Master in Management of Technology

Lead your organisation's technology-based efforts towards innovative solutions, organisational change and improved performance

SDU

Learn how to seize business opportunities, implement and scale solutions as well as create value based on knowledge about technology.
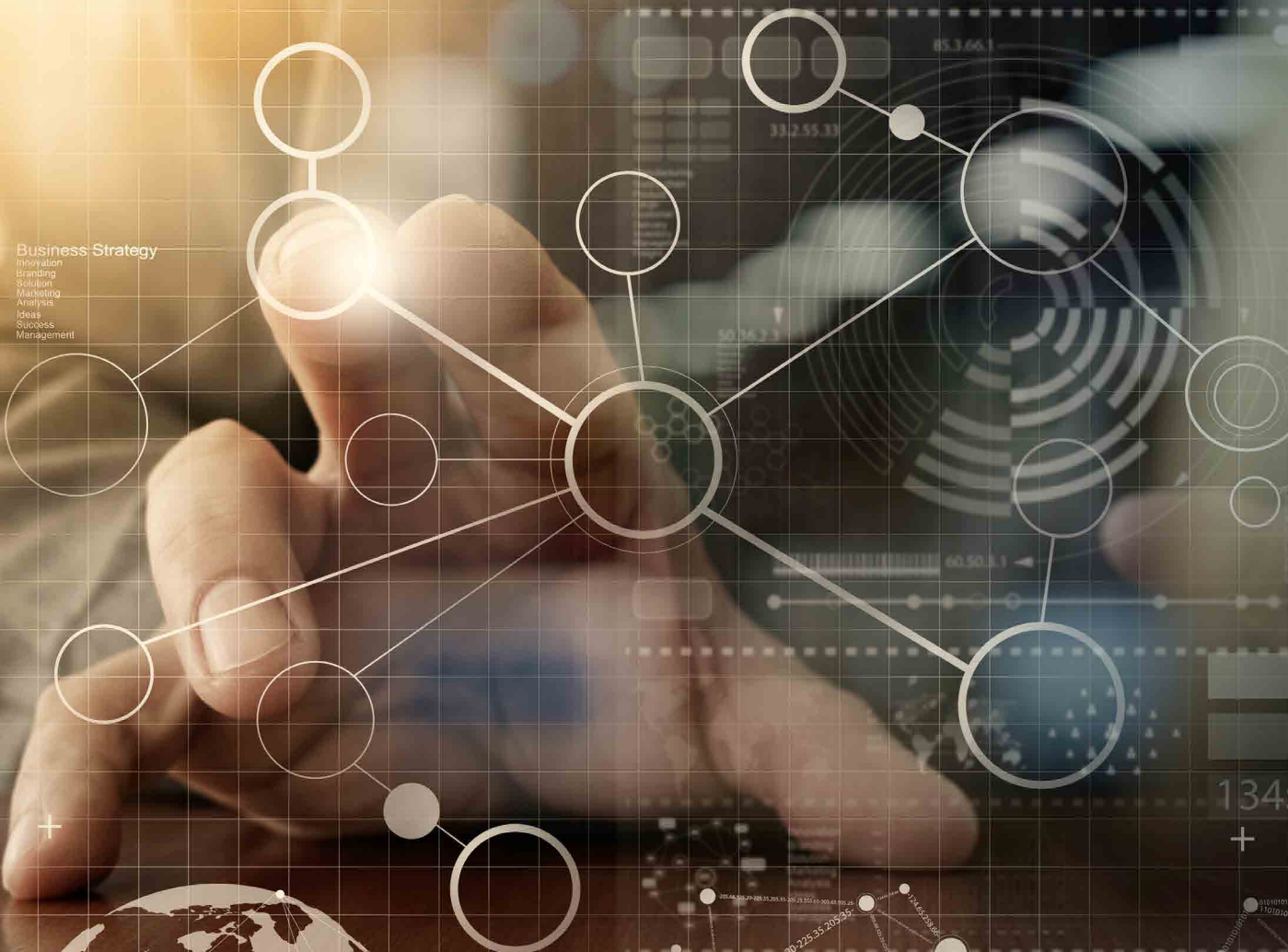
Increasing Need for Technology Managers

The continuous changes in available technologies and access to markets challenge core business processes and require updates of offerings.
These challenges call for strategic technology management. Research shows that having someone knowledgeable about and responsible for technology management has a positive impact on an organisation's performance.

