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Haute école spécialisée bernoise
Bern University of Applied Sciences

DD1 - Deep Dive Digital Transformation I - MWD2007

ECTS	3
Study language	English
Module type	Optional module (countable)
Lecturer(s)	Peskova Marie
Module responsibility	TBD
Short description of the module	Deep Dive Digital transformation elective module provide the students the opportunity to deepen their knowledge and expertise and transfer their practical experience into the applied research. It is designed for the students who have already gathered a significant experience and expertise through their practical experience and gives them the possibility to materialize this know-how towards an add-on "Individual Expertise Profile" in the Master of Digital Business Administration. The "Individual Expertise Profile can be acquired in the field of digitalization of a specific industry or function.
Entry requirements	This elective module is open to students that fullfill the following eligibility criteria: • have at least 3 years of a relevant practical expertise in a given industry or function (i.e. Banking, Finance/efinance, Health Sector/eHealth, Marketing/Digital Marketing, etc.) • can provide at least 3 relevant references from practitioners, experts in the field to proof their expertise (i.e. industry experts, relevant co-workers, managers, etc.) • and are willing to put an extra effort into transferring and deepening their practical expertise and experience into their academic projects and work (DR2, DR3 and Masterthesis) and Deep Dive Digital Transformation elective module. **How to apply?** Send an application letter to the head of Master Digital BA. The Application letter should contain the following: • Expression of your motivation to deepen the expertise in the industry/function or a technology in the chosen field of expertise • Proof of practical experience and expertise, i.e. at least 3 years of practical experience in the field of expertise (the industry/function or a technology • Minimum of 3 references, i.e. experts in the in the chosen field of expertise (to confirm your experience and expertise)
Competencies upon completion	Students are able to • deepen and reflect their knowledge and expertise in a given industry or function and transfer it into the applied research • write a focus/white paper in the field of digital transformation of the given industry or function valuable for the practitioners • present the gathered experience and knowledge to a target audience in the appropriate way

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DD1 - Deep Dive Digital Transformation I - MWD2007

Content

1. Transformation of the individual expertise (e.g. industry, function, method, technology) into applied research (project, white paper)

a. DD1: Focus Paper/White Paper:
i. Gap analysis between current practice and leading practices regarding the digital Transformation in the given field and outlook to expected development
ii. Form: paper
iii. elective module Deep Dive Digital Transformation I

b. DD2: Public colloquium presentation (evtl. Evening Event in cooperation with a partner):
i. Presentation: good presentation incl. visualisation
ii. Event organised by BFH Master, businesses/public to be invited
iii. elective module Deep Dive Digital Transformation II - (ideally end of 3rd semester)

c. Reflection of what competencies and personal development is required in "Strategy, Culture, Structure) to successfully master the digital transformation as indicated in the white paper, reflection of the skills "hands-on vs. visionary" (elective module Deep Dive Digital Transformation II)

Teaching and learning methods

Coaching sessions with DD1 supervisor
Individual applied reserach paper/focus/white paper

Literature

Individual depending on the area of specialization
TBD by DD1 supervisor

Workload

90h

Contact lessons

Coaching sessions with DD1 supervisor

According to semester schedule (Moodle)

Attendance requirement

Coaching sessions to be defined by DD1 supervisor

Competency assessment

Focus Paper/White Paper 100%

Aids for written examination

None

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DD1 - Deep Dive Digital Transformation I - MWD2007

Mode of repetition

In case of an insufficient grade, student may approach the lecturer to define the conditions (task and deadline) of the resubmission. In case of the re-submission of the same assignments a maximum grade of 4.0 can be achieved for a given assignment.

Follow-up modules

Deep Dive Digital Transformation II DD2

Comment

The elective module DD1 and DD2 are part of the portfolio needed for acquiring "Individual Expertise Profile" within Master of Digital Business Administration

Degree programme, semester

MSc Digital Business Administration, 2024-2025, 2 FS, BB, Bern
MSc Digital Business Administration, 2025-2026, 4 FS, BB, Bern
MSc Digital Business Administration, 2024-2025, 3 HS, BB, Bern
MSc Digital Business Administration, 2025-2026, 3 HS, BB, Bern
MSc Digital Business Administration, 2024-2025, 4 FS, BB, Bern

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DD2 - Deep Dive Digital Transformation II - MWD3007

ECTS	3
Study language	English
Module type	Optional module (countable)
Module responsibility	TBD
Short description of the module	Deep Dive Digital transformation elective modules provide the students the opportunity to deepen their knowledge and expertise within a specific field of digital transformation. The modules promote a transfer of students practical experience into the applied research and vice versa. It is eligible for the students who have already gathered a significant experience and expertise through their practical experience. the modules provides such students with the possibility to materialize this know-how towards an add-on "Individual Expertise Profile" in the Master of Digital Business Administration. The "Individual Expertise Profile can be acquired in the field of digitalization of a specific industry or function.
Entry requirements	A prerequisite to subscribe for DD2 is a sucessfully passed DD1 Deep Dive Digital Transformation 1 (DD1)
Competencies upon completion	Students are able to • deepen and reflect their knowledge and expertise in a given industry or function and transfer it into the applied research • write a focus/white paper in the field of digital transformation of the given industry or function valuable for the practitioners • present the gathered experience and knowledge to a target audience in the appropriate way DD1
Content	Preparation of a public colloquium for an interested group of experts (practitioners, researchers, etc.) in a given field. i. Presentation of the white paper results (DD1) : good presentation incl. visualisation ii. Event organised by BFH Master, businesses/public to be invited iii. Reflection of what competencies and personal development is required in "Strategy, Culture, Structure) to successfully master the digital transformation as indicated in the white paper, reflection of the skills "hands-on vs. visionary" (elective module Deep Dive Digital Transformation II)
Teaching and learning methods	Coaching sessions Self study
Literature	TBD by supervisor
Workload	90h

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DD2 - Deep Dive Digital Transformation II - MWD3007

Contact lessons	None
Attendance requirement	Coaching session Public colloquium
Competency assessment	Public colloquium preparation and execution (presentation of DD1 study)
Mode of repetition	In case of an insufficient grade, student may approach the lecturer to define the conditions (task and deadline) of the resubmission. In case of the re-submission of the same assignments a maximum grade of 4.0 can be achieved for a given assignment.
Degree programme, semester	MSc Digital Business Administration, 2024-2025, 2 FS, BB, Bern MSc Digital Business Administration, 2024-2025, 3 HS, BB, Bern MSc Digital Business Administration, 2024-2025, 4 FS, BB, Bern MSc Digital Business Administration, 2025-2026, 3 HS, BB, Bern MSc Digital Business Administration, 2025-2026, 4 FS, BB, Bern

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DLC1 - Live Case Project 1 - MWD1010

