Degree program description for the **Bachelor's program in Digital and Data-Driven Business** at the Catholic University of Eichstätt-Ingolstadt

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A. General structure of the degree program

The name of the degree program is: Digi-

tal & Data-Driven Business

Responsible faculty:

Ingolstadt School of Management

Involved faculties:

Faculty of Mathematics and Geography

Successful graduates of the degree program are awarded the academic degree: Bache-

lor of Science

Mode of study:

- ☒ Full-time
- ☐ Part-time program
- ☐ Full- and part-time program
- ☐ Cooperative study program (*duales Studium*)
- ☐ Distance learning program

Type of degree program:

- ☒ Undergraduate program
- ☐ consecutive
- ☐ professional and continuing education

Standard length of program:

6 semesters (full-time)

Start of the program:

- ☐ summer semester
- ☒ winter semester
- ☐ every semester

Number of ECTS credits to be awarded: 180 ECTS credits

Tuition fees:

- ☒ No
- ☐ Yes, € per semester

B. Description

1. The degree program in three sentences

The aim of the degree program is to give students sound knowledge and competencies in the field of digital economy and business as well as data-analytical and information-processing methods and concepts. By linking information-processing contents on the one hand and business basics on the other hand, students of this program will acquire the competence to become involved in digital transformation processes and to shape and control the business models and systems that arise in this context. Individual study profiles will give students knowledge in specific fields that correspond to their professional objectives.

2. Target group

Committed prospective students with a general or subject-specific university entrance qualification who would like to combine their interest in digital business ideas and data analytical methods with a sound education in business and economics.

3. Basic orientation

The degree program combines the four basic study areas and teaches students the relevant competences that will be indispensable in shaping, running and steering digital and data-driven business models:

- Information processing systems, methods and concepts
- Business and economics with a focus on digital business
- Quantitative methods
- Language, social, communication and decision-making skills (soft skills) and ethics

The interdisciplinary approach, i.e. the connection and networking of these usually isolated scientific fields, enables students to take an interdisciplinary perspective on the current digital transformation process and the digital business models and systems that are emerging in this context.

In this program, knowledge and skills are conveyed in modern teaching concepts and learning methods, such as practical exercises and applications, projects in agile teams, flipped classrooms and trial-and-error approaches.

In the course of their studies, students in this program learn the methods and concepts that are equally applicable in the digital economy and will be relevant to their later careers. They are thus able to actively participate in the digital transformation process both conceptually, i.e. with regard to strategy as well as intra- and entrepreneurship including methodically i.e. as data analysts and data engineers, and to help shape and sustainably develop this process.

With the knowledge and personal skills acquired in the program, graduates will become sought-after professionals in all industrial and service sectors, as well as in the public and community sectors, and in digital startups.

4. Positioning of the degree program

Regarding the study areas / subject groups mentioned in paragraph 3, namely

- information processing systems, methods and concepts (subdivided in data science, data algorithms, business analytics and information processing systems, system and software development),
- business and economics with a focus on digital business (subdivided into business administration / management and digital business),
- quantitative methods (including maths and statistics), and
- soft skills and ethics,

Image 1 shows the positioning of the Bachelor's degree program Digital & Data-Driven Business in the context of comparable programs in Germany.

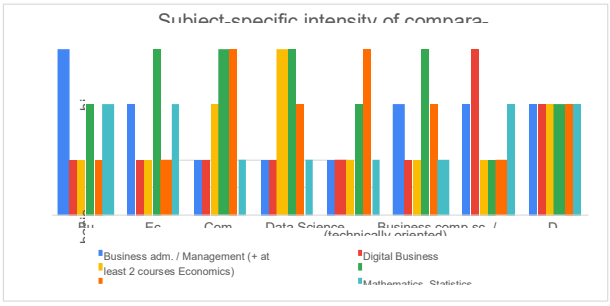

Image 1: Positioning of the degree program "Digital and Data-Driven Business (D3B)"

In doing so, the program was compared with the following programs: Business Administration, Economics, Data Science, Business Informatics (Business Informatics and Business Engineering with technical orientation, Business Informatics with management orientation and relevant programs on Digital Business (Digital Business) and Economy at *Fachhochschulen*. Programs not listed here are individual, fee-based programs on digital business and data science at private universities.