The growing number of technology-based organisations increases the need for people that can manage technology – irrespective of whether your organisation develops or provides technology and whether you implement technology internally or utilise it to improve the value of the organisation's offerings.

The MMT programme provides ample opportunity for you to focus on what challenges and benefits your organisation, as the courses make room for you to relate theories, concepts, etc. to your own work context. This way, your organisation gains focused attention on the strategic and business critical interplay between technologies, market aspects, and business development.

Strengthen Your Profile

The MMT programme is relevant to those with a technical or commercial background, who are interested in or perhaps already responsible for technology management and have the ambition to gain more knowledge, skills, and competences in relation to interdisciplinary, technology-based value creation.

You will gain knowledge about the most recent and relevant scientific research into technology management, and you will learn to apply this knowledge to your own work context. Overall, you will acquire the competences you need to strategically lead and balance your organisation's exploration, development, implementation, and exploitation of continually changing technological opportunities.

"My expectation is that the MMT will empower graduates to use technology in a rapidly changing global market – that they gain a better understanding of how technologies and the world evolve together.
This is more important than ever, so there's definitely a need for a programme like this."
Detlef Matzen,
Senior Manager at Danfoss

Interdisciplinarity and Flexibility

Technology management requires interdisciplinary competences. As a participant of the MMT programme, you will gain the ability to connect and lead across disciplines. You will build an inspirational, personal, and valuable network with fellow students working in a broad spectrum of industries and organisations. This is possible as the teaching takes place at the university and includes a recurring focus on the work contexts of you and your fellow students. Being present and together at the university will bring you into the beneficial mode of studying and cooperating on matters of interest.

You can choose to sign up for only one or a few courses. This will be very useful if you lack specific competences. However, to obtain the MMT degree and thereby the full set of competences to strategically lead your organisation's technology-based efforts, the whole programme must be completed. This can be done part-time in two to four years by utilising the opportunities for flexible study progression.

The teaching will be a fruitful combination of theory lectures, cases or simulations, discussions in groups and in class, presentations, and individual assignments.

We look forward to welcoming you at Campus Odense!

"Doing a master's is a rewarding experience. You will gain invaluable insights and experiences that will develop you both professionally and personally and give you the key competences needed to progress on your career path."
Marianne Harbo Frederiksen, Head of Studies for the MMT

4	**Master Project**				15 ECTS
3	Digital Trans-formation *2.5 ECTS*	Intellectual Property Rights *2.5 ECTS*	Innovating for Sustainability *2.5 ECTS*	Commerciali-sation Strategy *2.5 ECTS*	Elective *2.5 ECTS* / Elective *2.5 ECTS*
2	Organisation Design *2.5 ECTS*	Interpretive Market Insight *2.5 ECTS*	Project & Portfolio Management *2.5 ECTS*	Product Marketing & Management *2.5 ECTS*	Technology Management Project *5 ECTS*
1	Introduction to Emerging Technologies *5 ECTS*	Management of Technology *2.5 ECTS*	Product Development & Innovation *2.5 ECTS*	Competitive Strategy *2.5 ECTS*	Elective *2.5 ECTS*

The MMT is a 60 ECTS point programme. Most courses constitute 2.5 ECTS points, except "Introduction to Emerging Technology" and "Technology Management Project" (5 ECTS) and "Master Project" (15 ECTS). The above is a suggested study progression if you start in the fall semester.

Programme Structure

By completing the programme, you will gain deep, research-based knowledge and extensive knowhow of the many aspects of technology management. You will be introduced to a range of technologies, what they consist of, how they work and complement each other, and what they enable, but also their maturity level, associated standards, potential for sustainable solutions, etc.

You will also learn about management of technology, management of product development and innovation, project and portfolio management, intellectual property rights, management of digital transformation, organisation design, competitive strategy, commercialisation strategy, product marketing and management, and how to gain and utilise market insights. Moreover, you will learn about principles for innovating for sustainability.

