

# Information about the course ME2620 Technology-based entrepreneurship, Autumn 2025

#### **LEARNING OUTCOMES**

The course is aiming to give a broad introduction and overview of the field of technology-based entrepreneurship. The course is adapted for engineering students, since it supplements the technical education with conceptual models, tools and knowledge of the preconditions to establish new technology-based companies. Students who complete the course will understand the importance of technology-based entrepreneurship for the society.

After passing the course, the student should be able to:

- 1. Describe and analyse the challenges in connection with technology-based entrepreneurship.
- 2. Analyse how concepts, models, theories and practical experiences from the subject area entrepreneurship can be used to start technology-based companies.
- 3. Examine and explain the relationship between management and control of existing industrial activities and technology-based entrepreneurship.
- 4. Explain how macro- and microeconomic changes influence technology-based entrepreneurship.
- 5. Explain how ethical aspects, e.g. connected to intellectual property and immaterial rights, influence technology-based entrepreneurship.
- 6. Explain and provide arguments for how equal opportunities and diversity influence technology-based entrepreneurship and how technology-based entrepreneurship influence equal opportunities and diversity.

#### LECTURE PLAN AND LITERATURE

Note that the links below may only work when you are recognized as a KTH-student Additional materials are available on CANVAS. Please check the corresponding sessions and the preparations for each session on CANVAS. If articles are not available by clicking at the links below, please use the search tools available at the KTH library.

The main course book will be:

Byers, T. H, Dorf, R. C., Nelson, A. J. (2019) Technology Ventures: From Idea to Enterprise, Fifth edition. McGraw-Hill New York.

Note that this course book is available in several editions. Use of other versions than the above mentioned is on your own responsibility.

#### **Session 1: Introduction (Kristina Nyström)**

Byers, T. H, Dorf, R. C., Nelson, A. J. (2019) Technology Ventures: From Idea to Enterprise, Fifth edition. McGraw-Hill New York. Chapter 1.

#### Session 2: What is entrepreneurship? (seminar) (Kristina Nyström)

Baumol, W. J. (1968), "Entrepreneurship in Economic Theory" The American Economic Review, Vol. 58, 2:64-7

See CANVAS for instructions about readings and preparations

#### Session 3: Risky business (Kristina Nyström)

Byers, T. H, Dorf, R. C., Nelson, A. J. (2019) Technology Ventures: From Idea to Enterprise, Fifth edition. McGraw-Hill New York. Chapter 7, Chapter 12

#### Session 4: Entrepreneurship and Gender (seminar) (Åsa-Karin Engstrand)

See CANVAS for instructions about preparations

## Session 5: Macroeconomics, societal challenges and entrepreneurship (Kristina Nyström)

Byers, T. H, Dorf, R. C., Nelson, A. J. (2019) Technology Ventures: From Idea to Enterprise, Fifth edition. McGraw-Hill New York. Chapter 2

#### Session 6: Entrepreneurship around the world (seminar) (Kristina Nyström)

Global Entrepreneurship Monitor (2025) <u>GEM 2024/2025 Global Report:</u> <u>Entrepreneurship Reality Check</u>

See CANVAS for information about preparations

#### Session 7: Economics for entrepreneurs (Kristina Nyström)

Byers, T. H, Dorf, R. C., Nelson, A. J. (2019) Technology Ventures: From Idea to Enterprise, Fifth edition. McGraw-Hill New York. Chapter 17

#### **Session 8: Financial resources (Kristina Nyström)**

Byers, T. H, Dorf, R. C., Nelson, A. J. (2019) Technology Ventures: From Idea to Enterprise, Fifth edition. McGraw-Hill New York. Chapter 18

See CANVAS for information about preparations

## Session 9: Entrepreneurial ecosystems and the geography of entrepreneurship (Kristina Nyström)

Decreton B. Monteiro F. Frangos J-M, and Lisa Friedman L. (2021) "Innovation Outposts in Entrepreneurial Ecosystems: How to Make Them More Successful", California Management Review 2021, Vol. 63(3) 94–117.