Although the proportion of subject groups in a degree program vary greatly from university to university, and in some cases the assignment of modules in different degree programs cannot always be clearly assigned, the figure shows typical proportions of subject groups per degree program. The intensity of a subject group that is represented with 20 ECTS credits, is shown as ***low,*** otherwise as *basic* and for those with more than 40 ECTS credits as *high*. It is important to bear in mind that due to the significance of Data Science / Data Algorithms / Business Analytics, Information Systems and System and Software Development as well as Digital Business, they have their own categories (so that, for instance, classes on Digital Business are not assigned to Business Administration / Management).

The image shows the orientation of the degree program “Digital and Data-Driven Business” that seeks to combine the study areas in such a way that an appropriate degree of fundamental skills necessary in connection with the shaping, operation and steering of digital and data-driven business systems and models can be imparted.

C. Degree program concept

1. Structure of the degree program

1.1. Admission requirements

Requirement for being admitted to the Bachelor’s degree program in “Digital & Data-Driven Business” is a general (*allgemeine*) or subject-specific university entrance qualification (*fachgebundene Hochschulreife*). The student must not have failed the same degree program or a comparable degree program at the final attempt.

If the *Zulassungszahlensatzung* (Statutes on the Number of Admissions) of the KU stipulates a restriction of admissions for this program, places in the program are awarded according to the
“Statues on the selection procedure for allocating places on the Bachelor’s degree programs at the Ingolstadt School of Management at the Catholic University of Eichstätt Ingolstadt”.

1.2. Qualification objectives

Graduates

- have acquired in-depth knowledge and skills in the area of the digital economy and digital business models,
- learn data analytical and information processing methods and concepts that are essential in a digitally organized economy,
- have acquired fundamental knowledge on the core areas of business administration and how they are connected as well as a basic understanding for economic interrelationships and questions in connection with business ethics,
- have acquired a wide range of methods for working on complex questions and problems in business and economics and digital and data-driven contexts,
- are able to analytically grasp and formulate business issues and planning problems – especially of a digital and data-driven nature – and select and profitably apply the suitable tools and methods for supporting decisions,
- are able to formulate complex questions and solutions clearly and suitable for specific target groups and correctly interpret messages from others. In doing so, they especially benefit from acquired terminology and knowledge needed to operate at the intersection of professionals in the field of (business) information systems and business units of a company,
- are able to work on a research question in a structured way, combine different scientific perspectives and derive implications for action,
- are able to recognize ethical problems on a social and corporate level, to analyze them adequately, to develop solutions and to apply them independently to new situations,

- have acquired skills for working in teams, coordinate among each other and negotiate compromises as well as for heading a team,
- have acquired foreign language skills (especially English) and an extensive business vocabulary and can use their foreign language skills in social and business contexts effectively and flexibly and express themselves on complex matters in logical clarity and in detail (at least level B2+),
- are able to apply the acquired presentation and communication techniques in a target-oriented way and have the necessary self- and time management skills,
- Are able to define objectives, reflect on and assess learning and work processes independently and design such processes in a sustainable manner.

1.3. Further qualification options

In the course of their studies, graduates are qualified for further Master's studies in the field of information systems or business administration, or, in case of corresponding module selection, in economics or other degree programs.

A postgraduate Master's degree program at the Ingolstadt School of Management, e.g. in the program "Business Administration", in particular with a focus on BA&OR, FACT, ENTRE and MARKET or in the "Taxation" program is possible without restrictions.

In particular Master's degree programs that focus on information- and data analysis methods and/or on the development and design of digital business models are considered as particularly suitable. The following German and foreign Master's degree programs are listed as examples:

- Management & Data Science (MSc), Leuphana University Lüneburg
- Business Analytics (MSc), University of Siegen
- Business Analytics (MSc), TU Bergakademie Freiberg
- Operations Research and Business Analytics (MSc), Otto von Guericke University Magdeburg
- Data Science in Business and Economics (MSc), Eberhard Karls University of Tübingen
- Business Analytics (MSc), The University of Warwick, Warwick Business School, England
- Digital Entrepreneurship (MSc), European University Viadrina, Frankfurt (Oder)
- Entrepreneurship in digital Technologies (MSc), Universität zu Lübeck
- Strategy and Digital Business (MSc), ESCP Business School, Berlin
- Master in Digital Entrepreneurship, International Business School Barcelona (ESEI), Spain
- LL.M. Digitalization & Tax Law (Executive Program) WU Vienna, Austria
- and many more comparable offers in Germany and abroad.