ECTS	1
Study language	English
Module type	Optional module (countable)
Lecturer(s)	Marti Olivier
Module responsibility	Marti Olivier
Short description of the module	Live Case Project is the central element of the Master Digital Business Administration Curriculum. Students apply their acquired knowledge and skills in developing solutions of a complex, real-world challenge of digital transformation. The challenge of the live case project come from real businesses and organisations. Student work together with the representatives of the live case organisations and other experts. They need to manage this project in an appropriate way, use appropriate project management approach, tools and methods in order to provide the agreed output/deliverables. Live Case Project covering Scenario - Digitalize the operations.
Competencies upon completion	Teambuilding Project management Agile project management Collaboration and co-creation Stakeholder management Solution Pitch
Content	The content of the live case project is mainly covered by the hands on live case project sessions. Especiall the project planning, project status reporting, pitchig, stakeholder management.
Teaching and learning methods	Coaching session, status reports, feedbacks
Literature	TBD in MS Teams Live Case Project Specific
Workload	30h
Contact lessons	onCampus - Live Case Project Sessions: - Kick-off Live Case - Q&A Session with Live Case Partner - Final Presentations Virtual Live - Case Project Sessions (with Head of Live Case Project): - Status Reports - Pitches
Attendance requirement	Attendance during the on-campus blocks and all live case sessions including all the final presentations of all live cases.

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DLC1 - Live Case Project 1 - MWD1010

Competency assessment	Active Participation in all Live Case Project Sessions (pass/not passed).
Mode of repetition	Repetition only in next semester possible.
Comment	The formation of groups according to given specifications (e.g. group size and diversity) and the effective/efficient teamwork as well as a fair distribution of the workload is the responsibility of the individual students respectively their teams. New teams are formed for each live case or semester!
Degree programme, semester	MSc Digital Business Administration, 2025-2026, 3 HS, BB, Bern MSc Digital Business Administration, 2024-2025, 3 HS, BB, Bern MSc Digital Business Administration, 2024-2025, 1 HS, BB, Bern

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DLC3 - Live Case Project 3 - MWD3010

ECTS	1
Study language	English
Module type	Optional module (countable)
Lecturer(s)	Marti Olivier
Module responsibility	Marti Olivier
Short description of the module	Live Case Project is the central element of the Master Digital Business Administration Curriculum. Students apply their acquired knowledge and skills in developing solutions of a complex, real-world challenge of design digital business in start-ups or interapreneurship venture projects. The challenge of the live case project come from real businesses and organisations. Student work together with the representatives of the live case organisations and other experts. They need to manage this project in an appropriate way, use appropriate project management approach, tools and methods in this fast changing environment and high speed of start up in order to provide the agreed output/deliverables. Live Case Project covering Scenario - Design Digital Buiness Models.
Competencies upon completion	Teambuilding Agile project management SCRUM Collaboration and co-creation Stakeholder management Solution Pitch
Content	The content of the live case project is mainly covered by the hands on live case project sessions. Especiall the project planning, project status reporting, pitchig, stakeholder management.
Teaching and learning methods	Coaching session, status reports, feedbacks
Literature	TDB in MS Teams Live Case Project Specific
Workload	30 hours
Contact lessons	onCampus - Live Case Project Sessions: - Kick-off Live Case - Q&A Session with Live Case Partner - Final Presentations Virtual Live Case Project Sessions (with Head of Live Case Project): - Status Reports - Pitches
Attendance requirement	Attendance during the on-campus blocks and all live case sessions including all the final presentations of all live cases.

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DLC3 - Live Case Project 3 - MWD3010

Competency assessment	Active Participation in all Live Case Project Sessions (pass/not passed).
Mode of repetition	Repetition only in the next semester.
Comment	The formation of groups according to given specifications (e.g. group size and diversity) and the effective/efficient teamwork as well as a fair distribution of the workload is the responsibility of the individual students respectively their teams. New teams are formed for each live case or semester!
Degree programme, semester	MSc Digital Business Administration, 2024-2025, 3 HS, BB, Bern MSc Digital Business Administration, 2025-2026, 3 HS, BB, Bern

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DO1 - Agility & New Work - MWD1003

ECTS	3
Study language	English
Module type	Elective module
Lecturer(s)	Harder Deane, Pang Dandan
Module responsibility	Pang Dandan, Harder Deane

Short description of the module

Setting the Scene: Understand the Agility & New Work Landscape

This course provides students with an overview of new work arrangements that technology and digitalization have enabled, including automation, human-machine interactions, and artificial intelligence. The course will highlight the implications for leadership and HR professionals and discuss concepts such as digital skills, agility, and the hacker mindset that are considered as prerequisites to take advantage of the new work opportunities. Overall, the course will equip students with the ability to evaluate new work arrangements along the efficiency-innovation continuum and enable them to choose the arrangement that best suits their company.

Competencies upon completion

Subject: Students

- apply their knowledge of HR Management and leadership to assess the potential for digitalizing HR functions and for shaping new work environments
- will make use of case studies to link eaxisting knowledge with new insights regarding digitalization and the future of work
- will develop the ability to assess the potential of new work arrangements and decide, which option is most suitable for their specific situation.

Method: Students

- will focus on self-study and reflective learning.
- Will take responsibility to work with the course material in the learning cycles and to understand, question and reflect on the courser material
- will be required to actively participate and prepare for class and get familiar with tools and methods used in distance learning and to tackle the live case.
- Will be required to comment on and give feedback to other students as part of the distance learning cycles
- will be challenged to reflect on their existing knowledge and experience and to integrate new insights in their practice and thinking.

Social: Students

- understand the influences and effects of technological, organizational and social trends for future work arrangements
- get to know the unpredictability in group work when group dynamics in the interactions with other students, lecturers and representatives of the live case unfold.
- are able to take on different point of views and establish common ground
- recognize difficult situations, develop an understanding for viable solutions, and drive them in the business context.

Self: Students

- develop an awareness of opportunities and challenges in the context of work and digitalization
- learn practical information and tools for their future business careers.
- develop critical thinking through assessing different point of views (including personal biases) in the learning cycles and learning activities in the case study

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DO1 - Agility & New Work - MWD1003

Content

Subject content:

- Automation & ChatGPT
- Human-machine-interactions
- Digitalizing HR processes
- Changing role for HR Professionals
- People Analytics
- Digital leadership
- Future skills
- Agile mindset
- Self-management (#GTD)
- Work Smart and NWW

Methods:

- Point-counterpoint
- digital skills

Digital toys:

- Invention Kit
- VR Headset

Teaching and learning methods

On-campus block: classroom teaching and discussion, experimentation and excursion, guest lecture, coaching sessions
Virtual learning cycles: self-study via exploration, online illustrations, and exercises
Live Case

Literature

Provided via Moodle

Workload

90 hours

Contact lessons

On Campus Sessions - according to semester schedule (Moodle)

Attendance requirement

Attendance during the on-campus blocks and all live case sessions including all the final presentations of all live cases.

Competency assessment

All learning cycle assignments must be completed in order to pass the module.
Two of the individual assignments will be graded and will make up 70% of your final grade. Both individual assignments need to be passed.
The other 30% will be your group Live Case presentation & report .

