

Guidelines on Safeguarding Good Scientific Practice

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1. PURPOSE

The purpose of this Guideline is to systematically ensure good academic and scientific practice and avoid related misconduct at TU Graz.

2. SCOPE OF APPLICATION

This Guideline is binding for all employees and students at TU Graz as well as for all academic staff of TU Grazaffiliated companies in which TU Graz directly or indirectly holds at least 50% interest. All other companies in which TU Graz is directly or indirectly involved are recommended to adopt the principles of this Guideline through their own official decisions.

3. Addressees

All academic staff and students of TU Graz as well as of TU Graz-affiliated companies in which TU Graz directly or indirectly holds at least 50% interest.

4. OTHER APPLICABLE DOCUMENTS

- Federal Act on the Organisation of Universities and their Studies (Universities Act 2002, UG), Federal Law Gazette (BGBI.) I 120/2002 as amended.
- Statutes of Graz University of Technology as amended.

5. SOURCES

- Federal Act on the Organisation of Universities and their Studies (Universities Act 2002, UG), Austrian Federal Law Gazette (BGBI.) I 120/2002 in the version 177/2021.
- Richtlinie der Österreichischen Agentur für wissenschaftliche Integrität zur guten wissenschaftlichen Praxis (Guidelines for Good Scientific Practice from the Austrian Agency for Scientific Integrity (OeAWI, OeAWI GSP Guidelines), 2019. Vienna: Author.
- Praxisleitfaden f
 ür Integrit
 ät und Ethik in der Wissenschaft (Best Practice Guide for Research Integrity and Ethics), 2020. Vienna: Austrian Federal Ministry of Education, Science and Research (BMBWF).

6. GLOSSARY

Process responsibility: Head of OE Quality Management, Evaluation & Reporting (92160). The responsible staff unit documents/updates this Guideline and is therefore the first point of contact.

7. CHANGE HISTORY

08/01/2024

- Clarification and adjustment of the terminology used, especially in terms of gender-appropriate language and updating of sources
- Fundamental revision of § 4 (Backup and Storage of Essential Data)
- Addition of point (6) to § 5
- Fundamental revision of § 6 ("Academic or Scientific Misconduct" instead of "Plagiarism and Ghost-Writing")
- Fundamental revision of § 8 (Commission for Scientific Integrity)
- Addition of § 10 (Ethics Committee)
- Inclusion of Explanatory Notes section created with the help of Ao. Univ.-Prof. J. Woisetschläger in place of the appendices used in version 04 of the Guidelines
- Adjustment of the document to match the new layout for guidelines at TU Graz

8. GUIDELINE

PREAMBLE

Academic honesty and integrity along with adherence to the principles of good scientific practice are indispensable prerequisites for academic and scientific work as well as for the reputation of researchers and research institutions, but above all for the trust placed in them by society and the public.

The increase and acceleration of information, competition and performance evaluation and the resulting pressure on active researchers and scientists pose the risk of consciously or unconsciously neglecting academic integrity and good scientific practice or putting them aside in everyday working life. In order to prevent such misconduct and to ensure the highest academic integrity and care of all of its members (especially employees and students), TU Graz is committed to the principles of good scientific practice set out below in accordance with international standards.¹

"Good scientific practice" means to comply with the legal regulations, ethical standards and state of knowledge of the respective field within the framework of the relevant institution's mission and objectives (§ 51 (2) 33 Universities Act 2002). TU Graz ensures that all university members pursuing academic and scientific activities are aware of these principles and the associated responsibilities. In cases of academic or scientific misconduct, TU Graz takes appropriate measures.

Good scientific practice aims to ensure high quality research and training of young scientists as well as transparency in the handling of research data and publications, and to prevent fraud and forgery in science, research and academia.

