

RESEARCH PROJECT IN INNOVATION AND TECHNOLOGY MANAGEMENT

Course code	GRAI023
Course title	<i>Research Project in Innovation and Technology Management</i>
Type of course	<i>Compulsory</i>
Stage of study	<i>Graduate</i>
Year of study	<i>1st</i>
Semester	<i>2nd</i>
Number of credits	<i>6 ECTS; 22 hours of theory and 45 hours of practice, 256 hours of self-study,</i>
Lecturers	<i>Prof. Dr. Vida Skudiene, Assoc. Prof. Dr. Yannick Joye, Assoc.Prof. Dr. Egle Verseckaite-Grzeskowiak</i>
Prerequisites	<i>Undergraduate diploma</i>
Form of studies	<i>Full-time</i>
Teaching language	<i>English</i>

Course description

This is an activity course involving practical experience designed to equip students with both the understanding of principles that guide quality research and the tools of innovation and technology management needed to implement those principles in formulating a research project, selecting appropriate research topic and methods, conducting literature analysis, collecting and analyzing data, and presenting the findings.

Course aim

The main goal of this course is to impart knowledge and skills necessary for conducting and evaluating research in innovation and technology management field. The course will begin with the introduction to the fundamental principles that underlie approaches to research and the practical implications of these principles, including formulation of research questions, concepts of validity and reliability, and issues of research ethics. We will then proceed to unpack the main qualitative and quantitative methods used in business research. Conducting their own research projects will help develop students' practical research skills, and analysis of published research and other students' research projects will sharpen their ability to critically evaluate the information coming from research conducted by others. Presentation of their own research findings and discussion of others' research will also serve to refine the students' presentation and communication skills. Students who have successfully completed the course and all its assignments will be able to define the research question, formulate the research design, choose the appropriate methods for data collection and analysis, present and apply their findings, and critically evaluate other researchers' output. Finally, the skills and knowledge gained in this course will also be employable during the preparation of their final theses.

Learning Outcomes of the Course

On completion of this course successful students will:

Course learning outcomes (CLO)	Study methods	Assessment methods
CLO1. Critically evaluate the relevance of business research in managerial decision-making.	In-class discussions, home assignments, individual study	Research project paper and defence assessment, Research Project Sketch & Topic presentation assessment
CLO2. Have a critical awareness of research issues, methodologies, and methods used in business and management as well as understanding of potential ethical problems of the research.	In-class discussions, individual study, home assignments	Research project paper and defence assessment, Research Project Sketch & Topic presentation assessment
CLO3. Obtain skills and analytical competences to identify a business problem/ need, translate it into a research question, and design an appropriate way to answer it.	In-class discussions, individual study, home assignments	Research project paper and defence assessment, Research Project Sketch & Topic presentation assessment
CLO4. Be able to use the main qualitative and quantitative strategies of business research. Evaluate their advantages and disadvantages and appropriate application areas.	In-class discussions, individual study, home assignments	Research project paper and defence assessment, Research Project Sketch & Topic presentation assessment

CLO5. Develop skills and analytical competences to design a research project and collect data.	In-class discussions, team work, individual study, home assignments	Research project paper and defence assessment, Research Project Sketch & Topic presentation assessment
CLO6. Obtain skills to analyze data and draw reasonable interpretations as well as communicate research findings in a clear and well organized way.	In-class discussions, individual study, home assignments	Research project paper and defence assessment, Research Project Sketch & Topic presentation assessment
CLO7. Develop skills to critically evaluate the quality of other researchers' findings and the process used to obtain them.	In-class discussions, individual study, home assignments	Research project paper and defence assessment, Research Project Sketch & Topic presentation assessment

Quality Assurance Measures

The lecturer assures a variety of teaching methods and timely feedback to students. The feedback from students will always be highly valued and appreciated. The course is designed to maximize active engagement by students in their own learning process and the successful achievement of the learning outcomes is dependent upon the quality of such engagement. Depending on the particular situation in class, this syllabus may be adjusted, in that case the students will be informed during lectures and via the e-learning notification system.

