



HIGHER SCHOOL OF ECONOMICS
NATIONAL RESEARCH UNIVERSITY



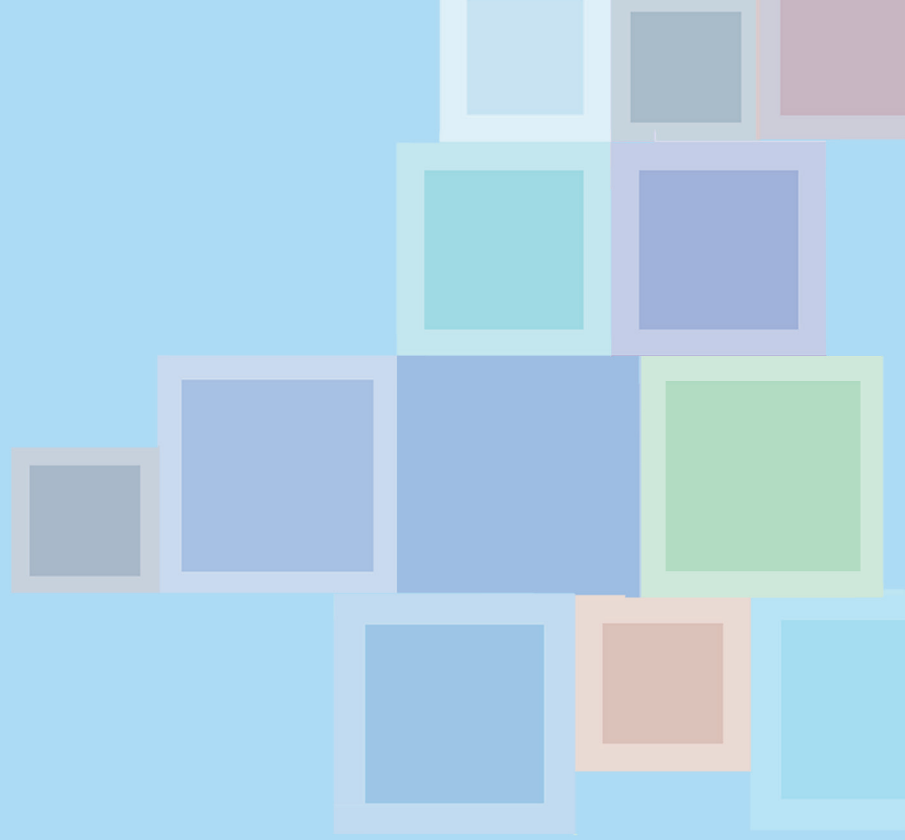
Institute for Statistical Studies
and Economics of Knowledge

Master's Programme

**GOVERNANCE OF SCIENCE,
TECHNOLOGY
AND INNOVATION**

**Study Guide
2016-2017**

ANALYSE ANTICIPATE INNOVATE



Introduction



Welcome



Prof. Leonid Gokhberg

First Vice-Rector of National Research University
Higher School of Economics (HSE),
Director of HSE Institute for Statistical Studies
and Economics of Knowledge (HSE ISSEK),
Editor-in-chief of the scientific journal
Foresight and STI Governance

"It's my sincere pleasure to welcome talented students to study science, technology and innovation from a broad perspective in the Master's Programme "Governance of Science, Technology, and Innovation" at the Higher School of Economics, one of Russia's leading research universities. Students' courage and enthusiasm to take on the challenge of studying in such a new field is highly appreciated. This handbook informs interested readers about the main features of the Master's Programme."

Dr. Dirk Meissner

PhD, Professor, Deputy Head of Laboratory
for Science and Technology Studies, HSE ISSEK,
Academic Director of the Master's Programme



"Analyse, Anticipate and Innovate – these words express what we want to achieve with our programme. We offer you a unique Master's Programme which combines theoretical education, practical experience, and international and Russian academic and industrial expertise and knowledge. The personal qualities and intellectual potential of our students will be enriched and developed, so that they can go on to apply their policy and management skills in science, technology, and innovation in their future careers with companies, organisations and government bodies. We hope that the information that follows interests and inspires you and we welcome you to HSE."