1.4. Labor market situation and professional fields

We are currently witnessing a rapid digital transformation process throughout all corporate branches (industry, service, trade) as well as in public and non-profit organizations extending across all company sizes

(small, medium-sized and large enterprises) and functional areas (marketing, finances, accounting, supply chain management etc.), which is likely to last in the long-term.

This digital transformation process leads to a sustainable interweaving of the economy and society with networked information systems and data-processing and analytical methods. As a result, there is an ongoing need for well-trained graduates for digitalization projects and tasks, which in particular also require intelligent handling of large volumes of data. Digital challenges posed by technologies (such as the Internet of Things, virtual reality or mobile devices), new data analysis processes (machine learning, artificial intelligence) and a change in customer behavior currently lead to a radical upheaval in the business models of many companies. For understanding, assessing, effectively shaping and implementing solutions and business models, both established organizations and start-ups need to cope with the central challenges of automation, cooperation, agility and innovation. These require integrative thinking and action based on the understanding of and know-how on information systems, data-analytical processes and digital economy on the one hand and business interrelations on the other hand.

- The named challenges play an increasingly dominant role in all corporate areas nowadays. The degree program in Digital & Data-Driven Business is able to offer its students training that prepares them for a diverse range of tasks and positions in the industry and in public and non-profit institutions. Possible professional fields include:

For all study profiles:

- Specialist and leadership positions in professional fields with a digital and/or data-analytical connection both in national and international firms and organizations,
- Digital and data-analytical cross-sectional tasks for different target groups in companies, and
- Pursuing a Master's degree and, if applicable, further academic career in Germany and abroad

For the specialization in Accounting, Controlling & Taxation:

- In particular professions in the field of data-driven and decision support systems in auditing and tax consultancy, and
- In accounting, controlling and in tax departments of industrial firms and finance corporations and business consulting.

For the specialization Finance & Economics:

- Decision-support professions in strategy departments or in the general management of companies as well as evaluating and analytical professions in finance departments of companies and business consulting, and
- Professions in public institutions, ministries or international corporations with a focus on digital transformation processes.

For the specialization in Marketing, Organization, Innovation:

- Professions in strategic planning and corporate development, in particular in with regard to digital solutions and business models,
- Professions in IT consultancy firms or in the field of design and management of innovative products and services,

- Evaluating and reporting professions in marketing as well as creative and analytical jobs in customer relationship management.

For the specialization in Supply Chain Management & Logistics:

- Experts for data analysis, prognoses, optimization and decision support in functional areas such as procurement, production, distribution, logistics and supply chain management as well as in the growing market for operative and/or strategic logistics consulting,
- Corporate and process architects for shaping, steering and coordinating internal and cross-company processes of goods and information flows using modern information systems and decision-support activities in connection with the planning and development of new mobility concepts.

2. Program structure

2.1. Fundamental program structure

The standard length of the Bachelor's degree program (BSc) in "Digital & Data-Driven Business" is six semesters. Students have the option of spending one of these six semesters at a foreign higher education institution.

Students acquire a total of 180 ECTS credits that are distributed between a required area, a required elective area and an elective area as well as a "Digital Project" module and the Bachelor's thesis. The examination regulations contain all information regarding examination law. The detailed program structure and the structure of the required elective area is outlined in the attached study plan.

2.2. Required area

The required area of the program imparts fundamental knowledge and basic skills necessary for shaping, operating and steering digital and data-driven business systems. This means that this area mainly offers modules that belong to the following four knowledge and skill categories:

- Information-processing methods and concepts
- Business and economics with a focus on digital business
- Quantitative methods
- Language, social, communication and decision-making skills (soft skills)

These modules cover contents from the fields of business administration and digital business, information management, quantitative methods, economics, business languages, culture and society as well as business and corporate ethics. The required modules are listed in the annex of the examination regulations.

2.3. Required elective area

In the required elective area, students have to complete modules from the following fields:

"Digitalization & Analytics" (D&A)

The required elective area “Digitalization & Analytics“ (D&A) comprises a catalog of modules that directly build on previous basic studies in the field and focus on data analysis and quantitative methods and concepts as well as on digital business models and systems. The modules of the D&A required elective area provide students with a substantiated understanding and fundamental skills in the field of digital and data-driven business and, in this context, simultaneously allow students to set their individual focus. Admissible modules in this context are listed in Annex II A) Required elective area “Digitalization & Analytics” (D&A) of this degree program description.