Course content

Day	Topic	Contact Hours	
		Lecture	Practice
Feb 5 16:45-20:00	16:45 – 18:15 Review and Master Thesis requirements. 18:30-20:00 Lecture 1. Introduction into the course. The research project and thesis writing process.	4	
Feb 6 9:00-12:15	Lecture 2. The nature and process of research in innovation management. Research idea generation. Finding research ideas.	4	
	Home assignment – split into the groups of two, prepare research idea sketch (one slide): generate idea for the research. Opponent groups prepare questions and recommendations.		2
Feb 12 16:45 -20:00	Seminar 1. Generating and discussing ideas for your research, thinking about research topic. Presentation of the research sketches.		4
Feb 13 9:00 – 12:15	Seminar 2. Generating and discussing ideas for your research, thinking about research topic. Presentation of the research sketches.		4
Feb 13 13:15-16:30	Lecture 3. Design your research project proposal. Research topic, question, aim, and objectives.	2	
	Home assignment: Developing research topic, research question, aim, objectives, and research model.		3
Feb 20 9:00-12:15	Lecture 4. Development of Introduction and Literature Review.. Lecture 5. Organizing and structuring your Introduction and Literature Review. Research ethics.	4	
	Home assignment – Looking for the literature supporting the research topic relevance and context. Continue developing research topic, question, aim, objectives, research model, and prepare Research Project Topic Presentation. Opponent groups prepare questions and recommendations.		4
Feb 27 9:00 – 16:30 March 6 9:00-12:15	Seminars 3 and Seminar 4. Discussing the research relevance, context, question, aim and objectives. Research Project Topic presentations.		12

Day	Topic	Contact Hours	
		Lecture	Practice
March 6 13:15 -16:30	Lecture 6. Assoc. Prof. Dr. Yannick Joye Quantitative research method Survey design. Formulating hypotheses. Sampling. Scales. Reliability and validity.	4	
March 8 By 18:00	Submission of preliminary thesis topic on e-learning platform: Appendix 1 from Master Thesis Requirements document.		
March 13 9:00-12:15	Lecture 7. Assoc. Prof. Dr. Egle Verseckaite-Grzeskowiak Qualitative research method Research questions for qualitative study, sampling; research instruments, interviews; projective techniques; focus groups.	4	
	Home assignment: Developing research design(sample, instrument, conceptual model, hypotheses), methods of data collection, preparing thesis research proposal paper and presentation.		
March 15	Appointment of Master Thesis Advisors. Consultations with thesis advisors.		
April 30 By 18:00	Submission of Thesis Research Proposal paper on e-learning platform and send to the advisors.		
May 6 & May 7 by 23:59	Submission of Thesis Research Proposal Power Point Presentation slides on e-learning platform.		
May 7 12:30 -20:00 May 8 9:00 – 16:45	Thesis Research Proposal Defense.		16
Total number of contact hours		22	45

Self-study and Assessment

Type of assignment	Chapters	Hours	Evaluation, %
Research Project Sketch Presentation		10	10
Research Project Topic Presentation		10	20
Active participation (opponent role)		8	10
Thesis Research Proposal Paper		50	30
Thesis Research Proposal Defense		50	30
Total:		128	100

RESEARCH PROJECT

The innovation and technology management research project in this course should be viewed as preparation for developing your final thesis. Students must in pairs choose a research project topic to work on. **IMPORTANT. After the RP Topic presentation** students have to decide whether they would like to prepare Research Proposal Paper and Master Thesis in pairs or individually.

RESEARCH PROJECT SKETCH PRESENTATION (10%)

An in class presentation (Power Point) of Research Project Sketch presentation(one slide). Presentation time is 2 min. The discussion time is 3 min. during which the opponents and fellow students will ask you questions. The presentation should be uploaded on e-learning and send to the opponent group no later than **Feb 10 (23:59)**. No late submission is accepted. The professor's feedback will be provided during the discussion or individual consultations. **The presenters and opposing team must be on camera during the discussion.**

RESEARCH PROJECT TOPIC PRESENTATION (20%)

An in class presentation (Power Point) of Research Project Topic including these parts: topic, research relevance and context, research question, aim, and objectives (3 slides). Presentation time is 5 min. The discussion time is 5-10 min. during which the opponents and fellow students will ask you questions. The presentation should be uploaded on e-learning and send to the opponent group one day before the presentation, no later than **Feb 25, March 4 (23:59)** based

on the group presentation schedule. No late submission is accepted. The professor's feedback will be provided during the discussion or individual consultations. **The presenters and opposing team must be on camera during the discussion.**

ACTIVE PARTICIPATION- OPPONENT ROLE (10%)

Each group has an opposing group assigned. The assigned opponent groups shall review the assigned group slides and prepare of 2-3 questions and suggestions for the research ideas to be presented during the discussion in class. **The opposing team must be on camera during the discussion.**

THESIS RESEARCH PROPOSAL PAPER (30%)

The thesis RP paper – an extended Word document with finalized Research Proposal paper must be uploaded on e-learning platform not later than **April 30 (by 18:00)**. No late submissions is accepted. The paper should be 3000-4000 words document without references. It is equivalent to the Introduction and Literature Review chapters of the thesis and can be included as a part of the master thesis after a successful defence. It must demonstrate the students' reply to the three main foci of this course, i.e. relevance of the chosen research question, literature review, and research methodology. The paper is evaluated by the thesis advisor and the course lecturer. The suggested structure of the Thesis Research Proposal Paper is the following: Thesis research proposal topic, originality and value to science and management, research question, aim and objectives, problem definition(theoretical basis of the research), research design (sample, instrument, conceptual model, hypotheses), methods of data collection, sequence in which the intended research will be carried out, list of references.