Welcome to the Master's Programme – ISSEK Department of Educational Programmes assists you in all administrative and organisational issues on your way to success!

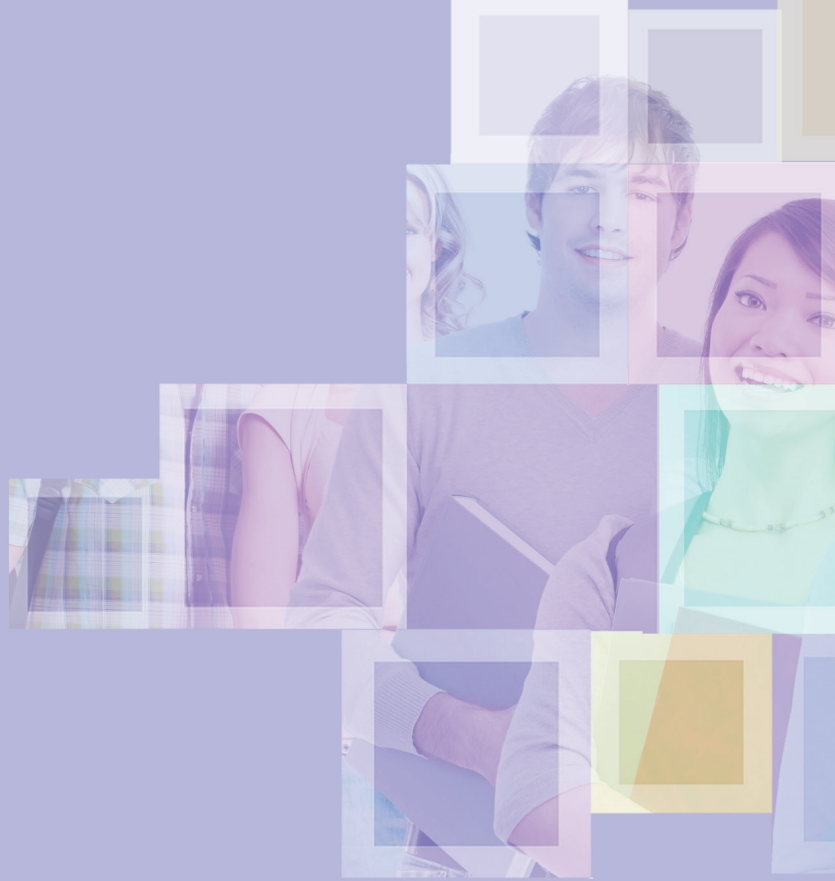


Anna Sokolova

PhD, Head of the Department of Educational
Programmes, HSE ISSEK

Anna Rodionova

Coordinator
of the Master's Programme



About the Programme



Our Mission

The programme's mission is to develop skills for science, technology and innovation (STI) policy, management skills, and personal competences as well as to expand the creative potential of its students.

The unique combination of studying STI policy for policy making professionals and STI management for professionals affiliated with companies and research organisations provides students with an exceptionally broad understanding of science, technology and innovation coupled with a dedicated and targeted specialised education in either field.

Our Ambition

Graduates are trained to detect challenges and problems, generate ideas and develop solutions for companies and policy. The programme aims to train students to become highly skilled professional coordinators and managers of STI at policy and company levels, ready to initiate and implement innovative activities in the public and private sectors.

