National Research University Higher School of Economics

Syllabus
Foresight and Strategic Planning (1 year)
(6 ECTS)

Approved by
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of the Master’s Programme
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1. Course Description
The course is delivered to master students of The National Research University Higher School of Economics. It is delivered in two modules. The course length is 228 academic hours in total of which 68 hours are class room hours for lectures and seminars and 160 hours are devoted to self study.

a. Pre-requisites
Compulsory course for all first year students

b. Abstract
Foresight is the Art and Science of anticipating and shaping the future. It is the first and key step of innovation in a fast changing world. A number of international organizations, national and regional governments as well as leading corporations have used Foresight to monitor trends, uncertainties, weak signals and wild cards; explore alternative futures under complexity and uncertainty; build future visions; identify key scientific and technological areas; develop new products and services; and recommend policies and strategies. This course aims to theoretical background as well as quantitative and qualitative methods like horizon scanning, big data analysis, scenario planning, prioritization, Delphi surveys, strategic and technological roadmaps among the others. The course will involve practical and hands on sessions to allow students to gain practical experience by ‘learning by doing’.

2. Learning Objectives
This course aims to provide an overview of Foresight and Strategic Planning. The course introduces several key approaches used both in Foresight and Strategic Planning in a complementary stance, including methods for scanning environments, identifying trends and drivers of change with weak signals and wild cards, developing future scenarios and visions and making long, medium and short term strategic plans for identifying priorities and actions. During the course, innovative ways of decision-making and STI policy formulation; STI strategy- and priority-setting; and cooperation and networking with stakeholders will be
introduced. Through seminars, students will also be provided with practical experience in designing Foresight and Strategic Planning processes for public and private organizations.

3. Learning Outcomes
This course will be organized as a combination of lectures and seminars. Lectures will be both (i) informative with the aim of giving background information and raising awareness on the topic and (ii) participative and interactive with the aim of building capacity on how to implement the theory of Foresight in practice at the international, national, corporate and sectoral/thematic levels. During the lectures, students will have an opportunity to apply and practice what they learned through hands-on practical exercises. Students will be given tasks during seminars, which will help them to gain an in depth knowledge on the topic. Overall, students will gain the following competences:

- Develop and apply quantitative and qualitative methods for Foresight
- Analyze emerging trends, drivers of change, weak signals and wild cards
- Explore alternative scenarios for the future
- Develop Strategic and Technological Roadmaps
- Recommend policy and strategy for public and private organizations

4. Course Plan

a. Lectures

<table>
<thead>
<tr>
<th>Themes</th>
<th>Topic</th>
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<tr>
<td>1. Basics of Foresight and Strategic Planning</td>
<td>Introduction to Foresight and Strategic Planning</td>
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<td>Rationales of Foresight and Strategic Planning</td>
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<td>Key concepts and approaches in Foresight and Strategic Planning</td>
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<td>2. Objectives and Processes of Foresight and Strategic Planning</td>
<td>Uses of Foresight and Strategic Planning</td>
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<td>Foresight in the STI policy processes</td>
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<td>Strategic Planning in corporate management processes</td>
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<td>Key functions and roles of Foresight and Strategic Planning</td>
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<td>3. Methodology for Foresight and Strategic Planning</td>
<td>Methodology for STI Policy Foresight and Strategic Planning</td>
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<td>Quantitative and qualitative methods in Foresight and Strategic Planning</td>
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<td>Key methods for Foresight and Strategic Planning</td>
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<td>4. Gathering intelligence for Foresight and Strategic Planning</td>
<td>Competitive, technology and market intelligence and trend monitoring</td>
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<td>Identification of emerging and disruptive technologies</td>
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<td>Planning for emerging technologies</td>
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<td>5. Scenarios technique</td>
<td>Scenario and vision development</td>
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<td>Case examples on selected scenarios and vision building processes</td>
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<td>Positioning of scenarios in STI strategy and policy making processes</td>
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<td>6. Translating Foresight into</td>
<td>Roadmapping for action plan development</td>
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<td>Assessment and prioritization of alternative STI strategies</td>
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strategy | Approaches and methods used for the prioritization process
---|---
7. Generating outputs | Outputs and outcomes of Foresight and Strategic Planning  
| | Evaluating Foresight  
| | Evaluating Strategic Planning
8. Embedding Foresight and Strategic Planning into organisations | Linking Foresight to decisions, strategies and policies  
| | Embedding Foresight and Strategic Planning in organisations  
| | Creating a culture of Foresight and Strategic Planning

b. Seminars

Topics:
- Introductory presentation
- Interim presentation / individual consultations
- Presentations

5. Reading List

a. Basic and required

b. Optional and recommended:

6. Grading System
Final control (F): written exam (60 minutes multiple choice exam + a short essay)
Seminar (S): Oral presentations (P) including a mid-term presentation (MP) and an end-term presentation (EP) to be given in seminar sessions + Home Assignment (H) + Final essay (E)
The overall course grade (G) is calculated at a 10-point scale as a sum of
G = 0.4 F + 0.6 S (S = 0.4 P + 0.2 H + 0.4 E; P = 0.5 MP + 0.5 EP)
The overall course grade G (10-point scale) includes results achieved by students in their final exam F and seminar (S); it is rounded up to an integer number of points.

7. Course Assignments
Main course themes will be accompanied by a course assignment to make sure that students gain practical experience on what they learned during the lectures. These will include:
- Foresight Scoping practical exercise
- Horizon / Environmental Scanning practical exercise
- Scenario Planning practical exercise
- Prioritization & Roadmapping practical exercise

8. Examination Type
Written & Oral exam with a presentation, final essay and a home assignment (see section 6 – Grading System)
9. **Methods of Instruction**
   - Presentations by the lecturers
   - Hands on practical exercises
   - Presentations by the students of the course

10. **HSE Library E-resources**
    - Online periodical journals: Foresight; Foresight and STI Governance; Technological Forecasting and Social Change, Futures, Research Policy, Technovation
    - Science, Technology and Innovation Book Series
    - Science, Technology and Innovation Working Papers

11. **Software Support, including Open-Source Database Software**
    - Microsoft Windows 7 Professional RUS: internal university network (agreement)
    - Microsoft Windows 10: internal university network (agreement)
    - Microsoft Windows 8.1 Professional RUS: internal university network (agreement)
    - Microsoft Office Professional Plus 2010: internal university network (agreement)

12. **Special Equipment**
    Classrooms for lectures provide proper use and presentations of particular topics, specifically:
    - PC with internet access and office software or laptop
    - multimedia projector
    - screen
    - flipchart