§1 – GENERAL PRINCIPLES OF GOOD SCIENTIFIC PRACTICE

All members of TU Graz (especially academic staff and students) undertake to adhere to the general principles of good academic and scientific practice and to the following basic rules:

- to comply with the rule of *lege artis*², that is to carry out their scientific work in accordance with the legal regulations, ethical standards and the state of knowledge of their respective field.
- to document results in a comprehensible manner (reliable backup and storage of primary data).
- to consistently question results critically (rule of systematic scepticism: openness to doubts about their own results or the results of their own group).
- to maintain strict honesty with regard to the contributions of partners and competitors and to not hinder the scientific work of competitors (e.g. by delaying reviews or by passing on scientific results received in confidence).
- to be open to criticism from colleagues, to provide careful, disinterested and unbiased evaluations of colleagues' works and to refrain from reviewing or evaluating in the event of partiality.
- to publish the results achieved with public funds (principle of publicity in basic research).
- to avoid and prevent academic and scientific misconduct in their own work and personal environment.

§ 2 – MANAGEMENT RESPONSIBILITY AND COOPERATION

(1) Managing a scientific field requires expertise, personal presence and prudence; hence, those responsible must have comprehensive knowledge of all that is happening around them. If this is not possible due to the size of the group or for other reasons, management tasks must be delegated accordingly.

- (2) Management of a scientific area (e.g. institute) assumes full responsibility for the appropriate organisation of their area so as to ensure that all tasks related to management, supervision, conflict resolution and quality management (quality planning, assurance and improvement) are clearly assigned and carried out accordingly.
- (3) Cooperation in scientific areas undertakes to ensure that any results achieved in cooperative projects involving individual participants taking responsibility for specialised tasks are communicated and criticised reciprocally, regardless of hierarchical considerations, and integrated into a common state of knowledge, while also safeguarding authorship. This is also of particular importance for fostering independence in the younger scientists of the group. The mutual review of work results must be guaranteed, among others, by making individual results accessible.

§ 3 - SUPPORT OF YOUNG SCIENTISTS AND RESEARCHERS

- (1) In all institutes (or working groups, etc.), professionally qualified support must be offered to students working on their seminar papers and bachelor's theses, young scientists, especially to master and doctoral students, and to assistants, younger postdocs and habilitation candidates. For this purpose, a primary supervisor with sufficient availability must be present.
- (2) Every university teacher is called upon to appropriately address the principles of good scientific practice and draw attention to problems connected to academic and scientific misconduct in their curricular training and supervision of young scientists, thereby raising awareness of those problems and fostering a feeling of personal responsibility.

§ 4 – BACKUP AND STORAGE OF ESSENTIAL DATA

- (1) Data essential for publications must be stored on durable and secure storage media at the institution where that data had been generated for a minimum period of 10 years, without prejudice to other legal provisions. Whenever legal regulations permit, specimens with which primary data were obtained, protocols and all other documentation relevant to the scientific work in question must be retained for the same period of time.
- (2) <u>Data protection regulations</u>: In the context of research, two types of personal data can be distinguished: personal data that is processed for the administration of a research project (e.g. timesheets, invoices, payroll accounts, work contracts – "administrative research data") and personal data that is the subject of the scientific research project (e.g. test subject data, results, publications – "content-related research data").
- (3) At TU Graz, administrative research data must be deleted after a maximum period of 15 years, unless a different deadline has been agreed in the relevant research contracts.
- (4) Content-related research data may also be stored for longer periods due to the exemption clause in the General Data Protection Regulation (GDPR) related to 'academic expression', provided that appropriate technical and organisational measures are taken (e.g. access concept).

