Ethics and academic integrity

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COURSE INFORMATION

Program of studies	Doctoral School of Urban Planning, Doctoral School of Architecture
Type of course	Required course
Level of course module/unit	PhD
Number of ECTS credits	1 ECTS
Topics	1) Introductory research concepts. Errors and fraud in science 2) Author right, copyright, plagiarism. Who can be an author? 3) Ethical issues related to attending a conference 4) Ethical issues related to writing up research 5) Unethical practices of scientific publications
Objectives	The course aims to form ethical research abilities, focused on publishing research articles and delivering conference presentations. There is a theoretical side – attendants receive core information, and a practical one – case studeies and examples.
Teaching methods	Lectures, PowerPoint presentations
Evaluation	Attendance of at least 75% results in the accumulation of credits.
Bibliography	1) Petrişor A.-I. (2014), *Abordare şi metode de cercetare cu elemente de autorat ştiinţific (Research approach and methods with elements of scientific authorship)*, Editura Universitară „Ion Mincu", Bucharest, România, ISBN 978-606-638-107-9, 174 pag. 2) Petrişor A.-I. (2012), *Abordare şi metode de cercetare. Note de curs (Research approach and methods. Course notes)*, Editura Universitară „Ion Mincu", Bucharest, Romania, ISBN 978-606-638-027-0, 117 pp.

Course notes

1. Definitions of research

– Action of researching, studying, searching, investigating, analyzing – object of the course
– Examination, view, check, test
– Consulting, documenting (see English – *research* vs. *search*, or French – *recherche* vs. *cherche*) – this is why for the above we often use *scientific research* (*research*, *recherche*)
– Visit, relation (Bible): *"research the imprisoned"* – Cazania lui Varlam, 1643
– Investigation (juridical) – this is why for the above we often use *scientific research* opposed to the *penal* one
– Military interpretation – recognition, acquisition of information on the enemy

2. Errors in research

– Work environment
– Data, measurement, sample selection
– Selective, subjective observations
– Involvement of the ego
– Illogical reasoning
– Excessive generalizations
– Time, resources, motivation

3. Fraud / ethics in science

– Production of (fake) data
– Elimination of results
– Falsification (equipment, materials, processes, results)
– Distorted interpretations (including those of cited papers) or not sustained by results
– Plagiarism – including self-plagiarism (or multiple publication)
– Conflict of interests
– "Salami slicing"
– Integrity of images
– Authorship: adding or eliminating

4. Conferences

– We must respect each other, by not exceeding the assigned time. A conference is not organized only for us. We cannot take over the time, and do not come, deliver a presentation and leave immediately.
– Respect the intellectual level of the others. Do not read what is written on the screen or you papers. They are not illiterate and can do it alone. Our role is not to read, but present and explain the essentials.
– Addressing, dressing, professional ethics etc.

5. Article

- Materials and methods: elimination of values or data that could affect the validity of results
- Results and discussions: report negative results
- Explanation of results: attitude varies with statistical support from "possible explanations" to :"certainly"
- Identify conceptual or methodological shortcomings
- Internal and external validation, speculation
- References: observe the guidelines. Keep a balance: not too many or to few, based on the type of article. Cite only "first hand" sources. Published materials (with ISBN or ISSN) are preferred to Internet, unpublished brochures, accepted but unpublished articles. The run for an impact factor determined journals to request citations from the same journal. Self-citations do not count.
- Text taken as they are must be placed between quotation marks. All items cited in the text must be found in the reference list and conversely.
- Acknowledgements wherever needed
- Choice of a journal: correctly based on aims and scope, not publishing frequency, impact factor or indexing. High impact factors imply high rejection rates. We must know the value of our article.

5. Flow of research projects

- Establish the study design: data sources, analysis methods, sample size, variables, required and available resources, funding conditions.
- Proposal
- Experiments or observations – produce data
- Data processing, preliminary estimations (results)
- Data analysis; check if results are correct and credible, ask new questions
- Refine results; anticipate their dissemination (might need additional analyses); discussions with other experts
- Presentation of results

6. Communication in science

- For conferences and papers: confirm reception of materials even if not stated or suggested
- Thank (but state why). Journals thank authors for their interest. Authors thank journals for considering submissions, even when they are rejected. In conferences we thank the organizers, even if not physically present.
- Western civilization show respect to scientific titles and ranks.
- Observe e-mail communication etiquette.
- Communication does not mean slavery. Reviewers can mistake. Argue for your answer in a civilized way.

7. Avoid the fraud

- Beware of "predatory journals" – check Beall's list, scientific blogs, Thomson-Reuters Master Journal List