Research Integrity

Course for PhD students of

Faculty of Science

2 ECTS

25 September, 2018

Introduction

In the past years, research integrity has become a popular topic both in the scientific community and the national media. This attention has been triggered by several severe cases of research misconduct, such as the Diederik Stapel case (a famous Dutch social psychologist) and Yoshitaka Fujii (a Japanese researcher in anesthesiology). Both researchers were found to have fabricated data in scientific papers. Research of these cases showed that career pressure and the low risk of detection contributed to the misconduct.

The U.S. National Science Foundation distinguished three types of research misconduct: Fabrication of data, Falsification, and Plagiarism (FFP). Research misconduct occurs not very often considering the large numbers of scientists around the world, but it has a major negative impact on finding truth as well as on the trust in scientists.

While it is very clear that FFP is wrong, there are considerable grey areas of research integrity that need attention from all researchers. The boundaries between 'sloppy science' and research misconduct are hard to define. Moreover, these boundaries may differ between research domains. Responsible research conduct is something all scientists should strive for, but its definition raises many issues and discussions.

The aims of this course are to: 1) introduce you to the topic research integrity; 2) help you identifying any potential grey areas in your research field; 3) stimulate an open discussion of research integrity matters on the work floor.

Course structure

This course contains two course meetings (each 0.5 day). It is preferable to register for the two meetings allowing at least 6 months between meeting 1 and 2. For each meeting preparatory homework needs to be completed. PhD students from all years can attend this course.

Coordinators and lecturers

- Lex Bouter, professor of Methodology and Integrity, VU & VUmc
- Jacqueline Broerse (research director FALW/FEW)
- Ad van Dommelen (chemistry and biology)
- Frans van Lunteren (physical sciences)
- Sophie van der Sluis (complex trait genetics)
- Marjolein Visser (health sciences)
- Annette ten Teije (computer sciences)
- Kees van Gestel (ecological sciences)
- Wouter Halfwerk (ecological sciences)

Preparation at home for the first course meeting

PhD students should prepare the first course day by completing the following task:

- Complete the online course *Research Integrity*. For this online course you will receive an email from the Epigeum system after you enrolled for the course. This email contains the link you need along with a username and password. Attached you will find a user guide for accessing the online course. Once at the tab "Online courses", please select "Research Integrity – UK/international version". This course contains interactive modules for biomedical sciences as well as natural and physical sciences. Please select the module that is closest to your field of research. After successful completion of the test at the end of this course, you will receive a course certificate. This certificate is a requirement for attending the first course meeting. Please send your certificate to bestuurssecretariaat.beta@vu.nl before **10 September 2018**. Estimated time needed: 8 hours.

For the first course meeting it is optional to read the brochure '*On being a scientist*'. The pdf of this paper is enclosed by this email. This paper provides an excellent introduction to the topic Research Integrity and is specifically directed toward junior researchers. Try to translate its content to your own research and research environment and think of any questions or issues that you would like to discuss during the course. Estimated time needed: 4-5 hours.

Program first course meeting

Date: *25 September, 2018*

Location: to be decided

09.00 – 09.15   Arrival and coffee/tea

09.15 – 09.25   Welcome – Jacqueline Broerse

09.25 – 10.15   Introduction and interactive lecture on the basic principles of responsible conduct of research - Lex Bouter

10.15 – 10.30   Coffee break

10.30 – 10.40   Instruction Dilemma Game – Ad van Dommelen and Frans van Lunteren

10.40 – 12.00   Play the Dilemma Game (in groups of 4-5 persons)

12.00 – 12.30   Discussion of potential issues from Dilemma game, general questions on research integrity, explanation of homework for second meeting – Ad van Dommelen and Frans van Lunteren

Preparation at home for second course meeting
(date to be decided)

- Schedule a 45-60 minute meeting with your PhD supervision team (promotor and co-promotors) to discuss the topic of Research Integrity. Your team will receive information that this meeting has to be planned. Write a short report (one A4 maximum) about the topics discussed. Please specify in the report how you experienced the discussion yourself, as well as how your supervision team experienced the discussion. Send your report at least two weeks before your second meeting to bestuurssecretariaat.beta@vu.nl. The goal of the report is to check whether it has actually taken place, to make an inventory of the main topics discussed, and to obtain ideas for adding topics to the course. Estimated time needed: 2 hours.
    - Carefully describe a dilemma regarding scientific integrity from your own research experience (as a PhD student or intern). Use half an A4 maximum. Clearly and objectively state your dilemma, without discussing potential solutions or assessing who is to blame. Send your description at least two weeks before your second meeting to bestuurssecretariaat.beta@vu.nl. During the course everyone will briefly introduce their dilemma. Together with the course lecturers, one suitable dilemma will be selected for discussion during the 'moral case deliberation' at the second meeting. The main goal is to learn the method of 'moral case deliberation'. This method will enable you to address dilemmas yourself. See also on the next page some background information on moral case deliberation. Estimated time needed: 1 hour.
- Please feel free to also email any topics that you have missed so far in the course. We will try to address a selection of these topics during the second course meeting.

Program second course meeting

Date: TBA

Location: TBA

13.30 – 14:00   Arrival and coffee/tea

14:00 – 14:45   Instruction 'Moral Case Deliberation'

14.45-16.15   'Moral Case Deliberation' (in groups of 8-10 persons)

16.15-16.45   Coffee break

16.45-17.30   Discussion of questions / propositions and any topics missed by the course participants

Background information on moral case deliberation

A moral case deliberation (MCD) consists of a meeting with, on average, 10 professionals who systematically reflect on one of the moral issues that emerge within a concrete case they have experienced themselves. Most issues concern the question ''What do we consider as the morally right thing to do and how should we do it correctly?'' The reflection, which takes 45 min to 2 hours, is facilitated by an trained facilitator and structured by means of a selected conversation method. Methods are selected to suit the specific goal(s) of a moral case deliberation (among other reasons).

During the meeting we will practice with the dilemma method. The moral tensions in the case are expressed in the form of a dilemma. Following eight methodical steps, the participants work towards a fuller understanding of the facts, perspectives and values that play a part in the dilemma, formulate an individual judgment and share their views in dialogue. An important characteristic of the deliberative process in MCD is to ask questions about each other's views, rather than to exchange opinions or arguments (which would turn the deliberation into a discussion or debate). Listening and exploring various points of view is crucial in MCD.

An important step within the dilemma method is the exploration of norms and values. The participants are asked to investigate the values of the stakeholders in the case, related to the dilemma. Values are abstract principles that one can strive for. For each value, they are also asked to formulate a norm, which makes explicit what action is required to realize the value. This may be different according to the participants. For instance the value 'autonomy' maybe associated with the norm "I have to be in control" and for another participant with the norm "I want to have freedom of choice". Finally all participants are asked to formulate their own moral judgment about the case and a dialogue is encouraged between the possible differences and similarities. MCD is an established method and is generally evaluated both positively by the participants themselves and as having an impact on case/team/culture level. The method is used in many domains, such as; health care, the Dutch military, scientific integrity and public service.

Examination of total course

- Certificate of online course on Research Integrity
- Short report on discussion regarding Research Integrity with your PhD team
- Description of dilemma regarding Research Integrity from your own research experience
- Presence and active participation at two course meetings