

Правительство Российской Федерации
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"Национальный исследовательский университет
"Высшая школа экономики"

Институт статистических исследований и экономики знаний

Программа дисциплины "Research Seminar"

для направления 38.04.02 «Менеджмент» подготовки магистра
для магистерской программы «Управление в сфере науки, технологий и инноваций»

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Настоящая программа не может быть использована другими подразделениями университета и другими вузами без разрешения кафедры-разработчика программы.

RESEARCH SEMINAR (2nd year master students)

1. INTRODUCTORY NOTE

Program supervisors: Leonid Gokhberg, Alexander Sokolov

Program authors¹: Veronika Belousova, Leonid Gokhberg, Alexander Sokolov.

General Description of the Program

This course is developed for the second year master students of the Master's programme «Governance of Science, Technology and Innovation» at the National Research University Higher School of Economics (HSE). The course length is **216** academic hours in total of which **64** hours are class room hours for seminars and **152** hours are devoted to self study. There are four parts in the course. Each part has a set of assignments for students. The most significant academic control forms are one 5 page long initial master thesis research proposal and one oral academic presentation devoted to the initial master thesis research proposal. In the final grade, each assignment (making both at home and during class time) is taken into account.

Pre-requisites

There are an elective course on Interdisciplinary and Systemic Thinking and three core courses:

- STI Policy,
- Methodology for Scientific Research,
- Foresight and Strategic Planning.

Course Objective

The research seminar consists of four main parts:

1. critical reading, presenting and discussing skills for academic study;
2. guest lectures;
3. research steps, research project design, and guidelines for writing a research project proposal and giving an academic speech;
4. presentation and defense of the initial master thesis research proposal.

The first part is focused on critical reading skills of students for academic study and making them read both empirical and methodological papers a lot. This allows students to develop academic skill such as critical reading, summarizing, note-taking, giving an academic presentation and generating a fruitful and promising discussion by being a discussant of the research paper. In addition, it helps students to be involved gradually in the research seminar and to think about their own research topic as a whole.

Each seminar should be devoted to a special topic. The lecturer should send the list of 5-6 recommended papers for the class (see required readings for topics from 1.3 until 1.6 in the program content) and then give a 20-30 minute talk at the class to show the prospects of the chosen topic. It can be an introductory, literature overview or summarizing talk, or an own

¹ We would like to thank [Dirk Meissner](#) (PhD, ISSEK, NRU HSE) for his valuable comments and suggestions how to make the program clear and comprehensive.

research paper presentation like at an academic conference. After each presentation, the faculty member should provide a constructive and inspiring feedback to students.

The faculty members ask students to make **two home assignments**:

1.1. Each student has to provide **one 15-20 minute oral academic presentation** primarily based on 1 paper from the list of recommended readings and has to add at least 4 other relevant papers to the field a student has chosen. The aim of each presenter is to prepare a short literature review relied on critical reading and thinking skills. A presenter has to:

- focus on solving a research problem,
- analyze and compare the references, show links and relationships between and within relevant papers (authors' motivation, research question, baseline theories/concepts/models, hypothesis tested, data, methodology, results, implications for research),
- emphasize authors' contribution,
- find any inconsistencies, limitations or shortcomings of research papers,
- draw attention to any inconclusive, incorrect, contradictory results,
- show how to fill the gap in the literature if any.

In addition, the presenter should be ready to argue why this topic is worth considering as a whole and to disclose clear criteria for including complementary readings.

1.2. Each student has to give **one 5 minute talk as a discussant** of a presentation given by a classmate. The aims of each discussant are to:

- highlight the main message and argumentation line of the presenter to the audience,
- make a strengths and weaknesses analysis of the presentation,
- show constructively how the presentation content can be improved (finding a lack of clarity, another focus, new references, suggestions, assumptions made close to simulating reality, etc.),
- pursue discussion by posing relevant questions (novelty and originality of the research question).