“Data Competence“

The required elective area “Data Competence” teaches fundamentals for dealing with data and data-driven or statistical methods that go beyond the basic studies and are particularly relevant for further studies in the field. Admissible modules in this context are listed in Annex II B) Required elective area “Data Competence” of this degree program description.

“Application Competence“

The required elective area “Application Competence” contains basic modules on the individual business subject areas and thus supports the choice of a study profile that can be completed in the required elective or elective area. Admissible modules in this context are listed in Annex II C) Required elective area “Data Competence” of this degree program description.

“Business Language and Management Skills”

The required elective area “Business Language and Management Skills” imparts foreign language and intercultural skills. Furthermore, students acquire knowledge on presentation, moderation and communication techniques. Admissible modules in this context are listed in Annex II D) Required elective area “Business Language and Management Skills” of this degree program description.

“Business and Corporate Ethics”

The required elective area “Business and Corporate Ethics“ provides a basic understanding of corporate social responsibility (CSR) and the individuals operating within it. Students learn to recognize ethical problems on a social and corporate level, to analyze them adequately, to develop solutions and to apply them independently to equivalent situations. Admissible modules in this context are listed in Annex II E) Required elective area “Business and Corporate Ethics” of this degree program description.

“Studium.PRO“

The “Studium.Pro“ area offers students the opportunity to explore current and, above all economically relevant questions and problems in an interdisciplinary context beyond the subject-related content of their study program. Reflecting on the contents of this area can be an essential stimulus for the subject-related project work and final theses on their program. The possible catalyst effect of the “Studium.Pro” area provides for added value in the study program.

Please refer to the respectively applicable examination regulations for explanations regarding the distribution of credits between the different required elective areas.

2.4. Project work

The central objective of the study program is not only to provide students with theoretical knowledge about digital and data analytical methods and concepts, but also to explicitly enable students to put the knowledge they have learned into practice. The "Digital Project" (10 ECTS, 2 working months within a period of no more than 9 months) supports this objective.

The "Digital Project" primarily teaches skills in the practical handling of data preparation and analysis and/or the design, implementation or analysis of digital models, systems and transformation processes. In the course of the project work, students learn, among other things, how to handle data-processing software and how to independently perform analyses with this software. They also acquire knowledge on how to develop and design exemplary digital business models or how to accompany a digital transformation process. In this context, students also learn to organize themselves in a digital and/or data-oriented project and to coordinate as a team. In particular, students learn and experience the concepts of "agile work", "agile software development", the method of "trial and error" and the concepts of entrepreneurship.

2.5. Elective area

In the elective area, students acquire skills reaching beyond the fundamental studies and the digital or data-driven required elective program. Students can integrate modules from the entire teaching range of the Bachelor's degree programs at the Ingolstadt School of Management or study achievements completed abroad (e.g. at one of the partner universities) in the elective area.

The elective area is particularly suitable for deepening a specific study profile (see section 2.6), for learning additional foreign languages and intercultural skills, or for acquiring a broader knowledge of economics or business administration.

Furthermore, students can choose modules which may be beneficial or necessary for a postgraduate subject-specific Master's program at another university.

2.6. Study profiles

If students select modules worth at least 30 ECTS credits from within a specific study profile in the required elective or elective area, the successful completion of the study profile is recorded in the final academic record. This means that students can choose a subject-specific specialization in addition to their selected methodical basics and have it listed in the final academic record. Depending on the study offer, students can bring in comparable modules that they have successfully completed at universities in Germany or abroad (e.g. at one of the partner universities).

The following study profiles/specializations are usually offered:

- Accounting, Taxation & Controlling
- Finance & Economics
- Marketing, Organization, Innovation
- Supply Chain Management & Logistics

Choosing one of the listed specializations allows students to acquire specific business expertise in addition to digital and data technology knowledge.

The problem-oriented knowledge imparted in the profiles thus facilitates career entry in the respective specialist departments of a company.

Admissible modules for the respective specializations are listed in Annex III: Modules of the specializations in this degree program description.

2.7. Studium.Pro

Choosing one modules from the “Studium.Pro” offer is a mandatory part of the required elective area “Studium.Pro” (see section 2.3).

2.8. Relevance to practice

The practical relevance is an important integrative part of the study program. The program wants to enable students to put the fundamental knowledge on theories and methods imparted in the required program part into practice by providing strong practical relations.

The “Digital Project” is explicitly designed for this purpose and gives students the chance to learn how to deal with and approach practice-related, digital and/or data-driven problems.