§ 5 – SCIENTIFIC PUBLICATIONS

(1) As the most important medium for communicating research results, publications that are intended to report on new scientific findings must describe the results along with the methods used comprehensibly and in their entirety, providing complete and correct evidence of individual own and third-party preparatory work. The internationally common rules and guidelines for citation and identification of third-party content must be strictly observed.³

- (2) Previously published results should only be repeated to the extent necessary for the understanding of any connections made to new results.⁴ Findings that support or question the results presented must also be reported.
- (3) If several authors are involved in a research work or the publication based on it, all authors always share responsibility for its content. Only a person who has made a significant contribution⁵ to the work and has agreed to publication of the work can be named as a co-author. If permitted by the type and scope of the research work or the number of contributing authors, individual contributions must be attributed to the relevant persons.⁶
- (4) So-called "honorary authorship" is not permitted. Any support from third parties may solely receive special mention in an acknowledgment section.
- (5) Online publications and the use of online sources are subject to the same regulations as other publications and sources.
- (6) Reviewers of academic and scientific publications, including evaluators hired by scientific and university decision-making bodies, are obliged to maintain confidentiality and to disclose actual or possible conflicts of interest and partiality.

§ 6 – ACADEMIC AND SCIENTIFIC MISCONDUCT

- (1) Academic and scientific misconduct occurs when researchers intentionally, knowingly or through gross negligence violate the principles of good scientific practice. A person is considered to have acted intentionally if he/she/they believes that the standards and rules of good scientific practice may have been violated during research and takes no action to rectify the situation. A person is considered to have acted knowingly if he/she/they believes that the violation of the standards and rules of good scientific practice is not just possible, but certain. A person is considered to be grossly negligent if he/she/they fails to take sufficient and appropriate care in that specific research context and therefore fails to realise that the standards of good scientific practice are being violated as a result of their carelessness.⁷
- (2) According to § 51 (2) 3 Universities Act 2002 (UG), plagiarism occurs when texts, content, or ideas of other origins are adopted and presented as one's own. In particular, this includes the appropriation and use of text passages, theories, hypotheses, findings, or data by copying this material in a direct, paraphrased, or translated form without appropriately acknowledging and citing the source and the authors. The severity of plagiarism must be determined based on how essential for the overall work the plagiarised section is and to which extent another's work was plagiarised. This is the case, for example, if there is insufficient independently produced work. Therefore, plagiarism is considered serious misconduct if larger or crucial parts⁸ of the work are taken and cited incorrectly or not at all.
- (3) According to § 51 (2) 32 UG, one can conclude that the falsification of scientific or artistic performance has occurred if someone has used unauthorised aids⁹ or made unauthorised use of another person when preparing a written paper or taking an examination or when preparing an artistic work (in particular the use of commissioned work created by a third person, "ghost-writing"). This conclusion is also reached if data and results are invented or falsified.
- (4) For submission of any academic thesis, TU Graz requires an affidavit¹⁰ clearly stating that
 - 1. the work was written autonomously and no sources or aids other than those declared were used, and
 - 2. any content that has been taken verbatim or mutatis mutandis from third-party works or own works is quoted as such and the origin of the information has been made clear by citing the source.

§7 – PLAGIARISM CHECK FOR SEMINAR PAPERS AS WELL AS BACHELOR'S, MASTER'S, DOCTORAL AND HABILITATION THESES

- (1) For seminar papers and bachelor's theses, supervisors are recommended to use an automated similarity check for a plagiarism check.
- (2) Diploma theses, master's theses, master's theses written as part of university certificate programmes and doctoral theses are considered academic theses.
- (3) Academic theses must be subjected to ongoing and a final plagiarism check by the supervisors using an automated similarity check. After the electronic upload of the final machine-readable version of the academic thesis (even if an exclusion of the use of academic work has been signed or an intention to do so has been indicated in accordance with § 86 (2) UG), a similarity check using TU Graz-standard software is mandatory. It serves as a supplement to the evaluation of the work's content and formal requirements by reviewers and/or evaluators.¹¹
- (4) The supervisor of the academic thesis in question must personally confirm that a plagiarism check has been carried out with either their written or electronic signature. The signed confirmation must be submitted along with the academic thesis.
- (5) For habilitation theses, the Rectorate conducts the plagiarism check using similarity check software. The resulting plagiarism report is available to the habilitation committee.