Electives focus on, for example, strategic use of additive manufacturing and future competitiveness based on autonomous technology systems.

When conducting a technology management project as well as the final Master's thesis, you will focus on a selection of the programme's topics and their relation to practice.
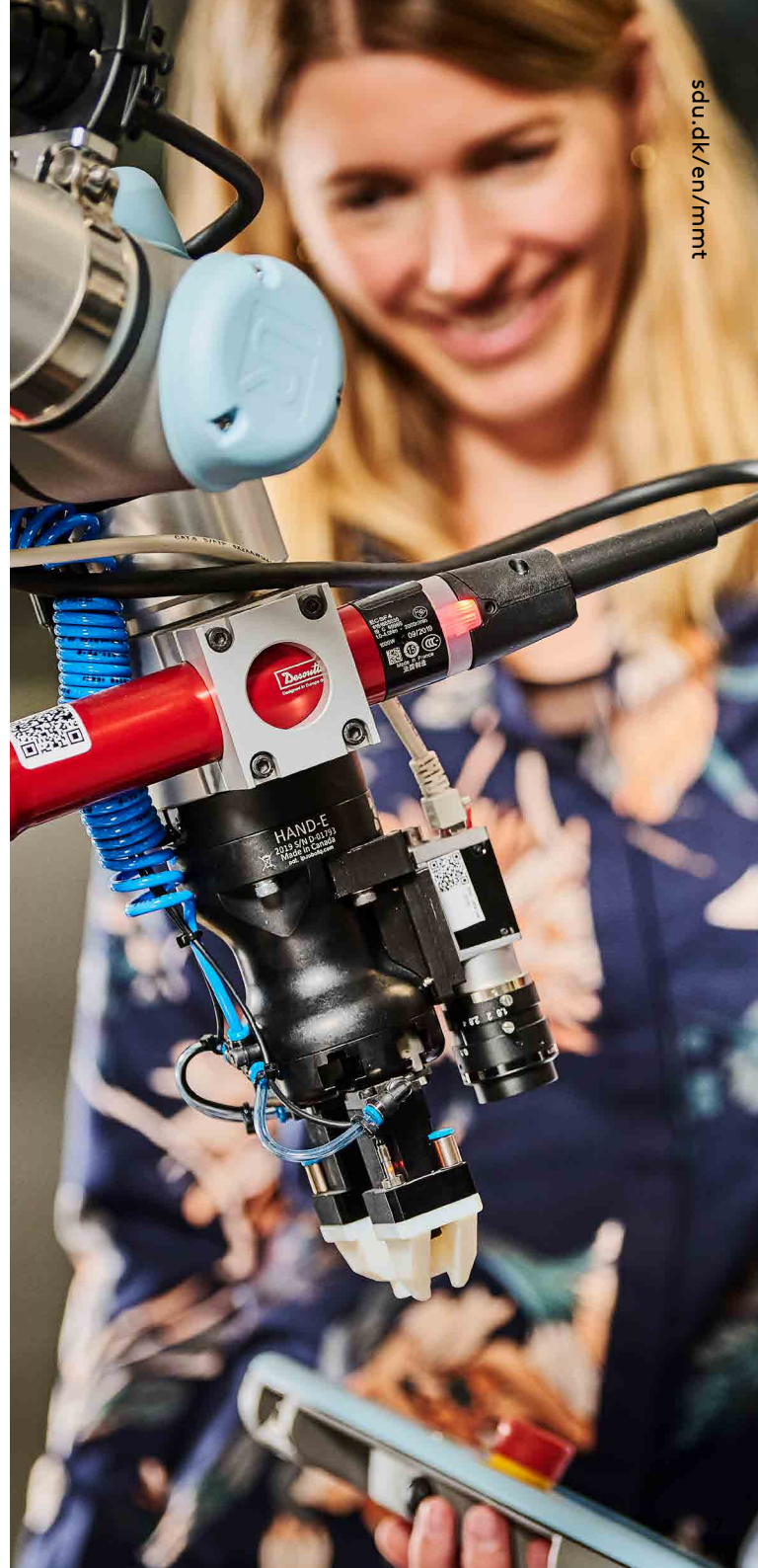
Courses on 1st Semester (From Fall 2023):

Introduction to Emerging Technologies:

In this course, you will obtain a foundational understanding of a range of emerging technologies, including their maturity and interdependence, technology system opportunities, associated international standards, and business-related aspects such as cost.