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DO1 - Agility & New Work - MWD1003

Mode of repetition

Grade 3.5: student may approach the lecturer to define the conditions (task and deadline) of the resubmission. In case of the re-submission a maximum grade of 4.0 can be achieved for a given assignment.

Grade worse than 3.5: module repetition.

Degree programme, semester

MSc Digital Business Administration, 2024-2025, 1 HS, BB, Bern
MSc Digital Business Administration, 2025-2026, 3 HS, BB, Bern
MSc Digital Business Administration, 2024-2025, 3 HS, BB, Bern

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DO3 - People & Collaboration - MWD3002

ECTS	3
Study language	English
Module type	Elective module
Lecturer(s)	Pang Dandan
Module responsibility	Pang Dandan, Gilde Ad `t

Short description of the module

In a fast-changing and challenging world like ours, many inevitably need to work with others to achieve goals and to succeed. In organisations, excellent collaborations with various stakeholders underlie the success of organisational life. It is critically important for modern workers, and especially team and organisational leaders, to understand the nature of human communication and interaction and to practice rules that facilitate organisational effectiveness.

Given the prevalence and importance of entrepreneurial activities in modern economies, the People & Collaboration module leverages the entrepreneurial (startup) context to elaborate on theories and practices regarding how people work and collaborate in dynamic environments. The module provides a contextualised answers to this board question, synthesising theories and research in management and psychology, as well as practical knowledge and frameworks from the real business world. The instructors will use a variety of interactive forms of instruction, to help students develop practical knowledge about how to facilitate collaboration with a people-oriented perspective and an execution mindset.

In this module, students will develop understandings of critical issues about execution in organisational (startup) settings (e.g., forming teams, developing visions and goals, building culture, cultivating capabilities, mindset of an entrepreneur, etc.) and relevant knowledge from individual and organisational psychology (e.g., character strengths, positive emotions, team creativity, etc.).

Entry requirements

None

DO3 - People & Collaboration - MWD3002

Competencies upon completion

Subject: Students

- learn how to get people to work well together and produce results within a team setting
- understand the challenges of teamwork and link existing knowledge with new insights regarding digitalization and the future of work
- can recognize their own field of passion and motivational structure
- can analyze and improve they interactions with stakeholders of a startup
- can adapt their approaches to communication in line with the predominant group dynamics
- can foster specific mindsets conducive for a startup environment
- can facilitate decision-making and prioritization in a complex and resource-limited context typical for startups

Method: Students

- will focus on self-study and reflective learning
- will take responsibility to work with the course material in the learning cycles and to understand, question and reflect on the course material
- will be required to actively participate and prepare for class and get familiar with tools and methods used in distance learning and to tackle the live case
- will be required to comment on and give feedback to other students as part of the distance learning cycles
- will be challenged to reflect on their existing knowledge and experience and to integrate new insights in their practice and thinking

Social: Students

- get to know the unpredictability in group work when group dynamics in the interactions with other students, lecturers and representatives of the live case unfold
- are able to take on different point of views and establish common ground
- recognize difficult situations, develop an understanding for viable solutions, and drive them in the business context
- assess performance and give feedback

Self: Students

- develop an awareness of opportunities and challenges in the context of teamwork
- learn practical information and tools for their future business careers
- develop critical thinking through assessing different point of views (including personal biases) in the learning cycles and learning activities in throughout the module

DO3 - People & Collaboration - MWD3002

Content

Managing people in the entrepreneurial contexts (startups): how to execute strategy and change

- Team formation and formalization: finding cofounders and startup members; setting goals, visions, missions; forming strategy; setting roles and responsibilities; shaping culture; managing new work (global and virtual);
- Scale-up: nurturing processes; developing competence and capabilities; managing external stakeholders (community, crowd, etc.); finding staff for the second phase of the life cycle of a startup
- Change: facilitating innovation and change; managing conflicts; managing emotions.
- Playful business: unlocking the benefits of getting into a playful mindset in a business context

Individuals and teams: the underlying psychology of individuals and teams

- Individual psychology: understanding psychology basics; positive emotions and connection; cognition and cognitive bias; need and motivation (need for achievement and recognition); well-being (of entrepreneurs), work-life balance, and careers; entrepreneurship and visionary leadership
- Teams: diversity (race, gender, age/ inclusion); collaboration & conflict, team creativity; team climate; the role of leader(ship);
- New work: work in virtual and global teams; self and team development (mindfulness, JDR, grit, mindset)

Teaching and learning methods

This module involves two formats of teaching and learning:

Classroom teaching and learning on campus, including:

- Lecturing by the instructors
- Case discussion in groups
- Practical group exercises
- Invited talks by practitioners/industry experts
- Panel discussion with practitioners/industry experts (structured, focused) with live cases
- Case study (in or after class)

Self-study after class, including:

- Reading (and video) assignments
- Self-guided learning
- Regular assignments with feedback
- Site visiting (TBD)

Literature

Mandatory literature will be provided on Moodle

Workload

90 h

Contact lessons

According to semester schedule (Moodle)

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DO3 - People & Collaboration - MWD3002

Attendance requirement

Attendance during the on-campus blocks and all live case sessions including all the final presentations of all live cases.

Competency assessment

All six online assignments of the learning cycles must be completed to pass the module (deadline published on module moodle site), of which two written assignments will be graded (individual assignments, 70%).
Group work on Live Case incl. presentation will be graded (group assignments, 30%)

Mode of repetition

Grade 3.5: student may approach the lecturer to define the conditions (task and deadline) of the resubmission. In case of the re-submission a maximum grade of 4.0 can be achieved for a given assignment.

Grade worse than 3.5: module repetition.

Degree programme, semester

MSc Digital Business Administration, 2024-2025, 3 HS, BB, Bern
MSc Digital Business Administration, 2025-2026, 3 HS, BB, Bern

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DPE - Prompt Engineering: Innovation Through Generative AI - MWD4007

ECTS	6
Study language	English
Module type	Optional module (countable)
Lecturer(s)	Rietsche Roman, Wambsganss Thiemo
Module responsibility	Prof. Dr. Thiemo Wambsganss, Prof. Dr. Roman Rietsche

Short description of the module

Businesses and organizations that fail to recognize and harness the potentials of generative Artificial Intelligence (AI) will increasingly face competitive disadvantages. Understanding and deploying AI systems is crucial, but integrating these systems into products and services in an intelligent and user-centered manner to drive innovation and develop future-proof solutions is equally essential.

"Prompt Engineering: Innovation Through Generative AI" bridges the gap between traditional machine learning and advanced generative AI techniques, particularly in natural language processing and large language models (LLMs). By strategically utilizing Prompt Engineering, specific AI outputs tailored to the needs and challenges of users, customers, and modern organizations can be generated.

This course offers an in-depth introduction to the mechanisms and applications of Prompt Engineering, supported by practical examples and projects that students can directly apply to their ideas. The course starts with the basics of natural language processing, the structure, and deployment of LLMs. Participants will learn how to effectively deploy these technologies through prompt techniques to create user-centric innovations.

