DESCRIPTION OF COURSE UNIT

1.

Course unit title	Code
Project Management	**100038**

2.

Name of lecturer(s) (provide information as to how, when and where they can be in contact)	Department(s)
Coordinator: Prof. Dr. Birutė Mockevičienė **a.o.:** Assoc. Prof. Dr. Rūta Dačiulytė	Institute of Management and Political Science vpmi@mruni.eu

3.

Cycle of course unit	Level of course unit	Type of course unit
Third cycle	Not applicable	Elective

4.

Mode of delivery	Year of study and semester when the course unit is delivered	Language of instruction
Face-to-face and (or) distance learning	I-III study year	Lithuanian, English

5.

Study requirements	
Prerequisites: Master's or equivalent degree	**Co-requisites:** Not applicable

6.

Recommended optional programme components
Not applicable

7.

Number of ECTS credits allocated	Student's workload	Contact work hours	Independent work hours
4	104	20	84

8.

Purpose of the course unit: programme competences to be developed
The aim of the course is to provide doctoral students with knowledge to manage research projects in line with priorities of organization and state research development strategy, to introduce doctoral students to research and development project evaluation systems, quality assurance aspirations, project planning techniques, and develop skills to generate project ideas and manage project during the project lifecycle. Knowledge of international and national research funding programs (Cost, Eureka, FP7, national science programs) will help to develop practical skills for doctoral students in developing project proposals.

Learning outcomes of the programme	Learning outcomes of the course unit	Teaching and learning methods	Assessment methods
	Understand the differences between the management of research projects and other types of projects and be able to choose the most appropriate management tools for different types of research projects (fundamental, demonstration, applied or innovative).	Collaborative learning, creative learning, discussion	Project based learning
	Will be able to argue the research project management	Individual and group work,	Project based learning

	structure, provide network graphs, risk management.	discussion, methods of critical thinking and problem-based teaching	
	Will be able to build a project team, will acquire skills in managing collaborative projects, will know the principles of communication in a cultural environment.	Collaborative learning, individual and group work	Project based learning
	Will know the principles of scientific project resource planning, will be able to align scientific project content with organization's strategy, prepare project applications, create scientific project management infrastructures	Methods of critical thinking and problem-based teaching	Project based learning
	Will know the principles of preparation of research project applications, will be able to apply them in preparation of applications in accordance with EU structural fund rules and international scientific programs, know the operating principles, requirements and selection evaluation criteria of existing science funding organizations and programs	Collaborative learning, individual and group work	Situation simulation from practical examples
	Will know the main stages of project management and will be able to manage project quality	Individual and group work, discussion, methods of critical thinking and case study.	Project based learning
	Will be able to formulate project ideas, communicated them publicly and substantiate in the application	Collaborative learning, individual and group work, discussion, critical thinking and problem-based teaching methods.	Practical situation modelling test project development and presentation

9.

Course contents										
Topics		**Contact work hours and planned learning activities**							**Independent work hours and tasks**	
	Lectures	Consultations	Seminars	Training exercises	Laboratory work	Internship	Assessment	**All contact work hours**	**Independent work hours**	**Tasks**
1. Assumptions of research Management. Definition of research; the historical evolution of research management; research management assumptions: research management objectives, new aspects of research management (networking trends in research).			2							
2. The concept and types of research project. The concept of a project and the evolution of its approach to project activities; research project in the context of other projects. The concept of a research project; characteristics of the research project; research project life cycle: 4 phase research project life cycle; Life cycle of a 6 phase research project.										
3. Planning the content of a research project. Definition and detailing of project content; splitting a project into more manageable elements; application of the Work Breakdown Structure WBS method; application of numbering systems used in job division structures; the distribution of funds between individual work packages; coordination of responsibilities for individual activities with the division of labour structure.			2							
4. Research project management features. Matching between research projects goals and institution strategy; planning research projects: available techniques. Project Network Planning (Network Planning Techniques and Benefits of Networks; Critical Path Method). Project Gantt (application of Gantt in project planning and execution; Gantt drawing and plotting). Resource planning (anticipation and estimation of resources needed to complete the project in a timely and qualitative manner; proper allocation of			2							