The rest of the audience have to read all the required papers for a seminar and ask challenging questions and make meaningful remarks carefully and politely.

The second part of the course is so called meeting with an academic or business star. The guest gives an 1 hour lecture, then students have 20 minute to ask questions and provide suggestions what might be incorporated in the research paper. After **each presentation**, each student has to **write at home a 1 page long summary essay** devoted to the lecture and discussion. The best summary essay will be awarded "*Best Summary Essay Diploma*" and a *website publication* to the winner.

The third part of the course is a theoretical one when the lecturer reminds students how to run a research project, to deal with the master thesis supervisor, and how to meet the ethical standards, deadlines and requirements for the master thesis at the HSE ISSEK in order to defend a research paper successfully. A special attention will be paid to writing skills (drafting, polishing, proofreading, revising, editing, presenting tables, charts, graphs) and presentation skills (content, structure, visuals, tone, style, charisma, accuracy, and fluency). **Group and individual assignments** will be given to students during class time.

The fourth part of the course is fully devoted to the initial master thesis research proposal defended by each student. There are two tasks for students:

4.1. Each student has to **write one 5 page long initial master thesis research proposal** (MTRP). This proposal has to cover:

- research question/problem,

- motivation,
- practical and theoretical contribution of the master thesis proposal,
- literature overview,
- data source,
- methodology description,
- tested hypothesis,
- expected results and their economic meaning.

In addition, main references should be provided afterwards (up to 10 peer-reviewed papers).

4.2. Each student has to **give one 10 minute talk and defend the initial master thesis research proposal** by answering questions and discussant's remarks. A discussant can be one of the faculties or a student. This looks like simulating a defense procedure. There should be at least two faculties in the Committee while one of the members should be permanent to support the harmonized rules and procedures.

General Guidelines

The seminar supervisors strongly recommend students to attend and participate actively in each seminar during the course.

Each presentation and written paper should be prepared by following the requirements set by [Regulation for the Master's Degree Programme "Governance of Science, Technology and Innovation"](#) at the National Research University Higher School of Economics. In addition, each presenter should bear in mind assessment criteria mentioned in [Assessment sheet – oral defense](#) approved by the ISSEK Master Program Academic Council. At the same time, each writer should meet criteria shown in [Assessment sheet – written course work / Master Thesis](#) approved by the ISSEK Master Program Academic Council. When preparing the master thesis research proposal, each student should take into account [Guidelines for writing course work/master thesis](#) approved by the ISSEK Master Program Academic Council.

Training Objectives

After completing this course, students will be able to:

- follow the best practices in academic ethical standards,
- think critically when analyzing a research paper,
- be a constructive and promising discussant,
- express arguments capturing the targeted audience,
- create an engaging and interactive academic speech,
- search and refine a research topic,
- manage a research project effectively,
- provide the effective written presentation of a research proposal,
- meet the guidelines and deadlines for writing and defending the master thesis perfectly,
- build a confident and memorable defense presentation.

Target audience

- Second year masters students

2. THEMATIC PLAN

Chapters	Topic	Academic hours	Classroom hours	Self study
I. READING AND PRESENTING SKILLS FOR ACADEMIC STUDY	1.1. Introduction to the course	4	2	2
	1.2. ISSEK's Project Portfolio	14	4	10
	1.3. Foresight project methodology: key steps and typical mistakes	16	4	12
	1.4. Role of the users and user-communities in generation and dissemination of innovations	16	4	12
	1.5. Empirical studies of R&D, innovation and productivity	16	4	12
	1.6. Setting National Priorities in Science and Technology	16	4	12
	Total		82	22
II. GUEST LECTURES	2.1. Guest - <i>will be announced, accordingly.</i>	6	2	4
	2.2. Guest - <i>will be announced, accordingly.</i>	6	2	4
	2.3. Guest - <i>will be announced, accordingly.</i>	6	2	4
	Total	18	6	12
III. RESEARCH STEPS, STUDY DESIGN, AND GUIDELINES	3.1. Study design	12	4	8
	3.2. Academic Presentation Skills	12	4	4
	3.3. Research steps	12	4	8
	3.4. Writing skills	8	4	8
	3.5. Ethics in Academic Research	6	2	4
	3.6. Guidelines for defending the master thesis at the HSE	6	2	4
	Total	56	20	36
IV. INITIAL MASTER THESIS RESEARCH PROPOSAL DEFENSE	Initial Defense	60	16	44
	Total	60	16	44
	TOTAL	216	64	152

