FH JOANNEUM Guideline for Good Scientific Practice and Prevention of Research Misconduct

Version 1.2 adopted at the 103rd Board meeting on Nov. 7, 2023

FH | JOANNEUM
University of Applied Sciences

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Good scientific practice

All students, staff, and lecturers of FH JOANNEUM (hereinafter referred to as "person" or "persons") are obliged to adhere to the following principles of good scientific practice in teaching and research:

- Adherence to **professional standards**, i.e., scientific work must be conducted in compliance with the legal regulations, ethical standards and in accordance with the current state of knowledge of the relevant subject or discipline.
- Scientific research questions, research projects and the methodology used must be examined for **ethical issues** (see also point 3 of this Guideline).
- Scientific **work** must be conducted in a **transparent and accountable** manner. The scientific approach used must be precisely and transparently recorded and documented.
- Scientific work must comply with the **data protection** provisions stipulated in the General Data Protection Regulation (GDPR) and the Data Protection Act (DSG) as well as other data protection standards as amended.
- If the **archiving** of the data of empirical studies is not prohibited, these data are to be stored safely and in such a way that they cannot be changed or modified.
- As far as is possible and reasonable, basic data for **publications** shall be **retained for 10 years** in machine-readable form according to the state of the art, protected from manipulation and unauthorized access, without prejudice to other legal provisions (including but not limited to the GDPR and DSG as well as additional data protection standards as amended), unless individual regulations provide for a longer retention period (e.g., clinical studies).
- Major outside input as well as ideas, texts, data, graphics, audio documents and results of others must be **cited accurately** as well as results from artificial intelligence assistance systems such as chatbots [e.g., ChatGPT], translation apps [e.g., DeepL], paraphrasing apps [e.g., Quillbot]), image generator apps [e.g., Dall-E], or programming apps [e.g., Github Copilot].
- Scientific **results must be critically examined**.
  - Researchers must be **open to the criticism** or doubts of others. This applies in particular to results generated with the help of artificial intelligence applications such as chatbots [e.g., ChatGPT], translation applications [e.g., DeepL], paraphrasing applications [e.g., Quillbot]), or programming applications [e.g., Github Copilot], as these tools do not necessarily provide "correct" results but are also capable of "hallucinating".
- **Research misconduct** must be avoided in one's own work and in general.
- **Supervisors of Bachelor's or Master's theses**[1] must be selected and assigned in accordance with the competence profiles specified in applicable employment law as well as with the requirements for **subject supervision specified in the Study and Examination Regulations**.
- The work of others must be **reviewed** in an impartial, disinterested, and thorough manner.
- Any **bias** (e.g., conflict of interest, competitive relationship) must be disclosed in good time and consequently, no review may be carried out in such cases.
- Without exception, consideration and **honesty** must be shown towards the work and contributions of colleagues and competitors and towards oneself.
- Any scientific and commercial **usage rights** of data and results must be dealt with before the work is carried out.

Research misconduct

Research misconduct refers to **wilful**, **conscious** or **grossly negligent** violations of GSP standards in connection with a scientific work, including but not limited to misrepresenting facts, infringing intellectual property of third parties, or compromising other people's research as a result of one's own scientific activity. The following actions in particular are to be considered as research misconduct:

- **Misrepresentation**
  - · Fabrication of data
  - · Falsification of data by manipulating the research process
  - · Falsification of data by altering or selectively omitting data which contradict the research hypothesis
  - · Falsification of data by misleading interpretation of data with a view to obtaining a desired result
  - · Failure to correct detected errors
  - The uncontrolled and uncritical adoption of results from artificial intelligence assistant systems, by negligently accepting their possible "hallucinations".

- **Infringement of intellectual property, plagiarism**
  - · Infringements with regard to the work of another person protected by copyright or scientific findings, hypotheses, teachings, texts, contents, ideas or research approaches of another person:
    - Unauthorised utilisation under the pretence of authorship (plagiarism)
    - Exploitation of research approaches and ideas, in particular as a reviewer (theft of ideas)
    - Claim to or unjustified assumption of authorship or co-authorship of a scientific piece of work.
    - Falsification of the content of a scientific work
    - Unauthorised publication of and offering third parties unauthorised access to a work, finding, hypothesis, teaching or research approach that has not yet been published.
    - The use of results generated with the help of artificial intelligence assistance systems, without identifying them as such accordingly.

