Guidelines at Kempten University of Applied Sciences for safeguarding good scientific practice and dealing with scientific misconduct

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Preamble

Kempten University of Applied Sciences (Kempten UAS) has set itself the mission of "Competence driven by networked diversity" as its guiding principle. The aim is to cultivate the different disciplines in the faculties, while at the same time networking the wide range of expertise. Kempten UAS endeavours to ensure quality assurance in all areas and at all levels. These guidelines describe the rules for good scientific work, but also how to deal with potential academic misconduct, thereby ensuring protection for individual persons. This regulation is binding for all employees of Kempten UAS who are involved in scientific activities. It also ensures that partners of the university can work together on a sound scientific basis.

These guidelines are closely aligned to the current version of the "Guidelines for Safeguarding Good Research Practice"¹ code of conduct issued by the German Research Foundation (DFG) on 3 July 2019, the DFG's memorandum on "Safeguarding Good Scientific Practice" (2013), and the HRK's recommendation on "Dealing with Scientific Misconduct at Universities of Applied Sciences" dated 6 July 1998 and "Model Statutes for Safeguarding Good Scientific Practice and Dealing with Suspected Cases of Scientific Misconduct" dated 10 May 2022.

University management monitors compliance with the standards of this guideline, regulates how academic misconduct is handled, and is responsible for sanctioning any violations that come to light.

Section 1: Principles of good scientific practice

1. Rules of good scientific practice

Scientific work is based on fundamental principles that are standardised across regions and disciplines. One of the essential principles of good scientific practice, and therefore of all scientific work, is honesty. This is both an ethical norm and the basis for the rules of scientific professionalism, which vary from discipline to discipline.

For scientific work at Kempten UAS, members involved in research must observe the rules of good scientific practice, as follows:

- All persons in charge must organise their area of work appropriately to ensure that the tasks of management, supervision, conflict resolution and quality assurance are clearly assigned and actually carried out.
- Originality and quality take precedence over quantity of academic work; this should form the basis for the criteria used to evaluate performance and assess examinations, award academic degrees, promotion, recruitment, appointments and allocation of funds.
- Strict honesty must be maintained with regard to one's own declarations and any information and contributions stemming from students, doctoral candidates, partners, competitors or predecessors; and their contributions must be consistently and correctly recognised. In the case of scientific publications, authors always bear joint responsibility for their content, precluding the practice of "honorary authorship".
- The research process along with methods and results must be documented directly and in a tamper-proof manner and made accessible in order to make them verifiable and comprehensible. It is not permitted to invent or falsify results, select results or reject undesirable results, nor to manipulate images. In addition, it is essential to consistently scrutinise and verify all results, and to allow and encourage critical discourse within the scientific community.
- Quality assurance must be upheld by conducting careful verification.
- Primary data must be stored or retained on durable, secure media at Kempten UAS for a period of ten years from the date of publication. Project managers are responsible for fulfilling this obligation.

¹ Current status of the Code: April 2022 / corrected version 1.1

The intellectual property of third parties must be respected, and third parties must not be impaired in their scientific activities. This means that works, key scientific findings, hypotheses, doctrines or approaches to research originating from third parties may not be used, falsified or destroyed without authorisation or by claiming authorship (plagiarism, theft of ideas, sabotage).

Scientific misconduct occurs when these rules are not observed. Co-responsibility for misconduct can arise, amongst other things, through actively participating in the misconduct of third parties, knowing of falsifications by third parties, co-authorship of falsified publications, or gross neglect of supervisory duties.

Scientific misconduct is deemed to have occurred by deliberately or grossly negligently inventing or falsifying data or sources, providing incorrect information in application letters or proposals, infringing intellectual property, impairing or obstructing the research activities of third parties, refusing to cooperate with an investigation into scientific misconduct, or breaching trust as a reviewer, supervisor or chairperson. The sanctions for academic misconduct are set out in section 4.3 of these guidelines.

