

Westsächsische Hochschule Zwickau University of Applied Sciences

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Logical Chart of the double degree study program Management and Information Technology (M.Sc.)

The following module plan represents the linkage of the modules to each other as well as the structure of the degree program across all participating international universities.

Due to the complexity of a double degree program with four international partner universities, the following 10 diagrams were created to improve readability and reduce complexity. The diagrams illustrate the interconnectedness of the compulsory modules and exemplify potential teaching and decision paths resulting from the elective modules offered. In this context, they lead to the different practice-oriented qualification profiles – Business Allrounder, IT/Project Manager, Software Engineer, Data Analyst and Scientific Assistant. Two diagrams were created for each practice-oriented qualification profile, illustrating the overarching and international teaching and decision paths.

The study program offers a wide variety of elective subjects from the disciplines of management, business administration, business information systems, and computer science. Therefore, it is intended that students individually choose their elective subjects according to their preferred field of qualification and work profile. In addition, depending on the chosen elective subjects, students can achieve the following qualification profiles:

Business Allrounder:

In the framework of this program, acquired skills enable the students to work as business allrounders at the intersection of management, business & information systems and computer science. Therefore, the students have a broad understanding of business processes, can use information technology and can develop and implement business information systems. Furthermore, they have core programming and IT Management skills and optimize business and production processes. They can manage digital business models and design holistic automation solutions for processes and plants, especially in connection with Industry 4.0.

To achieve this profile, students should choose elective subjects from all three fields (Management, Business & Information Systems and Computer Science) equally. Every combination of partner universities is suitable to achieve this profile.



IT/Project-Manager:

According to the selection of elective subjects in combination with the compulsory subjects, students achieve specific project management skills for a wide variety of business, public management, and IT projects. Students can manage agile software projects, Marketing, HR, Accounting, and specific business projects. Furthermore, students develop expertise in planning, executing, and delivering successful IT projects within defined budgets and timelines. According to their management and computer science skills, they can control the digital transformation within businesses and function as a change manager. Moreover, the students achieve intercultural competencies and can coordinate international projects, enabling them to work in leading positions.

To achieve this profile, it is recommended that students choose elective subjects from the field of Business & Information Systems and Management. Furthermore, students should choose elective subjects that enhance project management skills and focus on practice-oriented projects which need to be accomplished in a Team. Every combination of partner universities is suitable to achieve this profile.

Software Engineer:

Students can work as software engineers according to the selection of elective subjects combined with compulsory subjects. The study program trains their programming, software development, and IT management skills and combines them with an intercultural experience. Due to an interdisciplinary curriculum, students will achieve the toolset to initiate software solutions and solve complex problems of today's businesses. They will have train their ability to design and develop software applications that meet industry standards. The students will be responsible for software development and the smooth operation of business information systems. Furthermore, according to the chosen elective subjects, students can gain deepen their skills in programming languages such as Java, C++ and Python. Students are familiar with version control systems for efficient code management.

To achieve this profile, it is recommended that students focus on elective subjects from the field of Computer Science. The knowledge is expanded by choosing firstly elective subjects from the field of Business & Information Systems and combine the gained knowledge with project management subjects. The partner universities IBSU, ASUE and INAI.kg are recommended as double degree partners to achieve this profile.

Data Analyst:

According to the selection of elective subjects in combination with the compulsory subjects, students will be able to achieve the specialization data analyst. Students learn to interact with machine learning methods and implement them into business models and IT projects. Furthermore, the students gain skills to manage big data and prepare decision-relevant information. Therefore, students acquire soft

and technical skills to consult the management and optimize production and decision processes. Students will be responsible for data-driven decision-making on the strategic and operative levels. Furthermore, gain students' knowledge of statistical analysis methods to extract insights, identify correlations, and perform hypothesis testing. Students expand their knowledge of data governance, privacy, and ethics to ensure a responsible handling of the corporate data.

To achieve this profile, it is recommended that students choose elective subjects from the field of Business & Information Systems and data management subjects from the field of Computer Science. The knowledge can be enlarged and combined with additional strategic business and management competencies. The partner universities IBSU and ASUE are recommended as double degree partners to achieve this profile.

Scientific Assistant:

Students can also choose a career at a scientific research institution or university or work in a research and development team in the fields of management, business information systems, and computer science. They can write research proposals, manage specific research projects, publish articles, conduct research, and work at a university chair. Due to the international degree program with five partner universities, the students will learn different research approaches and work on scientific papers with an intercultural team. To achieve this profile, students should choose elective subjects from all three fields (Management, Business & Information Systems and Computer Science) which focus on project management and enhance scientific research skills. Every combination of partner universities is suitable to achieve this profile.

Explanation of decision paths:

	Module A (from top to bottom) is a recommended prerequisite for the linked Module B (later semester).
	Recommended teaching or decision path: The module is recommended to students and displayed in a prioritized manner, per practice-oriented qualification profile; also, recommendation of the international partner university.
>	Alternative teaching or decision path: The module is displayed to students as a possible alternative and not prioritized, per the practice-oriented qualification profile.
	Recommended international teaching or decision path: International partner university is particularly recommended and prioritized for this practice-oriented qualification profile indicated.



