- **Involvement in research misconduct**
  especially through active involvement in the misconduct of others, neglect of supervisory obligations or co-authorship of publications which are based on research misconduct.
- **Disposal of primary and original data**
  - · Disposal of primary and original data, insofar as this infringes legal provisions or accepted principles of scientific work in the discipline.
- **Sabotaging of research**
  - · including damaging, destroying or tampering with experimental set-ups, equipment, documents, hardware, software, chemicals or anything else required by another person to conduct an experiment
  - · and unjustified refusal to provide access to primary and original data, including information on how such data was obtained, or the disposal of such data before the applicable retention periods have expired.
- **Obstruction of research activities**
- **Co-authorship**
  - · Making a claim to (co-)authorship of another person without that person's consent is not permitted. Failure to make an express effort to prevent publication without the co-author's consent will also be considered as misconduct.
- **Unfair attempts to damage the scientific reputation of another researcher,**

- in particular through anonymous, non-specific and unjustified allegations of violations of GSP standards.

For further information see the long version below.

FH JOANNEUM Guideline for Good Scientific Practice and Prevention of Research Misconduct

Preamble

As a university of applied sciences, FH JOANNEUM is committed to an educational and research mission that is in line with the needs and issues facing society.

All employees, lecturers and students of FH JOANNEUM have the responsibility to generate knowledge for the benefit of the general public and to strive for sustainable solutions[2], upholding the university's canon of values[3] and maintaining scientific integrity.[4]

In line with this responsibility, FH JOANNEUM is committed to **avoiding discrimination,** in particular on the grounds of sex, age, religion, social status, origin, political conviction, mental and physical abilities, physical appearance (see European Convention on Human Rights, Art. 14).

The university acts as a responsible link between society and science.[5]

The following principles of good scientific practice (GSP) tie in with standards and guidelines already formulated by others.[6]

The academic integrity of all students, employees and teaching staff at FH JOANNEUM is measured against these principles.

1. Principles

The following guidelines are based on the principles of research ethics and GSP standards, which in turn are based on the principles of responsible research:[7]

- Effort to achieve the best possible scientific practice while avoiding research misconduct as far as possible.
- Responsibility for current and future impacts of research on society and its opportunities for development.
- To act in accordance with research ethics, it is important to adhere to scientific quality criteria[8] and to be aware of one's responsibility towards one's own discipline and other persons working in science as well as towards society and the environment.[9]

2. Purpose

FH JOANNEUM is committed to safeguarding GSP by ensuring that

- all staff, lecturers, other contractors and students at FH JOANNEUM are required to avoid research misconduct in order to promote GSP;
- any accusations of research misconduct with regard to one or several persons are viewed and treated as a highly sensitive matter;
- any discrediting due to unfounded accusations in particular must be avoided, since once a person has been accused of misconduct it is difficult for them to fully regain credibility;
- the legitimate interests of a person accusing someone else of misconduct must be safeguarded; the extension of responsibility beyond one's own field of activity is to be avoided as much as possible.

3. Ethical acceptability of proposed problems or research questions

During the planning stage of Bachelor's or final degree theses or research projects, questions of the ethical justifiability of proposed topics or research questions may arise. The Board will appoint members of the Ethics Working Group for the committee, who provide support and advice in the clarification of ethical concerns in the context of scientific questions in the early stages.[10]

4. Good scientific practice

All students, staff, and lecturers of FH JOANNEUM (hereinafter referred to as "person" or "persons") are thus obliged to adhere to the following principles of good scientific practice in teaching and research:

- Adherence to **professional standards**, i.e., scientific work must be conducted in compliance with the legal regulations, ethical standards and in accordance with the current state of knowledge of the relevant subject or discipline.
- Scientific research questions, research projects and the methodology used must be examined for **ethical issues** (see also point 3 of this Guideline).
- Scientific **work** must be conducted in a **transparent and accountable** manner. The scientific approach used must be precisely and transparently recorded and documented.
- Scientific work must comply with the **data protection** provisions stipulated in the General Data Protection Regulation (GDPR) and the Data Protection Act (DSG) as well as other data protection standards as amended.
- If the **archiving** of the data of empirical studies is not prohibited, these data are to be stored safely and in such a way that they cannot be changed or modified.
- As far as is possible and reasonable, basic data for **publications** shall be **retained for 10 years** in machine-readable form according to the state of the art, protected from manipulation and unauthorised access, without prejudice to other legal provisions (including but not limited to the GDPR and DSG as well as additional data protection standards as amended), unless individual regulations provide for a longer retention period (e.g., clinical studies).
- Major outside input as well as ideas, texts, data, graphics, audio documents and results of others must be **cited accurately** as well as results from artificial intelligence assistance systems such as chatbots [e.g., ChatGPT], translation apps [e.g., DeepL], paraphrasing apps [e.g., Quillbot]), image generator apps [e.g., Dall-E], or programming apps [e.g., Github Copilot].
- Scientific **results must be critically examined**. This applies in particular to results generated with the help of artificial intelligence applications such as chatbots [e.g., ChatGPT], translation applications [e.g., DeepL], paraphrasing applications [e.g., Quillbot]), or programming applications [e.g., Github Copilot], as these tools do not necessarily provide "correct" results but are also capable of "hallucinating".
- Researchers must be **open to the criticism** or doubts of others.
- **Research misconduct** must be avoided in one's own work and in general.
- **Supervisors of Bachelor's or Master's theses**[11] must be selected and assigned in accordance with the competence profiles specified in applicable employment law as well as with the requirements for subject supervision specified in the Study and Examination Regulations.
- The work of others must be **reviewed** in an impartial, disinterested and thorough manner.
- Any **bias** (e.g., conflict of interest, competitive relationship) must be disclosed in good time and consequently, no review may be carried out in such cases.
- Without exception, consideration and **honesty** must be shown towards the work and contributions of colleagues and competitors and towards oneself.
- The **joint responsibility of co-authors for publications** must be observed.
- **Conflicts of interest** must be clearly stated in scientific publications.
- **Self-plagiarism must be avoided**. Self-plagiarism occurs when no reference is made to the earlier publication when a previously published text or part of a text is published again.
- The **funding source** for research projects must be made **transparent**.
- Any scientific and commercial **usage rights** of data and results must be dealt with before the work is carried out.

5. Research misconduct

Research misconduct refers to **wilful**, **conscious** or **grossly negligent** violations of the standards of good scientific practice in connection with a scientific work, including but not limited to misrepresenting facts, infringing intellectual property of third parties, or compromising other people's research as a result of one's own scientific activity.[12]

The following actions in particular are to be considered as research misconduct:[13.]

- **Misrepresentation**
  - · Fabrication of data
  - · Falsification of data by manipulating the research process
  - · Falsification of data by altering or selectively omitting data which contradict the research hypothesis
  - · Falsification of data by misleading interpretation of data with a view to obtaining a desired result
  - · Failure to correct detected errors
  - The uncontrolled and uncritical adoption of results from artificial intelligence assistant systems, by negligently accepting their possible "hallucinations".
- **Infringement of intellectual property, plagiarism**

  Infringements regarding the work of another person protected by copyright or scientific findings, hypotheses, teachings, texts, contents, ideas, or research approaches of another person:
  - · Unauthorised utilisation under the pretence of authorship (plagiarism)
  - · Exploitation of research approaches and ideas, in particular as a reviewer (theft of ideas)
  - · Claim to or unjustified assumption of authorship or co-authorship of a scientific piece of work
  - · Falsification of the content of a scientific work
  - · Unauthorised publication of and offering third parties unauthorised access to a work, finding, hypothesis, teaching or research approach that has not yet been published
  - · The use of results generated with the help of artificial intelligence assistant systems without appropriately labeling them as such.
- **Involvement in research misconduct**

  Research misconduct can also include involvement in research misconduct, especially through active involvement in the misconduct of others, neglect of supervisory obligations or co-authorship of publications which are based on research misconduct.
- **Disposal of primary and original data**
  - · Disposal of primary and original data, insofar as this infringes legal provisions or accepted principles of scientific work in the discipline.
- **Honorary authorship**
  - · So-called 'honorary authorships' are not permitted, i.e. authorship may only be claimed by persons who have made an actual substantial contribution to the relevant publication.
- **Co-authorship**

  Making a claim to (co-)authorship of another person without that person's consent is not permitted. Failure to make an express effort to prevent publication without the co-author's consent will also be considered as misconduct.
- **Sabotaging of research**

  including damaging, destroying, or tampering with experimental set-ups, equipment, documents, hardware, software, chemicals or anything else required by another person to conduct an experiment and unjustified refusal to provide access to primary and original data, including information on how such data was obtained, or the disposal of such data before the applicable retention periods have expired.
- **Obstruction of research activities**

- Obstructing the research activities of other scientists.
- Unfair attempts to damage the scientific reputation of another researcher, in particular through anonymous, non-specific and unjustified allegations of violations of GSP standards.