3. EDUCATION CONTROL FORMS:

Final grade= 30%*(70%*paper presentation+30%*discussant presentation)+
+10%*(arithmetic average of three essays) + 20%*(arithmetic average of group and individual assignments) + 40% *(50%*written form of MTRP² +50%*oral defense of MTRP²).

² This means the master thesis research proposal.

Summary Table: Ten-point system marks

Ten-point system marks Ten-point scale [10]	
1	– unsatisfactory
2	– very bad
3	– bad
4	– satisfactory
5	– quite satisfactory
6	– good
7	– very good
8	– nearly excellent
9	– excellent
10	– brilliant

4. PROGRAM CONTENT

I. READING AND PRESENTING SKILLS FOR ACADEMIC STUDY

1.1. Topic. "Introduction to the course"

During the introductory lecture, the research seminar supervisors (or their representative) meet students, provide an outline of the course, set up academic standards and the rules for the whole course, and explain the components of a final grade for the course. This lecture is short, however, it is very important one for further successful interactions with students and for meeting their own academic targets and expectations, and finally, agreeing on a set of the harmonized rules of study.

1.2. Topic "ISSEK's Project Portfolio"

(moderator - [Leonid Gokhberg](#), Doctor of Sciences, Professor)

Foresight Projects Portfolio. STI Policy Studies. STI Statistics in Progress. Specialized Surveys. International Projects. ISSEK international partners. Participation in international expert networks. HSE Working Papers Series. HSE-Springer Book Series. Foresight-Russia Journal.

Required Readings:

1. Gokhberg L., Roud V. Structural changes in the national innovation system: longitudinal study of innovation modes in the Russian industry // Economic Change and Restructuring. 2015. No. 3
2. Gokhberg L., Polyakova V. Innovative Activities and Skills, in: The Global Innovation Index 2014. The Human Factor in Innovation. Cornell University. INSEAD, and WIPO. 2014. pp. 93-99.
3. Gokhberg L., Fursov K. Measurement of R&D Personnel. Working papers by Organisation for Economic Co-operation and Development. Series STI/EAS/STP/NESTI "Working Party of National Experts on Science and Technology Indicators". 2014. No. 9/ANN1.

4. Gokhberg L., Meissner D. Innovation: Superpowered invention// Nature. 2013. No 501. pp. 513–514.
5. Meissner D., Gokhberg L., Sokolov A. The Meaning of Foresight in Science Technology and Innovation Policy, in: Science, Technology and Innovation Policy for the Future — Potentials and Limits of Foresight Studies / Ed. by D. Meissner, L. Gokhberg, A. Sokolov. Heidelberg/ New York/ Dordrecht/ London: Springer, 2013. pp. 1–7.

Optional Readings:

1. Gokhberg L., Sokolov A. Summary – Targeting STI Policy Interventions – Future Challenges for Foresight, in: Science, Technology and Innovation Policy for the Future — Potentials and Limits of Foresight Studies / Ed. by D. Meissner, L. Gokhberg, A. Sokolov. Heidelberg/ New York/ Dordrecht/ London: Springer, 2013. pp. 289-292.
2. Gokhberg L. Indicators for Science, Technology and Innovation on the Crossroad to Foresight, in: Science, Technology and Innovation Policy for the Future — Potentials and Limits of Foresight Studies / Ed. by D. Meissner, L. Gokhberg, A. Sokolov. Heidelberg/ New York/ Dordrecht/ London: Springer, 2013. pp. 257–288.
3. Gokhberg L., Fursov K., Miles I. D., Perani G. Developing and Using Indicators of Emerging and Enabling Technologies, in: Handbook Of Innovation Indicators And Measurement. Edward Elgar, 2013.