Moreover, you will gain an overview of methods and tools for economic, sustainability, and risk assessment that can be applied for industrial and business systems when planning the implementation of emerging technologies.

Management of Technology

In this course, you will obtain the competences of strategically making decisions related to internal technology development and external technology acquisition and implementation. Such decisions are linked to technology assessments, technology strategies, and the organisation of research and development processes.

In addition, you will acquire confidence of managing technology as an integral component of firms and their business models as well as their products, services, and processes.

Product Development & Innovation

Technology-based product development and innovation can be seen as a driver of competitive advantage of a company. In this course, you will gain foundational understanding of the core concepts centred around decision-making, organising of teams, processes and activities, and involvement of stakeholders for maximising the chances of successful innovation.

You will obtain the competences to lay the foundation for the process, formulate initiatives to reduce potential barriers to innovation, and develop plans for managing the necessary activities and stakeholders at different stages of the product development and innovation process.

Competitive Strategy

Firms operating in an innovative and technology-driven environment are particularly forced to understand sources of competitive advantage to build competitive strategies. In this course, you will gain the competence of assessing internal resources and firm-level factors and relating them to the competitive situation and the markets in a firm's external environment.

In addition, you will acquire the competences of assessing business situations as well as developing and implementing strategic interventions to improve business performance in real-world situations.

## Elective: Value Creation through Additive Manufacturing

In this course, you will gain the competence to connect the technical and commercial aspects related to the adoption of an AM strategy in an organisation. From a technology management perspective, it is important to master the technology selection process as well as the value creation process based on the opportunities offered by AM to increase outcomes connected with innovation, design, and sustainability.

The course will also offer an opportunity to visit an AM lab and will include assessments related to using or increasing the use of AM in your own company. The course is offered in collaboration with Danish AM Hub.

Elective: Autonomous Technology Systems for Future Competitiveness

In this course, you will obtain the competences of assessing technology components and their maturity as well as developing plans for value creation and value capture for firms utilising autonomous technology systems. Moreover, you will gain the competence of combining technical insights with commercial aspects related to opportunities and barriers of increased autonomy to be able to develop strategic decisions for increased use of the technology.

