

General Principles on the Ethical Conduct of Research and Scholarship

Preamble

The University of Illinois at Urbana-Champaign is committed to a world-class research enterprise that transforms lives and serves society by creating knowledge and understanding to drive positive change in our communities, our state, our nation, and our world.

This commitment to pioneering, innovative research must be coupled with the highest standards of integrity throughout the research process, for all kinds of disciplined inquiry.¹ Sponsors that fund research trust that institutions will be good stewards of the support they provide for research activities. The people of Illinois depend on the University's research communities to enhance understanding of the natural world and the human condition, to uncover new information, to develop new technologies that transform the way we live, and to inform public policy decisions.² Researchers are responsible for fulfilling these obligations. Mutual trust among researchers and the trust invested in us by the public depends on research integrity. It is this trust, and this integrity, that allow the University to continually move forward in the pursuit of excellence.

With these responsibilities in mind, the University affirms its commitment to the following principles that guide the research and scholarly activities of its students, staff, and faculty.

Principles of research integrity

Researchers should conduct their work in an honest and professional manner, to ensure that the research they carry out is reliable. Integrity requires rigorous adherence to the professional standards of a researcher's particular field, honesty in the reporting of research methods and results, and appropriate acknowledgment of collaborators and funding sources.

Research Methods: Researchers should employ research methods that are appropriate for their respective fields and research questions, basing their conclusions on critical analysis of the evidence they gather. In empirical fields, interpretation of the data collected should be clearly articulated and potential biases or other potential sources of error should be acknowledged.

¹ Singapore Statement on Research Integrity, 2nd World Conference on Research Integrity, 21-24 July, 2010, Singapore: <http://www.singaporestatement.org/statement.html>.

² Scientific Integrity; Presidential Memorandum for Heads of Executive Departments and Agencies, the White House, March 9, 2009: <https://www.whitehouse.gov/the-press-office/memorandum-heads-executive-departments-and-agencies-3-9-09>

Research methods must also adhere to relevant federal regulations, state and local laws, and University policies governing research.

Conflicts of Interest or Commitment: A conflict of interest occurs when the academic staff member is in a position to advance his or her own interests or those of a third party, to the university's detriment. A conflict of commitment arises when the external activities of an academic staff member are so demanding of time or attention that they interfere with the individual's responsibilities to the university. These two categories are not mutually exclusive, and the effect of each type of conflict might be financial or personal in nature. Conflicts of interest may grow out of conflicts of commitment between university and non-university activities. Conflicts of interest or commitment, whether real or perceived, can pose significant challenges to the integrity of the research process. Although conflicts of interest are not inherently wrong, they must be appropriately managed so that they do not compromise the objectivity or trustworthiness of research proposals, publications and presentations, and the peer review process. Researchers should work with the appropriate University offices to ensure that potential conflicts of interest or commitment are properly managed to minimize undue influences, thereby protecting the integrity of research activities and maintaining compliance with applicable federal regulations, state laws, and institutional policies.

Addressing Research Misconduct and Violations of Research Standards: Occasionally, researchers engage in activities that may undermine the integrity of their work. Behaviors such as fabrication, falsification, and plagiarism are never justified. Because research is often a collaborative activity, such behaviors have a negative impact on the work of other researchers whose efforts depend on their colleagues to provide honest accounts of their research methods and findings. Such misconduct also sets an unacceptable standard for students who work in the research setting. Furthermore, such behavior erodes public trust in researchers and the institutions in which they work. As a result, the University has clear policies and procedures for responding to allegations of research misconduct. When researchers have evidence that a colleague may be engaging in such research misconduct, they have a responsibility to report it through the channels designated in university policies. When someone makes such a report, every effort will be made to protect that individual against any retaliation and appropriate actions will be taken to restore integrity to the research enterprise, following university policy. At times, researchers may realize that they have inadvertently violated, or appear to have violated, the standards of conduct outlined above. When this occurs, the researcher is obligated to report the error, following policies and procedures established by the University.

Interdisciplinary Research: Real-world challenges do not always adhere to disciplinary boundaries, and Illinois faculty and staff are leaders in interdisciplinary research. Collaborators in interdisciplinary work should communicate to ensure the open exchange of ideas across the varying research and scholarly cultures of different academic disciplines, and to ensure transparency regarding the responsibilities of each member of the research team. Integrating the research paradigms across the involved disciplines is critical. Errors in research can be made without this synthesis in interdisciplinary research, and it is the team collaborators' responsibility to avoid such errors. When they participate in interdisciplinary teams, mentors have a special

responsibility to work together to guide students in the expectations and practices of the different disciplines with which they will be engaged.