1.3. Topic "Foresight project methodology: key steps and typical mistakes"

(moderator - [Alexander Chulok](#), PhD)

Typology of foresight projects at macro-, meso- and micro- levels. Key principles for elaborating methodology of foresight projects. Smart methodology. Practical examples of successful and unsuccessful projects. Typical mistakes of foresight projects: national and international experience.

Required Readings:

1. Georghiou L., Harper J.C., Keenan M., Miles I., Popper R. The Handbook of Technology Foresight. Edward Elgar. Cheltenham. 2008.
2. Loveridge D., Saritas O. Ignorance and uncertainty: influences on Future-oriented technology analysis // Technology Analysis & Strategic Management. 2012. 24. 8. pp. 753-767.
3. UNIDO Technology Foresight Manual (available on: http://www.forschungsnetzwerk.at/downloadpub/volume2_unido_tf_manual.pdf, last visited on 09 July, 2015).
4. Evaluating Foresight: Fully-Fledged Evaluation of the Colombian Technology Foresight Programme (CTFP) (http://community.iknowfutures.eu/action/file/download?file_guid=2204 last visited on 09 July, 2015).
5. Sokolov A., Chulok A., Mesropyan V. Long-Term Science and Technology Policy – Russian priorities for 2030 // Higher School of Economics Working papers of the Basic Research Program. Series: Science, Technology and Innovation. 2013. WP BRP 19/STI/2013
6. Sokolova A., Makarova E. Integrated Framework for Evaluation of National Foresight Studies, in: Science, Technology and Innovation Policy for the Future: Potentials and Limits of Foresight Studies / Ed. by D. Meissner, L. Gokhberg, A. Sokolov. New York, Dordrecht, London, Heidelberg: Springer. 2013. pp. 11–30.

Optional Readings:

1. UNIDO Technology Foresight Manual (available on: http://www.forschungsnetzwerk.at/downloadpub/volume2_unido_tf_manual.pdf, last visited on 09 June, 2014).
2. Shell. Shell Energy Scenarios to 2050. Hague: Shell. 2008.
3. RAND. The Global Technology Revolution 2020: In-Depth Analysis. Technical Report. Santa Monica, Arlington, Pittsburg: RAND Corporation. 2006.

Additional guidelines for students on presenting preliminary results of their research projects.

1. Choose your topic (you can take the topic of your master thesis or another topic based on your interest).
2. Minimum number of references is 5.
3. For each topic, you should prepare presentation on the following structure:
 - a) key trends and challenges (at least 10 using STEEPV / TEEPSE classification) with short description on each, including effects on value chains;
 - b) key b2b and b2c markets (at least 5) with short description on each including estimation of volumes;
 - c) key breakthrough technologies (at least 7) with short description on each including effects;
 Overall number of slides is 15-20.
4. Each student plays two roles: presenter and discussant.

When you play a role of a presenter, you should persuade the audience that your vision of the future will come true.

When you play a role of a discussant, you should find arguments on each a)-c) blocks why it will not come true and you have to assess general logic as well as evidence-based approach of the presentation.

1.4. Topic "Role of the users and user-communities in generation and dissemination of innovations"

(moderator - [Konstantin Fursov](#), PhD)

Inspired by original ideas of Eric von Hippel that individuals, professional and amateur communities as well as small firms are likely to play crucial role in adoption and developing new products and services, researchers try to find more cases to enrich this theoretical framework. The idea of the seminar is to discuss the role of users in generation and dissemination of innovations using findings from empirical studies in order to develop better analytical tools for deeper analysis of the phenomenon.