NOTE. Late submissions of Thesis Research Proposal Paper will be given a grade of "0". **Papers that have plagiarism issues** will also be given a "0" and reported to the study commission for disciplinary measures. Those who do not manage to get a passing grade for the Thesis Research Proposal Paper do not earn the right to defend the proposal.

THESIS RESEARCH PROPOSAL DEFENSE (30%)

The defense is a 5-minute Power Point presentation of the Thesis Research Proposal. PPP slides must be uploaded on e-learning platform one day before the defense: **May 6 and May 7 by 23:59**. The suggested structure of the Thesis Research Proposal PP is the following: Thesis research proposal topic, originality and value to science and management, research question, aim and objectives, problem definition(theoretical basis of the research), research design (sample, instrument, conceptual model, hypotheses), methods of data collection and analysis, sequence in which the intended research will be carried out, list of references. The committee (2-3 professors) ask questions regarding all the parts of the proposal (topic, aim, method, etc.) during the defense and evaluate the proposal presentation. The thesis advisers are encouraged to attend the defense as observers but cannot contribute to the grading of the defense. The defense will be conducted on **May 7 and May 8**. The detailed schedule will be provided two days before the defense date. **The presenters must be on camera during the defense.**

RETAKE

In case The Thesis Research Proposal will not be successfully defended the opportunity to re-defend it may be granted only in exceptional cases related with health and extreme situation issues.

CHEATING AND PLAGIARISM PREVENTION

Teaching and evaluation methods of the course favor learning and creativity as opposed to cheating. All the submitted PPPs and the RP papers will be checked on Turnitin and are expected to be the product of the one's own thought process. Information from other sources may be used; however credit must be given by using in-text citations. If the work of someone else (whether it is quoted or paraphrased) is not properly cited in the assignment, that is plagiarism. In cases of cheating and plagiarism, the student(s) will be subject to the consequences outlined in The Code of Ethics of the university.

DEADLINES AND DETAILS

Meeting deadlines and taking care of details are of extreme importance in the business world. Failure to do so can result in loss of job, promotions, clients, etc. Therefore, for each assignment that is not turned in on time, a grade of "0" will be given. Elements of work that do not match the official requirements will be penalized, especially if there are repeated mistakes. Students are expected to always strive to do their best.

COMMUNICATION

The students must use their official ISM e-mail to contact the lecturers and clearly indicate the **course name and the subject matter of the question** in the subject line of the e-mail. Whenever the students have to submit their work, their names must be clearly indicated on the document and the document must be properly formatted according to ISM requirements. The file names of e-mailed documents, such as the research project, must include the **students' last names**. It is very important that you follow these rules so your e-mails and submissions do not get lost. Virtual office hours are planned on Tuesdays 6pm to 7pm on MS Teams. Students must notify a day before about their intention to participate.

LITERATURE (Additional resources may be provided during the course.)

1. **Sounders, M.K., Lewis, Ph., and Thornhill, A. (2019). *Research Methods for Business Students*. 8th edition. Pearson, UK. The e-book is available on e-learning system.**
2. Biggam, J. (2015). *Succeeding with your Master's Dissertation. A step-by-step handbook*. 3rd ed. McGraw Hill Education
3. DeVellis, R. F. (2016). *Scale development: Theory and applications* (Vol. 26). Sage publications.
4. Field, A. (2016). *Discovering statistics using IBM SPSS statistics*. Sage Publications.
5. Hair, Jr., Joseph F., Wolfinbarger Celsi, Mary, Ortinau, David J., and Robert P. Bush. (2017). *Essentials of Marketing Research*. 4th edition. McGraw Hill Irwin
6. Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford Publications.
7. Skudiene, V., Li-Ying, J. & Bernhard, F. (2020). *Innovation Management. Principles from strategy, product, process and Human Resources research*. Edward Elgar, UK
8. Thomas. G. (2013). *How to do your research project*. 2nd ed. SAGE Publications
9. Wallace, M. * Wray, A. (2016). *Critical reading and writing for postgraduates*. 3rd ed. SAGE Publications