The course has been developed in collaboration with SIMAC (Svendborg International Maritime Academy). Please notice that no prior experience with autonomous technology systems is needed to participate in the course.
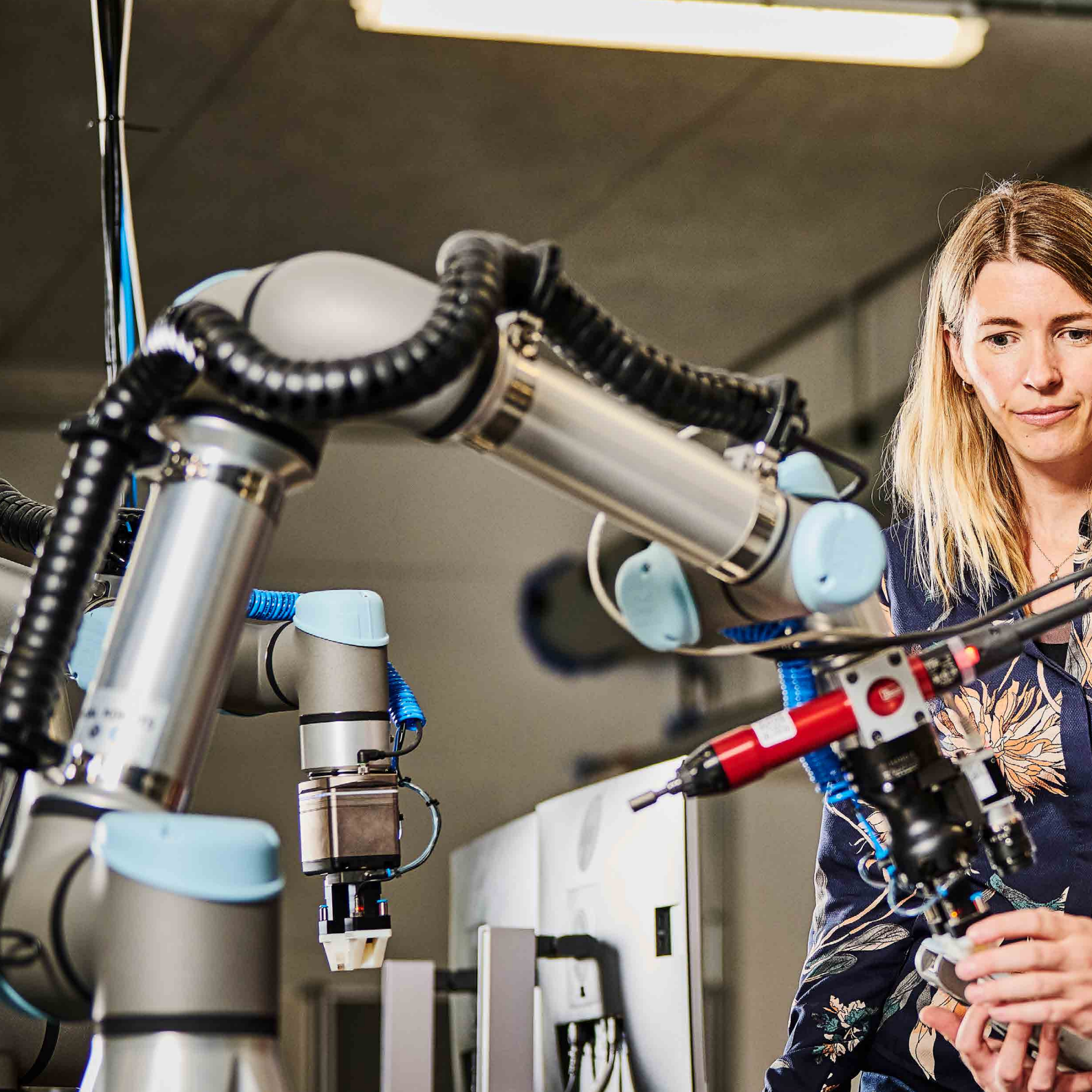
Courses on 2nd Semester (From Spring 2024)

Organisation Design
Some organisational structures and forms foster technological innovation while others act as a barrier to innovation. In this course, you will obtain the competence of assessing trade-offs associated with the design and adaptation of cooperation and coordination in teams, departments, business units, and larger structures.

You will further gain the competences of designing and developing an efficient organisation to facilitate technological innovation and strategic positioning.

Project & Portfolio Management
Technology management-related processes are frequently organised as projects. Moreover, projects are often managed in portfolios of projects. In this course, you will gain the competences of contributing to managing projects in a technology management context.

Furthermore, you will acquire the skills of dealing with complexity and uncertainty in relation to project management. Regarding the challenge of selecting and allocating resources to projects, you will obtain the competences of contributing to managing project portfolios.

Product Marketing & Management
Technological change often causes changes in markets with the potential to affect the strategies, marketing activities, and internationalisation processes of technology-oriented firms.

In this course, you will acquire the competences of managing marketing-related challenges and opportunities associated with products and services that are based on known and emerging technologies. Moreover, you will gain the competence of developing market insights derived from the use of quantitative market research in an empirical setting.

Interpretive Market Insights

Users, customers, external stakeholders, as well as the general public are examples of market constituents that are part of the broader social environment surrounding innovative technologies.

In this course, you will gain the competences of identifying and investigating the relevant market constituents to create market insights that can guide the development of marketing strategy for technology-based offerings. In addition, you will sharpen your research skills by learning how to work with interpretive research methods such as interviews, focus groups, and digital ethnography.

Technology Management Project (not offered as a single course)

In this course, you will work in depth with a relevant and practice-oriented problem from your own work context.

