COURSE MANUAL

RESEARCH INTEGRITY AND RESPONSIBLE SCHOLARSHIP

S_RIRS

2023-2024, PERIOD 5, JUNE 2024

CONTENTS

Course name	Research Integrity and Responsible Scholarship
Executed by	Department of Sociology, University Library
Course code	S_RIRS
Level	600
Academic Year	2023-2024
Period	5 (April)
EC	Research Master: 3 EC, 84 hours Graduate School: 2 EC, 56 hours
Teaching staff	René Bekkers, r.bekkers@vu.nl: Coordinator Jolien Scholten, Data Management Plan training
Mode of instruction	Interactive workshops
Mode of assessment	Graded assignments
Language of instruction	English
Open to	Students in the Research Master Social Sciences for a Digital Society (Y1); students in the Graduate School for the Social Sciences (Y1)
Frequency per week	2 meetings, Monday and Friday

Study load allocation	**Per week**	**Total**
1. Lectures, workshops	6	24
2. Reading	6	24
3. Assignments	9	36
4. Preparation for the exam	0	0
5. Total	21	84

GENERAL AIM OF THIS COURSE

This course seeks to contribute to a reflection and discussion on the normative consequences of the abstract ideals of science, and an awareness of standards of good conduct and the responsibility of researchers in the social sciences. This course also helps to ensure that the privacy safeguards built into the law and regulations for ethics review and data management at VU and the Faculty of Social Sciences are taking effect in the practice of social research.

For the social researchers of the future it is of key importance to be aware of the ethics of data and to uphold the rights of research participants. As the stream of Big Data swells, what are the appropriate procedures to ask for consent with participation in social research? When can research be conducted legitimately in the absence of explicit consent? What are the ethical limits to the use of publicly available data? What rights do people have with respect to their data, according to Dutch law and European regulations?

The course is open to PhD candidates from the Graduate School of Social Sciences and students in the Research Master Social Sciences for a Digital Society. As a PhD candidate and as a student in the research master programme it is important to discuss dilemmas in dealing with the interests and requests of stakeholders, such as internship hosts and other parties commissioning research. For students in the research master this is important before you start the internship in Year 2. For students in the research master and for PhD candidates it is important to discuss dilemmas before you engage in contract research and research with stakeholders.

COURSE DESCRIPTION

The course provides a safe space to discuss research integrity dilemmas and violations, ethics review guidelines in faculty, national and European laws and regulations. You will explore the terrain of scientific integrity and research quality, and discuss violations of integrity, sloppy science and questionable research practices. You will learn about proper data collection and storage; handling and analysis of data; reliable and verifiable research practices, open science, impartiality, independence and norms on co-authorship. You will discuss standards of good practice in interaction with societal stakeholders.

The course consists of four parts: (1) values and responsibility in science; (2) standards for research at the Faculty of Social Sciences at VU Amsterdam; (3) integrity dilemmas in practice; (4) data management.

All students enrolled in the course participate in the workshops on Mondays and Fridays and complete 9 assignments: 4 on ethics and integrity, 4 on data management, and an essay. Students in the Research Master complete two additional assignments which we will discuss in two workshops. These meetings are optional for PhD candidates.

LEARNING GOALS

Knowledge and Understanding. The student has acquired knowledge and understanding of:

(1) Public values embodied in science, particularly according to the Netherlands association of universities (VSNU) (KU3, JF11);
(2) behavioral consequences of these values in daily practice, and proper scientific behavior (JF11);
(3) ethics review board procedures and data management procedures within the Faculty of Social Sciences at VU Amsterdam (LS16);
(4) codes of conduct for academic research in the Netherlands (KU3, LS16);
(5) ethical standards for peer review (LS16);

Application. The student has acquired the competences to:

(6) identify problematic ethics issues in research projects (LS16);
(7) create a data management plan (KU3);

Making judgements. The student is able to:

(8) develop a critical position on his/her own responsibility in academic research (JF10, JF11);

Communication. The student has acquired the skills to:

(9) discuss ethical dilemmas in the practice of research (LS14, LS16).

Learning about codes of conduct and ethics review at the Faculty of Social Sciences contributes to knowledge and understanding of research design (KU3) and of norms about working with funders and stakeholders outside university (LS14). Plenary discussions and discussions in diverse groups about research ethics and data management contribute to effective teamworking in international and diverse contexts (LS16). Completing the ethics review self-check, writing a data management plan, the discussions about ethical dilemmas and the final paper make you reflect on ethics in all phases of the research process (JF10), and specifically on the social and ethical aspects of big and small data (JF11). Writing the paper also develops your writing skills (C12).