Required Readings:

1. Baldwin C., Hienert C., von Hippel E. How user innovations become commercial products: A theoretical investigation and case study // Research Policy. 2006. 35(9). pp. 1291–1313.
2. de Jong J. P. J., von Hippel E., Gault F., Kuusisto J., Raasch C. Market failure in the diffusion of consumer-developed innovations: Patterns in Finland // Research Policy. 2015. 44(10). pp. 1856–1865.
3. Hienert C., von Hippel E., Jensen M.B. User community vs. producer innovation development efficiency: A first empirical study // Research Policy. 2014. 43(1). pp. 190–201.

4. von Hippel E. Democratizing innovation: The evolving phenomenon of user innovation // Journal Fur Betriebswirtschaft. 2005. 55(1). pp. 63–78.
5. von Hippel E. Open User Innovation, in: Handbook of the Economics of Innovation./ Ed. by B.H. Hall, N. Rosenberg. Elsevier. 2010. Vol. 1. pp. 411–427

Optional Readings:

1. Franke N., Shah S. How communities support innovative activities: an exploration of assistance and sharing among end-users // Research Policy. 2003. 32(1). pp. 157–178.
2. Füller J., Schroll R., von Hippel E. User generated brands and their contribution to the diffusion of user innovations // Research Policy. 2013. 42(6-7). pp. 1197–1209.
3. Harhoff D., Henkel J., von Hippel E. Profiting from voluntary information spillovers: how users benefit by freely revealing their innovations // Research Policy. 2003. 32(10). pp. 1753–1769.
4. Lüthje C. Characteristics of innovating users in a consumer goods field // Technovation. 2004. 24(9). pp. 683–695.
5. Lüthje C., Herstatt C., von Hippel E. User-innovators and “local” information: The case of mountain biking // Research Policy. 2005. 34(6). pp. 951–965.
6. Oliveira P., von Hippel E. Users as service innovators: The case of banking services // Research Policy. 2011. 40(6). pp. 806–818.
7. von Hippel E., de Jong J. P. J., Flowers S. Comparing Business and Household Sector Innovation in Consumer Products: Findings from a Representative Study in the United Kingdom // Management Science. 2012. 58(9). pp. 1669–1681.
8. Prause G., Thurner T. User Communities — Drivers for Open Innovation // Foresight-Russia. 2014. Vol. 8. No. 1. pp. 18-23.

1.5. Topic "Empirical studies of R&D, innovation and productivity"

(moderator - [Vitaliy Roud](#), MS in Industrial organization)

History of assessing the contribution of R&D and innovation to productivity growth. Firm-level estimation of R&D and innovation impact on performance. Measures and indicators of innovation input and output. Knowledge production function. Issues in econometric modeling of innovation and performance.

Required Readings:

1. Griliches Z. Issues in Assessing the Contribution of Research and Development to Productivity Growth // Bell Journal of Economics. 1979. 10. No. 1. pp. 92–116.
2. Mairesse J., Mohnen P. Accounting for Innovation and Measuring Innovativeness: An Illustrative Framework and an Application // The American Economic Review. 2002. 92. No. 2. pp. 226–30.
3. Pakes A., Griliches Z. Patents and R and D at the Firm Level: A First Look, in: R and D Patents & Productivity /Ed. by Z. Griliches. Chicago: University of Chicago Press. 1984. pp. 55-72.
4. Crepon B., Duguet E., Mairesse J., Karelplein K. Research, Innovation, and Productivity: An Econometric Analysis at the Firm Level. NBER Working Paper. 1998.
5. Lööf H., Heshmati A., Asplund R., Naas S. Innovation and Performance in Manufacturing Industries: A Comparison of the Nordic Countries. SSE/EFI Working Paper Series in Economics and Finance. 2001. No. 457. pp. 1–38.

