

The Student's Guide to the Entrepreneurial Course at DTU

Course 42435. **FALL 2016**, Monday afternoons.

Location: **building 306 room 35**. (TBC)

Knowledge based Entrepreneurship

12 recommendations

July 2016 – version 1.01

This is a User's Manual, designed to increase your benefits from participating in the DTU entrepreneurial course considerably. But you need to read it before it works!

You need to join a Group

We find it for you, but we need to know you better

In 42435, we use the US-developed CATME team formation and peer evaluation program. Look it up at www.catme.org

CATME will send out the information that you need to respond. *Important: Check your student email regularly and directly. Do not forward DTU official mail – including CATME mail to your gmail or hotmail or any other account, since spam and advertisement filters tend to capture mails from @student.dtu.dk.*

Based on information about your cultural background, gender, engineering interests, availability, your preferred role in the team, your ambition level and some personal traits, CATME generates an optimized team formation of groups of 5 for the class. The group formation criteria are based on state of the art within teambuilding and group dynamics.

Working in an international team is one of the learning outcomes of 42435. We believe that one of our obligations is to prepare you for your future professional life. Most of you will be working with international teams put together by your employer. Train your skills and capabilities in 42435 – and enjoy the international friendships that often come out of this – sometimes to last for a lifetime.

CATME will send you an invitation to sign up, and immediately after, you will be encouraged to submit your personal preferences for group formation. Deadline: **Friday, 2 September 2016 12:00 noon**. That will allow us to establish teams before 2. lecture, and you will gain valuable time together with your group.

For this reason, 42435 closes for admission of more students on Friday 2. September, and on Monday 5. September, a get-together event rolls out to allow you to find your team. After that, it takes very compelling reasons to change group.

Pedagogies and didactics.

42435 is an e-learning course. You view the central lectures at home and go to DTU for group work and special lectures. Knowledge is disseminated via video lectures. The learning comes from the group work.

Groups generate their own ideas, develop business models and design plans for commercializing – supported by trained coaches. This means that the most important success factor is a well functioning, dedicated group that puts some efforts into achieving a result. So join and engage, do your bit and make the group score at exam and beyond.

The pedagogies concur with the CDIO concept for engineering education: Conceive – Design – Implement - Operate. You conceive business ideas, you design business models, and you prepare for action.

We have a number of guest lecturers coming to give us insight in current conditions for starting and developing high-tech ventures and to present real-life experiences. Previous course evaluations unambiguously indicate, that these lectures are the highlights of the course – and you get valuable information that is not available elsewhere. But you have to be there, so -

Recommendation #1: ***don't miss the lectures.***

Statistics indicate unambiguously that ***the grade that you achieve at exam is significantly correlated to your participation in lectures and watching video clips when appropriate*** – just to make sure that you got the point.

The Team + the Advisors

Your group is going to produce a business plan in a structured process. We know from repeated experiences, that small groups and groups starting late run into work overload problems. Don't be the next example, so -

Recommendation #2: ***Use your skills! Organize the group, share the work, take responsibility, appoint a helmsman, meet regularly, be accessible and exercise good project management.*** T.

You are probably already well trained in group- and project work. At 42435 we try to take you to the next level – so:

Recommendation #3: ***Get your group up and running from day one.*** (Day One is actually concurring with deadline for group formation: Monday 5 September 2016)

Individual student ambition levels vary. The course is mandatory to some and elective to others. Usually the latter have high expectations, while some of those who have to sign up, are a bit alienated. Non-aligned individual ambition levels in a group can really destroy group work. So adjust your ambitions at kick-off and hence consider this an agreement amongst you.

Recommendation #4: ***Adjust the group ambition level at project kick-off.***

Coaching will be available throughout the course until exam. Quality of business start-up projects and hence ***marks given at exam are non-trivially correlated to coach usage.*** So:

Recommendation #5: **Develop a good working relation with a coach.** Coach coordinates will appear on CampusNet and in broadcasts. Our external professor, Dorte Wiene, is our chief in this field, and she is also the gate keeper to coaches. Contact her to get a coach. More to follow at 3. Lecture, Monday 12 September 2016.

The Project plan

Your project typically includes two milestones and three work periods:

Kick-off: The team is formed. (No later than Monday 5 September 2016)

1. *First Work period:* The quest for the business opportunity and the idea in ping-pong with teacher(s), coach(es) and potential customers. Transformation of a business idea into a business model including a start-up strategy via rough estimates, quick calculations and discussions with teacher(s), coach(es) and mentors/advisors in your own network.