Our Goals

The programme brings together the views and knowledge of science, technology and innovation management and policy perspectives on science, technology and innovation. It has several highly ambitious goals:

To enrich students' professional skills:

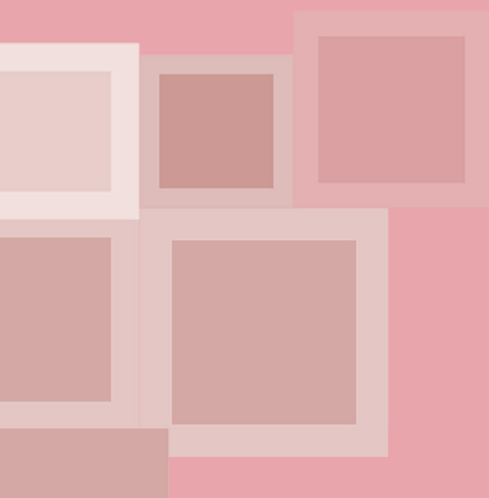
- By delivering state of the art theoretical knowledge
- By training students' practical skills through the analysis of real cases
- By broadening students' horizons beyond science, technology or innovation towards an integrated understanding
- By training students' problem solving skills and project management abilities

To create a proper educational infrastructure:

- By working with up-to-date international approaches and experiences
- By combining theoretical education and practical experience
- By enriching students' personal characteristics
- By increasing students' intellectual potential for the innovative development of organisations and policy



Curriculum



Academic calendar

A Module is a time unit of the academic year at HSE. The academic year is split into 4 modules. The dates of modules are set by HSE every year. Examinations are taken at the end of each module according to the HSE general academic calendar schedule.

2016

| | | |
|------------------------------|--------------------------|--|
| 1st module | 03 October – 30 October | 4 weeks |
| 2nd module | 31 October – 21 December | 9 weeks (including the exam period) |

2017

| | | |
|------------------------------|-------------------------|---|
| Winter holidays | 01 January – 09 January | 1 week |
| 3rd module | 10 January – 02 April | 12 weeks (including the exam period) |
| 4th module | 03 April – 30 June | 11 weeks (including the exam period) |
| Spring holidays* | 01 May – 09 May | 1 week |
| Summer holidays | 01 July – 31 August | 9 weeks |
| Total: | | 36 academic weeks (including 32 classroom weeks) |

* Spring holidays are not included in module 4.

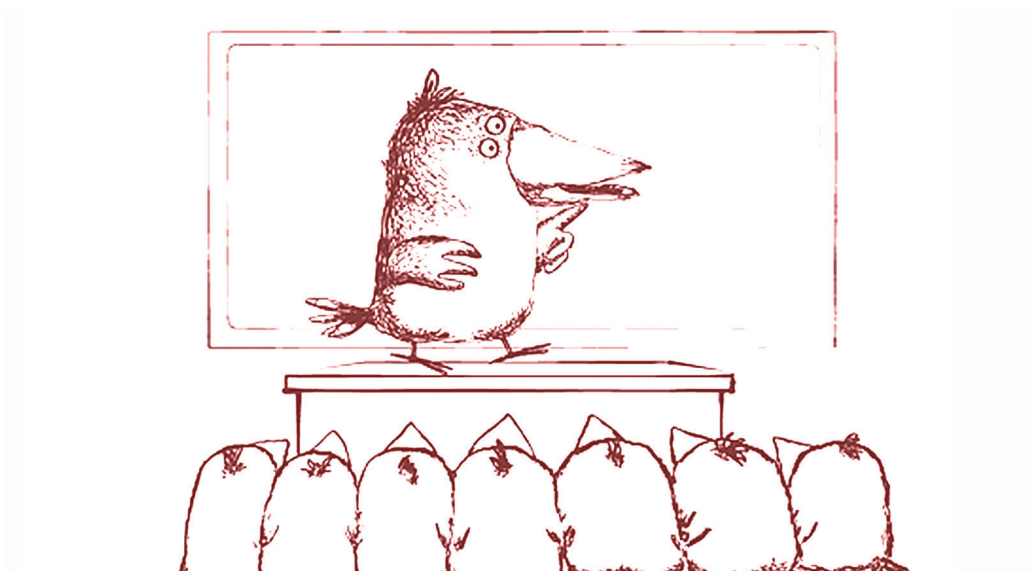
Courses

All courses involve lectures and seminars. As a general rule, lectures and seminars count equally for the final course grade. Typically lectures are concluded with examinations, seminars involve essays or project work and the assessment of essay or project work.