Optional Readings:

1. Mairesse J., Mohnen P. Using innovation surveys for econometric analysis // Handbook of the Economics of Innovation. 2010. No. 2. pp. 1129-1155.
2. Griffith R., Huergo E., Mairesse J., Peters B. Innovation and Productivity Across Four European Countries // Oxford Review of Economic Policy. 2006. 22. No. 4. pp. 483–98. doi:10.1093/oxrep/grj028.
3. Cohen W. M. Fifty years of empirical studies of innovative activity and performance // Handbook of the Economics of Innovation. 2010. No. 1. pp. 129-213.
4. Bronwyn H. H., Mairesse J. Empirical studies of innovation in the knowledge-driven economy // Economics of Innovation and New Technology. 2006. 15.4-5 . pp. 289-299.

1.6. Topic "Setting National Priorities in Science and Technology"

(moderator - [Alexander Sokolov](#), PhD., HSE Tenured Professor)

Types of priorities in S&T: thematic, functional, structural. International practices. Foresight as a background for priority setting. Definition of critical technologies. Objectives and Processes of priority setting. Engagement of experts. Global challenges and identification of country-specific social and economic goals to be addressed. Methodology of priority setting. Technology push vs. market pull. Implementation into policy making.

Required Readings:

1. Office of Science and Technology Policy (USA). National Critical Technologies Report Washington. D.C. 1995. (available on: http://clinton1.nara.gov/White_House/EOP/OSTP/CTIformatted/, last visited on 20 Aug., 2015).
2. European Commission. Emerging Science and Technology priorities in public research policies in the EU, the US and Japan. 2006. March (available on: https://ec.europa.eu/research/social-sciences/pdf/ntw-emerging-report_en.pdf, last visited on 20 Aug., 2015).
3. European Commission. Using foresight to improve the science-policy relationship. 2006. (available on: <http://ec.europa.eu/research/foresight/pdf/21967.pdf>, <http://www.cordis.europa.eu/documents/documentlibrary/90637381EN6.pdf>, last visited on 20 Aug., 2015).
4. European Commission. Creative system disruption: towards a research strategy beyond Lisbon. Key Technologies expert group. 2006. (available on: http://www.cordis.europa.eu/publication/rcn/200618603_en.html, last visited on 20 Aug., 2015).
5. Gassler H., Polt W., Schindler J., Weber M., Mahroum S., Kubeczko K. Keenan M. Priorities in Science & Technology Policy - An International Comparison Project Report. Joanneum Research, Vienna, 2004. (available on: http://www.rat-fte.at/tl_files/uploads/Studien/04_JR_Priorities%20in%20S&T%20Policy.pdf, last visited on 20 Aug., 2015).

Optional Readings:

1. Li L. Research Priorities and Priority-setting in China. VINNOVA Analysis, VA 2009.
2. Li Z., Chen J. National Technology Roadmapping of China: practices and Implications // Journal of Science and Technology Policy in China. 2010. Vol. 1. №1. pp. 50 – 63.
3. Park B., Son S. Korean Technology Foresight for Science and Technology Policy Making, 2006.
4. National Economic Council, Council of Economic Advisers, and Office of Science and Technology Policy. Strategy for American Innovation. Securing Our Economic Growth. 2011.

5. Popper S., Wagner C., Larson E. New Forces at Work. Industry Views Critical Technologies. RAND, Washington, 1998. (available on: http://www.rand.org/content/dam/rand/pubs/monograph_reports/2007/MR1008-1.pdf, last visited on 20 Aug., 2015).
6. Ministère de l'Economie, des Finances et de l'Industrie, Direction Générale des Entreprises. Technologies clés 2015. Les Editions de l'Industrie. Paris. 2010.
7. Johnston R., Sripaipan C. Foresight in Industrialising Asia // The Handbook of Technology Foresight. 2008.

II. GUEST LECTURES

This part of the course is fully devoted to meeting with an academic or business star who provides an 1 hour oral presentation followed by 20 minute discussion with the audience. These guests will be announced, accordingly.