Exemplary Mentorship: Training the next generation of leaders and scholars is a vital part of the research enterprise at the University. This training requires substantial commitments on the part of the University and its researchers. We share in the responsibility for promoting intellectual and professional growth for our scholars, both students and experienced researchers alike. Part of this responsibility entails creating and sustaining productive, supportive, and inclusive research environments. Our experienced research faculty and staff have a responsibility to serve as role models for students, fellows, and junior researchers who turn to them for guidance. This mentorship encompasses not only training in the intellectual and technical aspects of their respective fields, but also guidance on research integrity and the responsible conduct of research.

Principles of responsible research practice

Researchers should undertake research activities in a manner that respects their research subjects and minimizes any potential harm or disadvantage to them as a result of the research. This obligation begins with Human Subjects protections, but goes beyond these to include other aspects of responsible research.

Protection of Human Subjects and Humane Use of Animals: Many researchers in the University rely on human volunteers for their research activities, who willingly provide researchers with their time, efforts, and data for use in a given research project. Without their generosity, many research projects would not be feasible. The rights and welfare of these human subjects must be appropriately protected throughout the research process. As part of those protections, scholars engaging in research with human subjects must obtain prior approval from an Institutional Review Board (IRB) and conduct their research in accordance with the IRB's determinations. Similarly, researchers using live vertebrate animals for education or research purposes must obtain prior approval from an Institutional Animal Care and Use Committee (IACUC) and comply with the IACUC's determinations. In doing so, researchers and the IACUC work together to ensure that animals that are used in research activities are cared for in a humane way.

Research Safety: Research procedures, materials, and environments can pose safety risks. The University recognizes the importance of creating a culture of safety for its research enterprise. The faculty, staff, and students who make the University great should be appropriately protected from the risks that are inherent in the research they conduct, whether that work takes place in a laboratory or in the field. Researchers should be aware of and comply with the safety requirements of their specific units, their home institutions, system-wide policies, and relevant state and local laws. Mentors have a special responsibility for ensuring the safety of their trainees throughout the research process. They are responsible for maintaining safe working conditions in areas under their supervision. Mentors are also encouraged to regularly incorporate discussions of research safety into the training process.

Protecting Research Data: Research data may be sensitive in nature or require confidentiality until they are ready for dissemination, or until appropriate ownership claims have been established. Researchers should take appropriate measures to ensure that their research data are secured. When researchers enter into agreements regarding how research data will be used or shared, those agreements must be respected. When research data contains identifiable information about the human subjects of that research, data protections should be especially stringent in order to protect subject privacy and confidentiality. Those protections should be consistent with the determinations of the Institutional Review Board (IRB) overseeing the research, as well as legal requirements for the handling of health information.

Principles of research publication and dissemination

Researchers should present and publish their work in a manner consistent with the purpose and the integrity of the research, as well as a respect for the audiences of the research. Publication and peer review are not just media of dissemination, but avenues for critical assessment and improvement of one's work.

Authorship: University researchers should take responsibility for the communication of their research contributions in publications, funding applications, presentations, and other representations of their work. Lists of authors should include all those and only those who meet applicable authorship criteria, bearing in mind that those criteria may be discipline-specific. Persons or groups who made significant contributions to the research (such as funders) but do not meet authorship criteria should be acknowledged appropriately as well.

Peer Review: Peer review is the process by which the research community regulates itself. It is the process by which researchers determine what gets published, who receives funding for their work, and what data is used for shaping policy decisions. As a result, peer review should be unbiased, prompt, thorough, and constructive.

Research Findings: Advances in research depend on scholars sharing their work with others in a timely, collaborative manner. As employees of a public institution with a land-grant heritage, University researchers should be especially cognizant of this need to share research data and findings openly and promptly. Taking into account obligations associated with classified and proprietary research, findings should be shared as soon as researchers have had an opportunity to establish priority and ownership claims over their work (through publication or other venues of dissemination). Where required by funders, researchers should make their data public. Researchers should be aware of and comply with University policies and federal regulations concerning patents and intellectual property rights.