- **Providing inaccurate information in a funding application**
- **Creating disadvantages to career advancement, in particular of junior scientists**

5.1 Procedure in the event of suspected research misconduct

Suspected cases of research misconduct can be relevant to FH JOANNEUM in various ways. Students, graduates, or employees may be accused of research misconduct, requiring FH JOANNEUM to take appropriate steps to investigate these cases.

1. If a student submitting a Bachelor's or Master's thesis is suspected of research misconduct, the "FH JOANNEUM measures for checking plagiarism in pre-academic and academic student theses" shall apply (cf. sections 5.2.1. and 5.2.2. of this Guideline). If plagiarism is detected during the assessment process, the relevant provisions of the FH JOANNEUM Study and Examination Regulations and the Universities of Applied Sciences Act (FHG) shall be applicable.

2. If the suspected case is an FH JOANNEUM graduate who has been conferred an academic degree: If research misconduct is alleged or detected after the academic degree has been conferred, the procedure specified in § 10 (4) 4 FHG shall be applicable. The Head of the Board shall be responsible for conducting the procedure in accordance with the General Administrative Procedure Act (AVG) and shall issue an official decision. An appeal against the decision can be lodged with the Federal Administrative Court (BVwG) acc. to § 10 (6) FHG and the Supreme Administrative Court (VwGH)/Constitutional Court (VfGH). The academic degree may be revoked. The management will be informed of the results in a general form and in compliance with official secrecy.

3. If the suspected case is an FH JOANNEUM employee: If an employee or lecturer of FH JOANNEUM is accused of research misconduct, these allegations must be examined by the Head of the Board. The management will be informed of the results and will examine any consequences under employment law if research misconduct is found to have occurred.

The suspected cases will be examined on the basis of comments and expert opinions. As a minimum requirement the person accused of research misconduct and the person who has raised the allegation will be asked for their comments. The procedure may also include obtaining expert opinions or involving the Austrian Agency for Research Integrity (ÖAWI) of which FH JOANNEUM is a member.

5.2. Measures for verifying compliance with good scientific practice and preventing misconduct in Bachelor's and Master's theses

- Obligatory declaration
- Plagiarism check
- Monitoring

5.2.1. Obligatory signed declaration

Obligatory signed Declaration of Honor:

I hereby declare under oath

- that I have independently prepared this Bachelor/Master thesis and have performed all associated tasks myself, using no other sources or aids than those indicated.
- that in preparing the thesis I have adhered to the guidelines of FH JOANNEUM for ensuring good scientific practice and for avoiding misconduct during the preparation of this work,
- that I have properly cited all formulations and concepts taken over from printed, unprinted works as well as from the Internet in wording or in the essential content in accordance with the rules of Good Scientific Practice (guideline GSP) and have marked them by precise references,
- that I have declared in the method presentation or an index all aids used (artificial intelligence assistance systems such as chatbots [e.g., ChatGPT], translation applications [e.g., DeepL], paraphrasing applications [e.g., Quill bot], image generator applications [e.g., Dall-E], or programming applications [e.g., Github Copilot], and indicated their usage at the corresponding text passages.
- that this original thesis, in its current form, has not been submitted to any other academic institution for the purpose of obtaining an academic degree[1].

I have been informed that my work may be checked for plagiarism and for third-party authorship of human (ghostwriting) or technical origin (artificial intelligence assistance systems).
I am aware that a false statement may result in legal consequences such as a negative assessment of my work, the subsequent revocation of any obtained degree, and legal prosecution.

5.2.2. Check of the submitted Bachelor's or Master's theses using plagiarism detection software provided by FH JOANNEUM

The "FH JOANNEUM measures for checking plagiarism in pre-academic and academic student theses" stipulates that student submitting a Bachelor's or Master's thesis to FH JOANNEUM must check the thesis (or have it checked in agreement with their supervisor) using a plagiarism detection software provided by FH JOANNEUM and shall send the check report (or have it sent) to the supervisor in printed form or by email upon submission of the thesis at the latest. While other pre-academic and academic papers (e.g., term papers) may also be checked in this way, a mandatory check is not necessary.

The check report provides only an indication and can neither confirm nor exclude that an act of research misconduct has occurred. Only the supervisor, in consultation with the head of degree

[1] This wording does not apply to joint study programs (e.g., double degree programs); the regulations stipulated for these apply.

programme, is entitled to state that research misconduct in the form of plagiarism has occurred by issuing an assessment to that effect.