2. Organisational responsibility borne by managers of scientific institutions

University management is responsible for an appropriate institutional organisational structure, and it guarantees the conditions required for academics to comply with legal and ethical standards. The following factors serve this purpose:

- A line-staff organisation and, if necessary, the creation of temporary project teams, whereby
 collaboration between scientists must occur in such a way that the results achieved in a
 specialised division of labour can be mutually communicated, criticised and integrated into a
 common state of knowledge in a trusting, reliable atmosphere; ideas, hypotheses and theories
 can be mutually reviewed and discussed; and individual scientists experience the working group
 as a valuable environment for the quality assurance of their own work and results;
- The university's public announcement of the guidelines in place for safeguarding good scientific practice and dealing with scientific misconduct, including an ombuds system to ensure good scientific practice, as regulated in point 4;
- The university's public announcement about copyrights in the "Information sheet for university teachers and students at Kempten University of Applied Sciences";
- The university's public announcement of the Intellectual Property Strategy adopted by Kempten UAS;
- The university's public announcement of the criteria established by university management for the assessment of research performance and the defined process for awarding research professorships and academic staff positions;
- The university's public announcement of the guideline issued by Kempten University of Applied Sciences on releasing professors from their duties in order to conduct application-related research and develop projects, for practical activities in the realm of advanced training, and for business activities including business start-ups;
- A large number of quality assurance measures in research and nurturing emerging young scientists at Kempten UAS; for example, having research proposals assessed by third-party funding organisations, articles reviewed for publication in relevant journals, dissertations assessed, and measures in place to prevent plagiarism.

The framework conditions include clear and written procedures and principles for selecting personnel, staff development and promoting equal opportunities. Gender equality and diversity are taken into account when selecting and developing staff (see the appointment guidelines and equal opportunities concept at Kempten UAS).

The processes in question are transparent and avoid unconscious bias as far as possible.

3. Scientific workers' professional ethics, Supervising, training and nurturing emerging young scientists

Scientists are responsible for realising the fundamental values and standards of scientific work in their actions and standing up for them. Teaching the basic principles of good scientific work begins at the earliest possible stage of academic training (including teaching) and people's careers. When introducing students, scientific staff and doctoral candidates to scientific work, the principles of scientific work and good scientific practice must be communicated to them by the responsible university lecturer. This should be done, amongst other things, by handing out these guidelines along with any specific advice for their particular subject.

In order to ensure appropriate supervision, a primary contact person must be in place for all students, scientific staff and doctoral candidates involved in scientific activities. It is advisable to augment this support with a second experienced person (mentor) who can provide advice and assistance if required.

Doctoral candidates embarking upon a consortial doctoral project must sign a supervision agreement at the collaborating university at the outset. The work conducted by emerging young scientists should be completed within a reasonable timeframe.

Scientists at all career levels regularly update their knowledge of the standards of good scientific practice and the state of research. Experienced scientists and emerging young scientists support one another in the process of continuous learning and training and maintain regular dialogue.

4. Ombuds system to safeguard good scientific practice

4.1 Local ombudsperson, supra-regional body "German Research Ombudsman", freedom of choice

In order to safeguard good academic practice, a system of self-regulation has been established in the German academic system in the form of ombuds committees. At Kempten UAS, a local, neutral person of trust/contact (ombudsperson) is to be appointed whom members of Kempten UAS can approach confidentially regarding matters of good scientific practice or suspected scientific misconduct. A person of proven personal integrity is to be selected for this role.

In order to assign the ombudsperson an independent position and to avoid conflicts of interest, this task should therefore not be performed by members of university management, deans or anyone with other managerial functions at the university. The ombudsperson should be listed in the course catalogue and on the website. At the suggestion of the President, Senate appoints an ombudsperson and deputy from amongst the active professors for anyone who wishes to make allegations of misconduct. The term of office is three years with a once-off possibility of reappointment.

The ombudsperson and their deputy will investigate any concrete suspicion or substantiated anonymous reports of academic misconduct at Kempten UAS and undertake to also protect those who have disclosed a suspicion of academic misconduct. The ombudsperson and their deputy are afforded the necessary support and acceptance by Kempten UAS in fulfilling their duties.

The right of members and affiliates of an academic institution to choose whether to contact the ombudsperson, their deputy or the supra-regional "German Research Ombudsman" remains unaffected and emphasises the basic principle of neutrality in consultations and conflict mediation.

4.2 Ombuds Committee

At the suggestion of the President, Senate appoints a standing committee to investigate and clarify allegations of academic misconduct. The investigation committee shall consist of one professor each from two faculties at the university and one deputy each from the group of university lecturers, along with one member of academic staff and one deputy from the group of academic staff. The academic diversity of the university should be taken into account when making appointments.

The term of office for members is three years, with one possible further term of office, up to a maximum of six years. The Ombuds Committee elects a chairperson from amongst its members, with the person receiving the most votes deemed to be elected.

The ombudsperson is a member of the committee in an advisory capacity. The Ombuds Committee is called into action at the request of the ombudsperson and meets in a closed session.

