

UX DESIGN AND RAPID PROTOTYPING

Course code	<i>MNG258</i>
Compulsory in the programmes	<i>Entrepreneurship and Innovation</i>
Level of studies	<i>Undergraduate</i>
Number of credits	<i>6 ECTS (48 contact hours + 6 consultation hours, 106 individual work hours)</i>
Course coordinator (title and name)	<i>Tomas Šiurna</i>
Prerequisites	<i>None</i>
Language of instruction	<i>English</i>

THE AIM OF THE COURSE

This is a studio, not a lecture course. You do not pass it by listening; you pass it by making, testing, shipping, and defending your decisions in critique and at the jury. Over one semester, teams take a real product idea from a fuzzy problem to a tested, high-fidelity interactive prototype, then present it the way working designers do: a live demo backed by the evidence behind every decision.

The course covers the full make-and-test half of the design process. Students run user research, frame problems, sketch and structure flows, build low- and high-fidelity prototypes, test with real users, and iterate on the evidence. UI and UX are treated as distinct crafts that have to work together, and AI is used throughout as a design accelerant. Work is made and critiqued every week, and the course ends in a portfolio-grade deliverable rather than a written exam.

The course is grounded in real cases, real users, and real tools.

HOW THIS STUDIO WORKS

Each session runs about four academic hours and follows the same rhythm: roughly half is input, demonstration and discussion, and roughly half is supervised studio work while the instructor circulates for short desk critiques, ending in a quick standup where each team names its next step. The balance tips toward studio work later in the term as teams gain independence.

Each class from week 2 opens with a student teardown of a real app, the flow, what is broken, and what they would change, which keeps the habit of critical looking sharp. In every critique the etiquette is the same: describe what you see before you judge it, anchor feedback to the user and the goal, and offer a direction, not just a verdict.

Most of this weekly critique is formative practice and is not graded line by line. Two sessions are different: the Design Reviews in weeks 6 and 9 are formal, graded gates where each team presents what testing changed and defends its decisions, ideally to an invited practitioner. The week-to-week critique is rehearsal; the reviews are where the project is judged.

MAPPING OF COURSE LEVEL LEARNING OUTCOMES (OBJECTIVES) WITH DEGREE LEVEL LEARNING OBJECTIVES (SEE ANNEX), ASSESSMENT AND TEACHING METHODS

Course level learning outcomes (objectives)	Degree level LO	Assessment methods	Teaching methods
CLO1. To be able to develop user-centered solutions by creating analog and digital prototypes across fidelities	BLO1.1	Design Reviews I-II; final showcase	Studio-based learning, weekly critique, hands-on prototyping workshops, user fieldwork, project-based teamwork
CLO2. To be able to analyze people's behavior and reasoning through research, and translate it into design improvements	BLO1.2	Design Reviews (research and test evidence); design teardown	Studio-based learning, weekly critique, hands-on prototyping workshops, user fieldwork, project-based teamwork
CLO3. To be able to communicate complex, abstract ideas in a convincing, inviting and memorable way	BLO4.1	Final showcase; design teardown; studio critique	Studio-based learning, weekly critique, hands-on prototyping workshops,

			user fieldwork, project-based teamwork
CLO4. To be able to identify what evidence is needed to support a design decision, and gather it through testing	BLO4.3	Design Reviews (usability testing)	Studio-based learning, weekly critique, hands-on prototyping workshops, user fieldwork, project-based teamwork
CLO5. To be able to link human needs, the possibilities of technology, and the requirements for business success	BLO2.1	Final showcase; Design Reviews	Studio-based learning, weekly critique, hands-on prototyping workshops, user fieldwork, project-based teamwork

ACADEMIC HONESTY AND INTEGRITY

The ISM University of Management and Economics Code of Ethics, including its provisions on cheating and plagiarism, applies fully and will be strictly enforced. Academic dishonesty and cheating can and will lead to a report to the ISM Committee of Ethics. With regard to remote learning, students are expected to adhere to and maintain the same academic honesty and integrity that they would in a classroom setting. In a design studio, this also means crediting the sources of visual assets, components, and code, and being honest in critique about what is your own work.