5.2.3. Monitoring

In order to be able to monitor the cases of plagiarism occurring at FH JOANNEUM, all heads of degree and certificate programs shall, by 31 October of each year, furnish the Head of the Board with a report on the cases of plagiarism that have occurred in the preceding academic year, including a brief informal description and presentation of the measures taken.

6. Responsibility in management positions in teaching and research

- Degree programmes at universities of applied sciences are responsible for ensuring good scientific practice and academic integrity according to the specifications of the Board (cf. amendment to FHG acc. to Federal Law Gazette (BGBl.) I of 27/05/2021, effective from 01/10/2021).
- The heads of degree or certificate programmes are organisationally responsible for ensuring that the approval, supervision and assessment processes for Bachelor's or Master's theses are organised such that GSP standards are maintained and research misconduct is prevented. The programme head must also ensure that supervision, conflict management and quality assurance within the meaning of this Guideline are clearly assigned and implemented.
  It is a responsible and active instruction, guidance, and supervision of scientific staff as well as students by their superiors or supervisors to adhere to assistance systems of Artificial Intelligence. This applies in particular to new challenges that arise as a result of the public availability of Artificial Intelligence assistance systems such as chatbots (e.g., ChatGPT), translation applications (e.g., DeepL), paraphrasing applications (e.g., Quillbot), image generation applications (e.g., DALL-E), or programming applications (e.g., Github Copilot).
- Supervisors of Bachelor's or Master's theses are responsible for ensuring that students are adequately supervised and are informed about the principles of good scientific practice and the consequences of research misconduct. This also includes new challenges associated with the responsible use of artificial intelligence assistance systems.
- Teaching staff are called upon to discuss the standards of good scientific practice and the issue of research misconduct as far as possible to create an awareness of the problem and to instill a sense of responsibility. This also involves the responsibility to critically engage with new developments in the field of artificial intelligence assistance systems and associated challenges, taking into account the insights gained in the process.
- The heads of institutes, R&D centres and research centres are organisationally responsible for ensuring that the relevant management tasks in terms of supervision, conflict management and quality assurance within the meaning of this Guideline are clearly assigned and implemented. Furthermore, the management ensures the provision or at least the facilitation of training measures necessary to qualify potential supervisors in the program for competent and responsible handling of artificial intelligence assistance systems in teaching and research within the framework of good scientific practice.

7. Publication of the Guideline

The Guideline for Good Scientific Practice and Prevention of Research Misconduct shall be published immediately following adoption of the relevant resolution by the Board and shall in any event be published on the FH JOANNEUM website. Guideline 1.2. shall enter into effect on November 7, 2023, and replace Guideline 1.1.
Reference to this Guideline shall be made in the Study and Examination Regulations and in the Student Agreement. The Guideline shall be actively communicated to the students during lectures.

Literature/Sources

- ALLEA – All European Universities (2018): The European Code of Conduct for Research Integrity. Berlin: self-publication. <European Code of Conduct for Research Integrity.pdf> (18/10/2019).

- Federal Ministry of Science and Research (2020): Best Practice Guide for Research Integrity and Ethics. <Best Practice Guide for Research Integrity and Ethics.pdf> (28/01/2021).

- Balzert, Helmut; Schröder, Marion; Schäfer, Christian (2011): Wissenschaftliches Arbeiten – Ethik, Inhalt & Form wiss. Arbeiten, Handwerkszeug, Quellen, Projektmanagement, Präsentation (2nd Ed.). Herdecke; Witten: W3L-Verlag.

- Resolution of the FH JOANNEUM Board on safeguarding good scientific practice and preventing research misconduct adopted on 10/03/2014

- German Research Foundation, DFG (2019): Guidelines for Safeguarding Good Research Practice, Code of Conduct. Bonn: self-publication <DFG Guidelines for Safeguarding Good Research Practice.pdf> (18/10/2019).

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- University of Graz (2004): Standards of Good Scientific Practice and Prevention of Research Misconduct. <Grundsätze zur Sicherung guter wissenschaftlicher Praxis und zur Vermeidung von Fehlverhalten in der Wissenschaft.html> (28/01/2021).

- Medical University of Graz (2020): Standards of Good Scientific Practice at the Medical University of Graz. <Richtlinie der medizinischen Universität Graz über Standards für gute wissenschaftliche Praxis.pdf> (27/01/2021).

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- Association of Austrian Universities of Applied Sciences (FHK) (2019): Universitäten und Fachhochschulen setzen ein Zeichen für die Grundwerte des Hochschulwesens. <https://www.fhk.ac.at/index.php?id=135&L=860&tx_ttnews%5Btt_news%5D=166&cHash=8bc0b7d196bca6828db0db44589fd42b> (09/10/2019).