Similar offers with a comparable structure are available in the elective and required elective area and in the respective specializations, amongst others in the context of the “Digital Seminar in Data Science & Quantitative Applications”.

Furthermore, the conceptualization of the degree program allows for enough time to integrate internships in the lecture-free periods. In particular, students can choose when to do their module examinations from two examination periods per semester (with the exception of innovative examination types) in order to allow for flexible planning of internships.

Comprehensive practical training is also ensured by involving contract lecturers and guest lectures from the practical professional field. The guest lectures can either be part of the regular course program or are held on separate dates in the semester calendar. In addition, students have the opportunity to participate in projects and workshops that are offered jointly with companies and often deal with job-related tasks in the context of digital and/or data-driven problems.

When writing their Bachelor’s thesis, students can also collaborate with the corporate practice.

2.9. Implementation of the internationalization strategy

An international comparison shows that the development, framework conditions and approaches to digital transformation differ considerably in the individual countries and regions of the world. However, digitalization, data collection and data analysis are far less limited by national borders than is often the case, for instance, with material goods. It is therefore a particular concern of the degree program to analyze, discuss and reflect on the issues of digitalization, data collection and data analysis as well as the handling of big data in an international context. This is ensured by the following offers and concepts of the program:

- The degree program includes the required elective area “Business Language and Management Skills”. Within the framework of two modules (worth 10 ECTS credits), students will acquire knowledge of a business language with the corresponding intercultural skills.

These modules lay the foundation for students to be able to exchange knowledge and operate in an international context.

- In the elective area of semesters four, five and six, students have the possibility to take on a further business language and thus expand their foreign language and intercultural skills beyond the required part of the program.
- Students have the possibility to complete part of their studies abroad. Semester five is particularly suitable for this, as no specific modules have been assigned to this particular semester, taking into account that these could potentially only be studied abroad with considerable effort. When planning their stay abroad, students benefit from the large number of partner universities of the KU and the faculty that provide a broad range of very suitable study programs.
- The study program includes a diverse English-language study offer that also enables foreign students to take part in the courses of the program. Like this, questions of digitalization, data collection and data analysis can be discussed and reflected on in an international context in a number of courses.
- The program's course offer is complemented by presentations of international visiting professors. This perspective allows students to learn about specific aspects of digitalization in other countries and cultural regions.
- In the context of the "Digital Project", students get the opportunity to participate in international research projects at the respective chairs. This gives students direct insights into the challenges and opportunities of digitalization and data collection and evaluation at an international level.
- When allocating group work, lecturers of the program pay particular attention to a diverse international composition of teams to ensure that students from different cultural areas work together as a team.
- In the medium and long term, the program wants to establish a double degree program together with a foreign partner university.

D. Contribution to the KU profile based on the mission statement for studies and teaching

The mission statement for studies and teaching at the Catholic University of Eichstätt-Ingolstadt has the objective of offering research and application oriented degree programs that have a distinct qualification profile and can be characterized by a **discursive**, **interconnected** and **committed** education that is tailored to the students' **individual** needs.

The Bachelor's degree program in Digital & Data-Driven Business at the KU Eichstätt-Ingolstadt fully and completely fulfills this mission statement and thus directly contributes to the desired profile development at the KU.

Discursive:

- The program combines a high scientific standard with a consistent practical orientation. This becomes evident throughout all fields of study and the respectively offered specializations.
- A variety of different teaching concepts in the study program (lectures, practices, seminars, project work, group work, flipped classrooms, etc.) ensure a lively discourse between science and practice.

- Students of the program benefit from a study culture that encourages them to get actively involved and critically question teaching contents, reflect on them and verify them in view of their respective applicability.

Interconnected:

- The degree program is distinguished by its interdisciplinary connection of different subject and skill areas, among them business administration, economics, digitalization, computer science, information systems, quantitative methods, corporate and business ethics, business languages, and culture and society.
- The focus is on the combination of business and economics and quantitative fundamentals, digital innovations and business models as well as the underlying networked information processing systems and methods. This interdisciplinary training provides students with a basic understanding of socio-technical systems and digital value creation.
- Furthermore, the required business language module and the opportunity to spend a semester abroad promote the international networking of the program and students learn to act and move in an international environment.