Participants will not only acquire theoretical knowledge but also develop practical skills enabling them to consciously and effectively utilize generative AI technologies. The goal is to empower students to fully exploit the opportunities and challenges of AI technologies for innovative business solutions through a combination of theoretical understanding and practical application.

Entry requirements

Basic programming skills in Python and an understanding of machine learning are helpful but not mandatory.

Competencies upon completion

Course Content and Methodology:

1. **Foundations and Principles of NLP and LLMs**:
   - Understanding the technical foundations and evolutionary development of NLP and LLMs.
   - Detailed examination of the architectures and functionalities of leading language models like GPT and BERT.
2. **Introduction to Prompt Engineering**:
   - Learning the principles and techniques of steering AI model performance through specific inputs (prompts).
   - Analysis of use cases where prompt engineering is effectively employed for business innovation.
3. **Scientific Application and Prototyping**:
   - Developing prototypes demonstrating the application of prompt engineering in real scenarios.
   - Conducting scientific projects in teams to promote collaborative and practical experience.
4. **Legal, Ethical, and Social Aspects of AI Use**:
   - Discussion on data privacy, responsibility in AI deployment, and avoiding biases.

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DPE - Prompt Engineering: Innovation Through Generative AI - MWD4007

Content

- Upon completing the course, students will be able to:

- Explain developments, basic principles, and technical mechanisms of NLP and Large Language Models.
- Practically implement the use of prompt engineering to control generative AI models in various application areas.
- Design creative and effective prompts to craft innovative solutions for specific tasks or problems.
- Critically analyze ethica, legal, and social challenges of AI technologies and promote responsible AI applications.
- Document the entire development process of an AI-supported project clearly and structured in a scientific paper according to ACM format.
- Effectively integrate prompt engineering into existing structures to enhance operational efficiency and innovation capacity.
- Apply research methods and techniques for critical analysis and evaluation of generative AI models and their applicability and impacts.

Literature

Selected Papers:

- Training Language Models to Follow Instructions with Human Feedback (2022) by Ouyang, Wu, Jiang, Almeida, Wainwright, Mishkin, Zhang, Agarwal, Slama, Ray, Schulman, Hilton, Kelton, Miller, Simens, Askell, Welinder, Christiano, Leike, and Lowe https://arxiv.org/pdf/2203.02155.pdf
- Fine-Tuning Language Models from Human Preferences (2020) by Ziegler, Stiennon, Wu, Brown, Radford, Amodei, Christiano, Irving https://arxiv.org/abs/1909.08593
- Learning to Summarize from Human Feedback (2022) by Stiennon, Ouyang, Wu, Ziegler, Lowe, Voss, Radford, Amodei, Christiano https://arxiv.org/abs/2009.01325
- How Close is ChatGPT to Human Experts? Comparison Corpus, Evaluation, and Detection by Biyang Guo, Xin Zhang, Ziyuan Wang, Minqi Jiang, Jinran Nie Yuxuan Ding, Jianwei Yue, Yupeng Wu https://arxiv.org/pdf/2301.07597v1.pdf
- Language Models are Few-Shot Learners by Tom B. Brown et al https://arxiv.org/pdf/2005.14165.pdf

Workload

180h

Contact lessons

Virtual Learning Cycles

Semester Sessions:

27.09.2024, 16:15 bis 19:45

23.10.2024, 16:15 bis 19:45

21.11.2024, 16:15 bis 19:45

05.12.2024, 16:15 bis 19:45

Competency assessment

- Creation and evaluation of a prototype (30%): Students will independently or in small teams develop a prototype based on prompt engineering that addresses a user-centered innovation; both the technical and conceptual aspects of the prototype will be assessed.
- Composition and presentation of a scientific paper (50%): Each student or team will write an 8-12 page scientific paper in ACM format detailing the development process, technical implementation, and user focus of the prototype.
- 10-minute presentation of the paper and prototype (20%).

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DPE - Prompt Engineering: Innovation Through Generative AI - MWD4007

Mode of repetition	Grade 3.5: student may approach the lecturer to define the conditions (task and deadline) of the resubmission. In case of the re-submission a maximum grade of 4.0 can be achieved for a given assignment. Grade worse than 3.5: module repetition.
Degree programme, semester	MSc Digital Business Administration, 2024-2025, 3 HS, BB, Bern

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DPRE - PreMaster Digital Business - MWD1011

Study language	English
Module type	Optional module (non-countable)
Module responsibility	TBD
Entry requirements	Admission for Master Digital BA with the condition to acquire additional pre-qualification in business administration.
Competencies upon completion	Upon completion of this module the students will close the gap of their pre-qualification in business administration as required by the admission criteria for master of digital business adminsitration. The gap will be individually assess per student and a tailor made portfpolio of competecies and knowledge will be aquired in the pre-master individual taks performed by a student.
Content	Basic areas of business administration Basic principals of BA St. Gallen Managemet model Strategy, Structucture, Culture Markets Finances Support functions (HR, Legal, IT. etc.) Operations Innovation
Teaching and learning methods	Virtual learning cycles OnCampus Day (induction Days) Individual Project/Taks Work (Tailor made depends on the student gap assessment)
Literature	TBD in learning cycles on Moodle Portfolio of literature for each area
Workload	Depending on ECTS scope: 6 ECTS 180h 9 ECTS 270h 12 ECTS 360h
Contact lessons	Induction days (CW 37) Individual student gap assessemnt with coach Individual coaching of students task
Attendance requirement	Induction days (CW 37) Individual student gap assessemnt with coach Individual coaching of students task
Competency assessment	Individual task defined by coach, field and scope depends on gap assessemnt.
Mode of repetition	A repetition of the module is possible within the time frame of the admission contition for Master Program. The modality such as deadlines will be decided by module responsible.

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DPRE - PreMaster Digital Business - MWD1011

Degree programme, semester	MSc Digital Business Administration, 2024-2025, 1 HS, BB, Bern

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DR1 - Scientific Research Methods - MWD1005

ECTS	6
Study language	English
Module type	Compulsory module
Lecturer(s)	Hopp Christian, Matter Ulrich, Pruschak Gernot
Module responsibility	Hopp Christian, Matter Ulrich, Pruschak Gernot
Short description of the module	In the course DR1 - Scientific Research Methods students develop basic academic research skills and learn how to understand, conduct, and comprehend scientific research. The teaching and learning will be embedded in an open science environment/framework. The course provides students with an introduction to all steps of a scientific research process. This does not only enable them with crucial skills needed in the additional research courses of the Master program, including writing their Master Thesis, but also enhances their critical thinking and analytic skills needed for solving practitioners problems. The focus is on comprehending, applying, and learning-by-doing. The learning objective of the course is that students can disentangle high-quality research from scientifically questionable research, deliver a concise research proposal in form of a preregistration and undergo all steps of a scientific research project (albeit in abbreviated form). To this end, students will read, analyze and assess high-quality and fraudulent research publications and develop their own research question. The research proposal is developed over six learning cycles following the path of a standard research process with asynchronous virtual inputs and interactive on-campus discussions, presentations and coachings. The results will be presented in the last on-campus block in form of a science SLAM.
Entry requirements	Knowledge of and skills in research methods on a Bachelor Thesis level.