PLACE OF THE COURSE

In the program of the Research Master Social Sciences for a Digital Society, this is a skills course in P5 of Year 1, in which you have worked with and discussed ethics issues of Big Data in *Peer Group Learning* and in the *Big Data, Small Data* course. The course runs before the course *Communicating Science*, in which you discuss integrity issues and the responsibilities of researchers in the communication of research results. This course prepares for the course Writing a Research Proposal in P6 and for the Internship and the Master Thesis in Year 2. During the course you discuss integrity issues and responsibilities of researchers and commissioning parties in commissioned research.

In the program of the Graduate School for Social Sciences, this is a mandatory course for all PhD candidates at the Faculty of Social Sciences at VU Amsterdam.

REQUIRED LEVEL OF ENTRANCE

This courses focuses on research integrity and responsible scholarship. The course supposes that you have collected data in previous research and have written research reports. You may have done so in a previous program.

As a student in the Research Master Social Sciences for a Digital Society you will need the knowledge from this course about ethics review and research data management for your internship and the master thesis in year 2.

The maximum number of participants in this course is 25.

LEARNING ACTIVITIES

This course only has interactive plenary meetings on campus, with ample room for discussions. Before each meeting, make sure you are well prepared. Read the literature, complete the assignments listed below, and submit them before the deadline on Canvas if applicable. Usually the assignment asks you to prepare a single slide that you can present in the breakout sessions.

MODE OF ASSESSMENT

You pass the course if you have completed all assignments in a sufficient way. Course results are either insufficient, or sufficient. Assignments for all participants in this course are shaded grey. Assignments specifically for students in the Research Master Social Sciences for a Digital Society (SSDS) are not shaded. They are open to PhD candidates.

MODE OF ASSESSMENT

Assignment	Grading	Deadline
1. Implications of the code of conduct	Insufficient/sufficient	April 5, 2024
2. Integrity violations (SSDS)	Insufficient/sufficient	April 8, 2024
3. Data availability	Insufficient/sufficient	April 12, 2024
4. Ethics review	Insufficient/sufficient	April 12, 2024
5. Stakeholder relations (SSDS)	Insufficient/sufficient	April 15, 2024
6. Preparation for first Data Management Framework (SSDS)	Insufficient/sufficient	April 19, 2025
7. Your dilemmas	Insufficient/sufficient	April 22, 2024
8. Essay	Insufficient/sufficient	April 26, 2024

The assignments are not graded with a mark, but as sufficient when they meet the minimum standards. You complete them as preparation of the course meeting.

INSTRUCTIONS FOR ASSIGNMENTS

Some assignments are designed specifically for students in the Research Master *Social Sicences for a Digital Society*, labeled (SSDS). If you are participating in the course through the Graduate School for Social Sciences, you are welcome to submit these assignments as well, but they are optional.

Assignment 1: Implications of the code of conduct

Read the Netherlands Code of Conduct for Research Integrity, posted here: https://www.universiteitenvannederland.nl/files/publications/Netherlands%20Code%20of%20Conduct%20for%20Research%20Integrity%202018.pdf and the European Code of Conduct, posted here: https://allea.org/wp-content/uploads/2023/06/European-Code-of-Conduct-Revised-Edition-2023.pdf.

    a. What principles, values, or practices do you miss in the code? Why should they be included?

    b. What are the implications of the code for you, your supervisors, the Faculty of Social Sciences and the Vrije Universiteit Amsterdam? Why do you think it is an important one?

We will discuss these issues in the meeting on April 5, 2024.

In class you will do a test to check your knowledge of the code of conduct.

Assignment 2: Violations of the code of conduct (SSDS)

    a. Find a violation of the code for research integrity in the news or in a piece of published research. Briefly explain what the violation is and how it was uncovered. Resource: http://retractionwatch.org/

    b. What policy could have prevented this? Resource: https://research.vu.nl/files/94256490/Report_Survey_Integrity_VU_2019.pdf

Prepare a single slide summarizing your responses to these questions.

Submit the assignment before the meeting on April 8, 2024 on Canvas.

