UPD 7201 Research Methodology and Scientific Writing

Hours Per Week			Hours per Semester	Weighted Total Mark	Weighted Exam Mark	Weighted Continuous Assessment	Credit Units
LH	PH	TH	CH	WTM	WEM	WCM	CU
3	30	3	45	100	60	40	3

Course description:
The course provides the theoretical insight and practical skills required to plan, implement, analyse and report a scientific findings in the area of urban planning and design. The main parts of the course are scientific methods of projects including research methodology, and ethics both theoretical and practical. It also includes scientific writing, reviewing, and presentation of texts.

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Objectives:

- The aim of the course is to give the students the theoretical and practical skills to conduct, analyze and present in written research tasks in the area of Plannin and design and to give insight and understanding of research methodology.

Learning outcomes:
Following this course a student should be able to:

- Explain and apply techniques for scientific writing and research methodology to prepare the writing of a scientific report.
- perform investigation using methods, explain and take position on the results as well as summarize related work
- Apply the knowledge in scientific writing and research methodology and use the knowledge to write a scientific report.

Delivery method:
The course is divided into three parts, where lectures and labs provide support for handling:

1. Research Methodology, which is motivating, and preparing as well as performing an
2. Evaluation, giving insights in evaluations for scientific research, and a
3. Scientific Report, reporting the outcome of the evaluation.

These three parts are examined by a project proposal (or project plan), a method description and a scientific report.

Assessment method:
This will be done through continuous assessment (including coursework and tests) and written examination at the end of the semester. Coursework and test will be assessed out of 40% and examinations, out of 60%.

Course content:

1. Introduction to Research Methodology and Scientific Writing 4 CH
2. Introduction to Scientific Genres - Proposals and technical reports 2 CH

3.	Scientific knowledge	2 CH
4.	Hypothesis testing	2 CH
5.	Effective Writing Strategies, Paragraph structure, Cohesive devices, Information structure, and Conciseness	2 CH
6.	Working with Texts, Digital resources, Working with original sources, Referencing systems,	4 CH
7.	Reviewing and collaboration, Learning from model texts	2 CH
8.	Introduction to research and data collection methods: both qualitative and quantitative	2 CH
9.	Experiments	2 CH
10.	Quantitative methods	2 CH
11.	Proposals	2 CH
12.	Ethics, Plagiarism	2 CH
13.	Quantitative data collection methods, analyse, result	3 CH
14.	Seminar 1	2 CH
15.	Research articles 1: Introduction and Methods	4 CH
16.	Qualitative methods	2 CH
17.	Qualitative data collection methods	2 CH
18.	Research articles 2: Results, discussion, title and abstract.	2 CH
19.	Seminar 2	2 CH

Proposed staff: Dr. Allan Birabi, Dr. Ian Senkatuka

References:

1. Wayne C. Booth, Gregory G. Colomb, and Joseph M. Williams, The Craft of Research, 2nd edition (Chicago Guides to Writing, Editing, and Publishing), University Of Chicago Press; 1 edition (March 2003), paperback: 336 pages, ISBN-10: 0226065685, ISBN-13: 978-0226065687
2. Angelika H. Hofmann, Scientific Writing and Communication: Papers, Proposals, and Presentations, Oxford University Press, USA (December 16, 2009), Paperback: 704 pages, ISBN-10: 0195390059, ISBN-13: 978-0195390056

Peter Bock, Getting It Right: R&D Methods for Science and Engineering, Academic Press; 1 edition (September 13, 2001), 406 pages, ISBN-10: 0121088529, ISBN-13: 978-0121088521