Session 10: Entrepreneurship and the rules of the game (seminar) (Kristina Nyström) Byers, T. H, Dorf, R. C., Nelson, A. J. (2019) Technology Ventures: From Idea to Enterprise, Fifth edition. McGraw-Hill New York. Chapter 10

Baumol, W. J. (1990), "Entrepreneurship, Productive, Unproductive, and Destructive, The Journal of Political Economy, Vol. 98, 5:893-921.

#### **Session 11: Entrepreneurial performance (Kristina Nyström)**

Byers, T. H, Dorf, R. C., Nelson, A. J. (2019) Technology Ventures: From Idea to Enterprise, Fifth edition. McGraw-Hill New York. Chapter 20

#### Session 12: Entrepreneurship and ethics (Åsa-Karin Engstrand)

See CANVAS for information about preparations

#### Session 13: Resource seminar (Kristina Nyström)

Only for students who are missing one or two of the sessions with mandatory preparations.

Session 14: Tech-based entrepreneurship group project seminars (Kristina Nyström)

#### **EXAMINATION AND GRADING**

The examination consists of the following elements:

- SEM1: Preparation and active participation in six mandatory seminars/sessions (individual 1,5 ECTS graded Pass/Fail)
- INL 2: Entrepreneurship essay (individual) 3 ECTS graded A-F
- PRO1: Tech-based entrepreneurship project (group) 3 ECTS graded A-F

The tech-based entrepreneurship project and the entrepreneurship essay is graded A-F. The assessment of the tech-based entrepreneurship project and entrepreneurship essay range between 0 and 100, where 60 correspond to the grade E, 65 the grade D, 70 grade C, 80 grade B and 90 grade A. Only projects and essays delivered in time can get the grade A or B. The grading criteria can be found at the end of this document. There is no opportunity of an assignment in order to improve the grade of the project or essay further. For the essay there is a re-take offered in December. The total grade on the course consists of the grade on the entrepreneurship essay (70%) and the grade of the tech-based entrepreneurship group project (30%). In order to pass the whole course students, need pass all parts of the examination.

#### PREPARATION AND ACTIVE PARTICIPATION IN SESSIONS

In relation to each session, there will be information on the required preparations before each session. Individual preparation and active participation in six sessions (see below) is required for passing the SEM examination of the course (see above). Please have a look at the required preparations in advance since they need some planning and submission before the session. **Please note** that you can only attend if you have submitted your required preparations. If you for some valid reason are unable to attend some session there is an opportunity to compensate at the resource seminar (maximum 2 seminars lacking). For the resource seminar the task is the same as for the original occasion.

#### The six mandatory seminars that you should complete are:

Session 2: What is entrepreneurship?

Session 4: Entrepreneurship and gender

Session 6: Entrepreneurship around the world

Session 8: Financial resources

Session 10: Entrepreneurship and the rules of the game

Session 12: Entrepreneurship and ethics

#### TECH-BASED ENTREPRENEURSHIP PROJECT (GROUP)

The project is written in groups consisting of 5 students. Teams will be formed by the course management (once students are registered for the course). More information about the team formation process, available companies and other practicalities regarding the project will be provided at the introductory lecture.

The project should contain a cover page, 6-8 pages of text (corresponds to a maximum of 4000 words)) and a list of references. If the assignment exceeds this limit, it will influence the grading of the assignment.

This project should be presented at a seminar on October 9th. Your group will be assigned to one of the seminars. At the seminar, the authors will present their paper (about 10-15 minutes) At this seminar you will also act as discussant of a project written by another group (5 minutes). The project should be uploaded on the course page on CANVAS at the latest 19:00 October 7th.

The assignment will be checked for plagiarism. All members of the group are responsible for the whole content of the assignment.

