evaluation as well as the technical design of food products are discussed. Furthermore, the module addresses the development of the physical product as well as the development of product concepts.</p>	6th Semester	5 ECTS

COMPULSORY ELECTIVE MODULES		
3AL-NUEM-60	Sustainability, Environmental and Energy Management	
Students acquire fundamental knowledge of goals, contents and methods of energy and environmental management. They deal with aspects of sustainable food production along the value chain. They obtain the knowledge necessary to design and implement an energy and environmental management system.	6th Semester	5 ECTS
3AL-UNTNF-60	Company Succession and Business Start-ups	
Students acquire fundamental knowledge of the topics of company succession and business start-ups. They are enabled to analyze and plan a possible company succession or business start-up on the basis of scientifically sound knowledge. Furthermore, students are familiar with the necessary steps for founding or taking over companies, as well as the instruments and business management criteria to be used.	6th Semester	5 ECTS
3AL-AKTE-60	Current Topics in the Agricultural and Food Industry	
This module imparts and discusses current topics of the agricultural and food industry. The topics are based on current affairs and current social, political or economic developments. Students are enabled to interpret these events thus being capable of identifying the necessary reactions of the company and deriving corresponding measures. This qualifies the participants for business management decision-making processes.	6th Semester	5 ECTS

3AL-FALLE-60	Case Studies	
<p>The module enables students to independently and comprehensively deal with a current specialist topic in the field of agricultural or food management in the form of a case study. In small groups, participants build up an adequate knowledge base that enables them to form an opinion from a social, professional and ethical point of view. The module requires the application of scientifically suitable research methods, group dynamic techniques as well as the examination of a case study based on a self-organized field trip.</p>	6th Semester	5 ECTS
3AL-PFLSCH-60	Crop Protection - Certificate of Competence	
<p>In this module, students acquire basic knowledge of crop and consumer protection. After being familiarized with the ecosystem, they are enabled to responsibly use pesticides in accordance with current legal requirements and take into account necessary measures of consumer protection. The acquired knowledge enables students to use crop protection products in a responsible and professional way while ensuring that the necessary user protection is provided.</p>	6th Semester	5 ECTS
PRACTICAL MODULES		
3AL-PMUCH-10	Company Characteristics	
<p>Students are familiar with the theoretical principles of the first-semester modules and are able to transfer this knowledge to business practice. The module elaborates on the contents of the modules "Foundations of Business Administration and Communication" and "Presentations and Scientific Work". Students document this knowledge transfer in a practice transfer paper.</p>	1st Semester	6 ECTS

3AL-PMILP-20	Participation in an Operational Process	
<p>Students are familiar with the theoretical principles of the first-semester modules and are able to transfer this knowledge to business practice.</p> <p>They intensively deal with the performance process in the company thus familiarizing themselves with products and services. Students document the knowledge transfer with a presentation on a practical problem, taking into account theoretical aspects.</p>	2nd Semester	6 ECTS
3AL-PWIRP-30	Efficiency of Business Processes	
<p>Students are familiar with the theoretical principles of the third-semester modules and are able to transfer this knowledge to business practice. Using an example from a practice company, students work on a project in the area of operational (cost-performance accounting) or strategic (investment) planning. Participants document this knowledge transfer in a practice transfer paper.</p>	3rd Semester	6 ECTS
3AL-PMAUP-40	Participation in a Support Process	
<p>Students are familiar with the theoretical principles of the fourth-semester modules and are able to transfer this knowledge to business practice. The focus is laid on the operational processes that support the core processes in the practice company. Students document the knowledge transfer with a presentation at the end of the semester.</p>	4th Semester	6 ECTS
3AL-PBAWF-50	Professional Fields of Application	
<p>Students are able to transfer the knowledge, skills and abilities acquired in the modules of the first five semesters into operational practice. They consolidate and deepen their previously gained theoretical knowledge and practical experience. Students practice the application of project management methods. The knowledge transfer is documented with a presentation at the end of the semester.</p>	5th Semester	6 ECTS

3AL-BAAL-60	Bachelor Thesis with Defense	
<p>Students demonstrate that they are able to apply their previously acquired knowledge and skills to work independently on a practical problem using scientific methods. The thesis is written during the practical phase. Students prove that they are able to present and defend the results in the form of a presentation within a fixed time frame.</p>	<p>6th Semester</p>	<p>10 ECTS</p>