Committed:

- The required elective areas “Corporate and Business Ethics” and “Studium.Pro” and other elective modules that can be taken in these fields give students the possibility to critically reflect on digital and data-analytical models and methods in relation to the respective fields of application and in view of sustainability and other ethical aspects. They also learn to identify the economic potential connected to these methods and concepts by also taking into account the social challenges and to put it into an operational context.
- The aim of the program is to train students to become responsible experts and leaders in society. These objectives are of particular importance in this degree program – a unique selling point in comparison to similar programs at other higher education institutions.

Tailored to individual needs:

- The degree program promotes the personal development of students with its required modules in the areas “Business Language and Management Skills”, “Business and Corporate Ethics”, and the varied options offered by the “Studium.Pro” program.
- Students of the program are offered an intensive mentoring relationship especially in the "Studium.Pro" modules and the "Digital Project" as well as when writing their Bachelor's thesis. This enables students to accentuate their individual skills and to promote their personal development in the long term.
- The individual growth towards becoming a specialist and manager led by responsible thinking and action is an important educational goal of the degree program.

The criterion of an education that is tailored to students’ individual needs is thus closely related to the objectives for the characterization of a "committed education".

Annex I: Ideal study plan

Exemplary study profile: **Accounting, Taxation and Controlling**

Semester	ECTS	Semester	ECTS	Semester	ECTS	S
1	30	2	30	3	30	
Basics Information Systems	5	Business Analytics	5	Software Engineering and Programming	5	**D**
Mathematics for Students of Economics	5	Introduction to Quantitative Methods	5	Software Tools for Simulation and Optimization	5	**T**
Management Accounting	5	Statistics I	5	Statistics II	5	*Ba cip na a*

Business **Business**

Please note: Modules printed in **bold** are required elective modules, modules printed in *italics* are electives/specialization modules

Exemplary study profile: **Finance & Economics**

Semester	ECTS	Semester	ECTS	Semester	ECTS	Semester	ECTS	Semester	ECTS	Semester	ECTS
1	30	2	30	3	30	4	30	5	30	6	30
Basics Information Systems	5	Business Analytics	5	Software Engineering and Program-	5	**Decision Theory**	5	**Data Science in Finance with Python**	5	**Applied Machine Learning**	5
Mathematics for Students of Economics	5	Introduction to Quantitative Methods	5	Software Tools for Simulation and Optimization	5	**Capital Market Theory**	5	**Applied Statistical Methods**	5	**Taxation of Digital Businesses**	5
Management Accounting	5	Statistics I	5	Statistics II	5	*Macroeconomics*	5	*Bank Management*	5	*Behavioural Finance*	5
Digital Business Models	5	Digital Business Strategies, Organization, Innovation	5	Digital Systems & Operations	5	**Econometrics**	5	*Finance*	5	*Development Economics*	5
Foundations of Economics	5	Microeconomics	5	Investment Finance & Taxes	5	Digital & Data Project in Finance & Economics	10	*Political Economics*	5	Bachelor's Thesis	10
Business English I	5	**Business English II**	5	**Studium.Pro**	5			**Business and Corporate Ethics**	5		

Please note: Modules printed in **bold** are required elective modules, modules printed in *italics* are electives/specialization modules

Exemplary study profile: **Marketing, Organization, Innovation**

Semester	ECTS	Semester	ECTS	Semester	ECTS	Semester	ECTS	Semester	ECTS	Semester	ECTS
1	30	2	30	3	30	4	30	5	30	6	30
Basics Information Systems	5	Business Analytics	5	Software Engineering and Programming	5	**Computational Statistics**	5	*Brand Management in the Digital Age*	5	**Digital Seminar in Data Science & Quantitative Applications**	10
Mathematics for Students of Economics	5	Introduction to Quantitative Methods	5	Software Tools for Simulation and Optimization	5	**Basics of Marketing management**	5	*Service Performance Management*	5		
Management Accounting	5	Statistics I	5	Statistics II	5	**Decision Theory**	5	*Pricing and Product Management*	5	**Marketing Analytics with R**	5
Digital Business Models	5	Digital Business Strategies, Organization, Innovation	5	Digital Systems & Operations	5	**Innovation through Design for Digital Customer Experience and Sustainable Solutions**	5	*International Business*	5	*Human Resources Mgmt.*	5
Foundations of Economics	5	Microeconomics	5	Investment, Finance & Taxes	5	Digital & Data Project in Marketing, Organization, Innovation	10	*Consumer Psychology*	5	Bachelor's Thesis	10
Business English I	5	**Business English II**	5	**Studium.Pro**	5			**Business and Corporate Ethics**	5		