§ 8 – COMMISSION FOR SCIENTIFIC INTEGRITY FOR CASES OF SUSPECTED ACADEMIC AND SCIENTIFIC MISCONDUCT

- (1) TU Graz established the Commission for Scientific Integrity (CSI) to advise on questions of good scientific practice. The CSI acts as a confidential and advisory point of contact for all members of TU Graz, especially the Rectorate and people involved, in the event of suspected violations of the principles of good scientific practice. The CSI clarifies cases of suspected academic or scientific misconduct within the university and determines whether academic or scientific misconduct has occurred.
- (2) <u>Procedure:</u> The CSI takes action based on the result of an inquiry from a member of the Rectorate or a report of a suspected case from a member or a former member of TU Graz or an external person. Such a report may arise from a specific suspicion that has come to the relevant person's attention concerning academic or scientific misconduct of a university member or former university member. To report a suspected case, they contact the office of the CSI. If necessary, external experts may be consulted and external reports may be commissioned. If an employee of TU Graz is suspected of having committed academic or scientific misconduct, the Works Council for Academic Personnel (BRwiss) is also informed.
- (3) <u>Composition:</u> The CSI consists of 8 internal members and one external member: The respective Deans of each faculty recommend one or more members for the CIS to the Rector. The nominated member of the respective faculty nominates their replacement. The Working Group for Equal Opportunities (AKG) nominates one representative and one replacement representative from its scientific members for the CSI. Among all members, 50% must be women.

Only professors with academic experience or people with many years of professional experience in a field sworn to independency (especially people from the judicial profession) can serve as chairperson and deputy chairperson of the CSI. The chairperson of the CSI is appointed by the Rector and should not be a member of TU Graz.

The term of office of the CSI begins in January of the calendar year following the start of a new rectorship period and ends in December of the calendar year in which this rectorship period ends. The term of office of the members of the CSI is not tied to the term of office of the chairperson of the CSI. Members may be reappointed.

Members of the CSI are appointed by the Rector and members' names are published in the university gazette.

- (4) <u>Confidentiality:</u> CSI meetings are not open to the public. To protect all affected persons, the strictest confidentiality must be maintained. This strict confidentiality also applies to the invited witnesses or expert witnesses.
- (5) <u>Reporting obligation</u>: The CSI is obliged to provide the Rector with an annual written report on its activities.
- (6) Further details regarding the transparent and fair workings of the CSI are strictly regulated in the rules of procedure to be decided by the CSI.
- (7) In addition to the CSI, there is the possibility of referral to the Arbitration Board in accordance with § 43 of the Universities Act 2002 (UG). The members of the CSI may be called upon as witnesses or expert witnesses.
- (8) These provisions serve as the basis for the university's internal examination, clarification, arbitration or prosecution of cases of academic or scientific misconduct. They do not replace other regulated procedures (e.g. supervisory procedures under organisational law, disciplinary procedures, labour or civil court proceedings, criminal proceedings) and do not affect the competences and activities of the responsible bodies nor any legal or statutory options for action of those affected.

§ 9 – HANDLING OF SUSPECTED CASES AND CONSEQUENCES

- (1) In general, any suspicion of violation of good scientific practice in accordance with § 6 must be brought to the attention of the CSI via its office. The report must be made in writing and must contain all evidence of suspected academic or scientific misconduct.
- (2) If a (suspected) case of plagiarism or ghost-writing occurs during the supervision phase i.e. before an academic work has been assessed the responsible supervisor can, depending on the severity of the case, either issue an order for improvement or resign from the position as supervisor.
- (3) If the suspicion of plagiarism or ghost-writing arises during the assessment of academic work, the following procedure must be followed:
 - In a mild case of misconduct, the author should be given the opportunity to improve the work. If the author does not comply with the improvement request, the work is assessed negatively.
 - In a serious case of misconduct, the academic work must be assessed negatively and it is at the discretion of the supervisor to resign from the position.
- (4) If a work containing plagiarism or a work written in whole or in part by a third party has already been assessed and the academic or scientific misconduct later becomes known, the assessment of the work must be declared invalid by the officer responsible for study matters by official notification (see § 74 (2) Universities Act 2002 (UG)).
- (5) If it only becomes apparent after the completion of the degree programme that the academic degree was obtained fraudulently through a thesis containing plagiarism or a thesis written in whole or in part by a third party, the officer responsible for study matters must revoke the awarding of the academic degree (see § 89 UG).