COURSE OUTLINE

Topic	Hrs	Readings
Phase 1: Discover and frame		
Week 1: Studio kickoff and foundations UX vs UI, the design process, how the studio works, critique culture, tools, and a group teardown. Team project brief released.	4	Built for Mars (1 case)
Week 2: User research and fieldwork Interviews, contextual inquiry, jobs-to-be-done; writing guides and planning fieldwork.	4	NN/g: interviewing users
Week 3: Synthesis and problem framing Affinity mapping, personas, journey maps, How-Might-We. Milestone 1 due.	4	Lean UX ch. 1-3
Phase 2: Loop 1, prototype and test at low fidelity		
Week 4: Ideation and low-fidelity prototyping Rapid sketching, Crazy-8s, user flows, card sorting, information architecture, wireframes.	4	Krug ch. 1-5
Week 5: Usability testing and the first test Test design, think-aloud, the five-user rule; run the first test on the low-fidelity prototype.	4	NN/g: usability testing 101
Week 6: Design Review I Present the tested low-fidelity concept and defend decisions, then act on the feedback.	4	Built for Mars (1 case)
Phase 3: Loop 2, build and test at high fidelity		
Week 7: Visual, interaction and accessible design, then build Gestalt, type, color, layout, design systems, WCAG; begin the high-fidelity build with AI assistance.	4	Krug ch. 6-9; NN/g: accessibility
Week 8: The second usability test Test the high-fidelity prototype, synthesize, and plan the iteration.	4	NN/g: running a test
Week 9: Design Review II Present the tested high-fidelity prototype with before/after evidence, then iterate.	4	Built for Mars (1 case)
Phase 4: Refine and ship		
Week 10: Final iteration and design ethics Act on the review; audit your design for dark patterns and AI-ethics risks, and fix them.	4	NN/g: dark patterns
Week 11: Design storytelling and showcase prep Presenting your work, the problem-to-solution narrative, demo craft, dry-run demos.	4	Built for Mars (model cases)

Week 12: Final showcase and design jury Live demo and walkthrough to an invited panel.	4	All deliverables due
Total contact hours	48	
CONSULTATIONS	6	

FINAL GRADE COMPOSITION

Type of assignment	%
Group Components	65
Milestone 1: research and problem framing (week 3)	10
Milestone 2: low-fidelity prototype and first test (Design Review I)	15
Milestone 3: high-fidelity prototype and second test (Design Review II)	15
Final team showcase: shipped prototype and live demo	25
Individual Components	35
Design teardown (your assigned week)	20
Studio participation and critique	15
Total:	100

ASSIGNMENTS AND GRADING CRITERIA

The semester project. Working in teams of three to four, you take one real product idea from a fuzzy problem to a tested, working prototype, the same arc a product team runs in industry. You choose the problem, and narrow beats broad: a booking flow for one clinic is a stronger project than a super-app for all of healthcare. Pick something a real, reachable group of people actually struggles with, because you will have to put your prototype in front of them.

The project runs as two build-and-test loops and a final showcase. The prototype is tested with real users at the end of each loop, so every critique acts on evidence rather than opinion.

Loop 1, low fidelity (Design Review I). Interview real users, frame the problem sharply, sketch flows, and build a low-fidelity prototype on paper or in wireframes. Test it with about five users in week 5 and bring what you saw to Design Review I. The bar here is clarity of thinking, not polish.

Loop 2, high fidelity (Design Review II). Turn the validated concept into a high-fidelity, interactive prototype on a small design system. Test it again in week 8, iterate on the findings, and bring the before-and-after to Design Review II.

Ship. At the design jury, demo the working prototype live and tell the story from problem to solution, backed by what testing changed.

Finding users. The studio provides a recruiting protocol and, where needed, a shared participant pool. A team that cannot reach external users for the first test may test with a partner team acting as naive users, but the second test must use genuine external users.

How each component is graded

Project development (40%, team). Graded at three gates against four equally weighted criteria, evidence (grounded in real user data?), craft (well-made and usable?), decisions (justified and traceable?), and progress (did the team act on the last test and review?): Milestone 1, research and problem framing (10%, week 3); Milestone 2, the tested low-fidelity prototype at Design Review I (15%, week 6); and Milestone 3, the tested high-fidelity prototype at Design Review II (15%, week 9). Graded at the team level; persistent imbalance in contribution is corrected through a peer-contribution factor.

Final team showcase (25%, team). A live demo of the working prototype to a panel of instructors and invited practitioners, assessed on the quality and usability of the prototype, the clarity of the problem-to-solution story, and how well the design responds to the evidence from both test loops.

