# Emerging Technologies

Course guide 2026-2027

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| Semester | Fall (semester 1) |
| Inholland location(s) | Amsterdam |
| Inholland faculty | Creative Business |
| Language of instruction | English |
| Cycle | Bachelor level |
| Number of ECTS | 30 |

## Subjects

| Subject title | ECTS | Course code |
|---|---|---|
| Emerging Technologies Portfolio | 30 | 4325EMTE1Z |

## Content subjects

Technology is transforming every aspect of our professional and creative lives – from how we create and produce, to how we connect and create meaning.

In the Emerging Technologies Minor, you'll explore how the next wave of tech innovation – Artificial Intelligence (AI), Extended Reality (XR), Robotics, Blockchain, and the Internet of Things (IoT) – is reshaping (creative) industries such as media, leisure, design, tourism, entertainment, and other industries/fields.

Emerging technologies are both enablers and disruptors. They open up new business models and creative possibilities while raising complex ethical and societal questions. This minor equips you with the knowledge, skills, and mindset to navigate these changes, combining critical thinking, hands-on prototyping, and creative experimentation.

Through real-world assignments, lab work, and an Industry Challenge with external clients, you will design, test, and present innovative technology-based solutions that make an impact. By the end of the semester, you'll walk away as a future-ready creative or entrepreneur – someone who doesn't just follow tech trends, but leads them. Some example projects include virtual tourism, smart city concepts, AI-generated marketing content, and VR game design.

This minor is designed for students who:

- Want to explore cutting-edge tech and use them to build impactful solutions for society, companies, and organizations.
- Are eager to bring their own passions and ideas to life in a student-centered environment that encourages experimentation, collaboration, and creative problem-solving.
- Seek to develop future-proof skills that increase their relevance and employability in a rapidly evolving landscape.
- Aspire to shape the future of technology – not just by using it, but by reimagining what it can do for people and the planet.

Your background doesn't matter – whether you come from a creative, business, or technical study path, this program welcomes diverse perspectives.

If you have some technical experience, you'll have the opportunity to deepen your knowledge. If you don't have any, that's perfectly fine – you'll learn everything you need through accessible, hands-on labs and guided workshops.

You'll start by understanding how emerging technologies function and disrupt industries, then apply that knowledge to real-world projects through the Industry Challenge, while deepening your expertise in specific technologies through specialized Deep Dives (2 per student).

This structure allows you to connect theoretical insight with practical innovation, preparing you to confidently integrate technology into any creative or business environment.

| Module part | Description |
|---|---|
| **Introduction to Emerging Technologies** | Get an overview of the major technologies – AI, XR, Robotics, Blockchain, and IoT – and how they are reshaping industries from media and tourism to logistics and healthcare. You'll also dive into theories of digital disruption, ethics, and the social implications of tech. |
| **Leading Innovation with Emerging Technologies** | Learn how to lead innovation projects using frameworks like Design Thinking, Lean Startup, and Innovation Management. This course helps you understand not just technology itself, but also how to manage change and guide multidisciplinary teams in applying it effectively. |
| **Industry Challenge – Part 1** | Work with a real client to analyze their context, target groups, and business challenges. You'll conduct market research, explore user journeys, and identify opportunities where emerging technologies can create value. |
| **Industry Challenge – Part 2** | Move from research to creation. You'll prototype, test, and refine a technology-driven solution that addresses your client's needs, delivering a functional prototype and presenting it to stakeholders in a professional pitch. |
| **XR Deep Dive** | Explore the world of Extended Reality (VR, AR, and MR). Learn 3D modelling in Blender, experiment with Unity and Unreal Engine, and design immersive experiences that engage audiences in tourism, events, media, and education. |
| **AI Deep Dive** | Learn how to design with AI. Work with generative AI, machine learning fundamentals, and low-code tools to create intelligent, creative applications – from AI-generated content to smart service and marketing solutions. |
| **Robotics Deep Dive** | Step into robotics and automation. Work with Raspberry Pi, Arduino, and robotic interfaces to design smart systems for various industries. You'll also explore robotics as companions in events and entertainment contexts. |

## Learning outcomes

1. Define and analyze trends in emerging technologies and the possible impact on different industries.
2. Identify opportunities for value creation through technology and implement this for an organization.
3. Create new ideas, concepts, and develop a technically driven prototype that meets project goals and gains stakeholder buy-in.
4. Collaborate in a multidisciplinary team, reflect on your role and team performance, and show leadership.
5. Address the ethical, environmental, and societal impact of using emerging technologies.

## Mode of delivery, planned activities and teaching methods

The minor offers an applied and interactive learning experience that blends theory, creativity, and technology. You will explore new developments across industries while gaining hands-on experience with tools and methods used by professionals.

The program includes:

- Tthematic lectures and hands-on tech lab sessions, exploring technologies such as AI, XR, Robotics, and Blockchain, and their impact on creative and business sectors.
- Coaching sessions with lecturers and industry experts, providing personalized guidance and formative feedback throughout your projects.
- Access to a fully equipped Emerging Technologies Lab, featuring advanced hardware and software for prototyping, testing, and experimentation—individually or in teams.
- Field trips to (inter)national innovation hubs and tech events, offering exposure to companies, research centers, and global trends in emerging technologies.

## Prerequisites and co-requisites

This minor is open to ambitious students from all disciplines who want to understand and apply emerging technologies in creative and business contexts.

No specific technical background is required – just curiosity, creativity, and the willingness to explore and experiment. Whether your background is design, business, media, or technology, the program can be tailored to your personal and professional interests.

## Recommended or required reading and/or other learning recourses/tools

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## Assessment methods and criteria

Your final portfolio will showcase your ability to combine research, design, prototyping, and reflection.

You'll be assessed on:

1. Your ability to analyze trends in emerging technologies and their industry impact.
2. The identification and realization of tech-driven value creation for an organization.
3. The design and delivery of a compelling prototype or concept.
4. Your teamwork, leadership, and reflection on professional growth.
5. Integration of ethical, societal, and environmental considerations throughout your work.

## Additional costs

As the minor includes an extracurricular international field trip in collaboration with European partner institutions, there may be costs related to travel, accommodation, and daily expenses.

The program aims to partially subsidize these expenses, meaning that the estimated out-of-pocket contribution for students will likely range between €300 and €500.

## Lecturer(s)

Shant Bayramian