DR1 - Scientific Research Methods - MWD1005

Competencies upon completion

Subject: Students

- Understand the scientific and practical importance of a research question and find relevant, high-quality, and state of the art literature.
- Can critically assess the validity of research publications.
- Know the value of theories, models, and hypotheses for science and practice.
- Know and understand different types of research designs (grounded theory vs. causal research)
- Apply an appropriate research design to a research question
- Know, understand, and apply research methods appropriately and defend why the methods allow to find answers for the question
- Know and understand how to collect data for quantitative and qualitative study
- Create a research proposal in the context of digital business
- Understand the value of open science practices

Method: Students

- Focus on self-study and reflective learning
- Take on responsibility to work with the course material in the learning cycles and to understand, question and reflect on the course material
- Are required to actively participate and prepare for class and get familiar with tools and methods used in distance learning
- Are required to comment on, discuss and give feedback to other students in the on-campus sessions
- Are challenged to reflect on their existing knowledge and experience and to integrate new insights in their practice and thinking
- Can use data sharing tools

Social: Students

- Understand the influences and effects of technological, organizational, and social research trends for future work arrangements, conditions, and organizations
- Manage others and alleviate uncertainty and ambiguity in group work when group dynamics in the discussion of potential research questions and approaches unfold.
- Develop empathy and can take on different point of views and establish common ground
- Recognize difficult situations, develop an understanding for viable solutions, and translate them from the research context into the business context.

Self: Students

- Develop an awareness of opportunities for scientific and practical inquiry, and understand challenges in the context of work and digitalization
- Learn about the relevance of scientific inquiry for their future business careers
- Develop critical thinking through assessing different point of views (including personal biases)

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DR1 - Scientific Research Methods - MWD1005

Content

The module DR1 - Scientifc Research Methods teaches the basics for scientific work at the BFH W.

The comprehension and application are accomplished along different levels (1) foundation -- understand, (2) intermediate -- guided examples, (3) advanced -- apply independently and (4) highly specialized -- apply for new/rare cases. Levels and two are done in online learning cycles, by self-paced learning, and by predefined exercises. Level three and four are achieved with self & group-studies as well as coaching sessions during the in-class sessions and online discussions.

The content input takes place in the first on-campus session and six learning cylces:

Learning Cycle 1: Analysis of High-Quality Papers highlighting the scientific topics addressed at the institutes of the BFH-W

Learning Cycle 2: Analysis of questionable research papers to identify weaknesses and malpractices

Learning Cycle 3: Induction vs. Deduction (Grounded Theory vs. Hypotheses)

Learning Cycle 4: Qualitative and Quantitative Research Methods

Learning Cycle 5: Open Science Framework Preregistration

Learning Cycle 6: Open Research Data

Teaching and learning methods

Class & team-teaching, coachings, individual self-paced learning, online learning videos, online exercises, science slam

DR1 - Scientific Research Methods - MWD1005

Literature

Mandatory literature will be provided during the course in form of articles, book excerpts and course manuscripts. Furthermore, the online learning cycles comprise multiple online presentations.

General literature that is used in the course:

English:

Bell, J., & Waters, S. (2018). Doing your research project: A guide for first-time researchers (7th). Maidenhead: Open University Press.

Eco, U. (2015): How to write a thesis. The MIT Press. ISBN: 978-0262527132.

Hair, J. F. (2011). Essentials of business research methods (2nd ed.). Armonk, N.Y.: M.E. Sharpe. ISBN: 978-0765626318.

Strunk, W., & White, E. B. (2000). The elements of style (4th ed. / with revisions, an introduction, and a chapter on writing by E.B. White). Boston, London: Allyn and Bacon. ISBN: 978-0205309023.

Sreejesh, S., Mohapatra, S., & Anusree, M. R. (2014). Business research methods: An applied orientation. Cham, New York: Springer. ISBN: 978-3319005386.

Strang, K. D. (2016). The Palgrave handbook of research design in business and management. New York City, NY, Boston, Massachusetts: Palgrave Macmillan; Credo Reference. ISBN: 978-1349479061.

German:

Atteslander, P. (2010): Methoden der empirischen Sozialforschung. 13., neu bearb. und erw. Aufl. Berlin: Schmidt (ESV basics). ISBN: 978-3503126187.

Balzert, H. (2015): Wissenschaftliches Arbeiten. Ethik, Inhalt & Form wiss. Arbeiten, Handwerkszeug, Quellen, Projektmanagement,

Präsentationen. 2. erw. u. akt. Aufl. Dortmund : W3L. ISBN: 978-3868340341

Hussy, W., Schreier, M., Echterhoff G. (2013): Forschungsmethoden in Psychologie und Sozialwissenschaften für Bachelor. 2te Auflage, Springer-Verlag Berlin Heidelberg. ISBN: 978-3642343629.

Reiners, L. (2007): Stilfibel. Der sichere Weg zum guten Deutsch. Ungekürzte Ausg. München: Dt. Taschenbuch-Verl. (Dtv, 34358). ISBN: 978-3423343589.

Further Literature will be announced at the beginning of the course.

Workload

The 6 ECTS 180h effort is divided into:

- approx. 16h face-to-face and coaching lessons
- approx. 40h of online group discussions and interactions
- approx. 64h of individual preparations of assignments
- approx. 60h of self-study

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DR1 - Scientific Research Methods - MWD1005

Contact lessons

1st On-Campus Session: Introduction to scientific research, Relevance of analytical thinking, building research questions

2nd On-Campus Session: Presenting research topic to colleagues, Discussing and refining research question, Coaching on research question

3rd On-Campus Session: Science Slam

According to semester schedule

Attendance requirement

Attendance at all the on-campus blocks is mandatory.

Competency assessment

1. Analysis of High-Quality Papers (Individual Work: 20%)
2. Analysis of Questionable Research Papers (Individual Work: 30%)
3. Open Science Framework Pre-Registration (Group Work: 30%)
4. Open research data project (Individual Work: 20%)

Learning Cycle 1: Analysis of High-Quality Papers (Graded)

Learning Cycle 2: Analysis of Questionable Research Papers (Graded)

Learning Cycle 3: Research Question (not graded)

Learning Cycle 4: Group Research Question) (not graded)

Learning Cycle 5: OSF Preregistration (Graded)

Learning Cycle 6: Open Data Work (Graded)

Aids for written examination

No written exam

Mode of repetition

Grade 3.5: student may approach the lecturer to define the conditions (task and deadline) of the resubmission. In case of the re-submission a maximum grade of 4.0 can be achieved for a given assignment.

Grade worse than 3.5: module repetition.