Assignment 3: Data availability

Read the summary of integrity policies at VU Amsterdam, posted here: https://renebekkers.wordpress.com/2023/10/10/research-integrity-policies-in-social-science-research-at-vrije-universiteit-amsterdam/

Study the Data Management guidelines at the Faculty of Social Sciences, posted at https://vu-fss.github.io/RDM/fss-guidelines-rdm.html

Read the guideline for archiving of academic research for faculties of behavioral and social sciences in the Netherlands, posted here: https://renebekkers.files.wordpress.com/2022/06/archiving-guideline-faculties-of-social-and-behavioural-sciences-in-the-netherlands-2022.pdf

Prepare a single slide presenting answers to the following questions.

For the most recent empirical research paper you have written or co-authored, note the following:

    1. The title of the paper, names of co-authors (if any), and date of production.

    2. Where did you archive the data that you have used?

    3. Where did you archive the script / protocol that you have used to produce the results?

    4. Did anyone ever ask you to give access to these data?

    5. Imagine you are a reviewer of the paper. Would you be able to reproduce the results reported in the paper from the archived data and script?

Submit the assignment before the meeting on April 12 on Canvas.

Assignment 4: Ethics Review

Study the website of the Research Ethics Review Committee, https://vu.nl/en/employee/social-sciences-getting-started/research-ethics-review-fss and the regulations of the Faculty of Social Sciences for ethics review, posted at https://assets.vu.nl/d8b6f1f5-816c-005b-1dc1-e363dd7ce9a5/c7e3795f-62b7-4b3f-9282-48859461e87e/RERC-Regulations-Feb18_tcm249-880617.pdf.

For the most recent data collection you have participated in:

1. Complete the ethics review self-check at
   https://vuletteren.eu.qualtrics.com/jfe/form/SV_6hCj2czIWzboW6V
2. Save the pdf you obtain at the end of the self-check and submit it on Canvas.

Prepare a single slide presenting the result of the ethics review self-check and any thoughts you may have about it.

Submit the assignment before the meeting on April 12 on Canvas.

Assignment 5: Stakeholder relations (SSDS)

During your internship and in contract research you may interact with various stakeholders. Reread the code for research integrity with the plan for your internship in mind, or a study you conducted for another party (work for hire). Pay explicit attention to the way you will collect, use and archive data.

a. How does the research you are planning or conducted comply with the principles in the VSNU Code of Conduct for Research Integrity?

b. How can you or did you enable replication of the research you do during your internship?

Summarize your thinking about these questions in a single slide.

Submit the assignment on Canvas before the meeting on April 15.

Assignment 6: Data Management

Study the following materials prior to the workshop:

- LibGuide Research Data Management. Focus on the following sections, so that you can relate important RDM aspects to the data life cycle:
    - Overview for the context.
    - Everything under Plan & Design to learn about all aspects that you need to think about in the initial phase of your project.
    - Video Scientific Integrity & Research Data. Watch the video and think about how research integrity and research data management relate.
    - Video Research planning: Data Management Plans. Watch the video and start thinking about what a data management plan (DMP) would look like for your research project. Choose a template for the DMP that you will write (we strongly recommend the VU template, see https://dmponline.vu.nl/).
    - Section Data Management Plan. Get familiar with the concept of a DMP and the aspects that need to be discussed there.

- Michener, W. (2015). [Ten Simple Rules for Creating a Good Data Management Plan](#) (9p). Study the practical guidelines for what a good DMP should contain and think about how you can use those to write your own DMP.

Background and optional readings
- Wilkinson, M.D. et al. (2016). [The FAIR guiding principles for scientific data management and stewardship](#) (9p). If you're interested in where the FAIR data principles come from and how the various principles aim to achieve the goals of FAIR data management, you can read this article. Note that it's theoretical and doesn't provide practical advice on how to make your data FAIR.
- VU RDM policy (https://assets.vu.nl/d8b6f1f5-816c-005b-1dc1-e363dd7ce9a5/29d6b549-653f-4ec9-9d07-1598b2437c64/RDM-policy-VU-2020-EN-v2.0.pdf). Become familiar with the general requirements that constitute the RDM framework at the VU.
- FSS RDM policy (https://vu-fss.github.io/RDM/fss-guidelines-rdm.html). Find out which practical guidelines your faculty provides for managing your research data.
- VSNU (2018). [Netherlands Code of Conduct for Research Integrity](#). Find out what it says about handling research data in sections: 3.2.10-3.2.11; 3.3.23-3.3.26; 3.4.35; 3.4.45.