Core courses

Core courses are preparatory in nature and help to set the ground for further specialisation. Core courses include lectures, seminars and self study. During lectures, assignments are given to students. Seminars are topic specific; each student writes essays on a chosen topic and gives a presentation or engages in targeted project work.

- Scientific Research Methods for STI
- Economics of Innovation
- Strategies in STI Management
- STI Policy
- Measurement of STI
- Foresight and Strategic Planning



Elective courses

Elective courses are specific courses for specialised education in STI management or STI policy that deepen the knowledge gained from the core courses. Students have to choose at least 7 elective courses which must be completed to meet the final degree requirements.

- Finance of Innovation
- Intellectual Property Management
- Corporate Foresight
- Managing Creativity and Innovation
- Public-Private Partnerships for STI
- Regional STI Policy
- Social Studies of STI
- Risk Assessment for Science, Technology and Innovation
- Business Model Innovation
- Marketing Innovation
- Mergers and Acquisitions
- University Pool Discipline
(Any elective course from HSE pool)
- Massive Open Online Courses (MOOCs)

Electives are given if a minimum of 20 students enroll for the course.

Massive Open Online Courses (MOOCs) can be chosen from a list proposed by the programme.

Adaptive course

- English Language

The adaptive course is delivered only if there is sufficient need and demand from students.



Academic and practical work

Course work

Mandatory course work deepens students' competences in analysing and structuring given problems, and develops capabilities in structured writing, oral presentation, and creative thinking. Course work concludes with an oral defence (assessment) of the written piece of work. Admission to defence requires that the written piece of work is given a 'pass' grade at the minimum. Student's course work is supervised by one faculty member, while the course work remains the individual work carried out by students.

Master's thesis

The Master's thesis is prepared during the final 2 modules 2nd year, modules 3 and 4. By writing the Master's thesis, students show their ability to independently produce a coherent and scientific piece of work. To qualify for admission to the Master's thesis students have to prove that credits from core courses, elective courses, research seminar and internship have successfully been obtained. The Master's thesis involves the written thesis and defence. Written thesis and defence are graded separately.

Internship

During the second year students take internship positions. Internships involve dedicated projects which the students undertake while employed as an intern in a company, public organisation, research institute or university. It is the students' sole responsibility to agree the internship project with the hosting organisation in advance of the internship. The internship project proposal is approved by the programme internship council. After the internship the students prepare an internship report which is again subject to approval by the internship council.

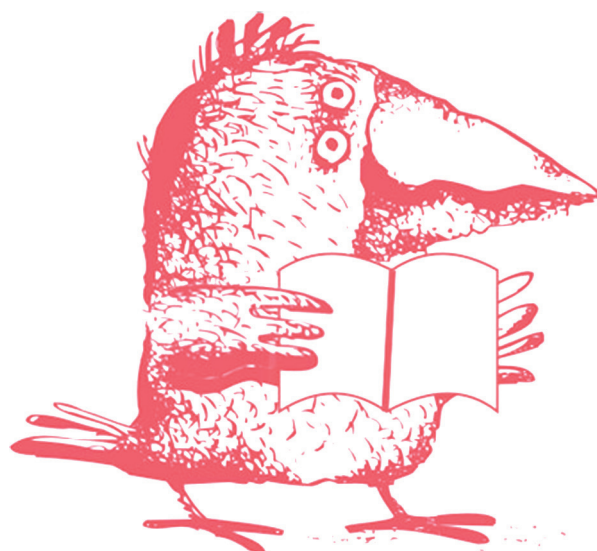
The courses are delivered in modules, some courses span 1 module, some span 2 modules.