First milestone: Product/service identified and + Business model designed.
Friday 30 September 2016.

2. *Second Work Period:* Research and analysis. The assumptions on pain and value creation in the market are validated via empiric information. The marketplace materializes.

Second milestone: The data incl. customer feed-back needed to finalize your business model and develop your business plan has been collected and is ready for analysis.
Friday 28 October 2016

3. *Third Work Period.* Business planning: rationale, action plan, resource plan, time schedule and budgets are procured.

Termination: the completed business plan + Go-No go decision
Friday 2 December 2016 – after that: preps for exam, including pitch training.

Each task takes its time. In particular: do not rush for the business idea. The first work period is usually quite frustrating. Desperate groups tend to jump to the first viable idea that comes into view. Reduce the risk of missing a clearly better candidate by being persistent! So:

Recommendation #6 **allow app. 3- 4 weeks from kick-off to finalise your portfolio of ideas in order to select the most perspective and to develop a business model. Spend another 2-3 weeks doing customer interviews and market research, and finally spend 3-4 weeks in finalizing your business plan. After that set aside one-two working days, sometime mid December to prepare your presentation at exam**

Here is a tentative time schedule:

Kick-off:	Team fully operational.	Week 36	5 September
1. milestone:	Product /business model OK	Week 39	30 September

2. milestone	Market research finalised	Week 43	2 October
Project deadline:	Business plan completed	Week 50	14 December

Deadline, submitting business plan: **Friday 14 December 2016, 12.00 noon.**
 Exams: Tuesday and Wednesday 20 and 21 December 2016 from 08 am.

The Business Idea

Getting the right idea is probably the most complicated part of being a successful entrepreneur. At 3. lecture, we will address some methods and principles that can help you enhance your commercial creativity. To get you started before that, however: you may see the video clips well before, and here are some of the essentials - to get you started:

1. Your professional skills should be exploited. This is very important. We do not like you to spend 5 years training to become an engineer and then you start a travel agency or an ethnic restaurant. Your competitive strength is embedded between your ears. Use it – or lose it. As a first-timer, you cannot compete with skilled and seasoned entrepreneurs outside your own field of expertise, but most likely they cannot compete with you as an enterprising engineer. Think about that.
2. Look for “pain” in the market. No pain = no gain = no company. You must identify a clear need for your product/service. You must be able to clearly explain the values that your product or service creates for your customer. At the beginning, you may have to guess a lot, but later in the creative process, you need to be more specific.
3. Keep your business model simple and focussed on a specific target group. That makes your project easier to plan, easier to communicate and easier to execute. Avoid highly speculative ideas and business models that build on very complex thinking that usually generates many unvalidated assumptions that increase the risk and uncertainty of the venture.
4. As a rule of thumb: unless you are in the digital media fields, consider staying away from end-user markets. Students in 42435 very often start looking for opportunities in markets where they feel at home – and that is end user markets. Most successful tech start-ups however start in the B2B (business-to business) market, and often several links behind the end user markets (B2C = business to consumer markets), where their engineering skills constitute their competitive advantage. Finding opportunities in those markets requires experience. You most likely do not have that, but you know someone who does. Your DTU teachers for instance. Or your coach. Or perhaps some relatives, or you find interesting articles in magazines etc.. Knowing the end users’ needs is important of course, but this is most likely knowing your customer’s customers’ needs, and thus knowing what is important for your own customer.

Recommendation #7: go for ideas that build on your competences, and make sure that your product/service solves real problems for real customers in a way that creates non-trivial values.

Quite simple, right?!

The Business Plan

The internet is loaded with templates, literature, samples etc. Just try the links or samples at CampusNet or make a search on the internet and find yourself a suitable template that fits your specific professional domain.

The textbook for this course includes a section on business planning, designed to be used as a template, for your convenience. You may download this section in a MS-WORD format – also from the website - and start writing in it.

Recommendation #8: ***You don't need to build your own business plan from scratch. Save time by downloading a template.*** The CampusNet 42435 group file sharing offers a battle proven sample which works OK in most cases. Google provides 64.700 other BP templates.

Economy

A budget on cash flow is mandatory. Budgets on profit/loss, assets/liabilities and investments are considered an asset. We will look into that in one of the lectures. However, since cash is as essential to your company as gasoline is to your car, you better get that budget right – or your project will die in the sand like your car will stop in the middle of the race. So:

Recommendation #9: ***put some efforts into establishing a credible cash flow budget.*** Some spreadsheet models are available at the course web-site, and we have a full lecture on that coming up.

