

The University of Nottingham
Annual Statement on Research Integrity to the Council
2016

1. Context

This is the University of Nottingham's third Annual Statement on Research Integrity to the Council.

Following the publication of the Concordat to Support Research Integrity¹ (the Concordat, hereafter) in July 2012, compliance with the commitments of the Concordat was made a condition of receiving research grants from HEFCE, from July 2013. HEFCE requires the Higher Education Institutions (HEIs) to confirm compliance through the University's annual assurance statement to HEFCE. The 2015/16 assurance statement is due in December 2016.

The Concordat describes five commitments for assuring high standards and integrity in research, and outlines the responsibilities of researchers, employers of researchers, funders of research and other organisations in fulfilling each commitment. Commitment 5 of the Concordat requires HEIs to present a short annual statement to its governing body on the actions and activities the institution has undertaken to sustain and further enhance integrity in research and subsequently publically release the annual statement for accountability and assurance on activities undertaken in support of research integrity. This is the third annual statement on Research Integrity that the University of Nottingham (referred to as 'the University' hereafter) is presenting to the Council (the University of Nottingham's governing body) on the actions and activities undertaken during 1 August 2015 and 31 July 2016 to sustain and further enhance research integrity, thus meeting compliance with the HEFCE requirement.

This annual statement provides a wide ranging summary of actions and activities undertaken across the University to support and strengthen the understanding and application of research integrity, including addressing allegations of misconduct and has been developed following the guidelines and suggested structure of the statement from the UK Research Integrity Office (UKRIO) self-assessment tool. Information for this annual statement was collated through a survey of activities supporting research integrity conducted across all academic Schools and relevant Professional Services Departments (Human Resources, Graduate School and Academic Services) in the University. 19 out of 21 academic Schools and the Faculty of Engineering have responded to the above-mentioned Survey. From next year, it will become mandatory for each School to return their submissions on research integrity activities to the Research, Enterprise and Graduate Services, the coordinating department. This annual statement provides an overarching summary of the responses received from the Schools and Professional Services in line with UKRIO's recommended reporting format.

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<http://www.universitiesuk.ac.uk/highereducation/Documents/2012/TheConcordatToSupportResearchIntegrity.pdf>

2. Supporting and Strengthening Research Integrity

i. Overview of institution's strategy and objectives to strengthen understanding of research integrity

The University of Nottingham's Code of Research Conduct and Research Ethics (referred to as 'The Code' hereafter) provides a comprehensive framework for good research conduct and the governance of all research carried out across the University. The Code underpins the University's commitment to maintaining the highest standards of integrity, rigour and excellence in all aspects of our research, and for all research to be conducted according to the appropriate ethical, legal and professional frameworks and standards. The Code is disseminated to all staff and students across the University through the University Research Ethics Committee representatives and the School Research Ethics Officers.

ii. Introduction or revision of research integrity policies and procedures, requirements, process reviews or support mechanisms

The Code and its implementation are reviewed on an annual basis by the University's Research Ethics Committee and on a triennial basis by consultation across the institution. These reviews take into account changes and recommendations from external research funders, Acts of Parliament and other legislations. All reviews are undertaken by the University's Research Ethics Committee in conjunction with and ratified by the University's Research Board, and coordinated by Research, Enterprise and Graduate Services department.

The Code was reviewed in 2013 to make it consistent with the recommendations and requirements of the Concordat and is the basis for applying research integrity across the University. The Code was further updated in January 2016 as part of the annual review process.

iii. Summary of education and training provision, communication or awareness raising activities undertaken by Schools and departments within the University

A wide range of education, training provision, communication and awareness raising activities are undertaken by Schools across the University.

In all academic Schools across the University, Research Integrity is central to staff induction processes, PhD programmes (via different modules which are delivered as a part of the taught component) and the work of School Ethics Committee, which monitors and ensures high ethical standards across all areas of School research activity. Research Integrity plays a particular role in the teaching and supervision of dissertation modules of undergraduate courses.

Each School has a Research Ethics Officer with the responsibility of ethics approval, raising awareness of and providing training on research integrity and ethics, writing annual monitoring reports for Research Ethics Committees and keeping the School informed about the University policy on research ethics and integrity. Research integrity forms part of the termly staff meetings agenda for Schools as a regular reminder of the importance of integrity in their research, especially, in terms of the collection, storage

and use of research data, thereby highlighting the importance of research data management and open access of research outputs and research data. Additionally, University's Research Ethics Officers' Forum provides opportunities for sharing of best practice amongst the Schools across the University.