1st Year

| | |
|------------------------------|--|
| 1st module | <p>Core courses</p> <ul style="list-style-type: none"> ↗ Scientific Research Methods for STI ↗ Economics of Innovation ↗ Strategies in STI Management <p>Adaptive course</p> <ul style="list-style-type: none"> ↗ English Language |
| 2nd module | <p>Core courses</p> <ul style="list-style-type: none"> ↗ Economics of Innovation ↗ Strategies in STI Management |
| 3rd module | <p>Core courses</p> <ul style="list-style-type: none"> ↗ STI Policy ↗ Measurement of STI ↗ Foresight and Strategic Planning <p>Elective courses</p> <ul style="list-style-type: none"> ↗ Business Model Innovation ↗ University Pool Discipline |
| 4th module | <p>Core courses</p> <ul style="list-style-type: none"> ↗ STI Policy ↗ Measurement of STI ↗ Foresight and Strategic Planning <p>Elective courses</p> <ul style="list-style-type: none"> ↗ Social Studies of STI ↗ Finance of Innovation <p>Research Seminar</p> |

2nd Year

| | |
|------------------------------|---|
| 1st module | Elective courses <ul style="list-style-type: none">↗ Public-Private Partnerships for STI↗ Intellectual Property Management↗ Risk Assessment for Science, Technology and Innovation↗ Marketing Innovation Research Seminar Internship |
| 2nd module | Elective courses <ul style="list-style-type: none">↗ Regional STI Policy↗ Corporate Foresight↗ Managing Creativity and Innovation↗ Mergers and Acquisitions Research Seminar |
| 3rd module | Master's Thesis Internship |
| 4th module | Master's Thesis |



Performance assessment and quality assurance

Performance assessment

The degree programme follows a credit system which is aligned with the European Credit Transfer System (ECTS). The workload is designed such that full-time students may obtain an average of 60 credits per year. This workload comprises all of the study-related activities required to obtain credits. 1 credit allocated equals 38 academic hours of work including classroom work and self study.

Performance is considered on a 10 point scale with 1 – fail, 2 – fail, 3 – fail, 4 – satisfactory, 5 – satisfactory, 6 – good, 7 – good, 8 – very good, 9 – very good, 10 – excellent.

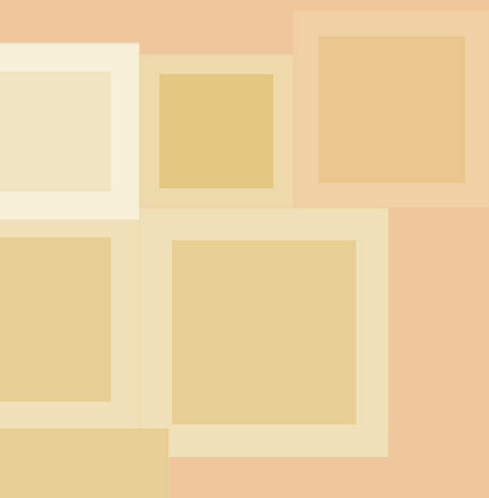
Credits are issued for satisfactory performance. Performance is considered satisfactory if it has been awarded a grade of at least a 4. No credits are issued for failed performance.

Quality Assurance

To assure all activities in the programme meet high quality standards, a continuous evaluation procedure is applied. Courses are typically assessed twice by students and once by a peer reviewer from one of the programme faculty and / or the Academic Council.



Organisation of the Programme



To assure quality and targeted education the programme has established independent councils, which oversee the regular programme and functions. The councils assure that the regulations given to the programme are followed, in line with HSE standard practices and international educational practices, and are continuously developed.

Academic Council (AC)

The AC is the main council of the programme. Its members are internationally recognised individuals affiliated to highly reputed institutions and nominated HSE faculty members. The council monitors the programme's composition, assesses selected courses and proposes further development initiatives. The council holds one annual meeting at HSE. Council members will also attend classroom hours and hold peer reviews of lectures and seminars.