The project is centered around a tech-based industry and an entrepreneurial journey in this tech-industry. The project should include three parts:

- 1) The tech-industry and its development (based on a literature review).
- 2) The entrepreneurial journey (based on an interview with an entrepreneur in the industry)
- 3) The performance of the entrepreneurial venture (based on an analysis of the financials (official records + entrepreneurship interview of the entrepreneurial venture)
- 4) What are the challenges for the future for the venture and for the industry? (based on the interview of the entrepreneurial venture and your analysis)

For the interview the following draft questions can be used:

- Tell us about your journey as an entrepreneur. How was the idea generated? How has it developed?
- What has been the main challenges?
- What is your advice for future tech entrepreneurs?
- What are the main challenges of the company/industry for the future?

Regarding the companies / interview you will be provided with a list of suggestions of companies and entrepreneurs. However, you are also encouraged to find companies of your own interest as well.

#### Peer review:

Immediately after deadline discussants will be posted on CANVAS. In addition, all the assignments will be posted there so you get access to them there. Submit the peer review before the seminar (you prepare your peer review as a group). The peer review and your oral discussion in class should focus on:

The discussion of the industry and the entrepreneurial journey:

- · Are relevant and sufficient information about the industry provided?
- · Are relevant and sufficient information about the entrepreneurial journey provided.
- · What would we like to know more about in order to understand the industry better?

Connection to concepts and framework in entrepreneurship:

· Is the discussion connected to relevant concepts and frameworks presented in the course?

#### Other:

- · Other strengths and weaknesses identified.
- · Structure and organization of the paper?

#### ENTREPRENEURSHIP ESSAY (INDIVIDUAL)

The entrepreneurship essay should consist of maximum 2500 words and a complete list of references (not included in the word count). Please include a word count on your front page when handing in your essay!

In the essay you will individually apply the content of the lectures and the literature presented during the course. Examples of previous essay questions in the course is available on CANVAS. The essay question will be distributed at the lecture on September 24th and posted on CANVAS afterwards. The essay should be handed in electronically (on the course page in CANVAS at the latest 19:00 October 3<sup>rd</sup>. The assignment will be checked for plagiarism. There is an opportunity of a re-exam (new essay question) on December 9<sup>th</sup>.

### INFORMATION RETRIEVAL, REFERENCES, PLAGIARISM AND USE OF AI

We use the Harvard system for referencing. Read more about plagiarism in the KTH handbook <u>Avoiding plagiarism</u> (English version starts at page 86). Note that plagiarism is a serious matter and are handled by KTH's Disciplinary committee. Disciplinary measures may include suspension for 1-6 months.

The TTBEM-program has developed a digital guide for the use of AI. The guide is designed to help students, navigate the challenges and opportunities presented by AI tools and can be found here:

#### AI student guide for the TTBEM-programme

#### **CANVAS**

The course has its own page on CANVAS "ME2620 Technology—based entrepreneurship Autumn 2025". This page provides information about the course, instructions on how to prepare for each session and slides used by the teachers will be available for download on this page.

#### COMPENSATORY SUPPORT

For students with functional variations who have a statement from KTH's FUNKA unit on recommended support measures in the examination the following applies:

- Support actions under code R (i.e., adjustments relating to space, time and physical circumstances) are granted by the examiner.
- Support actions under code P (i.e. pedagogical adaptation) are granted or rejected by the examiner after contact made by the student in accordance with KTH's rules. Normally, support actions under code P will also be granted.

#### REGISTRATION

In order to take the course, you need to register for the course. Registration should be done through the web. Please find information about registration here: General information about course registration | KTH. If you have problems related to admission and registration, please contact your student counsellor/coordinator at the educational office to make your course election. Once you are properly admitted and registered for the course you will have access to the course page at CANVAS. It is necessary to be registered for the course in order to participate in the course and take exams.