Follow-up modules

DR2 and DR 3 - Scientific Projects

DR4 - Master Thesis

Degree programme, semester

MSc Digital Business Administration, 2024-2025, 1 HS, BB, Bern
MSc Digital Business Administration, 2024-2025, 3 HS, BB, Bern
MSc Digital Business Administration, 2025-2026, 3 HS, BB, Bern

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DR3 - Scientific Project 2 - MWD3004

ECTS	6
Study language	English
Module type	Compulsory module
Lecturer(s)	Dey Pascal, Endrissat Nada, Frecè Jan Thomas, Hopp Christian, Keim Jan, Murmann Martin, Pang Dandan, Rietsche Roman, Straub Caroline, Thies Ferdinand, Zinn Isabelle
Module responsibility	Endrissat Nada, Dey Pascal
Short description of the module	Over the course of two semesters (DR 2 & DR 3), student groups will conduct their own scientific research project under the guidance of research experts from the BFH-W Institutes. Scientific Project 2 (DR3) will continue to develop the Scientific Research Project started in the spring semester (DR 2).
Entry requirements	Scientific Research Project 1 (DR2)
Competencies upon completion	Subject competencies: Students • Can apply the appropriate research design to their research question • Can apply an appropriate research methods to collect data (quantitative or qualitative) • Know about alternative modes of inquiry/research design and their consequences for insights • Can analyze the qualitative or quantitative data with adequate data analysis methods and tools • Can interprete and discuss the theoretical and practical implications of their findings • Can write a scientific research report following scientific standards Methodological competencies: Students • Work in teams • A re responsible to conduct scientific research under the guidance of a research expert • Will deepen their knowledge through self-study (virtual learning cycles) and application to the respective research project • Are required to take responsibility for their learning and the research project • Are required to comment on and give feedback to other students as part of the colloquium • Will be challenged to reflect on their existing knowledge and experience and to integrate new insights in their practice and thinking Social competencies: Students • Develop strategies to deal with the recursivity and unpredictability of scientific research • Are able to establish working consensus among team members • Are able to give (and receive) constructive feedback. Self-competencies: Students • Challenge themselves by trying out something new • Understand which research methods they feel most comfortable with • Develop their critical thinking skills by (re-)assessing empirical findings and their implications.

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DR3 - Scientific Project 2 - MWD3004

Content

Scientific Project 2 enables students to conduct their own empirical research study by guiding them through the processes of

- Data collection
- Data interpretation
- Presenting their findings
- Discussing their findings
- Explicating their practical and theoretical contribution

In close collaboration with research experts, student groups plan and carry out their own empirical research project. In virtual learning cycles, student groups learn about alternative research designs and data collection methods and gain an understanding about how to analyze and interpret data and how to present their findings. In on campus meetings, students will gain hands-on experience in analyzing quantitative and qualitative data and will be trained to critically reflect on the impact data analysis has on the findings.

Teaching and learning methods

Data analysis workshop, coaching, collaborative group work, self-study

Literature

Provided electronically on Moodle

Workload

180 hours

Contact lessons

Workshop (Quantiative and qualitative data analysis), data "hacknight" plus Coaching
According to semester schedule (Moodle)

Attendance requirement

Attendance during the on-campus blocks.

Competency assessment

100% written group work (scientific report) to be turned in at the end of semester and to be graded by project supervisor.
In addition to the graded report, all learning cycle agreements must be completed in order to pass the module.

Aids for written examination

-

Mode of repetition

Grade 3.5: student may approach the lecturer to define the conditions (task and deadline) of the resubmission. In case of the re-submission a maximum grade of 4.0 can be achieved for a given assignment.

Grade worse than 3.5: module repetition.

Follow-up modules

Master thesis (DR4)

Degree programme, semester

MSc Digital Business Administration, 2025-2026, 3 HS, BB, Bern
MSc Digital Business Administration, 2024-2025, 3 HS, BB, Bern

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DS1a - Business in a Digital Environment - MWD1001

ECTS	3
Study language	English
Module type	Elective module
Lecturer(s)	Thies Ferdinand
Module responsibility	Prof. Dr. Ferdinand Thies
Short description of the module	The module "Business in a Digital Environment" familiarizes students with the impact of digitalization on societies and businesses and thereto connected opportunities and risks. Students learn about major trends that digitally transform societies and economies, and to therefrom identify, assess, and prioritize opportunities and risks of digitalization for organizations and businesses. Students get insights into the variety of drivers of digital transformation and their impact on people, organizations, businesses, markets, etc. Students are familiarized with technological and social trends that drive the digital transformation. Those drivers are contextualized in how they shape the technologically feasible, economically viable, and socially desirable spaces in which business operate. Based on an overview of the relevant drivers, students learn to analyse the shifting business environments, to derive opportunities and risks for established and new businesses, and to establish a sense of urgency regarding the need to transform existing structures in given industries and/or businesses.
Entry requirements	No formal requirements

DS1a - Business in a Digital Environment - MWD1001

Competencies upon completion

Subject: Students are able to

- identify relevant trends driving the digitalization of the national and international business environment.
- assess the consequences on markets, organisations, businesses, people, etc.
- to assess the digital maturity of a organisation/business, industry.
- link existing knowledge with new insights regarding digitalization.
- will develop the ability to set up an appropriate digital transformation management concept to operate in a digital environment.

Method: Students

- will focus on applied learning. There will be some lectures, but the emphasis will be on student responsibility for learning through active application of course content in various forms of learning, e.g. distance learning, virtual learning cycles and interaction with representatives of companies as part of a live case.
- will be required to actively participate and prepare for class and get familiar with tools and methods used in distance learning and to tackle the live case.
- will be challenged to integrate knowledge they have gained from other business core modules and apply their accumulated knowledge.

Social: Students

- understand the influences and effects of technological, organizational and social trends as well as mental models and predominant corporate cultures on their perception of the digital transformation.
- get to know the unpredictability in group work when group dynamics in the interactions with other students, lecturers and representatives of the live case unfold.
- are able to switch between different business and cultural perspectives.
- recognize difficult situations, develop an understanding for viable solutions, and drive them in the business context.

Self:Students

- develop an awareness of opportunities and challenges in the context of work and digitalization.
- learn practical information and tools for their future business careers.
- develop critical thinking through assessing different point of views (including personal biases) in the learning cycles and learning activities on the live case

Content

- Introduction digitali z ation / digital trends
- Environment / megatrends
- AI - a technological and environmental perspective
- Technological Affordances
- Strategic management in the digital age
- Introduction digitali z ation strategy
- Digital maturity (industries, organizations)
- Sustainability in the digital age
- Legal and regulatory aspects

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DS1a - Business in a Digital Environment - MWD1001

Teaching and learning methods

- Educast
- Articles/chapters
- Wiki
- Practitioners Fair
- Forum discussions
- Real life examples
- Interactions - hands-on experience
- Guest lectures
- etc.

Literature

To be communicated via Moodle

Workload

90 hours

Contact lessons

According to semester schedule (Moodle)

Attendance requirement

Attendance during the on-campus blocks and all live case sessions including all the final presentations of all live cases.