Internship Council

The Internship council is responsible for all matters with regard to students' internships. The internship council approves the initial internship plan and the final internship report prepared by students and the appointment of a qualified specialist as the students' supervisor during the internship.

Examination, Assessment and Quality Assurance Council.....

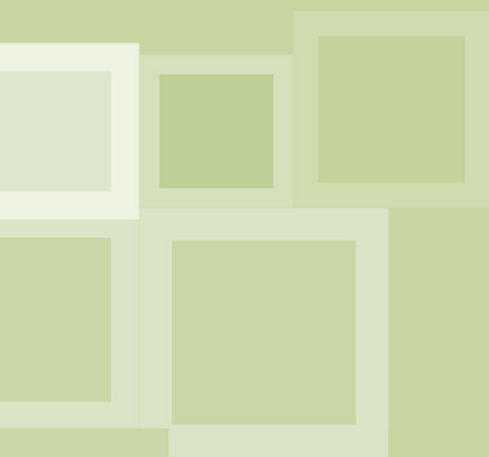
The Examination, Assessment and Quality Assurance Council is a steering body which thoroughly monitors the programme to ensure compliance with the rules for examinations and students' performance assessment. It is responsible for deciding in cases of disputes between students and examiners. The council organises regular student feedback and peer reviews of the programme's courses.

Student Assembly and Student Council

Students enrolled in the programme hold one annual assembly at the beginning of the academic year. The Students Assembly elects delegates to represent the interests of students in the programme. Delegates are invited to meetings of the internship council, the examination and assessment council and the Academic Council.



Professional profile of students



The interdisciplinary and international nature of the programme gives students a unique opportunity to work in multiple environments.

General competences

The programme enables students' systematic thinking and their ability to develop creative solutions. The international and interdisciplinary composition of students enables graduates to reflect on STI from many different perspectives. The curriculum is designed to equip students with knowledge and competences which are in demand globally. From the programme, students receive competences in:

- cross disciplinary and interdisciplinary thinking;
- a strong understanding of the nature of science, technology and innovation;
- competences for theoretical and applied research;
- knowledge of history, conditions and tendencies for STI development.

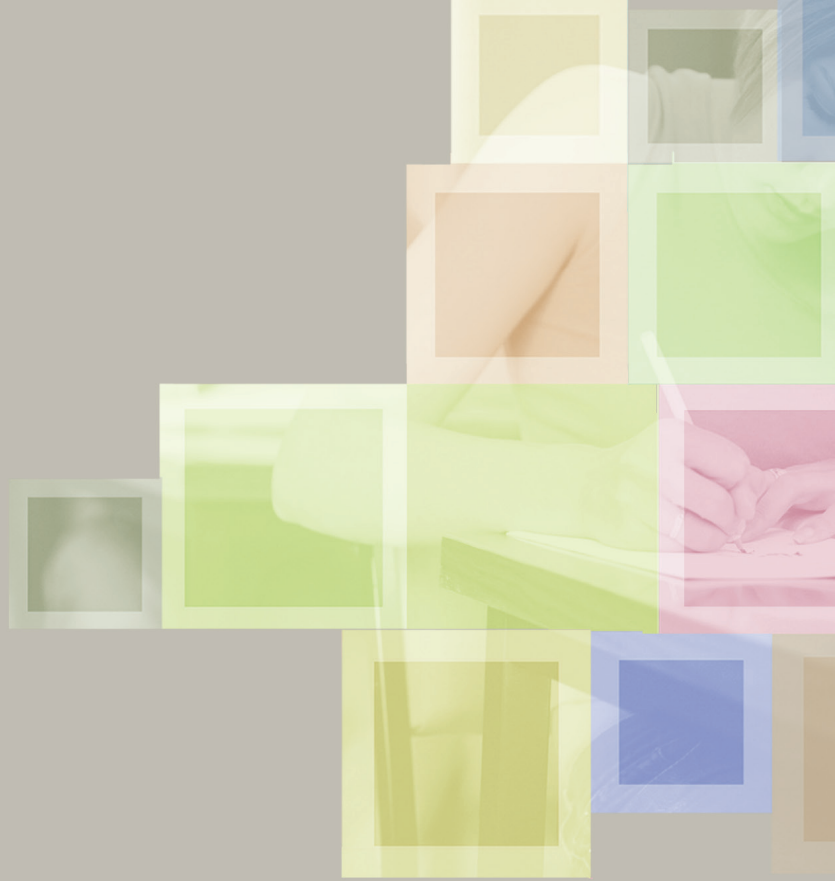
Students may choose to specialise in one of the two dedicated fields to acquire additional targeted competences in STI policy or STI management.