The University, a member of the UKRIO, has access to training provision of UKRIO on research integrity and organised Research Integrity workshops for academic staff and research students in 2016.

Within teaching and training activities of the Schools, Research Integrity is discussed as part of Research Ethics. Research Integrity is discussed in terms of good scientific practice, for example, observing high standards, compliance, honesty as a researcher, and, bad practice, such as, misconduct, secretive working and self-interest. Research Integrity is also discussed in terms of supporting the good elements such as training, codes of conduct, UK Concordat implementation, mentoring, etc. as well as dealing with elements like procedures for investigating misconduct, whistle blowing and journal responses. School Intranet pages containing regularly updated guidelines on Research Ethics and Integrity and module pages in Moodle are also used as means of communication for academic staff, researchers and students.

For Students: Lectures on research integrity and ethics are embedded in most Under Graduate (UG) courses, Post Graduate Teaching (PGT) and Post Graduate Research (PGR) training programmes. Examples are reported as below:

Examples:

- Taught course student handbooks, in the Business School, contain information about expectations of research integrity as it applies to them, including research ethics, but with a particular focus on plagiarism. PhD students are given similar information and guidance about research integrity as part of their research methods training, which this year will include sections drawn from the UKRIO presentation to university staff, including selected case studies.
- All Chemistry UG 1st Year students receive a copy of School of Chemistry Academic Misconduct Form at the first meeting with their Personal Tutor during week One. Students receive a laboratory coat only in return for a completed and signed declaration that they have read and understood the School's rules on misconduct and plagiarism. The form is kept for the duration of their UG Course. In PG course handbooks (for PhD, MPhil, MSc courses), Research integrity is covered in 'Section 12. Research Conduct and Research Ethics'. There is specific reference to the Concordat and 'UK Research Integrity Office (UKRIO) Code of Practice' in maintaining the highest standards of performance and ethical conduct, as well as an html link directly to the University of Nottingham's Code of Research Conduct and Research Ethics. A checklist of good practice in conducting responsible and ethical research is also included in the PGR Studies Handbook.
- In Physics and Astronomy, a Research Integrity booklet is distributed to students and followed up by tutorial discussion.
- The School of Health Sciences introduced a Post-graduate research training programme in 2016: (i) As part of doctoral lunchtime sessions, the School Ethics Officer delivered a seminar on ethics and governance issues to PhD students. (ii) A dedicated module on "Research Design, Practice and Ethics" is delivered as part of the ESRC DTC taught modules for PhD students. (iii) PhD students are

encouraged to attend the Graduate School short courses on research and ethics governance.

- In the School of Sociology and Social Policy, 'Ethics talk', Q&A and discussion by School's Research Ethics Officer (REO) takes place at the beginning of the academic year to all new students (undergraduates, postgraduate taught and postgraduate research). There are detailed sections on ethical review in module handbooks and on the School ethics website. 'Ethics checklist' renamed 'Ethics Application Form' to convey different message. Ethics 'master-class' by School's REO to those third-year undergraduates commencing work on their dissertations. Quality of ethics forms (Participant information sheet, Consent form and Fieldwork safety plan) examined in third-year UG dissertation since 2015/16. Supervisors work closely with their PGT dissertation students to identify and examine ethical issues. The School's postgraduate research students meet weekly for a series of seminars organized by the School's postgraduate research convener. One of these sessions is run by the School's REO, who presents the research ethics and governance procedures to doctoral candidates. Ethics also form a separate item in the upgrade/ confirmation of PhD status procedures, requiring students to discuss all ethical issues relevant to their work with their supervisors prior to their meeting with the upgrade panel and to discuss those issues in their upgrade document.
- In the School of Politics and International Relations, PGR students are encouraged to undertake a Professional Development module in the Autumn semester, taught by the PGR Director that includes training on aspects of research integrity.
- In Economics, PhD students receive training on lab procedure which includes ethics before they are permitted to use the experimental lab.

