Fachhochschule Dortmund
University of Applied Sciences and Arts

IDiAL Institute for the Digital Transformation of Application and Living Domains

EUCLiDES

FACT SHEET BIP

Name institution	Dortmund University of Applied Sciences and Arts (FH Dortmund) **Erasmus code:** D DORTMUN02
Title / Name BIP *(Enter the official name of the BIP)*	Software Engineering Project
Abstract *(Brief summary of the activity – what it is about in 3–5 lines)*	The BIP offers a unique opportunity to combine international collaboration, practical experience, and academic learning in software engineering. It addresses the increasing demand for cross-border, project-based education in cloud-native software development—skills essential in today's global job market. This format aligns closely with our faculty's internationalization strategy by fostering intercultural exchange and preparing students for distributed team environments, common in modern software projects. The BIP adds significant value by enabling students from diverse academic and cultural backgrounds to jointly develop real-world solutions, enhancing inclusiveness across disciplines and educational levels. Unlike traditional courses, it blends virtual collaboration with a short-term physical mobility, allowing broad participation without financial or time barriers. Our partnership is built on shared academic goals, mutual trust, and strong industry ties, ensuring a high-quality, practice-oriented learning experience that benefits students and partner institutions alike.
Goal *(What is the main objective or purpose?)*	The aim of this course is to provide students with theoretical and practical experience in software engineering for cloud-native applications. Therefore, the students work collaboratively in teams on a real-world challenge. The course focuses on software engineering principles that are the foundation for implementing modern software systems with a particular focus on current software architecture trends, such as moduliths. During the course, the students need to apply agile methods to

	their project and team for a dynamic software engineering approach. In summary, the students implement the complete life cycle from requirements engineering to design over the development of a cloud-native software system.
Topics covered *(List the key themes or subject areas that will be addressed)*	• Cloud-native software development • Software engineering principles and methodologies • Modern software architectures (e.g. moduliths) • Agile development methods and project management • Domain-driven design (DDD) • Requirements engineering • Software architecture design • Collaborative, cross-border software development in distributed teams • Full software development lifecycle (from planning to implementation and testing) • Peer learning and intercultural teamwork • Tool-supported development and DevOps practices
Expected outcome(s) *(What should students gain or achieve by the end?)*	The BIP uses a project-based, collaborative learning format to train students in end-to-end software engineering using real-world use cases. Innovative teaching combines agile methods, peer learning, and tool-based development practices. Learning outcomes are aligned with activ-ities like requirements engineering, architecture design, and testing, assessed through iterative deliverables and final project presentations. The virtual phase enables onboarding and planning, while the physical phase fosters intensive collaboration, sprint execution, and direct coaching. This blended structure mirrors real-world cloud-native development environments, strengthening both technical and intercultural competencies, and preparing students for international, cross-functional software projects.
Start and end date of the BIP	23-27 March 2026

Content of virtual component *(Describe any online or hybrid elements – e.g., webinars, online modules, collaborative tools)*	The virtual component serves as the preparatory phase, combining an interactive online introduction with short video lectures and guided self-study. It provides students with foundational knowledge relevant to the upcoming project phase. Through asynchronous materials and structured tasks, students independently explore the topic of Domain-driven Design, which is the initial phase when designing a software architecture. Additionally, the virtual phase supports team formation and familiarization with development tools, ensuring a well-aligned and productive start to the physical project work.
Start and end date of the virtual component	30 January – 15 March 2026 (preliminary)
Maximum number of students *(Total number of participants allowed)*	30
Maximum number per university *(Limit per institution, if applicable)*	NA
Webpage	TBD
BIP ID *(If already available)*	TBD