a) competences in STI policy:

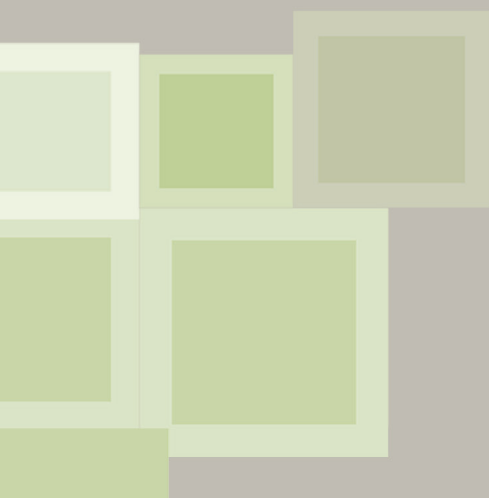
- understanding of the role of STI in economic growth and how different social, economic and spatial contexts influence processes of innovation and entrepreneurship;
- global perspectives and perceptions of science, technology and innovation and the ability to make respective assessments taking into account relevant scientific, social and ethical aspects
- knowledge of international STI cooperations and the related frameworks
- knowledge of contemporary theories of STI

b) competences in Technology & Innovation Management:

- organisational and managerial skills for STI in public authorities, private and public institutions and funding agencies;
- skills for selecting and evaluating entrepreneurial ideas, personnel management, team-building, design and presentation of innovative projects;
- knowledge of marketing innovation and business model innovation;
- intellectual property and legal aspects of STI.



Mobility



The programme offers students the possibility to take studies at foreign universities of their choice. With selected universities HSE has concluded student exchange agreements and double degree agreements which are recommended to students. Still students can look for stays abroad on their own initiative. Expenses related to stays abroad are in principle in the responsibility of students.

Transfer of credits

Students are encouraged to take courses at foreign universities as part of the programme. Courses related to the programme field can be taken at partner universities of HSE or chosen by the students on their own initiative. Prior to enrolling in foreign universities for taking courses, students need to consult with the Examination, Assessment and Quality Assurance Council who will ensure that credits gained at a foreign university can be recognised in the HSE programme. Final grades are recorded on an official Academic Record and included in the official Transcript and the diploma with the courses' titles and the number of credits obtained.

Types of mobility


Students have an opportunity to participate in exchange programmes or double degree programmes with foreign partner universities.

Students are considered exchange students if they spend one or two modules at a foreign university and then return to HSE to complete their studies. Students are allowed to obtain up to 30 credits at a foreign university to meet their degree requirements. In order to participate in a student exchange programme, students should be selected and nominated by the Examination, Assessment and Quality Assurance Council. To formally start their studies, students should select and have all of their courses approved by an Examination, Assessment and Quality Assurance Council and the Academic Head.

For the double degree programme, students are allowed to obtain 60 credits at a foreign partner university. Not later than in their first year, students can apply for the double degree master programme. Applications are evaluated first by the Examination, Assessment and Quality Assurance Council and the Academic Head and then presented to the partner institution for review and approval. To be admitted to the programme, students must meet all graduate admission policies at both institutions, and must have advisors who agree to advise them at both institutions. After successful completion of the complete programme at both universities, the students receive a Diploma from both universities.

It is also possible to prepare the Master's thesis at a partner institution.





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