III. RESEARCH STEPS, STUDY DESIGN, AND GUIDELINES

3.1. Topic "Study design"

(moderator - [Dirk Meissner](#), PhD)

Outline Research Seminar in year 2 of study. Preparing Master Thesis – main steps. Searching a topic. Refining a topic Common mistakes from course works in year 1.

No readings are required.

3.2. Topic "Academic Presentation Skills"

(moderator - [Veronika Belousova](#), PhD)

Planning the academic speech. Audience: orientation, retention, persuasion. Slides: content, structure, design, visual aids. Speaking: styles, strategies, tips. Body language: gestures, postures, audience reaction. Rehearsing and practicing an oral presentation: key steps.

Required Readings:

1. Williams E.J. Presentation in English. MacMillan. 2008.
2. Alley M. The Craft of Scientific Presentations. Critical Steps to Succeed and Critical Errors to Avoid. New York, NY: Springer. 2003
3. Wallwork A. English for Presentations at International Conferences. New York, NY: Springer. 2010.
4. Alley M., Neeley K.A. Rethinking the design of presentation slides: A case for sentence headlines and visual evidence // Technical Communication. 2005. 52. pp. 417–426.
5. Faludi S. Speak for Yourself // The New York Times Magazine. 1992. January 26. (available on: http://www.columbia.edu/itc/seas/freeman/e3011-01x/client_edit/readings/speak_for_yourself.pdf, last visited on 13 Aug., 2015).
6. Reershemius G. Research cultures and the pragmatic functions of humor in academic research presentations: A corpus-assisted analysis // Journal of Pragmatics. 2012. 44. pp. 863–875.

Optional Readings:

1. Wallwork A. English for Research: Usage, Style, and Grammar (Boston, MA: Springer US. 2013.

2. Chou M. The influence of learner strategies on oral presentations: A comparison between group and individual performance // *English for Specific Purposes*. 2011. 30. pp. 272–285.
3. Gordon S., Brown R., Bromiley P. Strategic stories: how 3M is rewriting business planning // *Harvard Business Review*. 1998. May–June. pp. 41–50. (available on: <https://hbr.org/1998/05/strategic-stories-how-3m-is-rewriting-business-planning>, last visited on 13 Aug., 2015).
4. Mayer R.E., Johnson C.I. Revising the redundancy principle in multimedia learning // *Journal of Educational Psychology*. 2008. 100. pp. 380–386.
5. Mayer R.E., Moreno R. Nine ways to reduce cognitive load in multimedia learning // *Educational Psychologist*. 2003. 38. pp. 43–52.

3.3. Topic "Research steps"

(moderator - [Dirk Meissner](#), PhD)

Structuring a topic. Approaching hypothesis development. Thinking of methodological approaches.

No readings are required.

3.4. Topic "Writing skills"

(moderator - [Dirk Meissner](#), PhD)

Abstract writing. Referencing

No readings are required.

3.5. Topic "Ethics in Academic Research"

(moderator - [Veronika Belousova](#), PhD)

Morality and ethics: pros and cons. Academic and scientific misconduct: main types (fabrication, falsification, plagiarism, cheating, using data and literature sources inappropriately). Code of academic and research ethics: key ethical principles.

Required Readings:

1. Ellin J. *Morality and the Meaning of Life. An Introduction to Ethical Theory*. Harcourt Brace College Publishers. USA. 1995.
2. Gilbert F.J., Denison A.R. Research Misconduct // *Clinical Radiology*. 2003. 58. pp. 499–504.
3. Mitchell T., Carroll J. Academic and research misconduct in the PhD: Issues for students and supervisors // *Nurse Education Today*. 2008. 28. pp. 218–226.
4. NRU HSE. Regulation for the Master’s Degree Programme “Governance of Science, Technology and Innovation” at the National Research University “Higher School of Economics”. Confirmed by Vice Rector S. Roshchin 2 October, 2014. (Appendix 4. pp. 24-25). (available on: <http://www.hse.ru/data/2015/08/05/1084887618/Master%20Programme%20Regulations.pdf>, last visited on 13 Aug., 2015).
5. NRU HSE practice. 6 March, 2013. (available on: <http://www.hse.ru/news/life/76157819.html>, last visited on 13 Aug., 2015).
6. Swazey J., Anderson M., Louis K. Ethical Problems in Academic Research // *American Scientists*. 1993. November–December. (available on: ...)

