Technology based services and innovation

Emnekode/Course code: FX-MTOM-800
Emnenavn/Course name: Technology based services and innovation
Studiepoeng/Number of study points (ECTS): 10
Semester (høst/vår)/Semester (autumn/spring): Spring - Meeting based
Emnenivå/Course level: Master

Emnet er knyttet til studieprogram/Studyprogramme:
Experience based master in Technology and operations management

Studenter på følgende studier har studierett på emnet/Only available to students in:
Experience based master in Technology and operations management

Absolutt forkunnskapskrav/Prerequisites:
BSc in engineering

Skal studenter som mangler forkunnskapskrav bli sperret av systemet for å få tilgang til å melde seg opp til eksamen/Do you want the students lacking the necessary prerequisites to be excluded by the datastystem automatically?
Yes

Anbefalte forkunnskaper/Recommended prerequisites:
Bachelor degree in Engineering.

Innhold/Content:
Industrial technology and knowledge based services, after sales services and product support, service delivery strategies, service delivery performance management system, planning, management and execution of the support service in an integrated and holistic perspective, logistics and supply chain management, technology and service innovation processes, entrepreneurship, outsourcing and globalization, etc. Selected topics related to operations and maintenance will be studied. Furthermore innovation and patenting processes will be discussed as well as the path from idea through entrepreneurship and a successful business.

The course will have seminar form where the students are given the chance to present and discuss problems related to content in selected literature and papers. The topics covered may vary some from year to year.
The course includes development and preparation, presentation and defense of written report containing problem answers, critic of a different student report, as well as participation in discussion during seminars. The work normally is performed in groups of two students.

Arbeidsformer/Method of work:
Lectures, mandatory projects. Participation in guest lectures. Lecture language is English.
Læringsutbyte/Learning outcome:
After having taken this course the student should have the following knowledge, skills and general competence:

Kunnskap/Knowledge
- Understand the relations and dependencies between the industry players and their technologies and competencies
- Technology’s roles, importance and potential in delivering and further development of companies’ services
- Knowledge’s roles, importance and potential in delivering and further development of companies’ services
- Innovation potential in products, services, processes and supply chains
- Understanding the links between value chains, supply chains and industry networks

Ferdigheter/Skills
- Evaluation of potential industrial property rights (IPR) and patenting options
- Evaluation and analysis of own company’s and networked companies’ value chain composition and core competencies
- Evaluation of innovation processes

Generell kompetanse/General competence
- Effects on competition of globalization, and fragmentation of value chains
- Understanding drivers of increasing competition and globalization
- The different potential sources of IPR
- Innovation processes and entrepreneurship

Vilkår for å gå opp til eksamen / Obligatoriske arbeidskrav/ Requirements to sit for the exams/Required activities/courses:
The student needs to have a passing grade in the project

Vurderingsformer/ Forms of assessment:

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Weight</th>
<th>Duration</th>
<th>Tools</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project report</td>
<td>100%</td>
<td></td>
<td>All</td>
<td>A-F</td>
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</tbody>
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Skal FS eventuelt regne ut endelig karakter dersom vurderingsformen består av flere deler: Do you want FS to calculate the final grade in a course if the exam consists of several parts: No

Litteratur/pensum/ Literature:
Compendium in Technology based services and innovation, selected books and papers including


Er emnet åpent for privatister/ Available for private candidates:
No

Studiepoengreduksjon mot andre emner/Reduction in points/Prohibitions:
None

Studentevaluering/ Student evaluation:
Standard forms and/or discussions

Ansvarlig fakultet og institutt/Faculty and department:
Faculty of science and technology, Department of mechanical and structural engineering and materials science

Emneansvarlig/Andre fagpersoner på emnet/Responsible subject lecturer(s)/other responsible lecturers:
Subject responsible: Head of Department Professor Per Skjerpe and Professor Tore Markeset
Lecturers: Professor Tore Markeset, Associate Professor Knut Erik Bang