Dieses Wahlpflichtmodul ist ein Angebot der:

Fachhochschule Dortmund
University of Applied Sciences and Arts

Master Digital Transformation

Scientific & Transversal Skills 2

daniel.vonfalkenhayn@fh-dortmund.de

Prof. Dr. Rolf Schuster
rolf.schuster@fh-dortmund.de

Scientific & Transversal Skills 2 (MOD2-04)

Code Number	Workload	Credits	Semester	Frequency	Duration
48090/91	180 h	6	2	summer semester	1 Semester

1	**Course Title**	**Contact hours**	**Self-Study**	**Planned Group Size**
	Scientific & Transversal Skills 2	4 SWS / 60 h	120 h	25 students

2	**Course Description**
	The course is intended for adding specific scientific and transversal skills to the curriculum. It is intended to prepare students for both a scientific path in the third and fourth semester or for a more application-oriented path with internships and theses in industry. Students select compact courses worth 6 ECTS in total on topics relevant for the further study program. The selection of courses is need based and will be assessed by interviewing the students, by doing tests (where necessary) and by consulting.

3	**Course Structure**
	In the initial set up of the master a selection of 8 compact courses are offered. More can be added according to the analysis of the needs of actual students: 1. Compact Course on Business Models and Business Cases 2. IT Tools for Projects (Redmine, Jira, Confluence) 3. Mini Projects (Group Projects, with other Master's programmes) 4. Research Methods and Tools – part B (RMT-B) (Research Design, Tools, Databases, Publishing) 5. International Negotiation & Conflict Management (English) 6. Engineering Communication 1 (German A2, or other foreign language for Germans)

4	**Application Focus**
	Depending on choice of courses

5	**Scientific Focus**
	Depending on choice of courses

6	**Parameters**
	- ECTS: 6 - Hours of study in total: 180 - Weekly hours per semester: 4 - Contact hours: 60 - Self-Study hours: 120 - Course characteristics: compulsory - Course frequency: every year – summer semester - Maximal capacity: 25 students - Course admittance prerequisites: none - Skills trained in this course:

	• Assessment of the course: Depending on choice of courses • Teaching staff: Prof. Dr. Rolf Schuster, PhD students of IDiAL for compact courses, external Professor from partner university for "Research Methods and Tools – part B (RMT-B)", language trainers and coaches e.g. from Auslandsgesellschaft

7	**Learning outcomes**
	
	7.1 Knowledge
	    • Knows the foundations of each topic at least up to bachelor knowledge
	7.2 Skills
	    • Can apply the knowledge in the upcoming master courses
	7.3 Competence – attitude
	    • Can assess the gaps in own knowledge
	    • Can use a variety of tools, online-courses, tutorials to close the gap in own responsibility

8	**Teaching and training methods** Compact courses will follow a similar structure: - 1 day introduction at the end of the first semester, mini-tests to assess the prior knowledge and to define the gap. Definition of the training need and selection of trainings an exercises - 0,5 day assessment and tutorial in the week before summer school - Tutorials on each Friday throughout the whole semester - Access to e-learning modules and MOOCs for each topic - Literature recommendations and provision of exercises - Submission of homework for assessment and advice by tutors Language and communication trainings will be done on a weekly basis, e.g. Monday afternoon + evening (in connection with external trainers, e.g. from Auslandsgesellschaft)
9	**Course mapping** Input for: Depending on choice of courses Input from: MOD1-05 – Scientific & Transversal Skills 1

10	**References**
	
	Depending on choice of courses, for example:
	
	1. Compact Course on Business Models and Business Cases
	    • The Business Models Handbook: Templates, Theory and Case Studies, Paul Hague, Kogan Page, 2019
	    • Business Model Canvas A Complete Guide - 2020 Edition, Gerardus Blokdyk, 5starcooks, 2020
	
	2. IT Tools for Projects (Redmine, Jira, Confluence)

- Atlassian Confluence 5 Essentials, 2013
- Jira 8 Essentials: Effective issue management and project tracking with the latest Jira features, 5th Edition, Packt publishing, 2019
- Redmine A Complete Guide - 2019 Edition, Gerardus Blokdyk, 5StarCooks, 2019

3. Mini Projects (Group Projects, with other Master's programmes)

4. Research Methods and Tools – part B (RMT-B) (Research Design, Tools, Databases, Publishing)

- Research Methods: A Tool for Life, Bernard C. Beins, Cambridge University Press, 4th Edition, 2018

5. International Negotiation & Conflict Management (English)

6. Engineering Communication 1 (German A2, or other foreign language for Germans)