- (6) If it only becomes apparent after the completion of the habilitation and issuance of the notice that the "venia docendi" teaching qualification was obtained fraudulently through a habilitation thesis containing plagiarism or a habilitation thesis written in whole or in part by a third party, the Rector must revoke the issuing of the notice (the awarding of the teaching qualification).
- (7) If the person concerned is employed by TU Graz, academic or scientific misconduct may also have consequences under labour or service law, including termination, dismissal or disciplinary proceedings. In the event of academic or scientific misconduct, consequences subject to civil law may include claims for surrender (e.g. of stolen material), injunctive relief claims under copyright law, patent law and competition law, claims for repayment (e.g. of grants, third-party funds) or claims for damages from TU Graz or third parties.
- (8) If there is a criminal offence to be prosecuted ex officio, the Rectorate must file a report.
- (9) To the extent that it is necessary to maintain trust in scientific integrity in particular to protect third parties, to restore scientific reputation, to prevent consequential damage or otherwise in the public interest, affected third parties and, if necessary, the media must be informed in an appropriate manner about the result of the formal investigation procedure and the further measures.

§ 10 – ETHICS COMMITTEE

- (1) The TU Graz Ethics Committee (EC) is tasked with:
 - deciding on the ethical acceptability of scientific publications, research projects and research funding applications submitted by members of the TU Graz or by employees of companies in which the TU Graz has a corporate stake of at least 50%,
 - 2. advising university management on topics regarding ethics at TU Graz, and
 - 3. promoting awareness of ethical issues at TU Graz.
- (2) If the responsibilities of the Ethics Committee are defined in accordance with § 30 of the University Act 2002 (UG), § 8c of the Hospitals and Health Resorts Act (KAKuG) or other relevant federal and state regulations, the Ethics Committee must refrain from advising and refer to their responsibility.
- (3) <u>Procedure:</u> All members of TU Graz or employees of companies in which TU Graz has at least a 50% corporate stake can submit an application for examination of the ethical acceptability of a research project or publication to the Ethics Committee. This application must be submitted to the office of the Ethics Committee. If the submitted documents are complete and fall under the responsibility of the Ethics Committee, the committee then decide on whether the application is ethical (positive vote), unethical (negative vote) or with a request for change and resubmission. The Ethics Committee issues a statement on inquiries pursuant to § 10 (1) 2 of this Guideline.
- (4) <u>Composition:</u> The Ethics Committee consists of seven members appointed by the Rector. The heads (or management teams) of the respective Fields of Expertise (FoE) each nominate a member for the Ethics Committee who has no immediate direct relation to them. Additionally, the Rectorate nominates one person with relevant expertise in the field of ethics/philosophy and one person with relevant expertise in the field of ethics/philosophy and one person with relevant expertise in the field of law as external members. The Rector also appoints replacement members based on suggestions made by the members representing the FoE or from the field of ethics/philosophy and law. Diversity must be taken into account in the nomination process. Among all members, 50% must be women. Furthermore, the Working Group for Equal Opportunities (AKG) and Works Council for Academic Personnel (BRwiss) each nominate one person to participate in the meetings as a "permanent representative" without the right to vote and, if they are unable to attend, send a replacement from the members of the AKG / BRwiss.

The term of office of the Ethics Committee begins in January of the calendar year following the start of a new rectorship period and ends in December of the calendar year in which this rectorship period ends. All members and replacement members of the Ethics Committee are bound to this period. The term of office and names of the Ethics Committee members must be published in the university gazette.