You will obtain the competences of independently investigating and solving a technology management-related challenge by applying theories and methods from a combination of the courses in the programme.
You will gain the competences of including theory of science, working with methods of collecting and analysing data, and subsequently communicating the results, prerequisites, and limitations of the research as well as the relations to the programme's theoretical foundation and technology management practice.

Courses on 3rd Semester (From Fall 2024)

Digital Transformation

It is important for a technology manager to comprehend both opportunities and challenges connected with digitalisation as well as to understand the prerequisites for successful digital transformation.

In this course, you will obtain the competences to outline potential optimisation of internal processes, point to innovation opportunities based on digitalisation of processes, products, and services as well as consider how to utilise data from digitalisation to create value to the company.

Intellectual Property Rights

Creating value through technology is one thing but ensuring that the economic value stays with the inventors, who have invested in the technology, is quite another.

In this course, you will gain the competences of drafting intellectual property contracts as well as obtaining the skills of analysing intellectual property issues and understanding complex legal problems. Furthermore, you will study practical issues arising in the commercialisation of intellectual property.

Innovating for Sustainability

This course will offer insights into how a firm's ambitions for enhanced sustainability can be lifted through innovation. You will acquire the competences of assessing, selecting, and applying sustainability principles to specific innovation challenges and to identifying how these may result in enhanced sustainability.

Moreover, you will obtain the competences of valuing sustainability efforts – i.e., SDGs, green engineering principles, EU's Ecodesign Directive, and circular economy in relation to products and services – as well as considering strategic dependencies.

Commercialisation Strategy

This course zooms in on efforts needed throughout the innovation process to successfully orchestrate the commercialisation of products or services that are based on emerging technology.

You will obtain the competences to assess the opportunities and barriers to successful commercialisation at various levels and in different environments of a business as well as to outline a commercialisation strategy in the context of emerging technologies.

In addition, you will gain understanding of the importance of complementary technology and product-service system configuration.

4th Semester (From Spring 2025)

Master Project (not offered as a single course)

To obtain the MMT degree, the programme is concluded with a Master Project where you will apply appropriate scientific theories and methods for investigating a professionally defined topic within the realms of technology management.

You will independently complete a Master's thesis which is a major written assignment that is subsequently defended in an oral examination. In this course, you will conduct a theoretical and empirical investigation of a chosen challenge.

