

Responsible Conduct of Research for PhD students at the Faculty of Business and Social Sciences

- Forskningsintegritet for samfundsfaglige ph.d.-studerende

Date: 20th November 2019 and 25th November 2019

Time: 1st day: 10.00-14.00
2nd day: 9.30-12.00 and 12.30-15.30

Place: 1st day: BIB (Library) 1st floor (ø1-502-2)
2nd day: BIB (Library) 1st floor (ø1-502-2)

Registration: Contact the [PhD-School](#) before 6th November 2019

ECTS: 2 ECTS (0.5 ECTS per module)

Teachers and web facilitators: Lone Bredahl Jensen (SDUB)
Kjeld Møller Pedersen
Evgenios Vlachos (SDUB)
Thorbjørn Knudsen
Ayo Næsborg-Andersen
Jens Dam (SDUB)
Kirstin Remvig (SDUB)

Language: English (Danish if only Danish speaking students participate)

Assessment: To earn course credits, participants are required to attend class and upload (in Blackboard) the assignments after module 1, 3 and 4, as well as complete module 2 (online module).

Aim

This course introduces PhD students from the Faculty of Business and Social Sciences to a range of basic concepts, principles, and norms concerning Responsible Conduct of Research. By stimulating reflection, awareness, and discussion of academic integrity and good scientific conduct, the course contributes to the PhD students' ability to conduct research in accordance with scholarly and societal rules, principles, and guidelines, as well as current practices at the University of Southern Denmark.

The course addresses scholarly, ethical, and legal aspects of the research process, including: research planning; data management; basic elements of information processing; key elements of scholarly publishing, authoring and peer-reviewing.

Facilitating participants' reflections on methodological and ethical questions and requirements in their research, as well as their understanding of wider issues pertaining to research integrity, the course is designed to scaffold the academic socialization that takes place in the various research groups, research centers, departments, and PhD schools.

Course description

The course consists of four modules:

- Module 1: Academia and Responsible Conduct of Research
- Module 2: Laws and regulations
- Module 3: Data transparency
- Module 4: Publication, authorship, and peer reviewing

The form of the four modules varies:

- Module 1: Introductory lectures with group assignments
- Module 2: E-based module (app. 1-2 hours work load)
- Module 3: Introductory lectures with group assignments
- Module 4: Introductory lecture with group assignments

For each module there is approximately two hours of preparation and/or follow-up. All four modules must be completed.

Module 1: Academia and Responsible Conduct of Research

Learning objectives

The aims of this module are to raise the awareness and reflection of responsible conduct of research (RCR) and to discuss and exemplify research misconduct, questionable conduct of research, and the consequences hereof.

Upon completion of the module, participants:

- Will have an advanced understanding of the principles of responsible conduct of research
- Can account for their own research projects in terms of the responsible research practice
- Can actively integrate the principles of responsible conduct of research into their own research practice, and disseminate these principles as peers, supervisors and teachers

Content

- Responsible Conduct of Research
- Research misconduct, academic carelessness, and temptations for cheating – active and passive forms of misconduct
 - Examples of misconduct
 - Possible causes of misconduct
- Preventing misconduct
- Conflicts of interests
- Individual and collaborative research

Form

4 hours of discussion-based on lecturing, home assignment before and after module.

Preparation

- *Singapore Statement on Research Integrity* (<https://wcrif.org/guidance/singapore-statement>)
- The Danish Ministry of Higher Education and Science. *The Danish Code of Conduct for Research Integrity*. November 2014. (<http://ufm.dk/publikationer/2014/the-danish-code-of-conduct-for-research-integrity>)
- Fanelli D: How Many Scientists Fabricate and Falsify Research? A Systematic Review and Meta-Analysis of Survey Data, PLoS ONE 2009, 4(5), e5738.
- Israel, Mark (2015). *Research Ethics and Integrity for Social Scientists. Beyond Regulatory Compliance*. 2nd Ed. SAGE. Chapter 1: Why Care about Ethics. <http://methods.sagepub.com.proxy1-bib.sdu.dk:2048/book/research-ethics-and-integrity-for-social-scientists-2e>

Other preparations:

Participants should identify at least one case of research misconduct – preferably within their own main discipline and be prepared to present it during class.