The Ethics Committee works independently; its members participate voluntarily and are neither bound by instructions, nor do they receive compensation. The members of the Ethics Committee are only answerable to their own conscience and are not liable for decisions or recommendations of the Ethics Committee or any decisions university management makes based on them.

- (9) <u>Confidentiality:</u> All subject matter discussed and decisions made by the Ethics Committee must be treated strictly confidential. The members and replacement members of the Ethics Committee must be sworn to secrecy in writing.
- (5) <u>Reporting obligation:</u> The Ethics Committee reports to the Rector about its activities annually in writing.
- (6) Further details regarding the workings of the Ethics Committee must be regulated in the rules of procedure to be decided by the Ethics Committee.

9. EXPLANATORY NOTES

Due to the complex interaction between ethical, legal and technical standards, an explanatory section has been added to this Guideline. Our special thanks go to long-time chair of the Doctoral School of Mechanical Engineering coordination team Ao. Univ.-Prof. DI Dr. techn. Jakob Woisetschläger for his contributions to the Explanatory Notes. He is author of "Die Dissertation an der Doctoral School für Maschinenbau" (The Dissertation at the Doctoral School of Mechanical Engineering), published in 2023 in the repository of the Graz University of Technology with the DOI:10.3217/qr312-z8t93.

¹ In response to serious cases of academic or scientific misconduct, the Deutsche Forschungsgemeinschaft (German Research Foundation, DFG) founded an international commission in the 1990s to develop guidelines on good scientific practice. Examples of academic or scientific misconduct that have caused great harm to science to date include the 1998 Wakefield study that fraudulently claimed a link between measles, mumps, and rubella (MMR) vaccine and autism and the 1989 publication on cold fusion by Pons and Fleischmann, which was based on falsified data. As a result, the DFG's "Vorschläge zur Sicherung guter wissenschaftlicher Praxis" (Suggestions for Ensuring Good Scientific Practice) were published in Wiley-VCH in 1999, the second edition of which came in 2012 with the ISBN 978-3-527-33703-3.

This TU Graz Guideline on Safeguarding Good Scientific Practice adopts the "Richtlinie der Österreichischen Agentur für wissenschaftliche Integrität zur guten wissenschaftlichen Praxis" (Guidelines for Good Scientific Practice from the Austrian Agency for Scientific Integrity (OeAWI, OeAWI GSP Guidelines), which were published in 2019 by Wiener Druck- und Handelsgesellschaft mbH. The "Praxisleitfaden für Integrität und Ethik in der Wissenschaft" (Best Practice Guide for Research Integrity and Ethics), published by the Federal Ministry of Education, Science and Research (BMBWF) in 2020, is also taken into account.

² *lege artis* (Latin, *lex* = law, principle; *ars* = art, science, method).

³ "The author determines whether and with which author's designation the work is to be given." (§ 20 (1) Copyright Act (UrhG)). In the case of scientific work, it is necessary to consult the publisher's website regarding which standard for citations and quotations they prefer. For tools such as software, the licence agreements or the manufacturer's homepage can provide further information. The publisher may stipulate how disclosure or quotations should be made. Please note the current version of the technical standard ISO 690 "Information and documentation – Guidelines for bibliographic references and citations to information resources".

⁴ Qualification theses such as master's and dissertations are published (electronically) to the University Library and Archives in accordance with the Austrian Copyright Act (UrhG, see also § 86 Universities Act UG). The UrhG states that

"[A] published work may be reproduced, distributed, broadcast, made available to the public and used for public lectures, performances and demonstrations in the form of a quotation, provided that the extent of the use is justified by the specific purpose. This is permissible in particular if

1. individual works are included in a main academic work after their publication; a work of the type described in § 2 (3) or a work of the fine arts may only be included to explain the content." (§ 42f (1) UrhG)

This means that works in their entirety, for example pre-publications for a doctoral or habilitation thesis, may be included in the final works as large quotations. However, an intellectual engagement with the quoted text, illustration or large-scale quotation is absolutely necessary. A source that is only used for illustration is not permitted.