Competency assessment

- 70% Individual assignments within virtual learning cycles. **All individual assignments must be completed in order to pass the module**, of which three assignments will be graded.
- 30% group assignments Live Case presentation & report

Mode of repetition

Grade 3.5: student may approach the lecturer to define the conditions (task and deadline) of the resubmission. In case of the re-submission a maximum grade of 4.0 can be achieved for a given assignment.

Grade worse than 3.5: module repetition.

Follow-up modules

DS2, DS3

Degree programme, semester

MSc Digital Business Administration, 2024-2025, 1 HS, BB, Bern
MSc Digital Business Administration, 2024-2025, 3 HS, BB, Bern
MSc Digital Business Administration, 2025-2026, 3 HS, BB, Bern

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DS1b - Operational Excellence - MWD1002

ECTS	3
Study language	English
Module type	Elective module
Lecturer(s)	Raff Stefan, Wambsganss Thiemo
Module responsibility	Raff Stefan, Wambsganss Thiemo

Short description of the module

This module is about how to foster operational excellence using digital means, i.e., optimization of processes and further development of a corporate culture of continuous improvement, as part of the digital transformation. You will understand and apply frameworks to leverage the power of new technologies to optimize processes, improve the customer experience, as well as add value to the customer experience.

In particular, we will illustrate and analyze how existing structures can be combined with new technologies to implement new processes and solutions. In doing so, we will apply methods and frameworks that always place the customer at the center of the company's activities and take into account cutting-edge technology as well as the aspects of sustainability and resource efficiency.

DS1b - Operational Excellence - MWD1002

Competencies upon completion

Subject: Students

- Apply their knowledge of process management, supply chain management, and production management to digitalize operations and processes.
- Make use of case studies to link existing knowledge with new insights regarding improved value generation through the digitalization of processes.
- Develop the ability to use digital means to increase efficiency, effectiveness, and stability of processes.

Method: Students

- Interact with representatives of companies as part of a live case to analyze operations, aided by a spectrum of digital and non-digital tools.
- Learn about and use frameworks for structuring processes, operations management, idea generation, and supporting technologies.
- Will be required to actively participate and prepare for class and get familiar with tools and methods introduced as part of the course.
- Will be challenged to integrate the knowledge they have gained from other business core modules and apply their accumulated knowledge.

Social: Students

- Understand the influences and effects of technological, organizational, and social trends on the digitalization of operations.
- Get to know the unpredictability in group work when group dynamics in the interactions with other students, lecturers, and representatives of the live case unfold.
- Are able to switch between different business, expert, and cultural perspectives.
- Recognize difficult situations, develop an understanding of viable solutions, and drive them in a business context.

Self: Students

- Develop an awareness of opportunities and challenges in the context of work and digitalization.
- Learn practical information and tools for their future business careers.
- Develop critical thinking through assessing different points of view (including personal biases) in the learning cycles and learning activities in the case study.

Content

Subject content:

- Emerging technologies in process management (with links to AI, robotic process automation, blockchain or process mining)
- Digitally enhanced value generation (with links to design thinking, ideation, and the like)
- Understanding of processes (process monitoring, process optimization, customer-centric process organization, flexible processes)
- Customer centricity (user experience, customer journey, customer journey map, service blueprinting)
- Systemic ideation and opportunity generation

Methods:

- Process modeling
- Customer journey mapping / Service mapping
- Service process blueprint / Service design
- Systemic ideation framework

Teaching and learning methods

Virtual Learning Cycles with independent work and research.
On-Campus Blocks with focus on practical interaction, operationalization and the application of the knowledge and skills acquired during the Learning Cycles.

Literature

Literature: To be communicated via Moodle. Most of the readings will be provided via Moodle.

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DS1b - Operational Excellence - MWD1002

Workload	90 hours
Contact lessons	On-Campus Blocks - according to semester schedule (Moodle).
Attendance requirement	Attendance during the on-campus blocks and all live case sessions including all the final presentations of all live cases.
Competency assessment	70% Individual assignments within virtual learning cycles. All individual assignments must be completed in order to pass the module, of which three assignments will be gradeded (e.g., electronically submitted quizzes, content preparations, and reports) 30% Live Case presentation (on-site) & eletronically submitted report
Aids for written examination	None
Mode of repetition	Grade 3.5: student may approach the lecturer to define the conditions (task and deadline) of the resubmission. In case of the re-submission a maximum grade of 4.0 can be achieved for a given assignment. Grade worse than 3.5: module repetition.
Degree programme, semester	MSc Digital Business Administration, 2024-2025, 3 HS, BB, Bern MSc Digital Business Administration, 2024-2025, 1 HS, BB, Bern MSc Digital Business Administration, 2025-2026, 3 HS, BB, Bern

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DS3 - Disruptive Business Models - MWD3001

ECTS	6
Study language	English
Module type	Elective module
Lecturer(s)	Frecè Jan Thomas, Harder Deane
Module responsibility	Harder Deane, Frecè Jan Thomas

Short description of the module

You will explore the strategic path of becoming a digital entrepreneur. This involves designing new business models based on a value chain that uses or requires digital means to deliver quality products or services. A key learning goal is applying this kind of entrepreneurial thinking within a company or setting up a new digital company, making use of leverage points in regional, national, and international economic ecosystems. It also explores the implications of having a "digital DNA" in your corporate culture as well as using digital tools for managing.

Entry requirements

Modules in digitally enhanced operational excellence and digitally supported business model expansions or equivalent

Competencies upon completion

Subject: Students

- Make use of case studies to link existing knowledge with new insights regarding digital transformation.
- Design digital business models to operate in a global digital environment.
- Apply their knowledge of micro-economics, management, and entrepreneurship to set up a digital business model.

Method: Students

- Focus on applied learning. There will be some lectures, but the emphasis will be on student responsibility for learning through active application of course content in various forms of learning, e.g. distance learning, virtual learning cycles and interaction with representatives of companies as part of a live case.
- Will be required to actively participate and prepare for class and get familiar with tools and methods used in distance learning and to tackle the live case.
- Will be challenged to integrate knowledge they have gained from other business core modules and apply their accumulated knowledge.

Social: Students

- Understand the influences and effects of technological, organizational and social trends as well as mental models and predominant corporate cultures on their perception of the digital transformation.
- Get to know the unpredictability in group work when group dynamics in the interactions with other students, lecturers, and representatives of the live case unfold.
- Are able to switch between different business and cultural perspectives.
- Recognize difficult situations, develop an understanding for viable solutions, and drive them in the business context.

Self: Students

- Further develop their awareness of their own mental models of management and teamwork to better equip themselves to function in global business situations flexibly.
- Learn practical information and tools for their future business careers.
- Develop critical thinking ability and problem solving skills through experiential learning activities, simulations, and case studies.