The Master's thesis takes as its point of departure the context of your own workplace which allows you to take a deep dive into a topic with relevance to your own organisation.
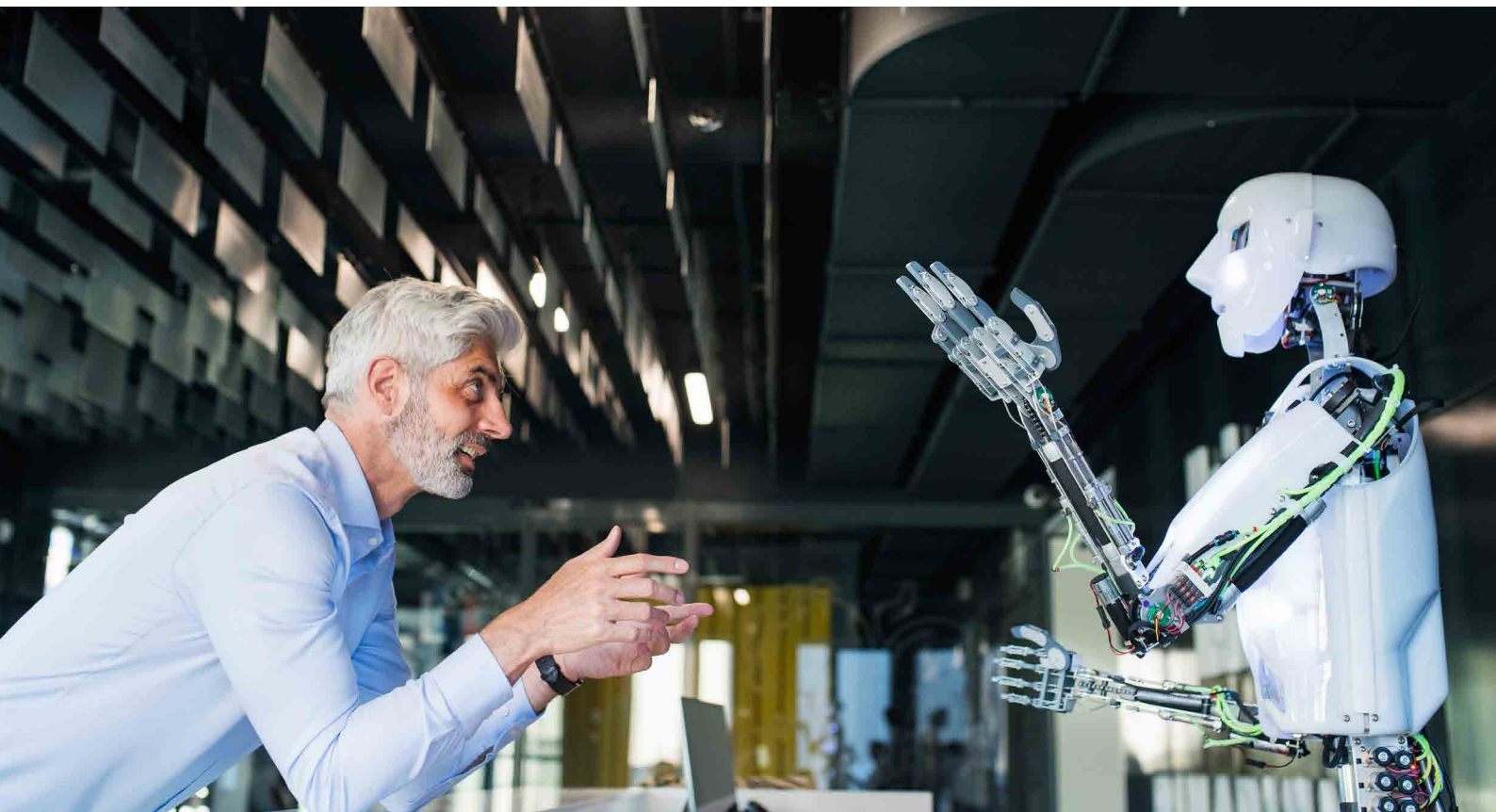
Entry Requirements and Application

Access to the Master in Management of Technology programme is contingent on applicants having completed at least one relevant:

- Bachelor's degree
- Professional bachelor education
- Medium-cycle higher education
- Diploma degree completed as an adjusted course or foreign education at the same level

Applicants must have at least two years of relevant work experience after completing the qualifying education. Relevant work experience could be e.g., product developer, project manager, product manager, business developer, or general manager.

Moreover, applicants must have and be able to document English-language skills equivalent to level B (Danish high school definition) - i.e., adequate skills for English-language teaching to be followed - and be able to understand the English-language curriculum as well as write English-language assignments.
Notice that the whole programme is taught in English.

> **The MMT programme is taught in English as many organisations operate in a global context, have international staff and English as their corporate language.**

The university can decide to admit applicants who do not meet the conditions above. In that case, admission will be contingent on a concrete, individual assessment.

Application Deadlines

- Fall semester: 1st of June
- Spring semester: 1st of December

After the application deadline, you are welcome to contact us and hear more about any available places.

The total price* of the programme is DKK 195,000.

The total price includes tuition fee and meals during teaching days in Odense (both are not subject to VAT), but it excludes expenses for materials, such as books, as well as transportation, accommodations, and meals before and after lessons.

Prices for Single Courses
All courses – except the project courses – can be taken as single courses. Prices* for single courses vary depending on the number of ECTS points:

- DKK 18,000 for a course of 5 ECTS points
- DKK 9,000 for a course of 2.5 ECTS points

Study Start:
Fall semester: September
Spring semester: February

Tuition Language:
English

Location:
SDU Campus Odense

Duration:
A part-time programme that can be completed in two to four years

Weight:
60 ECTS

Prices as per 2023; these might change.

Contact

Questions regarding the programme

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Questions regarding admission and payment

Please contact the department for continuing
education through the website or by phone
+45 6550 1054.