Assignment 7: Your dilemmas
a. Study the dilemma game, posted at https://www.eur.nl/sites/corporate/files/dilemmagame-mrg.pdf. Nominate two dilemmas from the game you would like to discuss in class. If you want, you can also suggest a new dilemma, e.g. from your own experience, a news article or research paper of your choosing. In that case, clearly describe the context, and present at least one possible action.
b. Read the report on data transparency at at the Faculty of Social Sciences VU Amsterdam (Bekkers, 2023). What is your view on the degree of data transparency? Do you think it is important? Why or why not? Is it sufficient? Why or why not?

Put screenshots of the two dilemmas on two separate slides, and your thoughts on data transparency on a third slide. Submit the assignment before the meeting on April 22 on Canvas.

Assignment 8: Essay

Write an essay (maximum of 4,000 words) about a research integrity issue.

a. Describe the issue at hand, and analyze the factors that contributed to it.
b. Reflect on the principles for research integrity as described in the Code of Conduct. How are they involved?
c. Suggest a policy intervention that could have prevented or may solve the issue.
   - If your case is a violation or weakness, discuss a potential solution to the issue: which actions could have prevented the case? What changes in policies, their enforcement or incentives could prevent future cases of this type? What are the disadvantages or limitations to these changes?
   - If your case is a good practice or well-designed system, discuss which conditions or actions have contributed to its emergence. What are the (opportunity) costs for these conditions and actions?

The issue could be:

- a particular case of a research integrity violation: research fraud, fabrication, plagiarism, or a questionable research practice;
- an example of good research practice: reflecting high standards of honesty, scrupulousness, transparency, independence and responsibility in research design, conduct, reporting, peer review, and communication;
- a weakness in the current system or an example of a well-designed system of academic careers, publishing, citation, peer review, grant proposal evaluation, monitoring and enforcement of standards for research integrity.

Before you start writing the essay, check the rubric. You can find an example of a good essay on Canvas.

General guidelines for papers & presentations

- Papers should be typed in an 11 point font. Number the pages. Always mention your name, your student number, title of the paper, the name of the course, your e-mail address and a word count at the top of the document.
- Suggestions on how to create presentations are here: https://renebekkers.files.wordpress.com/2019/05/presenting-your-research.pdf
- Use a consistent style for references.
- Check your English!
- Include an AI Tools section, describing which generative artificial intelligence tools you have used in producing the essay such as ChatGPT, Bing, Bard, Claude, Perplex-ity, Elicit or ResearchRabbit. You are allowed to use such tools, as long as you identify that you have used them, and how you have used them. Do so in sufficient detail for others to be able to reproduce your findings. This means that you specify the software version, settings, date of usage, the promptsand commands, and output with a URL or a screendump. Whenever you use AI-generated content, independently verify the claims made and insert references to sources supporting the claims including DOIs (for scholarly publications) or URLs (to non-scholarly sources such as Wikipedia).
- Plagiarism and fraud are absolutely not allowed. For more information: https://vu.nl/en/student/examinations/academic-integrity-fraud-and-consequences

Submit your essay by April 26, 2024.

FORMATIVE ASSESSMENT & FEEDBACK

You receive feedback from the course instructor on assignments 1, 3, 4, and 8 after the meetings. You receive feedback from peers on assignments 2, 5 and 6 during the meetings.

ASSESSMENT MATRIX

Learning outcomes	Exit qualification:	Assessment: in assignment #
1. Public values	KU3, LS14	1, 2, 4, 8
2. Behavioral consequences	KU3, LS14	1, 2, 5, 8
3. Ethics review	KU3, LS14	4
4. Codes of conduct	KU3, LS14	1, 2, 3, 4, 7, 8
5. Ethical standards	KU3, LS14, JF10	1, 2, 3, 4, 5, 7, 8
6. Ethics issues	KU3, LS14, JF10	4, 7
7. Data management	JF10, JF11	3, 6
8. Critical position	JF10, JF11, C12	1, 2, 8
9. Dilemmas in practice	KU3, LS14, JF10, JF11, LS16	1, 2, 5, 7

SCHEDULE

Meetings for all participants in this course are shaded grey. Meetings designed specifically for students in the Research Master Social Sciences for a Digital Society are not shaded. Though they are designed for SSDS students, they are also open to PhD candidates.