4.3 **Procedural principles, sanctions**

4.3.1 Preliminary investigation

- 1. As an independent person of trust, the ombudsperson advises informants who report misconduct, which must always be submitted in writing. Any discrepancy from this must be noted in writing. The ombudsperson can also pick up on specific indications on their own initiative and take action. In doing so, the ombudsperson must examine the plausibility of the allegations and the possibility of resolving them. The ombudsperson's duties also include providing information about the rules of good scientific work and mediating in the event of conflict.
- 2. The offences of scientific misconduct include, in particular, inventing and falsifying data or plagiarism.
- 3. If the ombudsperson concludes that there are sufficient grounds for suspicion of misconduct, they will convene the Ombuds Committee and inform university management. Articles 20 and 21 of the Bavarian Administrative Procedure Act (Bay VwVfG) also apply to the examination of any bias on the part of the ombudsperson or individual members of the Ombuds Committee.
- 4. The committee gives anyone suspected of misconduct the opportunity to submit a written statement within two weeks, taking a stance on the incriminating facts or evidence. It is mandatory for anyone suspected of misconduct to participate in the ombudsperson's procedure. If the informant is known by name, the investigating body shall treat the name confidentially and shall not disclose it to third parties without due consent. Any deviation from this only applies if there is a legal obligation to do so or if the person affected by the allegations would otherwise not be able to defend themselves properly. Affected parties and informants have the right to be heard in person in the event of any counterstatements.
- 5. The Ombuds Committee will deliberate after receiving the comments and decide within two weeks whether the procedure should be continued and whether the case should progress to the formal investigation procedure, or whether it should be discontinued because the suspicion has not been confirmed. Informants and those affected must be informed in writing.
- 6. If informants do not agree with the discontinuation of the proceedings, they fundamentally have the right to appear before the committee within two weeks, which will reconsider its decision. In exceptional cases, this can be conducted in writing.
- 7. The committee makes a written record of the results and, if necessary, a proposal for further proceedings. If the procedure is continued, experts can also be consulted as additional members.
- 8. Investigations into allegations of scientific misconduct are expressly conducted in compliance with confidentiality and the basic principle of presumed innocence. The information disclosed by the complainant must be provided in good faith. Deliberately false or malicious allegations may themselves constitute scientific misconduct. Neither the informant nor the person affected by the allegations should suffer any disadvantages for their own academic or professional advancement because of a report.

4.3.2 Formal investigation procedure

- 1. The opening of the formal investigation procedure will be communicated to university management at Kempten UAS by the Chairperson of the Ombuds Committee.
- 2. The committee deliberates in closed hearings. It examines whether scientific misconduct has occurred by freely assessing the evidence. The persons accused of misconduct must be given the opportunity to comment in an appropriate manner. At their request, they shall be heard orally; a person of trust may be called in to support them. This also applies to any other persons to be heard.
- 3. It may be necessary to disclose the name of the informant if the persons concerned would otherwise not be able to defend themselves properly because, for example, the credibility and motives of the informant must be examined with regard to the allegation of possible misconduct.
- 4. If the committee considers that misconduct has been proven, it shall submit the result of its investigation to university management with a proposal for further proceedings, also pertaining to safeguarding the rights of third parties, for a decision and further action. Otherwise, the proceedings shall be discontinued.
- 5. The main reasons that led to a termination of the proceedings or referral to university management must be communicated in writing to the persons concerned and the informants without delay.
- 6. There is no possibility for an internal appeal against the committee's decision.

- 7. At the end of the investigation procedure, the ombudsperson identifies all the persons who have been involved in the case. The ombudsperson advises all persons, in particular emerging young researchers and students, who have been involved in cases of academic misconduct through no fault of their own, with regard to safeguarding their personal and academic integrity.
- 8. The provisions on exclusion due to personal involvement (Art. 20 and 21 Bay VwVfG) apply to the ombudsperson, their deputy and the members of the commission.

4.3.3 Sanctions

If the committee identifies scientific misconduct, then university management must examine the need for further measures in close consultation with the faculties or central departments concerned. As violations can involve very different individual cases, various consequences are possible. The sanctions are therefore based on the individual case. If no action is taken to retract and correct academic publications by the authors involved, this must be initiated by university management. In justified cases, university management may be obliged to inform funding bodies, scientific organisations, professional organisations, affected third parties and the public in order to protect third parties, maintain trust in scientific honesty, restore scientific reputation, prevent consequential damage, and in the general public interest. The proceedings before the committee do not replace other legal or statutory proceedings (e.g. consequences under employment, civil service, civil or criminal law). These may be initiated by the competent authorities in each case.

