

Course 42705 Knowledge based Entrepreneurship
PhD – level, DTU April – May 2007

Thursday, 07 June 2007/JH

Evaluation Report

Background

Course 42705 is a concentrated course on applied entrepreneurship for PhD students.

The students are engineering PhD fellows from Technical University of Denmark, including an international wing of visiting students from China, other European countries and USA. (App 50% of the class)

Course objectives: to deliver useful and portable knowledge on how to start a venture capital backed high tech company, based on the students' own ideas and competencies.

The course includes six afternoons, each three hours lecturing, combined with group work on idea generation, market analysis and business planning. Groups are three to five participants. Further, each group is individually coached through 2 – 3 meetings with John Heebøll and assistant teachers brought in from Copenhagen Business School. (Senior master students).

The projects are evaluated 2/3 on the written and 1/3 on the oral presentation. Censor is Kristian Phillipsen associate professor, Syddansk Universitet, Kolding.

Course 42705 – 2007

The 2007 course was the third in line. In 2005, 8 students concluded the course. In 2006, the number increased to 14 students and in 2007 30 students passed.

We are now at the level where app. 10% of a year of new PhD fellows sign up – and also at a level where sheer numbers prevent us from getting to know each student personally.

Themes covered are:

1. Applied entrepreneurship: basic experiences
2. Opportunity-driven creativity
3. Business modelling: from idea to start-up strategy
4. Business planning
5. Financing – emphasis on pre-seed, seed and early stage venture capital
6. Market economics (Michael Porter's Five Forces as a core methodology)
7. Sales and marketing
8. Business management
9. Budgeting – emphasis on cash flow projections and capital demand
10. IPR – with emphasis on patents in the start-up context.
11. Business law: emphasis on employees, shareholders, management and contracts.

Teams

7 groups and two special groups submitted and presented their business plans at exams. Average mark is 9.4. Dispersion is 0.8.

Ideas

Half of the groups worked with aspects of their PhD projects. The rest developed business ideas within their field of engineering specialties. Thus, all business ideas are based on advanced technical knowledge. App. 2/3 involved venture capital investments.

Quantified evaluation

24 students returned an evaluation questionnaire, which is used to compare the course with previous years courses and to measure the impact of changes.

The table below includes the course-related part of the answers.

	1	2	3	4	5	Answ. no.	Mean on 1 to 5	Last year
The Course	Very poor	Poor	Acceptable	Good	Very Good			
Teaching materials: quality is -		1	8	11	4	24	3,8	4,0
Didactics (lectures + own project + presentation) as a teaching method vs. course objectives is -			4	18	3	25	4,0	4,5
Relationship between outcome and workload is -			6	12	7	25	4,0	4,1
Did the course live up to your expectations? Degree of fulfillment is -			4	13	8	25	4,2	4,4
Exams: the evaluation form (written + oral, groupwise)			1	19	3	23	4,1	4,5

Clearly the answers reflect satisfied customers and a certain degree of enthusiasm – still with room for improvement. A slight decrease compared to course 2006 – could be explained by the size of the 2007 class (30) compared to the 2006 class (14). From the graduate courses (run from 1992) we know that large classes result in decreasing evaluations.

Teacher (the undersigned) and assistant teachers were evaluated also and with quite encouraging results – still with room for improvement. Most important is the evaluation of the professional level of assistant teachers and teacher (4.35 with 5 as the max. obtainable).

Comments and suggestions received

The predominant appraising comments relate to external lecturers. See below. They are the single most popular part of the course.

The criticism mostly relates to the highly compressed form. Actually the course is being sold as a “crash course” and it lives up to that. One or two more afternoons are suggested together with shorter lectures, more breaks and less information in the slides.

Visiting lecturers:

Our guest speakers are the highlights of lecturing. They put theory in a practical perspective, they are role models, and they demonstrate how the course contents can be converted into successful business start-up projects.

This year, we had the pleasure of having following visitors in the lecture room:

- Torsten Kolind, director, Venture Cup Denmark
- Eivind Henriksen, director, CONNECT Denmark
- Theodor Nielsen, co-founder of NIL Technologies, Venture Cup winner 2006 and DTU 2005 graduate entrepreneurship class alumnus
- Ulla Brockenhuus, managing partner, SEED Capital & DTU Innovation A/S
- Peter Tøttrup, partner, Seed Capital & DTU Innovation A/S.

Does it work at all?

This year, alumni from the KU-NAT & DTU e’ship courses and special courses won all venture cup prizes. Theodor recently sold part of his company at an evaluation of app.12 mio. Euro, etc.

