Application for approval of research activity as an elective course

(to be filled out electronically)

Research unit:

Research leader's name & title.	Guido Makransky, Associate Professor		
Project manager's name & title:	Guido Makransky		
Assessor of the assignment:	Guido Makransky		
Research center:	Virtual Learning Lab, Department of Psychology		
Address:	Øster Farimagsgade 2A DK-1353 Copenhagen K Denmark		
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The research activity may be included as an elective in: (tick box(es))

X	Bachelor's (BA) programme (2011-curriculum)
X	Master's (MA) programme (2015-curriculum)

ECTS-weighting of the elective course (tick box(es))

	Curriculum	ECTS	Hours*	Syllabus**	Final assignment, amount of pages
	BA – 2011	5	60	300 pages	1 person: Min. 5 pages 2 persons: Min. 7½ pages 3 persons: Min. 9 pages
	MA - 2015	7,5	100	500 pages	1 person: Min. 5 pages 2 persons: Min. 7½ pages 3 persons: Min. 9 pages
X	BA – 2011	10	120	600 pages	1 person: Min. 8 pages 2 persons: Min. 12 pages 3 persons: Min. 14 pages
X	MA - 2015	15	200	1000 pages	1 person: Min. 10 pages 2 persons: Min. 15 pages 3 persons: Min. 18 pages

* Workload during the project, not included curriculum reading and written assignment
** Syllabus must be approved by the research leader or the project manager.

Project description:

Title of the research project:	**Investigating the mechanisms of learning in virtual learning environments**
Short description of the research in which the project is anchored:	The objective of this project is to investigate the mechanisms of learning in immersive learning environments (including virtual and augmented reality). The project focuses on combining laboratory research with experiments in

	classrooms using theories from cognitive psychology and modern methodology.
Description of the research project, where the research activity will take place:	The project will be lead by Associate Professor Guido Makransky and will take place in the Virtual Learning Lab which is a dynamic new lab environment with six employees at the Department of Psychology. At the Virtual Learning Lab we can assess the learning process by measuring cognitive and emotional activity in real time with measures such as EEG, GSR, and eye tracking. We also collaborate with some of the leading educational technology companies and teachers to investigate how immersive technology influences learning, motivation, and interest in classroom settings. The goal of the research is to develop evidence-based knowledge that can guide instructional designers to develop learning material more optimally, and to inspire further innovative research in this field.
Time period of the research project:	September 2018 to June 2019
Expected capacity (number of students):	Up to 4
The student's work-tasks will consist of:	The students will get a preview of what it means to be a researcher and will be exposed to all phases of the research process but will primarily work with running experments in the lab and in classroom environments, they will conduct literature reviwes, and will assist in data analyses and summarizing findings. Students will be supervised, however eventually we expect the students to show independence in the performance of both the tests and the interaction with the participants, as well as in the handling of data.
Workload (hours) per student per week (approximately):	Overall, the students can expect to work between 5 and 10 hours a week, but this will depend on the particular interest and needs of the students and the research activity that is taking place.
Learning objectives of the re-search activity:	Students will be members of an active research group with many development opportunities. The learning objectives include competencies related to: -Conducting a literature review. -Runing psychological experiments. -Assisting with and conduct data analyses. -Writing up a report in APA article format that can potentially be submitted to an international journal.

Psychological professional competences that the student(s) attain(s) through the research activity:	Students will develop the most important competencies related to being a researcher through this elective. The students can expect real, research-based teaching in the form of: - Introduction to the research process in general, as well as applied and experimental research projects at the Virtual Learning Lab. - Training in performing experiments as well as an introduction to test and analysis tools for processing the collected data. - The opportunity to participate in a "real" research project under the supervision of the researchers.
Extent of training and supervision connected with the research activity:	Students will be a part of an active research group with weekly meetings and many sparing opportunities with the supervisor as well as PhD students and other employees in the group. Through the preparation of an elective report, students will also receive sparring and supervision in terms of reading and using primary literature for article writing and presenting methods and results in article form.
Evaluation / supervision of the research activity in relation to the learning objectives (number/when):	The research activity is aimed at bachelor and master's students, and the scope of the assignments is adjusted to match the ECTS hours ans syllabus requirements. The course ends with a Final project report (see appropriate number of pages), which is structured as an article, and is based on the research activities carried out and the published literature.
Duty of confidentiality:	It is our objective that students who contibute significantly to a project, and are willing to stay committed to working on an article until the paper is published will be entitled to co-authorship.
Rights for publications:	Participation in the research activity triggers the agreed number of ECTS, however, co-authorship on publications is not a rule.

Send the filled out application form as an attachment to studienaevn@psy.ku.dk.