#	DATE	TOPIC	ASSIGNMENT	VENUE	READINGS
1	April 5, 2024 11:00-12.45	Values in science	1. Code of conduct	NU 4 B 25	12, 16
2	April 8, 2024 11:00-12.45	Responsibility in big data and small data	2. Violations of the code of conduct	NU 2 B 25	12
3	April 12, 2024 13:30-15.15	Research integrity and Data Management at VU FSS	3. Data availability 4. Ethics review	NU 4 B 25	2, 4, 5, 7, 8, 9, 10, 11
4	April 15, 2024 11:00-12.45	Stakeholder relations	5. Stakeholder relations	NU 2 B 25	
5	April 19, 2024 11:00-12.45	DMP Framework	6. Preparations for the first RDM workshop	NU 4 B 25	13, 14, 15
6	April 22, 2024 11:00-12.45	Integrity dilemmas	7. Your dilemma	NU 2 B 25	6
7	April 26, 2023 13.30-15.15	Your own topic	8. Essay	NU 4 B 25	

LITERATURE

1. Bekkers, R. (2020). How to review a paper. https://doi.org/10.31219/osf.io/7ug4w
2. Bekkers, R. (2023). Research Integrity Policies in Social Science Research at Vrije Universiteit Amsterdam. https://renebekkers.wordpress.com/2023/10/10/research-integrity-policies-in-social-science-research-at-vrije-universiteit-amsterdam/
3. Committee on Publication Ethics (2017). COPE Ethical Guidelines for Peer Reviewers. https://publicationethics.org/files/Ethical_Guidelines_For_Peer_Reviewers_2.pdf
4. DSW (2018). Code of Ethics for Research in the Social and Behavioural Sciences Involving Human Participants. http://www.nethics.nl/.cm4all/iproc.php/Gedragscode/CODE%20OF%20ETHICS%20FOR%20RESEARCH%20IN%20THE%20SOCIAL%20AND%20BEHAVIOURAL%20SCIENCES%20v2%20230518.pdf?cdp=a
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6. Erasmus University Rotterdam (2013). Dilemma Game: Professionalism and Integrity in Research. Rotterdam: EUR. https://www.eur.nl/sites/corporate/files/dilemmagame-mrg.pdf
7. Faculty of Social Sciences Research Ethics Website: https://vu.nl/en/employee/social-sciences-getting-started/research-ethics-review-fss
8. Faculty of Social Sciences, Vrije Universiteit Amsterdam (2023). The FSS data management policy, https://vu-fss.github.io/RDM/fss-guidelines-rdm.html
9. FSW VU (2018). Regulations Research Ethics Review Committee. https://assets.vu.nl/d8b6f1f5-816c-005b-1dc1-e363dd7ce9a5/c7e3795f-62b7-4b3f-9282-48859461e87e/RERC-Regulations-Feb18_tcm249-880617.pdf
10. FSW VU (2019). Ethics Review Application form: https://vuass.eu.qualtrics.com/jfe/form/SV_9tBjPqFq6bxv2Sx
11. FSW VU (2019). Ethics review self-check: https://vuletteren.eu.qualtrics.com/jfe/form/SV_6hCj2czIWzboW6V
12. KNAW, NFU, NWO, TO2-federatie, Vereniging Hogescholen & VSNU (2018). Netherlands Code of Conduct for Research Integrity. DANS. http://www.vsnu.nl/files/documents/Netherlands%20Code%20of%20Conduct%20for%20Research%20Integrity%202018.pdf
13. Vrije Universiteit Amsterdam University Library (2024). LibGuide Research Data Management. Read the texts and watch the movies. https://libguides.vu.nl/rdm
14. Bekkers, R. (2023). Data Transparency at the Faculty of Social Sciences at VU Amsterdam. https://canvas.vu.nl/files/6381644
15. Bekkers, R. (2023). Respecting Epistemic Diversity in Open Science. https://renebekkers.wordpress.com/2023/03/31/respecting-epistemic-diversity-in-open-science/
16. ALLEA (2023). The European Code of Conduct for Research Integrity, Revised Edition 2023. https://allea.org/wp-content/uploads/2023/06/European-Code-of-Conduct-Revised-Edition-2023.pdf

Further reading (optional)

- Aguinis, H., & Solarino, A. M. (2019). Transparency and replicability in qualitative research: The case of interviews with elite informants. *Strategic Management Journal*, 40(8): 1291-1315. https://doi.org/10.1002/smj.3015