Reproducibility and Transparency of Methods and Data Sources: Whether conducting research that is designed to be replicable, or other forms of scholarship, the methods of investigation and sources of evidence should be documented so that readers can understand and evaluate the credibility of the conclusions offered. Where other research is cited or replied upon,

methods of citation should be accurate both as an acknowledgement of others' research and as a guide for readers who want to independently review and evaluate that other research.

Principles of research impact and social responsibility

Researchers should carry out their work also with an eye toward its direct and potentially indirect influence on broader human issues and concerns.

Societal Considerations: Research has local, state, national and global impact. For this reason, we must ensure that research activities are conducted in a socially responsible manner.

Researchers should also be cognizant of the potential impact their work will have on our state, nation, and the world. The University and its community of scholars and researchers recognize that we have an ethical obligation to carefully weigh societal benefits against risks inherent in our work.

Environmental Effects: The conduct of research should be carried out in a manner that minimizes detrimental impact on the physical environment and that maximizes the efficient use of natural resources. The outcomes of research should be evaluated as well in terms of their consequences for the environment and their potential, where appropriate, for improving environmental conditions.

APPENDIX

University sources consulted

1. University of Illinois *Statutes* (as amended January 24, 2013):
<http://www.uillinois.edu/trustees/statutes.cfm>.
2. University of Illinois *General Rules Concerning University Organization and Procedure* (as amended January 24, 2013):
<http://www.bot.uillinois.edu/sites/bot.uillinois.edu/files/bot-files/General-Rules-1-24-13.pdf>.
3. University of Illinois *Policy and Procedures on Integrity in Research and Publication* (August 28, 2009): <http://www.vpaa.uillinois.edu/policies/Integrity-Policy.pdf>.
4. University of Illinois *Policy on Conflicts of Commitment and Interest* (June 30, 2015):
<http://research.uillinois.edu/coci/coci-policy>.
5. "Good Ethical Practice: A Handbook for Faculty and Staff at the University of Illinois" (5th ed.).
6. University of Illinois *Policy on Conflicts of Commitment and Interest* (v. 1996)
7. University of Illinois *Policy and Procedures on Academic Integrity in Research and Publication* (v. 1991).
8. **DRAFT** University of Illinois Code of Conduct (v. 08/26/2015).

Campus-specific sources consulted

University of Illinois at Chicago

1. *About OVCR, Facts & Figures* website: <http://research.uic.edu/about/ovcr-facts-figures>.
2. *Office of the Vice Chancellor for Research* website: <http://research.uic.edu/>.
3. *Research* website: <http://www.uic.edu/research>.
4. *Research Impact* website: <http://www.uic.edu/research/research-impact>.
5. *Research Strengths* website: <http://www.uic.edu/research/research-strengths>.

University of Illinois at Springfield

1. *Academic Integrity Policy* (v. 2/20/15): <http://www.uis.edu/academicintegrity/wp-content/uploads/sites/22/2015/04/Academic-Integrity-Policy-app-2015-2-20.pdf>.
2. *Academic Integrity* website: <http://www.uis.edu/academicintegrity/>.
3. *Creating a Brilliant Future: A Strategic Plan for the University of Illinois Springfield* (January 6, 2006): <http://www.uis.edu/strategicplan/plan/>.
4. *Strategic Planning Update 2013-2016* website: <http://www.uis.edu/strategicplan/strategic-plan-update-2013-2016/>.
5. *Research* website: <http://www.uis.edu/about/overview/research/>.

University of Illinois at Urbana-Champaign

1. *About* website: <http://illinois.edu/about/index.html>.
2. *Academic Staff Handbook* (June 27, 2009): <https://web.archive.org/web/20090627023058/http://www.ahr.illinois.edu/ahrhandbook/default.htm>.
3. The Graduate College at the University of Illinois at Urbana-Champaign, “The Graduate College Handbook” (August 2015): <http://www.grad.illinois.edu/gradhandbook/1>.
4. *Office of the Vice Chancellor for Research* website: <https://research.illinois.edu/research-illinois>.
5. Office of the Vice Chancellor for Research, “Research Report” (October 2015): https://research.illinois.edu/sites/research.illinois.edu/files/upload/ovcr_researchreport_2015_100915.pdf.