<http://www.americanscientist.org/issues/pub/ethical-problems-in-academic-research/99999>, last visited on 13 Aug., 2015)

Optional Readings:

1. Bebeau M.J., Pimple K.D., Muskavitch K.M., Borden S.L., Smith, D.H. Moral reasoning in scientific research. Cases for Teaching and Assessment. Bloomington, IN: Poynter Center for the Study of Ethics and Assessment. 1995.
2. Giluk T.L., Postlethwaite B.E. Big Five personality and academic dishonesty: A meta-analytic review // Personality and Individual Differences. 2015. 72. pp. 59–67.
3. Ibrahım H., Hussein N., Samat N., Noordin F., Daud N. Academic Dishonesty: Why Business Students Participate in these Practices? // Procedia - Social and Behavioral Sciences. 2013. 90. pp. 152–156.
4. Kovac J. Moral Rules, Moral Ideals, and Use-Inspired Research // Science and Engineering Ethics. 2007. 13. pp. 159–169.
5. Resnik D.B., What is Ethics in Research & Why is it Important? May 1, 2011. (available on: <http://www.niehs.nih.gov/research/resources/bioethics/whatis/>, last visited on 13 Aug., 2015).
6. Stahl B.C., Eden G., Jirotko M., Coeckelbergh M. From computer ethics to responsible research and innovation in ICT // Information & Management. 2014. 51. pp. 810–818.

3.6. Topic "Guidelines for defending the master thesis at the HSE"

(moderator - [Veronika Belousova](#), PhD)

Main steps and deadlines. The master thesis: format, content, structure, volume. Supervisor and advisor roles and responsibilities. Schedule for interaction with the supervisor. The master thesis submission guidelines. The master thesis reviews: supervisor and blind reviewer. Defense Committee Session: decision making and timing.

Required Readings:

1. Mauch J.E., Park N. Guide to the Successful Thesis and Dissertation: A Handbook for Students and Faculty. Marcel Dekker Inc. 2003. Fifth edition.
2. NRU HSE. Regulation for the Master’s Degree Programme “Governance of Science, Technology and Innovation” at the National Research University “Higher School of Economics”. Confirmed by Vice Rector S. Roshchin 2 October, 2014. (Appendix 2. pp. 15-17). (available on: <http://www.hse.ru/data/2015/08/05/1084887618/Master%20Programme%20Regulations.pdf>, last visited on 13 Aug., 2015).
3. NRU HSE ISSEK. Guidelines for writing course work/master thesis. (available on: <http://www.hse.ru/data/2015/03/25/1093167417/Guidelines%20for%20Course%20work%20%20Master%20thesis.pdf>, last visited on 13 Aug., 2015).
4. NRU HSE ISSEK, Master Programme “Governance Science, Technology and Innovation”. Assessment sheet – oral defense. (available on: http://www.hse.ru/data/2014/12/05/1104204849/Assessment_Presentations.pdf, last visited on 13 Aug., 2015).
5. NRU HSE ISSEK, Master Programme “Governance Science, Technology and Innovation”. Assessment sheet – written course work / Master Thesis. (available on: <http://www.hse.ru/data/2014/12/05/1104205123/Assessment-Course%20works-Master%20Thesis-Essays.pdf>, last visited on 13 Aug., 2015).

IV. INITIAL MASTER THESIS RESEARCH PROPOSAL DEFENSE

Each student submits one 5 page long initial master thesis research proposal and provides one 10 minute talk based on that and passes the section of questions and answers, including discussant's remarks.