For staff: ethics and integrity website, regular email updates, a regular item on ethics and integrity in School meetings and in the School Research Ethics Committee meetings are various means of raising awareness and training on research integrity within Schools. School Research Ethics Officers play an important role in raising awareness and updating the researchers in the School with information about any change in either the University or the UKRIO policies and procedures. *Nine* Schools have reported as below:

Examples:

- In Health Sciences, the School Research Concordat Officer is a representative for research staff and facilitates sharing of good practice through new staff inductions, providing guidance on research governance, cascading relevant information, informal mentoring and regular research staff meetings. For all funded research projects the Principal Investigator is required to undertake and complete a Risk Assessment form which is kept on a central file. The School ran a Risk Assessment Workshop facilitated by the Health and Safety Advisor, Safety Office for all staff within the School.
- In the Faculty of Arts, all research funding applications for external research funding are peer-reviewed through the Centre of Advanced Studies. This includes monitoring of the appropriate disciplinary standards of honesty, rigour and transparency, as well as of adherence to the University and School Research Ethics policy. All potential grant applicants complete a short form in which they

are asked specifically to detail any ethical implications of their proposed research, thus ensuring that these are foregrounded and addressed from the start.

Applicants receive appropriate feedback.

- In the School of Chemistry, the 'UK Concordat to Support Research Integrity' is now used as a briefing document and is presented and discussed at the beginning of the academic year with Early Career postdoctoral researchers through the School's Post-doc Forum by the School's Staff Development Officer.
- Throughout the year the Engineering faculty runs a range of research integrity-related training to staff including research ethics, research data management and faculty research policy through its E3R (Enhancing Excellent Engineering Research) strand.
- The School of Medicine has developed a set of policies and practices on research integrity for informing and guiding both staff and students in the School.
- Training for staff, in the Business School, is provided through mentoring and guidance from senior colleagues, and through attendance at the annual Research Integrity workshop delivered by UKRIO as organised by the university. Copies of the UKRIO presentation and case studies from the annual research integrity workshop were circulated within the School.
- In Psychology, all academics and research support staff had been encouraged to attend the Research Integrity Workshops run by the University and as Director of Research in the School I attended such a workshop in November 2015.
- In Economics, there are statements in handbooks about the need for ethics clearance, and staff are reminded at Staff meetings. The School Ethics Committee Chair provides guidance for staff and students on specific questions when required.
- In Sociology and Social Policy, School's Research Ethics Officer discusses specific research ethics issues with students, supervisors and staff. A new regular School Staff Development series began 2014: to include Research Integrity, Open Access implications, the supervisor's role in the ethics process etc. Discussions within the School and with the University's Insurance Department took place in early 2015 to clarify the procedures around insurance, risk and overseas travel which resulted in the development of a flowchart for overseas travel and risk assessment. Ethics forms amended accordingly. Role of Fieldwork Risk Assessment Officer operates alongside that of Research Ethics Officer.

Research integrity training is also integral to many of the central training and professional development programmes provided by the Graduate School for PGR students, early career researchers and ethics officers. It is explicitly addressed in the following courses:

- Copyright Training
- Dealing with Copyright Issues in your Research
- Dealing with Intellectual Property Issues in your Research
- Exploring Ethics in Research
- Global Research Ethics and Integrity
- Good Clinical Practice
- Identifying and managing copyright issues in research
- Identifying and managing intellectual property issues in Research
- Introduction to Research Data Management
- Ethics and Research in External Organisations

- Introduction to Research Data Management
- Research ethics and the ethics review process for doctoral research
- Introduction to the ethics review process, for new ethics officers and panel members

In total these courses had 420 attendees in 2015-16.

In addition, the University Research Board has approved the purchase of the Epigeum online module on research integrity and this has been tailored to provide bespoke Nottingham content and will be launched shortly. Epigeum is being implemented for use by researchers across all career stages.

v. Any research into research integrity or related fields, such as research ethics, undertaken by members of the School

Growing number of researchers across different disciplines in the University are actively engaging in research and studies on Research Integrity or related fields. Seven out of 21 Schools and one Faculty have reported to be undertaking direct research on research integrity or related fields. For example,