- Aschwanden, C., & Koerth, M. (2016). How Two Grad Students Uncovered an Apparent Fraud – And a Way to Change Opinions on Transgender Rights. https://fivethirtyeight.com/features/how-two-grad-students-uncovered-michael-lacour-fraud-and-a-way-to-change-opinions-on-transgender-rights/

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- Botvinik-Nezer, R., Holzmeister, F., Camerer, C.F. et al. (2020). Variability in the analysis of a single neuroimaging dataset by many teams. *Nature*. https://doi.org/10.1038/s41586-020-2314-9

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- Camerer, C.F. et al., (2018). Evaluating the replicability of social science experiments in Nature and Science between 2010 and 2015. *Nature Human Behavior*, 2: 637-633. https://doi.org/10.1038/s41562-018-0399-z;

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- Colavizza, G., Hrynaszkiewicz, I., Staden, I., Whitaker, K., & McGillivray, B. (2020). The citation advantage of linking publications to research data. *PLoS ONE* 15(4): e0230416. https://doi.org/10.1371/journal.pone.0230416

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- Cuijpers, P. & Cristea, I.A. (2016). How to prove that your therapy is effective, even when it is not: a guideline. *Epidemiology and Psychiatric Sciences*, 25, 428–435. https://doi.org/10.1017/S2045796015000864

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Websites

- Dataverse NL: data repository and archive for science in the Netherlands, https://dataverse.nl/
- Managing Qualitative Social Science Data: website with resources for data management, https://items.ssrc.org/from-our-programs/managing-qualitative-social-science-data-qdr-and-ssrc-release-online-course/
- Open Science Framework: nonprofit platform for collaboration in research, https://osf.io/
- Retraction Watch: website tracking research fraud, publication retractions, and integrity issues, http://retractionwatch.org/
- Paywall: The Business of Scholarship. Movie about the academic journal industry, https://paywallthemovie.com/.
- Unpaywall: browser extension that automatically finds open access articles, https://unpaywall.org/
- VU Amsterdam University Library Libguide on Research Data Management, https://libguides.vu.nl/rdm

RUBRIC FOR A DMP

Criteria	Good	Sufficient	Poor
The DMP contains a comprehensive project description, describing the necessary components that make up the essence of the research project, including the following information: a. Names of people and organisations involved, b. contact details, c. funder, d. project and grant number, e. research goal(s), f. parts of the project if project is divided into separate components, g. Partner organisations and contact details (if applicable)	Essential project components are specified, description is easy to follow and is complete	Essential project components are specified	Essential project components are not mentioned or it is very difficult to identify them
The DMP contains a complete and well-organised data description of all data assets that will be generated and used in the project, indicating whether existing data will be reused and/or whether new data will be collected, and how they will be accessed and/or collected. The description also contains information about the format and volume	The DMP presents a comprehensive data overview in which the data are adequately described with respect to all the relevant aspects of data description	The overview describes most of the data assets, the data are adequately described and the overview includes the main data characteristics	A data overview is missing or the overview is incomplete or very vague
The DMP discusses the requirements the project needs to meet in terms of RDM, including conditions coming from the institute where the research is carried out and from ethical and legal obligations, such as legislation, codes of conduct, research protocols and consortium agreements	The DMP lists the relevant requirements and fully addresses these requirements, explicitly mentioning how they relate to the project and how they will be dealt with in the project	The DMP lists the relevant requirements and partially addresses these requirements and/or how these requirements apply to the project and how they will be dealt with	Little to no attention is paid to external requirements or potential ethical or legal aspects. If requirements are listed, no indication is given as to how these requirements are addressed in the project