Participants are required to upload a one page version of their project description (at elearn.sdu.dk). Before the course, participants will be grouped. At the course, each participant is required to comment the other group members' projects descriptions.

Assignment

After the module, submit a one page essay where you briefly describe which aspects of RCR you need to pay particular attention to in relation to your PhD project, and explain which actions you intend to take to safeguard these aspects of RCR in your project. The essay must take the course outcomes into consideration.

Teachers

Kjeld Møller Pedersen
Lone Bredahl Jensen

Module 2: Laws and regulations

Learning objectives

Upon completion of the module, participants:

Knowledge and understanding

- Will have a basic understanding of the legal regulation of research in Denmark
- Will have a basic understanding of copyright legislation in Denmark
- Will know the principles of authorship, as these are described in the Vancouver Protocol
- Will have a basic understanding of the fundamental data protection principles.

Skills

- Can distinguish citation and fair use from plagiarism
- Can engage with peers, academic institutions and commercial publishers in accordance with the Vancouver Protocol
- Can relate relevant data protection principles to their individual research

Competences

- Can relate ethical and legal issues to the individual research field
- Can understand, reflect on and assess relevant aspects of ethical and legal issues concerning their research and teaching assignments
- Can understand, reflect on and assess relevant aspects of data protection issues concerning their research and teaching assignments.

Content

- Research & copyright
- Who owns the research (research data & property rights)
- Plagiarism, source references and good citation practice
- Declarations of authorship
- Teaching & copyright
- The definition of personal data
- Selected data processing conditions, incl. consent
- The fundamental data protection principles

Form

This module is an online learning module that can be accessed via Blackboard/the digital course room.

Activity

Follow and complete the online module. The module contains various learning objects (reading materials and videos) integrated with ongoing tasks that train and challenge understanding, reflection, and awareness about legal issues related to scientific work. All e-activities must be completed.

Web facilitators

Jens Dam

Kirstin Remvig

Ayo Næsborg-Andersen

Module 3: Data transparency

Learning objectives

Honesty, transparency, and accountability should pervade all phases of the research process. Therefore, PhD students need to know about the diverse nature of research data: (quantitative (primary and secondary data), qualitative, archive based documents etc.) and should know about research data management, data storage, and documentation needs so as to make it available to other researchers or to allow for critical duplication of analysis.

This module is not on methodology but addresses several data issues often neglected in methodology courses.

Upon completion of the module, participants:

Skills

- Recognize the importance of managing data to create data transparency through data documentation and data storage/access
- Have obtained a basic understanding of Research Data Management
- Have a basic knowledge of current regulations and relevant tools for research data
- Distinguish between FAIR and Open - Recognize relevant considerations pertaining to data sharing
- Have a basic understanding of research ethics in relation to empirical research involving human subjects
- Have some understanding of issues related to what the fuss about big data and data-driven science is all about

Content

- Data documentation and data quality
- Data ownership/data sharing/data access
- Filling in 'missing data'
- The Research Data Life Cycle and data management planning (DMP)
- The FAIR principles and how to make your data FAIR
- Open Science Policy at SDU
- Empirical research and informed consent

Form

2½ hours of discussion-based lecturing, home assignment before and after the course.