4.4 Data and privacy protection

In order to protect anyone providing confidential information and the person concerned, the work of the ombudsperson is subject to utmost confidentiality. Confidentiality is not guaranteed if the persons providing confidential information go public with their suspicions. In this case, they themselves regularly violate the rules of good scientific practice. This is also the case if allegations of scientific misconduct are handled carelessly or if deliberately false allegations are made. In addition, this behaviour may also constitute defamation (§ 186 StGB) or libel (§ 187 StGB).

The personal data collected in relation to violations of good scientific practice from anyone providing confidential information, the person concerned and any other persons involved must be treated as strictly confidential and may only be collected by the appointed independent confidential person of trust. These data may only be made available to the persons involved in clarifying the facts of the case. All correspondence, statements and notes must be treated confidentially and stored in such a secure manner that unauthorised third parties cannot gain access to them. Formal investigation files must be kept until the conclusion of the proceedings and then destroyed if the personal data collected and processed is no longer required in accordance with the requirements of GDPR.

Section 2: Research process

5. Cross-phase quality assurance

Scientific workers carry out every step of the research process *de lege artis*. Continuous quality assurance accompanies research and relates in particular to compliance with subject-specific standards and established methods, to processes such as calibrating equipment, collecting, processing and analysing research data, the selection and use of research software, its development and programming, and maintaining laboratory records. The origin of any data, organisms, materials and software used in the research process is labelled, citing the original sources, and a record is made of which guidelines apply for subsequent use. If publicly accessible software is used, this must be documented in a persistent and citable manner, naming the source code, insofar as this is possible and reasonable. The type and scope of research data generated during the research process are described. An essential component of quality assurance is to enable other scientific workers to replicate results and findings.

If scientific findings are made publicly accessible (including via channels other than publications), the quality assurance mechanisms applied are always explained. If any discrepancies or errors in such findings are subsequently discovered or pointed out, these are corrected.

6. Involved parties, responsibilities, roles

The roles and responsibilities of the scientific workers involved in a research project must be defined in an appropriate manner and be clear at all times. If necessary, roles and responsibilities must be adapted. An adjustment is particularly appropriate if the focus of the work of one of the participants in the research project changes.

7. Research design

When planning a project, scientific workers take the current state of research fully into account and recognise it. As a rule, this requires careful research into publicly accessible research achievements. University management ensures the necessary framework conditions for this research within the scope of its budgetary possibilities.

Scientific workers use methods to avoid (even unconscious) bias in the interpretation of findings, as far as this is possible and reasonable.

Scientific workers examine whether and to what extent gender and diversity can be significant for the research project.

8. Legal and ethical framework conditions for research

University management is responsible for ensuring that the actions of members and affiliates of the university comply with the rules, and it promotes compliance through suitable organisational structures. Scientific workers must treat the freedom of research granted to them under constitutional law responsibly and continuously recognise the risk of misusing research results. Their responsibility is not limited to compliance with legal requirements, but also includes the obligation to use their knowledge, experience and skills in such a way that risks can be recognised, assessed and evaluated. In doing so, they pay particular attention to the aspects associated with safety-relevant research (dual use).

Kempten UAS is legally obliged to comply with ethical principles in the fulfilment of its tasks under Art. 2 para. 7 sentence 2 of the Bavarian Higher Education Innovation Act (BayHIG), as provided for in particular by its membership of the "Joint Ethics Committee of the Universities of Applied Sciences in Bavaria (GEHBa)". All members of Kempten UAS have the opportunity to have their research projects assessed and reviewed by the GEHBa.

9. Usage rights

Scientific workers reach recorded agreements on the usage rights at the earliest possible stage for data and results arising from the research project. At Kempten UAS, this is performed with the support of the legal department within the framework of research and development contracts. The right to use data and results belongs in particular to those scientific workers who have collected the data (exception: contract research). The authorised users make arrangements regarding whether and how third parties are granted access to the research data. This is also done with the support of the legal department at Kempten UAS.

10. Methods and standards

Scientifically founded and comprehensible methods are used in research. When developing and applying new methods, scientific workers attach particular importance to quality assurance and establishing standards. Applying a method usually requires specific skills, which may be covered by suitably close cooperation. Establishing standards for methods, the use of software, the collection of research data and the description of research results is an essential prerequisite for the comparability and transferability of research results.

11. Documentation

Scientific workers document all information that is relevant to producing a research result in a manner that is comprehensible and appropriate in the specialist area concerned in order to be able to review and evaluate the result and to enable replication. Wherever specific professional recommendations exist for reviewing and evaluation, scientific workers will document the results in accordance with the relevant guidelines. When developing research software, the source code is documented as far as this is possible and reasonable.