Design teardown (20%, individual). On an assigned week from week 2 on, you open the class with a five-to-ten-minute teardown of a real app: name the user and the job, walk the flow, show where it breaks, and propose a sharper version. You are graded on insight, not production values, the quality of the problem you spot, the soundness of your fix, and the clarity of delivery, all which week 1 equips you for. The rubric is published in week 1, so the bar is identical whether you present in week

2 or week 11; slots are volunteer-first, and anyone in an early slot may submit a one-page written refinement the following week to improve the mark. In a large class, teardowns run in pairs.

Studio participation and critique (15%, individual). Assessed on the quality of feedback given to other teams, not on attendance alone: specific, user-anchored, actionable critique, consistent presence in working sessions, and visible preparation through the assigned readings. A short per-session record keeps this grade defensible.

WORKING IN THE STUDIO

Attendance. This is a studio, so presence is the work. Reviews, test sessions and workshops cannot be made up after the fact. Your assigned teardown, the two Design Reviews (weeks 6 and 9) and the final jury (week 12) are mandatory; missing any of them, or more than two sessions without an agreed reason, fails the participation component and may fail the course.

Deadlines. Each milestone deliverable is due at the start of the relevant session. Work up to 48 hours late is capped at half marks; after that it scores zero, unless an extension is agreed in advance.

Teams. Teams are formed in week 1 and stay together for the semester. A short team charter (roles, working agreement, how decisions get made) is due at the first critique. Contribution is tracked through peer reviews at each critique.

Consultations. The six consultation hours run as studio office hours, by appointment only. Book ahead with a specific question; drop-ins are not guaranteed time. Come prepared and they are the most useful hours of your term.

ARTIFICIAL INTELLIGENCE POLICY

All participants must comply with the ISM University of Management and Economics Artificial Intelligence Policy published on the e-learning platform. Where that policy and the guidance below differ, the stricter rule applies. Within those limits, the studio's position is simple: use AI like a professional and own everything it touches.

Use it freely. Use AI to synthesize research, pressure-test ideas, draft and refine copy, turn designs into code, and tidy your writing. This is how design is made now; you do not need a hall pass for routine use.

But it is your name on the work. AI is a confident liar and a tireless producer of things that look finished and say nothing. Hand in something shallow, untested, or wrong because a model wrote it, and that is on you, not the tool. What earns marks here is real users you spoke to and decisions you can defend, which is precisely what a model cannot fake for you, because it is the part that matters. AI cannot interview your users, read a room in critique, or decide what to kill. Outsource the typing, not the thinking.

RETAKE POLICY.

A student who fails retakes by submitting an individual written case study of the team project (problem, process, key decisions, testing evidence and outcome) covering the individual (35%) and final showcase (25%) components, retake will count 60% of the grade in total.

REQUIRED READINGS

The reading load is deliberately light: short pieces, tied to the week's work, and meant to be read. They are chosen for durable thinking over novelty. The principles of how people perceive, read, and get confused by an interface hold up far longer than any tool, which is exactly why these still earn their place.

- Steve Krug, Don't Make Me Think, Revisited. 3rd ed. New Riders, 2014.
The clearest, fastest introduction to usability, and short enough that you will finish it. It sets the standard we judge prototypes against, so keep it close from week 4 on, and lean on it hardest in weeks 4 to 8 while you are prototyping, testing, and refining interaction.
- Jeff Gothelf and Josh Seiden, Lean UX. 3rd ed. O'Reilly, 2021 (chapters 1-3).
Explains the build-measure-learn loop the whole studio runs on, and why you prototype and test rather than argue in the abstract. Most useful in weeks 3 to 5, as you frame the problem and set up the first loop.
- Built for Mars (builtformars.com), Peter Ramsey.
Short, visual teardowns of products you already use. Dip in most weeks: it is the model for your own teardown, and the sharpest reference for the week 11 storytelling and showcase prep.
- Nielsen Norman Group articles (nngroup.com).

A reliable one-page reference for each method as it comes up, assigned per topic: interviewing in week 2, usability testing in weeks 5 and 8, and accessibility in week 7. Current and evidence based.

REFERENCE SHELF (OPTIONAL)

Raid these when a project problem calls for them; none are required cover to cover.