Crash Landing is NOT an Option

Sometimes at the end of the project, it turns out, that the business venture does not work. By example: your start-up project is not interesting enough to attract the capital that you need to get it up and flying, so the business is simply not viable. Do not panic! In real life, you would have to modify your business idea and/or your business model and start planning all over again. In this course, you do not have the time for that. You are caught up by time – so instead you explain to us why it will not fly, and why this project should be abandoned or reshaped.

We have given top marks to crews that concluded that their project was a journey to bankruptcy – and hence dropped it. This is just as important a conclusion as the opposite - and also a more difficult conclusion to accept and present. However, this course is very much about demonstrating applied common sense and not so much about demonstrating profitability.

Examination

Examination at 42435 is a main component in the course pedagogies. We want you to train and test your skills in presenting a complex commercialisation project. Examination is however, also a control that you reached the important points and skills.

Examination is a combined group- and individual performance

Language at exams – written and spoken - is English only.

The examination starts by your team introducing (pitching) the business plan. This short session allows censor and examiner to get updated and sharp on your specific project. (We usually receive +30 business plans, so we really need this session to compensate for our individual personal age related conventional memory capacity limitations.)

After the presentation, all students – but one - leave the room to enter again, one by one for a 3 minutes individual oral presentation of a specific theme (see below) followed by a short individual discussion + Q&A.

After the last individual examination, individual marks are given.

Altogether, examination lasts up to an hour per team.

For the individual examination, each student draws a theme randomly picked from the following list:

1. Demand and value creation
2. Market research & analysis
3. Budgeting and financing
4. Business law
5. Start-up strategy and business model
6. Action plan and time schedule

Recommendation #10: Do not forget that at the end of the course, you have to individually present and defend a theme, randomly drawn from the above list – but your platform is a quality business plan and quality group performance throughout the project period

Recommendations #11: prepare a convincing presentation of your business case and of each of the six themes just before exams. We will discuss how by the end of the course.

Also check your business plan and your presentation out with the learning objectives of this course. Here they are:

Learning Objectives, course 42435

A student who has met the objectives of the course will be able to:

- ✓ Identify business opportunities
- ✓ Develop business ideas (Opportunity-driven creativity)
- ✓ Develop business models
- ✓ Analyze markets for technological products and services
- ✓ Interview customers
- ✓ Analyze customer value creation
- ✓ Plan the establishment of a company (Business planning)
- ✓ Determine capital requirements
- ✓ Establish cash flow projection
- ✓ Establish budgets on profit/loss, assets/liabilities
- ✓ Calculate an equity investment
- ✓ Specify management competence profiles
- ✓ Understand the legal and regulatory key issues of a start-up

If - after the course - you start considering in earnest if this venture is worth launching -

- once you have graduated, mind you! -

- then we – DTU 42435 teachers and admin - have achieved our goal!

Practical details

Exams deliverables: Business plan with annexes, hand outs etc. is submitted as PDF or WORD or EXCEL files – via mail-attachments, CD-ROMs or USB sticks.

No paper, please! Business plan max. **6.500 words** Annexes can be added at your own discretion. No limits, no rules.

Please take this maximum of 6.500 words very seriously. We have had censors, who refused to read more than that.

Deadline for submitting your business plan is Wednesday 14 December 2016, 12:00 noon. Upload it to the CampusNet Group 42435 Assignment folder

Exam dates:

Tuesday 20 December 2016 from 8:00 a.m.

Wednesday 21 December 2016 from 8:00 a.m.

In case of class > 140:

Thursday 22 December 2016 from 8:00 a.m.

Details on location and schedule will follow. The exams plan will be uploaded to the course web site and broadcasted to everybody.

So don't worry: you will get it – or it will get you!!

Communications

A summary of each lecture will be broadcasted to the participants before the lecture is held. Usually broadcasts are transmitted on Fridays just after noon.

The CampusNet will be set up with proper rights to everybody to allow chat, file sharing etc.

All materials will be uploaded to the course web site and to CampusNet . So:

Recommandation #12: *check your @student.dtu.dk mailbox each Friday afternoon*

Last, not least: all video lectures are available from the LLAB podcast server. Use the Video library index to pick and choose. Get it here:

<https://docs.google.com/document/d/1kLpLNEMOTIE-B-nJUiXde7eJu2ez2hvbXKLusKrPjoQ/edit>

Looking forward to doing business with you



John Heebøll

Lecturer, entrepreneurship

Cell: +45 2049 7789

DTU 4525 4677 – or local: 54677

SKYPE: john_heeboll

Mail: johe@dtu.dk