COURSE SYLLABUS

Module 3: Boosting Innovation, 15 credits

Module 3: Boosting Innovation, 15 högskolepoäng

Course Code:	JM3S24	**Education Cycle:**	Second-cycle level
Confirmed by:	Council for Undergraduate and Masters Education May 2, 2023	**Disciplinary domain:**	Social sciences (75%) and natural sciences (25%)
Revised by:	Council for Undergraduate and Masters Education Oct 7, 2024	**Subject group:**	FE1
Valid From:	Jan 13, 2025	**Specialised in:**	A1F
Version:	2	**Main field of study:**	General Management

Intended Learning Outcomes (ILO)

Upon completing the course the student shall be able to:

Knowledge and understanding

1. Explain the core theories and models within the field of entrepreneurship, innovation and strategy, with specific reflection on the role of technology in engineering contexts.

2. Outline crucial aspects of entrepreneurial and innovative processes, specifically reflecting on the role of technology and engineering for product development and change.

3. Explain the role and significance of innovation and entrepreneurship in both new ventures and established businesses, specifically in engineering contexts.

4. Account for project methodology, including financial aspects, and apply project frameworks in the planning and implementing of a project.

Skills and abilities

5. Analyze issues and propose solutions on live cases, with focus on the innovative capabilities of companies in an engineering context.

6. Analyze a firm's competitive environments and how to sustain competitive advantage, defining appropriate goals and designing strategy.

7. Apply relevant reference literature (including scientific publications) to analyse, evaluate and synthesise practical problems within the subject of entrepreneurship and innovation.

8. Apply risk management at project level, identify potential problems and offer solutions of how to prevent these.

Judgement and approach

9. Ability to use a scientific approach by seeking, critically judging and applying academic as well as professional knowledge.

10. Critically assess own behavior in teamwork and reflect on the personal learning process.

Contents

This course represents the **third module** of the Engineering Management Master programme. It is designed to facilitate an entrepreneurial mindset and provides sufficient knowledge and understanding of innovation, entrepreneurship, strategy, and project management for participants to engage in and lead innovation projects, in engineering contexts. For this purpose, the course comprises the following three parts:

Strategy - analyses and formulation – including to analyze a firm's competitive environments and how to sustain competitive advantage, defining appropriate goals and designing strategy.

Entrepreneurship and innovation – introducing students to the theory and processes of entrepreneurship and innovation and allowing students to participate in an extensive innovation project in collaboration with business.

Project Management – developing abilities to manage and lead projects in engineering-focused businesses. Insight related to project methodology, life cycle/framework, financial management, risk management, communication, and follow-up.

Connection to research and practice

In this course, students are required to integrate their specific engineering knowledge with the research-based content discussed above when addressing business-relevant challenges. The course content on innovation, entrepreneurship, and strategy is all based on up-to-date research and in line with research being conducted at JIBS. Students are required to read and use academic articles. Students engage in an extensive course project based on real company challenges to develop new innovative solutions.

Type of instruction

The course combines lectures, seminars/critical reflections, and project work.

The teaching is conducted in English.

Prerequisites

Bachelor's degree (i.e the equivalent of 180 credits at an accredited university) with at least 90 credits in engineering (or the equivalent). At least 10 credits at advanced level in General Management, representing courses on the Engineering Management programme at JIBS (or equivalent).

Examination and grades

The course is graded A, B, C, D, E, FX or F.

Entrepreneurial pitch and report - Individual (ILOs: 1, 5, 6, and 7) representing 2,5 credits.

Oral exam - Individual (ILOs: 1, 2, 3, 5, 6, and 7) representing 5,5 credits.
Company project - Group (ILOs: 2, 4, 6, 7, 8, 9, and 10) representing 5 credits.
Project learning analysis - Group (ILOs: 4 and 10) representing 2 credits.

Registration of examination:

Name of the Test	Value	Grading
Entrepreneurial pitch and report - Individual[I]	2.5 credits	A/B/C/D/E/FX/F
Oral exam - Individual[I]	5.5 credits	A/B/C/D/E/FX/F
Company project - Group[I]	5 credits	A/B/C/D/E/FX/F
Project learning analysis - Group[I]	2 credits	A/B/C/D/E/FX/F

[I] All parts of the compulsory examination in the course must be passed with a passing grade (A-E) before a final grade can be set. The final grade of the course is determined by the sum total of points for all parts of the examination in the course (0-100 points). Grade is set in accordance to JIBS grading policy.

Course evaluation

It is the responsibility of the examiner to ensure that each course is evaluated. At the outset of the course, the programme evaluators in the course must be contacted. In the middle of the course, the examiner should meet the programme evaluators to identify strengths/weaknesses in the first half of the course.

At the end of the course, the examiner should remind students to fill in the survey. The examiner should also call a meeting with the programme evaluators to debrief the course, based on course evaluation data and comments. The next time the course runs, students should be informed of any measures taken to improve the course based on the previous course evaluations.

At the end of each study period, JIBS' Director of Quality and Accreditation crafts a "Course Evaluation Quarter Report", presenting the quantitative results from course evaluation surveys. The Associate Dean of Education, The Associate Deans of Faculty, Programme Directors, and JSA President and Quality receive the report.

Other information

Academic integrity

JIBS students are expected to maintain a strong academic integrity. This implies to behave within the boundaries of academic rules and expectations relating to all types of teaching and examination.

Copying someone else's work is a particularly serious offence and can lead to disciplinary action. When you copy someone else's work, you are plagiarizing. You must not copy sections of work (such as paragraphs, diagrams, tables and words) from any other person, including another student or any other author. Cutting and pasting is a clear example of plagiarism. There is a workshop and online resources to assist you in not plagiarizing called the Interactive Anti-Plagiarism Guide.

Other forms of breaking academic integrity include (but are not limited to) adding your name to a project you did not work on (or allowing someone to add their name), cheating on an examination, helping other students to cheat and submitting other students work as your own, and using non-allowed electronic equipment during

Course literature

A reading list associated with the specific issues will be available at the start of the course.