- Don Norman, The Design of Everyday Things. Basic Books, 2013.
The foundational vocabulary of the field: affordances, signifiers, mapping, mental models. Most useful early, in weeks 1 to 3, when you are framing problems and reasoning about why a design fails people.
- Jon Yablonski, Laws of UX. 2nd ed. O'Reilly, 2024.
The psychology behind why interfaces feel easy or hard, packaged as named, citable principles. Reach for it in week 7 when you make visual and interaction-design decisions.
- Susan Weinschenk, 100 Things Every Designer Needs to Know About People. 2nd ed. New Riders, 2020.
Bite-size behavioral science to back design decisions with evidence rather than taste. Handy in week 7, and when defending choices at the reviews.
- Steve Portigal, Interviewing Users. 2nd ed. Rosenfeld Media, 2023.
How to run interviews that surface real insight instead of polite agreement. Read it in week 2, as you write your guide and run fieldwork.
- Bella Martin and Bruce Hanington, Universal Methods of Design. Rockport, 2019.
A catalog of research and synthesis methods to look up on demand. Most useful in weeks 2 and 3 when choosing how to gather data and make sense of it.
- Adam Wathan and Steve Schoger, Refactoring UI. 2018.
Practical visual design moves that make a rough prototype look credible fast. Pull it out in week 7 as you move from wireframes to high fidelity.
- Tom Greever, Articulating Design Decisions. 2nd ed. O'Reilly, 2020.
How to explain and defend design choices to people who are not designers. Read it before the Design Reviews in weeks 6 and 9, and the jury in week 12.
- Greg Nudelman and Daria Kempka, UX for AI. Wiley, 2025.
Patterns for designing AI-driven features without the usual traps. Directly relevant to week 7, the AI-assisted high-fidelity build.
- Steve Krug, Rocket Surgery Made Easy. New Riders, 2010.
A lightweight playbook for running your own usability tests on no budget. Keep it open in weeks 5 and 8, your two testing sessions.
- Jeff Fossett, Duncan Gilchrist and Michael Luca, Using Experiments to Launch New Products. HBR, 2018.
The business case for testing before you build, linking design evidence to product decisions. Useful when you argue the business value of your design at the showcase.

DEGREE LEVEL LEARNING OBJECTIVES

Learning objectives for the Bachelor of Business Management

Programmes:

International Business and Communication, Business Management and Marketing,

Finance, Entrepreneurship and Innovation.

Learning Goals	Learning Objectives
Students will be critical thinkers	BLO1.1. Students will be able to understand core concepts and methods in the business disciplines
Students will be critical thinkers	BLO1.2. Students will be able to conduct a contextual analysis to identify a problem associated with their discipline, to generate managerial options and propose viable solutions
Students will be socially responsible in their related discipline	BLO2.1. Students will be knowledgeable about ethics and social responsibility
Students will be technology agile	BLO3.1. Students will demonstrate proficiency in common business software packages
Students will be technology agile	BLO3.2. Students will be able to make decisions using appropriate IT tools
Students will be effective communicators	BLO4.1. Students will be able to communicate reasonably in different settings according to target audience, tasks and situations
Students will be effective communicators	BLO4.2. Students will be able to convey their ideas effectively through an oral presentation
Students will be effective communicators	BLO4.3. Students will be able to convey their ideas effectively in a written paper

Learning objectives for the Bachelor of Social Science

Programmes:

Economics and Data Analytics, Economics and Politics.

Learning Goals	Learning Objectives
Students will be critical thinkers	ELO1.1. Students will be able to understand core concepts and methods in the key economics disciplines
Students will be critical thinkers	ELO1.2. Students will be able to identify underlying assumptions and logical consistency of causal statements
Students will have skills to employ economic thought for the common good	ELO2.1. Students will have a keen sense of ethical criteria for practical problem-solving
Students will be technology agile	ELO3.1. Students will demonstrate proficiency in common business software packages
Students will be technology agile	ELO3.2. Students will be able to make decisions using appropriate IT tools
Students will be effective communicators	ELO4.1. Students will be able to communicate reasonably in different settings according to target audience, tasks and situations
Students will be effective communicators	ELO4.2. Students will be able to convey their ideas effectively through an oral presentation
Students will be effective communicators	ELO4.3. Students will be able to convey their ideas effectively in a written paper