⁵ What constitutes a significant contribution to a scientific paper may differ between disciplines. Generally speaking, a significant contribution is a contribution that is substantial to the design of the studies or experiments, the generation, analysis and interpretation of the data, or the formulation of the manuscript.

⁶ When including pre-publications in doctoral and habilitation theses, be it as a direct or indirect quotation, it is necessary to indicate one's contribution or the contributions of the individual authors to these pre-publications.

⁷ The following examples of academic and scientific misconduct do not represent a complete list, but rather an exemplary summary of the most common types of misconduct. While academic and scientific misconduct always require clarification on a case-by-case basis, the most common types of misconduct include (see *Praxisleitfaden für Integrität und Ethik in der Wissenschaft (Best Practice Guide for Research Integrity and Ethics), BMBWF 2020)*:

- fabrication of data, e.g. the fabrication of research results (measured values, observational data, statistics);
- falsification of data, e.g. by manipulating the research process, altering or selectively omitting data that contradicts the research proposition, or the misleadingly interpretation of data with a view to obtaining a desired result;
- plagiarising (for its definition, see Universities Act Section 51 para. 2 no. 31). Plagiarism occurs when texts, content, or ideas of other origins are adopted and presented as one's own. In particular, this includes the appropriation and use of text passages, theories, hypotheses, insights, or data through direct, paraphrased, or translated rendering without identifying and citing the source and author(s). This particularly includes using (or publishing) third-party research ideas or plans about which knowledge was gained in a confidential context (e.g. as part of a peer review or other review procedure);
- unjustified refusal to provide access to primary and original data, including information about their collection or disposal, before the relevant deadlines;
- obstruction of research activities of other scientists and researchers as well as other unfair attempts to undermine the scientific or scholarly reputation of other researchers. This includes, in particular, anonymously expressed, non-specific and unjustified allegations of violations of the standards for good scientific practice;
- sabotaging research activities, in particular damaging or destroying experiments, equipment, documents, hardware, software, chemicals or other materials needed by other researchers to carry out their research;
- providing inaccurate information in grant proposals;
- creating disadvantages to the career advancement of junior scientists and researchers who have reported potential research misconduct;
- research misconduct can also include involvement in other person's violations of the standards for good scientific practice, e.g. active involvement in the misconduct of others, co-authorship of

publications based on falsified data or otherwise generated through violations of the standards for good scientific practice, or neglect of supervising obligations.

This list is by no means exhaustive, but rather an orientation tool and should be kept up to date. Other forms of non-compliance with good scientific practice guidelines may fall under unacceptable and/or questionable scientific practices and must therefore always be assessed on a case-by-case basis.

However, critical comments expressed in academic debate or mistakes made in good faith do not represent instances of research misconduct.

⁸ The sections in which facts obtained through research are described and/or discussed are crucial for a scientific publication.

⁹ The use of unauthorised resources includes, for example, the use of artificial intelligence-supported tools without appropriate quotation as defined in the "Leitlinie für den Einsatz von Künstlicher Intelligenz (KI)-gestützten Tools im Bereich der Lehre" (Guideline for the Use of Artificial Intelligence (AI)-Supported Tools in Teaching" of TU Graz.

¹⁰ Affidavit [English-Latin, *affidavit* = she*he testified; Latin, ad = to, on; *fidere* = trust]; affirmation instead of an oath. The term originates from Anglo-Saxon jurisprudence.

¹¹ The forms

- "Bestätigung über die Durchführung der Plagiatsprüfung" (Confirmation of the Plagiarism Check) and
- "Antrag auf Ausschluss der Benützung meiner Diplomarbeit / Masterarbeit / Dissertation" (Application for Exclusion of Use of My Diploma Thesis / Master's Thesis / Doctoral Thesis)

are available on TU4U in their respective valid versions.