



## **Information about the course ME2620 Technology-based entrepreneurship, Autumn 2023**

### **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**

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: Who becomes an entrepreneur? (Åsa-Karin Engstrand)**

See CANVAS

## **Session 3: 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

Hart and Zingales (2017) [Serving Shareholders Doesn't Mean Putting Profit Above All Else](#), *Harvard Business Review*, 12, 2-16.

## **Session 4: Entrepreneurship around the world ((Kristina Nyström)**

Global Entrepreneurship Monitor (2023) *Global Entrepreneurship Monitor 2022/2023 Global Report Adapting to a "New Normal"* Babson College, (available at [www.gemconsortium.org](http://www.gemconsortium.org))

## **Session 5: Innovation and competition ((Kristina Nyström)**

Byers, T. H, Dorf, R. C., Nelson, A. J. (2019) *Technology Ventures: From Idea to Enterprise*, Fifth edition. McGraw-Hill New York. Chapters 4 and 5

## **Session 6: 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

Nyström K. (2021) ["Working for an Entrepreneur: Heaven or Hell?"](#). *Small Business Economics Vol 56*, 2:919-931

## **Session 7: Entrepreneurship and the rules of the game ((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 8: Entrepreneurship and ethics (Åsa-Karin Engstrand)**

Kiran, A. H., N. Oudshoorn & P-P Verbeek (2015) [Beyond checklists: toward an ethical-constructive technology assessment](#), *Journal of Responsible Innovation*, 2 (1): 5-19.

## **Session 9: Entrepreneurship by the numbers (Philip Kappen)**

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 10: 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

### **Session 11: 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 12: 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 13: Hand-out of entrepreneurship essay and Resource seminar (Kristina Nyström)**

### **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 four 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. The total grade on the course consists of the grade on the entrepreneurship essay (50%) and the grade of the tech-based entrepreneurship group project (50%). 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 four 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 some of them may need some planning. **If you for some valid reason are unable to attend some session there is an opportunity to compensate at the resource seminar (session 13). For the resource seminar the task is the same as for the original occasion.**

### **The four sessions that you should complete are:**

Session 2: Who becomes an entrepreneur

Session 4: Entrepreneurship around the world

Session 8: Entrepreneurship and ethics

Session 10: Financial resources

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

The project is written in groups consisting of 3-4 students. 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 12th. 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 9th. Note that the assignment should only be uploaded by one of the group members!

The assignment will be checked for plagiarism. Also note that the work should be performed without any assistance of any AI tools. 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?

**The deadline for forming teams is September 5<sup>th</sup> . See instructions on how to do this in session 5 in CANVAS).**

#### **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. **The essay question will be distributed at the lecture on October 10th and posted on CANVAS afterward. The essay should be handed in electronically (on the course page in CANVAS at the latest 19:00 October 20<sup>th</sup>.** The assignment will be checked for plagiarism. Also note that the work should be performed without any assistance of any AI tools.

### **INFORMATION RETRIEVAL, REFERENCES AND PLAGIARISM**

We use the Harvard system for referencing. Read more about plagiarism in the KTH handbook [Guiding students away from plagiarism](#). Note that plagiarism is a serious matter and are handled by KTH's Disciplinary committee. Disciplinary measures may include suspension for 1-6 months.

### **CANVAS**

The course has its own page on CANVAS "ME2620 Technology-based entrepreneurship Autumn 2023". 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](mailto:kristina.nystrom@indek.kth.se)

Åsa-Karin Engstrand, Associate Professor (teacher)  
E-mail: [asa-karin.engstrand@indek.kth.se](mailto:asa-karin.engstrand@indek.kth.se)

Philip Kappen, Associate Professor (teacher)  
E-mail: [philip.kappen@indek.kth.se](mailto:philip.kappen@indek.kth.se)

## SCHEDULE

<b>Date</b>	<b>Time</b>	<b>Room</b>	<b>Content</b>	<b>Teachers</b>
29 August	10-12	D32	Session 1: Introduction	Kristina Nyström
31 August	10-12 or 13-15	D41 or E31	Session 2: Who becomes an entrepreneur? <b>(mandatory session preparation)</b>	Åsa-Karin Engstrand
5 September	10-12	E33	Session 3: Macroeconomics, societal challenges and entrepreneurship	Kristina Nyström
7 September	10-12	V3	Session 4: Entrepreneurship around the world <b>(mandatory session preparation)</b>	Kristina Nyström
12 September	10-12	Q15	Module 5: Innovation and competition	Kristina Nyström
14 September	10-12	E36	Module 6: Risky business	
19 September	10-12	V3	Session 7: Entrepreneurship and the rules of the game	Kristina Nyström
21 September	10-12 or 13-15	U21 or Q15	Session 8: Entrepreneurship and ethics <b>(mandatory session preparation)</b>	Åsa-Karin Engstrand
26 September	10-12	E33	Session 9: Entrepreneurship by the numbers	Philip Kappen
28 September	10-12	E33	Session 10: Financial resources <b>(mandatory session preparation)</b>	Kristina Nyström
3 October	10-12	E33	Session 11: Entrepreneurial ecosystems and the geography of entrepreneurship	Kristina Nyström
5 October	10-12	E33	Session 12: Entrepreneurial performance	Kristina Nyström
10 October	10-12	E33	Session 13: <ul style="list-style-type: none"> <li>• Handing out the individual assignment + Resource seminar</li> </ul>	Kristina Nyström
12 October	10-12 or 13-15	E33 or Q17	Session 14: <b>Tech-based entrepreneurship group project seminars</b>	Kristina Nyström

## ASSESSMENT CRITERIA

Grading criteria				
Tech-based entrepreneurship group project				
<b>E</b>	<b>D</b>	<b>C</b>	<b>B</b>	<b>A</b>
<p><b>To some extent connect</b> to relevant concepts and frameworks presented in the course.</p>	<p>All requirements for E and at least half the requirements for C.</p>	<p><b>Connect</b> to relevant concepts and frameworks presented in the course.</p> <p>Provide a <b>comprehensive</b> critical discussion and analysis</p> <p>Present a well-structured venture project report.</p>	<p>All requirements for C and at least half the requirements for A</p> <p>The assignment is delivered <b>before</b> deadline</p>	<p><b>At an advanced level connect</b> to relevant concepts and frameworks presented in the course.</p> <p>Provides an <b>advanced level</b> critical discussion and analysis.</p> <p>Present a well-structured and <b>well-written</b> project report.</p> <p>The assignment is delivered <b>before</b> deadline.</p>
<i>Grading criteria</i>				
<i>Entrepreneurship essay</i>				
<b>E</b>	<b>D</b>	<b>C</b>	<b>B</b>	<b>A</b>
<p>The discussion is to some extent based on and makes reference to relevant parts of the course literature.</p>	<p>All requirements for E and at least half the requirements for C.</p>	<p>Provides a <b>comprehensive discussion</b> of theories and material presented in the course.</p> <p><b>Connect</b> to relevant theories presented in the course.</p> <p>Present a <b>well-structured</b> assignment.</p>	<p>All requirements for C and at least half the requirements for A.</p> <p>and</p> <p>The exam is delivered before deadline</p>	<p>Provides an <b>advanced level</b> discussion of theories and material presented in the course.</p> <p>At an <b>advanced level</b> connect to theories presented in the course.</p> <p>Present a well-structured and <b>well-written</b> assignment.</p> <p>The exam is delivered before deadline</p>