The DMP describes how data will be stored, backed up and secured during the project, including an overview of who will have access to the data and how authorisation to view or edit the data is handled	Data storage, recovery, security, transfer and access are described in detail for each data asset, also indicating the relevant phase of the research project to which the data asset belongs; and the technical and organisational solutions comply with the requirements the project needs to meet according to requirements as discussed elsewhere in the DMP	The DMP contains coherent information about data storage, recovery, security, transfer and access and the outlined technical and organisational procedures comply with most of the requirements the project needs to meet according to requirements as discussed elsewhere in the DMP	Data storage, recovery, security, transfer and access are hardly specified, or these plans are not addressed for all described data assets, or the outlined technical and organisational procedures do not meet the requirements the project needs to meet according to requirements as discussed elsewhere in the DMP
The DMP describes how data and software (where relevant) will be preserved for the long term and how they will be made FAIR (Findable, Accessible, Interoperable and Reusable)	There is a clear plan for data archiving, explaining how long the data will be preserved and following the FAIR principles, by explaining how and where the data will be archived, how they will be made findable and accessible for others, what persistent identifiers will be used, how the data will be documented, including a description of the metadata that will be used, and under which conditions the data may be reused	There is a plan for data archiving and DMP discusses the main aspects of FAIR, at least how and where archiving will be done, for how long the data will be preserved, and how the work will be made findable and accessible. DMP indicates that some metadata documentation will be stored with the archived datasets and what persistent identifiers will be used	DMP presents an intention for data archiving, but it is unclear how this will be done and how the data will be rendered FAIR; or long term archiving is not addressed at all or is said to be not applicable, without an explanation; or the repository mentioned is not suitable for the type of data (e.g. personal data in a public repository)
The DMP describes responsibilities and resources for RDM	It is clear who is responsible for RDM in the project and there is a grounded calculation regarding the necessary resources	The main necessary resources and responsibilities are mentioned	The necessary resources are not specified at all and/or it is unclear who is responsible for RDM in the project

RUBRIC FOR ESSAY

	10.0 Pts Grade 9-10	8.0 Pts Grade 8	7.0 Pts Grade 7	6.0 Pts Grade 6	5.0 Pts Grade 4-5
Research Question	• Excellent formulation of research question	• Clearly formulated research question	• Formulation can be improved in some respects	• Research question is rather unclear	• Research question is very unclear
Societal Relevance	10.0 Pts Grade 9-10	8.0 Pts Grade 8	7.0 Pts Grade 7	6.0 Pts Grade 6	5.0 Pts Grade 4-5
	• Intriguing and very relevant issue	• Very relevant issue	• Relevant issue	• Not the most relevant issue	• Issue is not relevant at all
Analysis	20.0 Pts Grade 9-10	16.0 Pts Grade 8	14.0 Pts Grade 7	12.0 Pts Grade 6	10.0 Pts Grade 4-5
	• Excellent and exhaustive analysis of constitutive conditions	• Decent analysis of constitutive conditions	• Pretty good analysis, but some missed opportunities	• Basic analysis, lacking discussion of several constitutive conditions	• Insufficient analysis, lacking discussion of many constitutive conditions
Policy intervention	20.0 Pts Grade 9-10	16.0 Pts Grade 8	14.0 Pts Grade 7	12.0 Pts Grade 6	10.0 Pts Grade 4-5
	• Exhaustive discussion, including unintended consequences	• Decent analysis of likely policy intervention effects	• Pretty good analysis, but some missed opportunities	• Basic analysis, lacking discussion of several intervention effects	• Insufficient analysis, lacking discussion of many intervention effects
Reflection	20.0 Pts Grade 9-10	16.0 Pts Grade 8	14.0 Pts Grade 7	12.0 Pts Grade 6	10.0 Pts Grade 4-5
	• Exhaustive reflection on all principles and implications	• Decent reflection on most principles and implications	• Reflection on most principles and implications, but some missed opportunities	• Basic reflection, missed opportunities for principles and implications	• Insufficient reflection

Writing	20.0 Pts Grade 9-10	16.0 Pts Grade 8	14.0 Pts Grade 7	12.0 Pts Grade 6	10.0 Pts Grade 4-5
	• Outstandingly well-structured. • Text is crisp and clear. • References are complete and accurate.	• Well-structured. • In most places level of detail is appropriate. • References are mostly complete and accurate.	• Main structure is clear. • Some superfluous and missing details. • References are mostly complete and accurate.	• Main structure is clear, but some strange elements. • Text is not really to the point. • Some references are missing and lack details.	• Main structure is unclear, with varying levels of detail. • Text is vague and inaccurate in multiple places. • Many references are missing or incomplete.
AI Tools*	Pass: software version, settings, date of usage, prompts and output provided in a reproducible manner.			Fail: software version, settings, date of usage, prompts and output not provided in a reproducible manner.	
	• AI Tools section complete and accurate, including reflection on advantages and risks		• AI tools section complete and accurate	• AI tools section incomplete or inaccurate	• AI tools section missing altogether
TOTAL					

*Note that a pass is required for the AI Tools section to obtain a mark for the essay.