#### COURSE COORDINATOR, EXAMINER AND TEACHERS

Kristina Nyström, Professor (course coordinator, examiner and teacher)

E-mail: kristina.nystrom@indek.kth.se

Åsa-Karin Engstrand, Associate Professor (teacher)

E-mail: asa-karin.engstrand@indek.kth.se

## **SCHEDULE**

Date	Time	Room	Content	Teachers
26 August	10-12	W43	Session 1: Introduction	Kristina
_				Nyström
28 August	10-12 or	Room 443	Session 2: What is entrepreneurship	Kristina
C	13-15 or	Lindstedtsv. (mandatory session preparation)		Nyström
	15-17 32			
2 September	10-12	B1	Session 3: Risky business	Kristina
1			•	Nyström
4 September	10-12 or	Room 443		Åsa-Karin
	13-15 or	Lindstedtsv.32	Session 4: Entrepreneurship and ethics	Engstrand
	15-17		(mandatory session preparation)	
9 September	10-12	В3	Session 5: Macroeconomics, societal	Kristina
1			challenges and entrepreneurship	Nyström
11 September	10-12 or	Room 443	Session 6: Entrepreneurship around the	Kristina
1	13-15 or	Lindstedtsv.32	world (mandatory session	Nyström
	15-17		preparation)	
16 September	preparation)		Kristina	
10 September	13-13	1013	Session 7. Economics for endepreneurs	Nyström
18 September	10-12 or Room 443		Session 8: Financial resources	Kristina
16 September	13-15 or Lindstedtsv.32			
			(mandatory session preparation)	Nyström
24 Contambon	†	V3	Cassian O. Entranganavaial acceptations	Kristina
24 September	8-10 V3		Session 9: Entrepreneurial ecosystems	
			and the geography of entrepreneurship	Nyström
			Handing out individual assignment	
25 C 4 1	10.12	D	S	IZ'
25 September	10-12 or	Room 443	Session 10: Entrepreneurship and the	Kristina
	13-15 or	Lindstedtsv.32	rules of the game	Nyström
	15-17		(	
20 C / 1	10.10	172	(mandatory session preparation)	TZ : .:
30 September	10-12	V3	Session 11: Entrepreneurial performance	Kristina
2.0 . 1	10.10			Nyström
3 October	10-12	Room 443	Session 12: Entrepreneurship and ethics	Åsa-Karin
		Lindstedtsv.32	(mandatory session preparation)	Engstrand
70.1	10.10	D2	G : 12 B :	TZ * .*
7 October	10-12 D3		Session 13: Resource seminar	Kristina
				Nyström
9 October	10-12 or	Room 443	Session 14: <b>Tech-based</b>	Kristina
	13-15 or	Lindstedtsv.32	entrepreneurship group project	Nyström
	15-17		seminars	

### ASSESSMENT CRITERIA

Grading criteria				
Tech-based entrepreneurship group project				
Е	D	С	В	A
To some extent connect and apply relevant concepts and frameworks presented in the course.	All requireme nts for E and at least half the requireme nts for C.	Connect and apply to relevant concepts and frameworks presented in the course.  Provide a comprehensive critical discussion and analysis  Present a well-structured venture project report.	All requireme nts for C and at least half the requireme nts for A  The assignme nt is delivered before deadline	At an advanced level connect and apply relevant concepts and frameworks presented in the course.  Provides an advanced level critical discussion and analysis.  Present a well-structured and well-written project report.  The assignment is delivered before deadline.
Grading criteria			acadinic	
Entrepreneurship essay				
E	D	C	В	A
The discussion is to some extent based on and makes reference to and apply relevant parts of the course literature.	All requirem ents for E and at least half the requirem ents for C.	Provides a comprehensive discussion of theories and material presented in the course.  Connect and apply relevant theories presented in the course.  Present a well-structured assignment.	All requirem ents for C and at least half the requirem ents for A.  and  The exam is delivered before deadline	Provides an advanced level discussion of theories and material presented in the course.  At an advanced level connect and apply to theories presented in the course.  Present a well-structured and well-written assignment.  The exam is delivered before deadline