Please note: Modules printed in **bold** are required elective modules, modules printed in *italics* are electives/specialization modules

Exemplary study profile: **Supply Chain Management & Logistics**

Semester	ECTS	Semester	ECTS	Semester	ECTS	Semester	ECTS	Semester	ECTS	Semester	ECTS
1	30	2	30	3	30	4	30	5	30	6	30
Foundations: Information Systems	5	Business Analytics	5	Software Engineering and Programming	5	**Computational Statistics**	5	**Applied Machine Learning**	5	**Digital Seminar in Data Science & Quantitative Applications**	10
Mathematics for Students of Economics	5	Introduction to Quantitative Methods	5	Software Tools for Simulation and Optimization	5	**Operations Analytics**	5	*Applied Statistical Methods*	5		
Accounting	5	Statistics I	5	Statistics II	5	**Algorithms and Data Structures**	5	*System Development*	5	*Strategic Sourcing in Global Markets*	5
Digital Business Models	5	Digital Business Strategies, Organization, Innovation	5	Digital Systems & Operations	5	Decision Theory	5	*Supply Chain analytics*	5	*Retail Operations*	5
Foundations of Economics	5	Microeconomics	5	Investing, Finance & Taxes	5	Digital Project in SCM, Logistics and Operations Research	10	*Supply Chain Controlling*	5	Bachelor's thesis	10
Business English I	5	**Business English II**	5	**Studium.Pro**	5			**Business and Corporate Ethics**	5		

Please note: Modules printed in **bold** are required elective modules, modules printed in *italics* are electives/specialization modules

Annex II: Required elective module catalog

A) Required elective area “Digitalization & Analytics” (D&A)

Module name	Type of examination	ECTS credits	Semester	Admission requirements
Digital Seminar in Data Science & Quantitative Applications	Project Work and Presentation	10	SuSe	-
Applied Machine Learning	Written examination	5	SuSe	-
Computational Statistics	Written examination	5	SuSe	-
Applied Statistical Methods	Written examination	5	WiSe	-
Algorithms and Data Structures	Written examination	5	SuSe	-
System Development	Written examination	5	WiSe	-
Data Science in Finance with Python	Written examination	5	WiSe	-
Data Processing in Accounting, Auditing and Taxation (planned)	Written examination	5	open	-
Taxation of Digital Businesses (planned)	Written examination	5	open	-
Digital Techn. Mgmt. - Service and Technology Management and Marketing	Written examination	5	open	-
Marketing Analytics with R	Written examination	5	SuSe	-
Innovation through Design for Digital Customer Experience and Sustainable Solutions	Written examination	5	SuSe	-
Operations Analytics	Written examination	5	SuSe	-
Supply Chain analytics	Written examination	5	WiSe	-
Econometrics	Written examination	5	SuSe	-
Decision Theory	Written examination	5	SuSe	-
Digital Law	Written examination	5	open	-
Balance Tax Law and DATEV	Written examination	5	SuSe	-

B) Required elective area “Data Competence”

Module name	Type of examination	ECTS credits	Semester	Admission requirements
Algorithms and Data Structures	Written examination	5	SuSe	-
Computational Statistics	Written examination	5	SuSe	-
Decision Theory	Written examination	5	SuSe	-
Applied Machine Learning	Written examination	5	SuSe	-

C) Required elective area “Application Competence”

Module name	Type of examination	ECTS credits	Semester	Admission re-quirements
Balance Tax Law and DATEV	Written examination	5	SuSe	-
Foundations of Marketing Management	Written examination	5	SuSe	-
Operations Analytics	Written examination	5	SuSe	-
Capital Markets Theory	Written examination	5	SuSe	-

D) Required elective area "Business Language and Management Skills"

Module name	Type of examination	ECTS credits	Semester	Admission requirements
Business English I	Written examination + oral examination	5	WiSe	-
Business English II	Written examination + oral examination	5	SuSe	Business English I
Business French I	Written examination + oral examination	5	WiSe	-
Business French II	Written examination + oral examination	5	SuSe	Business French I
Business Spanish I	Written examination + oral examination	5	WiSe	-
Business Spanish II	Written examination + oral examination	5	SuSe	Business Spanish I
Business Chinese I	Written examination + oral examination	5	WiSe	-
Business Chinese II	Written examination + oral examination	5	SuSe	Business Chinese I
Business German I	Written examination + oral examination	5	WiSe	-
Business German II	Written examination + oral examination	5	SuSe	Business German I

E) Required elective area "Business and Corporate Ethics"

Module name	Type of examination	ECTS credits	Semester	Admission requirements
Business and Corporate Ethics	Written examination	5	WiSe	-

Annex III: Modules of the different study profiles

Students who have successfully completed at least 30 ECTS credits from one of the following profile catalog will have the relevant profile listed in their final academic record. Completed modules can also be part of the required elective program.