resources and their alignment with work schedules; types of resource constraints; resource allocation methods; resource control during project execution).										
5. Selection and evaluation of research projects. Non-quantitative and quantitative models used in project selection; payback time and return on investment in project selection; applying discounted cash flow methods; net present value and internal rate of return on project selection; application of ranking models in project selection. Ways to evaluate research projects: Peer review; evaluation of research projects based on multi-criteria approaches. Individual assessment cases (Lithuanian Research Council practice, EU Framework Programs).			2							
6. Participants in Research Projects. Participation Management and Communication in a R&D Project. Leading research projects. Research Projects Execution Team. Research project partners. Stakeholders in the research project (Stakeholder concept, Stakeholder dynamics). The value of a manager inside R&D project. Ways to collaborate on science projects. Communication of a research project.			2							
7. Research projects quality management. Definition of quality management. Quality requirements for project processes. Modern principles of quality management. Application of quality management system in project management. Using Quality Management Methods to Improve Project Processes. ISO standards in R&D projects.			2							
8. Budgeting of the research project. Sources of information used to establish the project budget. Methods and tools for project budgeting. Progress of budgeting.			2							
9. Audit and completion of the research project. Project Audit Process, Start and Audit Team Formation, Project Audit Content, Audit Report, Project Completion, Normal Completion, Early Completion, Delayed Completion, Failed Project, Project Completion Process.			2							
10. Research projects funding			2							

Management of research projects according to the requirements of COST, Eurostars, Horizon2020, BONUS, EU structural fund programs.										
Overall			**20**						**84**	

10.

Assessment strategy	Weighting percentage	Period or date of assessment	Assessment criteria
To prepare research project grant	50%	After 20 hours of lectures	Quality, completeness, eligibility criteria for funding program
Written exam	50%	Exam	

11.

Required reading

1. Mikulskienė, Birutė. Research and development project management : study book / Mykolo Romerio universitetas. Vilnius : Mykolo Romerio universitetas, 2014. 109 p. ISBN 9789955196372
2. Kaziliūnas A. Strateginis projektų valdymas. *MRU leidybos centras*, 2009.
3. Jayawarna D. Pearson A.W. The role of ISO9001 in managing the quality of R&D activities. TQM Magazine 13,2, 2001, 120-128.)
4. Chiesa V. 2001 R&D strategy and Organization. Imperial College Press, London.
5. W.G.G. and Engels T.C.E. 2011. The predictive validity of peer review: A selective review of the judgmental forecasting qualities of peers, and implications for innovation in science. International Journal of Forecasting, vol. 27, issue 1, p. 166-182.
6. OECD Frascati vadovas 2002. Standartinė praktika, siūloma mokslinių tyrimų ir eksperimentinės plėtros statistiniams tyrimams - Vilnius : Eugrimas, 2007. - p. 286.
7. Jincao W. And Kleiner B.H. (2005), "The evolution of R&D management", Management research News, Vol. 28 No.11/12, pp.88-95.
8. Park Y. and Kim S. (2005), "Linkage between knowledge management and R&D management". Journal of knowledge management, Vol. 9 No. 4, pp. 34-44.
9. Elias A.A, Cavana R.Y., Jackson L.S. (2002), "Stakeholder analysis for R&D project management", R*&D management*, Vol. 32 No.4, pp. 301-310.
10. Tarptautinis standartas LST EN ISO 9004: 2001.Kokybės vadybos sistemos. Veiklos gerinimas.- Vilnius:Lietuvos Standartizacijos deportamentas,2001
11. http://www.mita.lt
12. http://www.lmt.lt.

Recommended reading

1. International Standard ISO 1006: 1997.Quality Management-Guidelines to Quality in Project Management,- Geneve: ISO , 1997
2. Project Cycle Management Training Handbook (including LFA). http:europa.eu.int/comm./scr/evaluation/methods/pcm handbook.pdf
3. A Guide to Project Management Body of Knowledge. http://www.pmi.org/publictn/pmboktoc.htm
4. Turner J.Rodney, 2009. The handbook of project based management. Leading stategic change in organizations.: USA, The McGraw-Hill Companies, 452 p.
5. Understanding Risk Analyses. http://www.rff.org/misc/risk book.htm
6. All SF relevant regulations. http://www.inforegio.org/wbdoc/docoffic/official/reglem en.htm

Approved by Mykolas Romeris University and Vytautas Magnus University Doctoral Committee in Law on 4 March 2020, Decision No. 8DS-TK-3