Individual results that do not support a hypothesis are always also documented. Selective results are not permitted.

If the documentation does not fulfil (subject-specific) requirements, the limitations and reasons for this are clearly explained.

Documentation and research results must not be manipulated. They must be protected as well as possible against manipulation.

12. Providing public access to research results

As a basic rule, scientific workers contribute all their results to scientific discourse. In individual cases, there may be reasons for not making results publicly accessible. As a basic rule, the decision to make results publicly accessible must not depend on third parties; rather, it is scientific workers' own responsibility to decide – considering the practices of the respective discipline – whether, how and where they make their results publicly accessible. Exceptions are permissible in particular where the rights of third parties are affected, patent applications are in prospect, contract research or security-related research is involved.

If results are made publicly accessible, they are described in a complete and comprehensible manner. This also includes making the research data, materials and information on which the results are based, the methods applied and the software used available, insofar as this is possible and reasonable. This is carried out according to the so-called FAIR principles: Findability, Accessibility, Interoperability, Reusability. Exceptions are permitted in the context of patent applications.

Self-programmed software is to be made available with its source code, insofar as this is possible and reasonable. If necessary, a licence will be issued. Workflows are explained in detail.

Own and third-party preliminary work must be fully and correctly documented, unless this can be waived in exceptional cases for specific disciplines in the case of own results that are already publicly available. At the same time, any repetition of the contents of own publications is limited to the extent necessary for understanding.

13. Authorship

An author is someone who has made a genuine, comprehensible contribution to the content of a scientific text, data or software publication. Whether a genuine and comprehensible contribution has been made depends on the subject-specific principles of scientific work and must be assessed on a case-by-case basis.

A genuine, comprehensible contribution exists in particular if a scientific worker has contributed in a scientifically relevant manner to:

- Designing and developing the specific research activities described and evaluated in the publication (not: merely applying for or obtaining funds for superordinate framework projects, institutional units or equipment, holding a managerial or supervisory position in the respective research institution, or similar);
- Independently acquiring and processing data, developing sources or programming software (not: merely performing routine technical tasks, implementing predefined survey formats, or similar);
- Independently analysing, evaluating or interpreting data, sources or results (not: merely listing data, compiling sources, or similar);
- Developing conceptual approaches or argumentative structures (not: merely consulting other people's drafts, introducing unspecific suggestions, or similar);
- Drafting the manuscript (not: merely making editorial adjustments, linguistic corrections, etc.).

If a contribution is not sufficient to establish authorship, the support can be appropriately recognised in footnotes, in the foreword, or in acknowledgements. Honorary authorship, in cases where no sufficient contribution has been made, is just as inadmissible as inferring authorship solely on the basis of a managerial or superior function.

All authors must agree to the final version of the work to be published; they bear joint responsibility for the publication, unless expressly stated otherwise. Consent to publication may not be refused without sufficient reason. Rather, the refusal must be justified with verifiable criticism of data, methods or results.

Scientific workers agree in good time – usually at the latest when drafting the manuscript – who is to be the author of the research results. The agreement must be based on comprehensible criteria and take into account the conventions of each subject area.

14. Publication channel

The scientific quality of an article does not depend on the publication channel in which it is made publicly accessible. In addition to publications in books and specialist journals, specialist, data and software repositories or blogs also come into consideration.

Authors carefully select the publication channel, taking into account its quality and visibility in the particular field of discourse. New publication channels are checked for their reliability.

Anyone who takes on a publishing role should carefully check the intended publication channels.

A key criterion in making the choice is whether the publication channel has established its own guidelines for good scientific practice.

15. Confidentiality and neutrality in assessments and consultations

Scientific workers who assess manuscripts, applications for funding or the eligibility of individuals are obliged to maintain strict confidentiality in this regard. They must immediately disclose to the responsible body any facts that could give rise to concerns of bias.

Confidentiality includes the fact that content to which access is gained as part of the function may not be passed on to third parties and may not be used for personal purposes.

The same applies to members of scientific advisory and decision-making bodies.

16. Archiving

Kempten UAS ensures that the necessary infrastructure is in place to enable scientific findings to be archived at the institution where they originated or in cross-site repositories.

If there are comprehensible reasons for not retaining certain data, the scientists will explain this.

Section 3: Entry into force, expiry

17. Entry into force, expiry

These guidelines come into force the day after they are announced; the Guidelines at Kempten University of Applied Sciences on safeguarding good scientific practice and dealing with scientific misconduct dated 14 September 2021 expire simultaneously.

Kempten, 14 November 2023

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