Preparation

- Israel, Mark (2015). *Research Ethics and Integrity for Social Scientists. Beyond Regulatory Compliance*. 2nd Ed. SAGE. Chapter 5: Informed Consent. <http://srmo.sagepub.com.proxy1-bib.sdu.dk:2048/view/research-ethics-for-social-scientists/SAGE.xml>

- Corti, Louise (2014). *Managing and Sharing Research Data: A Guide to Good Practice*. 1st edition. Chapter 3: Research Data Management Planning. Thousand Oaks, CA: SAGE Publications.
- [The SDU Open Science Policy](#).
- Wilkinson, Mark D., Michel Dumontier, IJsbrand Jan Aalbersberg, Gabrielle Appleton, Myles Axton, Arie Baak, Niklas Blomberg et al. "[The FAIR Guiding Principles for scientific data management and stewardship](#)." *Scientific Data* (3), 2016.

Other preparations:

Write a one page essay reflecting on the nature of data in your PhD project and issues concerned with data in your project (max. 1 page for uploading and sharing).

Assignments

After the module, produce and upload a data management/documentation plan for your PhD project (max. 3 pages). If no empirical research data are collected, upload a revised version of the one page essay reflecting on the nature of data in your PhD project and issues concerned with data in your project (max. 1 page).

Teachers

Kjeld Møller Pedersen
Evgenios Vlachos

Module 4: Publication, authorship, and peer reviewing

Learning objectives

Upon completion of the module, participants:

Knowledge and understanding

- Are familiar with norms and conventions in different publication processes and formats
- Have a basic understanding of key elements of scholarly publishing, authoring, and authorship, including:
 - publication strategies
 - preferred social-sciences publication formats: traditions, assets, and liabilities of the various options
 - multi-author publications
 - understanding and performing peer review
 - the process from submission to published research
 - publishing in Open Access and in social media
 - understanding research registration, bibliometrics, and impact

Skills

- Can identify publication channels relevant for their own project
- Can successfully publish own work in preferred outlets
- Can review scholarly work within their own field
- Understand the basis of proper ethical conduct when publishing and reviewing academic work

Competences

- Can engage in scholarly publication practices, both as author, reviewer, and supervisor.

Content

An introduction to key elements in scholarship understood as the practice whereby you and your fellow scholars produce and disseminate professional academic knowledge to advance the science of your discipline.

- Publication
 - Academic outlets
 - Outlets that matter – impact, rankings (UT Dallas, FT, ABS, BFI)
 - Identifying your target journal
 - Open access
 - Knowledge dissemination and outreach
 - Positioning your academic contribution (line of research, influential scholars, topics, contribution).
 - Increasing the quality of your academic contribution

- Article life cycle
- Before submission
- The editor
 - The editor as administrative officer
 - The editor as the wielder of power
 - Editorial malfunctioning
- The review process
 - The process
 - Cover letter
 - Response letter
- After publication
 - Reviews
 - Citation
 - Impact
 - Retraction
- The peer reviewer
 - Selection
 - Duties
 - Conflict of interests
 - The good peer review
- Online profiles
 - Researchgate, google scholar, ORCID, etc
- Ethics
 - What constitutes authorship?
 - Corresponding author and co-authors
 - Open Access and “predatory journals”
 - Fraud and the nine circles of scientific hell
 - The obvious and the less obvious don’ts
 - Proper conduct

Form

3 hours of discussion-based on lecturing, home assignment before and after module.

Preparation

Readings:

- COPE website (<http://publicationethics.org/>)
- ICMJE’s “Vancouver Protocol” (<http://www.icmje.org/>)
- EASE’s guidelines and toolkits (<http://www.ease.org.uk/>)

Other preparations:

Troubleshooting: Describe either your intended publication strategy or any experience you may

have had with publication (max. 1 page for uploading and sharing).

Assignment

After the module, submit an edited version of the one-page publication strategy, or essay concerning any experience you the participant have had with publication (max. 1 page). The revised essay must take the course outcomes into consideration.

Develop a pitch for your next research project using the Heilmeier Catechism.

(<https://www.darpa.mil/work-with-us/heilmeier-catechism>)

Teacher

Thorbjørn Knudsen