Study profile: **Accounting, Controlling & Taxation**

Module name	Type of examination	ECTS credits	Semester	Admission requirements
Data Processing in Accounting, Auditing and Taxation (planned)	Written examination	5	open	-
Basic Principles of Financial Accounting according to IFRS	Written examination	5	SuSe	-
Consolidated Accounting	Written examination	5	WiSe	-
Fundamentals of Controlling	Written examination	5	SuSe	-
Cost-oriented Controlling	Written examination	5	WiSe	-
Corporate Planning & Management Control	Written examination	5	SuSe	-
Business Analysis	Written examination	5	WiSe	-
Inheritance Tax, Wealth- and Transaction Taxes	Written examination	5	WiSe	
Taxation of Digital Businesses (planned)	Written examination	5	open	-
Balance Tax Law and DATEV	Written examination	5	SuSe	-
Finance	Written examination	5	WiSe	-
Digital Law	Written examination	5	open	
Auditing	Written examination	5	SuSe	
Applied Machine Learning	Written examination	5	SuSe	-

Study profile: **Finance & Economics**

Module name	Type of examination	ECTS credits	Semester	Admission requirements
Capital Markets Theory	Written examination	5	SuSe	-
Macro-Economics	Written examination	5	SuSe	-
Econometrics	Written examination	5	SuSe	-
Finance	Written examination	5	WiSe	-
Behavioral Finance	Written examination	5	SuSe	-
Monetary Policy	Written examination	5	SuSe	Macroeconomics (recommended)
Data Science in Finance with Python	Written examination	5	WiSe	-
Computational Statistics	Written examination	5	SuSe	-
Decision Theory	Written examination	5	SuSe	-
Development Economics	Written examination	5	WiSe	-
Political Economy	Written examination	5	WiSe	-
Social Policy	Written examination	5	SuSe	-
Seminar on Macroeconomics	Seminar paper and presentation	5	SuSe	
Seminar on Finance	Seminar paper and presentation	5	WiSe	

Study profile: **Marketing, Organization, Innovation**

Module name	Type of examination	ECTS credits	Semester	Admission requirements
Fundamentals of Marketing Management	Written examination	5	SuSe	-
Service Performance Management	Written examination	5	WiSe	-
Service and Technology Marketing (new class)	Written examination	5	open	-
Innovation through Design for Digital Customer Experience and Sustainable Solutions	Written examination	5	SuSe	-
Brand Management in the Digital Age	Written examination	5	WiSe	-
Consumer Behavior and Market Research	Written examination	5	SuSe	-
Global Marketing Management	Written examination	5	SuSe	-
International Business	Written examination	5	WiSe	-
Marketing Analytics with R	Written examination	5	SuSe	-
Pricing and Product Management (English)	Written examination	5	SuSe	-
Entrepreneurial Finance & Strategy	Written examination	5	SuSe	-
Human Resources Management	Written examination	5	SuSe	-
Introduction to Strategic Management	Written examination	5	SuSe	-

Study profile: **Supply Chain Management & Logistics**

Module name	Type of examination	ECTS credits	Semester	Admission requirements
Digital Seminar in Data Science & Quantitative Applications	Project Work and Presentation	10	WiSe	-
Supply Chain Controlling	Written examination	5	SuSe	-
Strategic Sourcing in Global Markets	Written examination	5	SuSe	-
Applied Statistical Methods	Written examination	5	WiSe	-
Retail Operations	Written examination	5	SuSe	-
System Development	Written examination	5	SuSe	-
Operations Analytics	Written examination	5	SuSe	-
Supply Chain analytics	Written examination	5	WiSe	-
Decision Theory	Written examination	5	SuSe	-
SCM Case Studies	Project Work and Presentation	5	SuSe and WiSe	-
Internat. Transport Logistics and Distribution Systems (VHB)	Written examination	5	SuSe and WiSe	-
Sustainability through Logistics and Information Processing (VHB)	Written examination	5	SuSe and WiSe	-

Diploma Supplement (English, German)