- Graz University of Technology (2015): Guidelines on Safeguarding Good Scientific Practice. <TU Graz Guidelines on Safeguarding Good Scientific Practice.pdf> (28/01/2021).

- RRI in Österreich (2016): Positionspapier. Verantwortungsbewusste Forschung und Innovation. Begriffsbestimmung, Herausforderungen, Handlungsempfehlungen. <https://www.zsi.at/de/object/publication/3952> (18/10/2019).

- United Nations – Resolution adopted by the General Assembly (2015): Transforming our World: The 2030 Agenda for Sustainable Development. <UN Resolution.pdf>; see also <https://www.bundeskanzleramt.gv.at/themen/nachhaltige-entwicklung-agenda-2030.html> (18/10/2019)

- Vienna Statement of the representatives of the Rectors' Conferences (2018): Universities for Enlightenment. <Vienna Statement Rectors' Conference.pdf> (09/10/2019).

[1] The term "Master's thesis" as used in this Guideline shall be taken to include the term "Diploma thesis" in Master's degree programmes.
[2] Cf. United Nations – Resolution adopted by the General Assembly, 2015, online.
[3] "We express our strong belief in the fundamental values of higher education that reflect the achievements of enlightenment. […] Furthermore, we emphasize the contribution of higher education institutions to society, fostering intercultural understanding, equitable access, civic engagement, and ethical education, and enhancing social responsibility." (Vienna Statement of the representatives of the Rectors conferences, 2018, p. 1, online).
[4] Cf. Austrian Agency for Research Integrity (ÖAWI), 2015, online.
[5] Cf. Ribitsch, 2019, quoted from Association of Austrian Universities of Applied Sciences (FHK), 2019, n. pag., online.
[6] Cf. Federal Ministry of Science and Research, 2020; Austrian Agency for Research Integrity (ÖAWI), 2015; ALLEA _ All European Universities, 2018; German Research Foundation (DFG), 2019; Graz University of Technology, 2015; University of Graz, 2004; Medical University of Graz, 2020; RRI in Austria, 2016.
[7] "Responsible research and innovation is an approach that anticipates and assesses potential implications and societal expectations with regard to research and innovation, with the aim to foster the design of inclusive and sustainable research and innovation" (European Commission - Horizon 2020, 2019, n. pag., online).
[8] The twelve key criteria of scientific quality specified by Balzert, Schröder & Schäfer include: 1. Honesty, 2. Objectivity, 3. Verifiability, 4. Reliability, 5. Validity, 6. Comprehensibility, 7. Relevance, 8. Logical reasoning, 9. Originality, 10. Plausibility, 11. Fairness and 12. Responsibility (cf. Balzert, Schröder & Schäfer 2011: 13 ff.).
[9] Cf. Balzert, Schröder & Schäfer, 2011, 13 f.
[10] This will be based on procedural principles which govern the appointment, powers, summoning and intervention of persons of trust and an advisory body to clarify ethical concerns in the context of scientific work in the early stages. These principles are available online on the FH JOANNEUM website under 'University' - 'Teaching and Research'.
[11] The term "Master's thesis" as used in this Guideline shall be taken to include the term "Diploma thesis" in Master's degree programmes.
[12] "Violations are deemed **'wilful'** when a researcher considers a violation of the Standards of Good Scientific Practice possible and accepts that possibility when conducting research.
Violations are deemed **'conscious'** when a researcher considers a violation of the Standards of Good Scientific Practice not merely possible, but certain.
Violations are deemed **'grossly negligent'** in cases where a researcher shows blatant disregard for due diligence in a given research context and therefore fails to recognize that s/he is violating the Standards of Good Scientific Practice to a great extent; for example, this is the case where even the simplest, most obvious considerations are not taken into account and the researcher disregards considerations which should have occurred to any person.
Critical statements in scientific/scholarly discourse ('honest differences of opinion') or errors made in good faith ('honest errors') are **not considered to be forms of research misconduct**." (ÖAWI, 2015, p. 12)
However, the **standards of good scientific practice may be violated** due to the **erroneous** use of data. In this case, it can be assumed that this was not done wilfully or through gross negligence and therefore does not constitute research misconduct. The wilful non-disclosure or failure to correct an identified error, regardless of whether this error was identified by the scientists themselves or by a third person, is however considered research misconduct.
[13] Cf. Austrian Agency for Research Integrity (ÖAWI), 2015, p. 14 ff.