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DS3 - Disruptive Business Models - MWD3001

Content

Subject content:

- Legacy vs. green field
- Testing & implementation of a business idea
- Money, networks & ecosystems
- Innovation & diffusion
- Trust, hype & transformation
- Sustainability

Methods:

- Written assignments (essays)
- Co-creation and design thinking
- Testing and business model metrics
- Peer grading
- Flipped classroom

Practice cases:

- Ongoing business development; Sales and marketing
- Product development & management

Teaching and learning methods

On-Campus sessions: classroom teaching and discussion, guest lectures, coaching sessions;
Virtual learning cycles: self-study via exploration and online examples and exercises as well as self-organised collaboration in teams; on-going team assignment

Literature

Mandatory literature will be provided on Moodle

Workload

180 h

Contact lessons

On campus - according to semester schedule (Moodle)

Attendance requirement

Attendance during the on-campus blocks and all live case sessions including all the final presentations of all live cases.

Competency assessment

70% Individual assignments within virtual learning cycles. All individual assignments must be completed in order to pass the module, of which three assignments will be graded.
30% group live case presentation and report

Mode of repetition

Grade 3.5: student may approach the lecturer to define the conditions (task and deadline) of the resubmission. In case of the re-submission a maximum grade of 4.0 can be achieved for a given assignment.

Grade worse than 3.5: module repetition.

Degree programme, semester

MSc Digital Business Administration, 2024-2025, 3 HS, BB, Bern
MSc Digital Business Administration, 2025-2026, 3 HS, BB, Bern

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DT1 - Enabling Technologies - MWD1009

ECTS	6
Study language	English
Module type	Elective module
Lecturer(s)	Levent Josh, Singh Siddhartha, Stürmer Matthias
Module responsibility	Singh Siddhartha, Levent Josh
Short description of the module	The foundations of computational thinking, cloud computing and software design are essential for all levels of management where business intersects with new technologies enabled by software and data. In this module, you will learn how various existing technologies and methods help organisations create value. We will focus on the application of existing technologies with real-world scenarios in mind. In particular, we will explore the role that various software design methods and approaches, including software architecture design, business process modelling and no-code prototyping, play in creating value inside the organisation by applying these methods. We will also explore the interaction between cloud computing, APIs, free and open-source software, and information security and the role these factors have in make-or-buy decisions. Finally, we will have some hands-on experience with VR and Drones to create intuition about the impact of these technologies. The students will work in groups on a live-case project and individually on topic assignments.
Entry requirements	Basic computational thinking (offered in the Pre-Master Induction Days).

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DT1 - Enabling Technologies - MWD1009

Competencies upon completion

Subject
Students are able to understand technology projects:

- ask the right questions before making decisions
- present the technical solutions in front of a decision-making committee or a panel of experts

Students can understand and explain various technical jargon in:

- Software Design
- APIs
- Cloud Computing
- No-Code Prototyping
- Business Process Modelling
- Information Security
- Open Source

Method
Students are able to use various tools and approaches, including:

- Software architecture design
- UML/BPMN Software such as PlantUML
- No-Code Software such as Bubble
- API Platform such as Postman

Social
Students

- understand how to communicate clearly with technical co-workers in order to create alignment between technical and business objectives
- listen, ask questions, and research complex technical concepts efficiently in order to maintain an overview of the technological landscape affecting their organisation

Self
Students

- are aware of their own abilities relating to software engineering and technology design
- think critically about technical developments

Content

- Introduction to how technologies are used in production
- Software architecture with hands-on exercises
- Prototyping with Bubble
- API Integration
- Cloud Computing
- Hands-on: Drones, VR
- Cybersecurity Concepts
- Open source

Teaching and learning methods

Individual self-paced learning, lectures, workshops, individual and group work, coaching sessions

Literature

Will be given during the module.

Workload

180 hours

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DT1 - Enabling Technologies - MWD1009

Contact lessons	According to the semester schedule (Moodle).
Attendance requirement	Attendance during the on-campus blocks and all live case sessions, including all the final presentations of all live cases.
Competency assessment	70% Individual assignments within virtual learning cycles. All individual assignments must be completed in order to pass the module, of which three assignments will be graded. 30%: Live Case Project
Mode of repetition	Grade 3.5: student may approach the lecturer to define the conditions (task and deadline) of the resubmission. In case of the re-submission a maximum grade of 4.0 can be achieved for a given assignment. Grade worse than 3.5: module repetition.
Degree programme, semester	MSc Digital Business Administration, 2024-2025, 1 HS, BB, Bern MSc Digital Business Administration, 2024-2025, 3 HS, BB, Bern MSc Digital Business Administration, 2025-2026, 3 HS, BB, Bern

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DT3 - Emerging Technologies - MWD3003

ECTS	6
Study language	English
Module type	Elective module
Lecturer(s)	Levent Josh, Obwegeser Nikolaus, Singh Siddhartha, Stürmer Matthias
Module responsibility	Nikolaus Obwegeser, Levent Josh

Short description of the module

First, we discuss how to scope and identify new technologies. We introduce and use frameworks like the HypeCycle or technology radar to work on various real-life scenarios.

Second, we work on how to evaluate and experiment with new technologies, including the development and maintenance of a portfolio of emerging technologies focused on potential value. This includes putting structures in place to support and encourage continuous experimentation.

And third, we move beyond experimentation and discuss how real business value can be captured with emerging technologies, including for example how to scale experiments from lab settings to generate maximum impact.

We utilize a range of different learning methods to develop a sound theoretical foundation as well as concrete techniques and practices that provide actionable support for decision making in organizations.

Competencies upon completion

Upon completion of this module, students are

- able to reflect upon and discuss the role of emerging technologies in a business context

- capable to contextualize and apply various frameworks for technology forecasting and evaluation

- able to design and execute experiments with new technologies to understand their business value

- knowledgeable about examples of specific emerging technologies (e.g., AI, Blockchain) and how to evaluate their usefulness for specific business purposes.

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DT3 - Emerging Technologies - MWD3003

Content

Focus question: how to stay on top of the continously changing technology landscape?

Structure: 3 phases approach to manage emerging tech

- Scouting
- Experimenting
- Integrating & Scaling

Content: mix between General frameworks to manage tech innovation, e.g. hypecycle, techradar, etc.

- Concrete examples of currently hyped/emerging technologies, e.g. blockchain, crypto, AI/ML, (has to be updated frequently)
- Cases presented by/with experts working on emerging tech in business context

Workload

180 hours

Contact lessons

According to semester schedule (Moodle)

Attendance requirement

Attendance during the on-campus blocks and all live case sessions including all the final presentations of all live cases.

Competency assessment

Proof of competence will be assessed electronically using the following portfolio of assessments:

70% Individual assignments within virtual learning cycles. All individual assignments must be completed in order to pass the module, of which 3 assignments will be graded

30 % Group Live Case presentation & report

Mode of repetition

Grade 3.5: student may approach the lecturer to define the conditions (task and deadline) of the resubmission. In case of the re-submission a maximum grade of 4.0 can be achieved for a given assignment.

Grade worse than 3.5: module repetition.

Degree programme, semester

MSc Digital Business Administration, 2024-2025, 3 HS, BB, Bern
MSc Digital Business Administration, 2025-2026, 3 HS, BB, Bern