- Research in the School of English includes work on health communication, dementia, eye-tracking, linguistic profiling, language acquisition (L1 and L2), and ancient biotics, as well as on the more traditional elements of literary and linguistic studies. A new project in the School of English is exploring ethics related issues: "Accessing online data for youth mental health research".
- The School of Biosciences and the School of Veterinary Medicine and Science host the Centre for Applied Bioethics. This research group comprises academic members of staff, honorary professors and lecturers, research fellows and PhD students. These researchers are conducting research in the field of applied bioethics focused on animal, agri-food and environmental management issues, and participatory ethics. Some of the current work is funded by EC H2020, The Wellcome Trust, The Leverhulme Trust, DFID/Royal Society. Projects are examining themes of (i) Harm/Benefit in Ethical Assessment, (ii) the relationship between Responsible Research and Innovation (RRI) and Research Ethics, (iii) development of Ethical Tools to support decision-making in (animal) REC processes, (iv) openness and transparency in bioscience research; (v) developing subject-specific research ethics training for PGR researchers. Other academics in the School who have a social science training are also interested in research ethics questions related to their research topics (e.g. within the Division of Nutritional Sciences) but at present external funding has not been secured.
- The Nottingham University Business School is actively engaged in research into responsible innovation, based in the International Centre for Corporate Social Responsibility.
- The School of Education conducted a small amount of research into the ethics procedures of other Schools of Education as part of their Review.
- As part of the Centre for Applied Bioethics, the School of Veterinary Medicine and Science is actively engaged in research into bioethics, particularly in the areas of relationship between man and animal; and the relationship between laboratory scientists and the research ethics involving evidence and uncertainty.

- Researchers from the Faculty of Engineering have supported work on research integrity led by the School of Sociology and Social Policy.
- In Sociology and Social Policy, an Academic Champion of a University of Nottingham Discipline Bridging Award is exploring ways of Embedding Responsible Research and Innovation in the University (2015-16) with colleagues in science and engineering as Co-investigators. Responsible Research and Innovation is a core research and philosophical focus of the Synthetic Biology Research Centre at the University of Nottingham, with an academic from the School as Social Science Lead who had carried out a project as part of her PGCHE to examine opportunities to integrate Responsible Research and Innovation in teaching across science and engineering departments in the University. Responsible Research and Innovation is a major theme that runs through the Leverhulme Trust funded Making Science Public programme (2012-2017). As part of the Making Science Public programme of research, works on 'responsive research' is being taken forward through the ESRC/GCRF Nexus research partnership award (Biomass fuel at the Nexus) with partners in Ghana of which the academic champion is the Principal investigator. Another academic has developed his presentation to the 3rd International Conference of the International Childhood and Youth Research Network (June 2015) on the ethics of childhood research in ethnography into a journal article currently being considered for publication by 'Qualitative Research'.

vi. A description of internal monitoring and audit processes, including information on any revisions or developments

The University Research Board has overall responsibility for monitoring research integrity, including application of the Code. The University Research Ethics Committee (UREC) undertakes an annual monitoring review of all ethics reviews and committees operated by Schools and Faculties. The current monitoring requires the annual collection of qualitative and quantitative data from Schools by Research, Enterprise and Graduate Services. These are then reviewed by a sub-group of UREC, who highlight any issues and make suggestions for new policies that need to be developed, identify training requirements, highlights good practice and areas for any other development. UREC receives a detailed report from the sub-group and signs-off the process.

Risks associated with managing University research are considered in the Internal Audit Service (IAS) annual planning cycle. Audit coverage to date has focused on the overall governance framework for research, including policies relating to research conduct and ethics and responsibilities of key groups and committees.

3. Addressing research misconduct

i. Confirmation that the University has processes for reporting and investigating of allegations of research misconduct

The University has relevant policies and procedures to respond to research misconduct; namely Regulations of Academic Misconduct, Staff Disciplinary Procedure, Code of Discipline for Students and Fraud Policy. These procedures have appropriate principles and mechanisms to ensure that investigations are thorough and fair, carried out in a transparent and timely manner, and protected by appropriate confidentiality.

These procedures can be found at:

Research Misconduct Policy for research student:

<http://www.nottingham.ac.uk/academic-services/qualitymanual/assessmentandawards/academic-misconduct.aspx>

Quality Manual - Academic Misconduct Policy:

<http://www.nottingham.ac.uk/academic-services/qualitymanual/assessmentandawards/academic-misconduct.aspx>

Academic Misconduct Procedure:

<http://www.nottingham.ac.uk/academic-services/documents/qmdocuments/regulations-on-academic-misconduct---academic-misconduct-committee-hearings.pdf>

The University also has a number of resources on research misconduct which can be found at the workspace intranet pages for staff use.

As all these procedures and policies are reported into different administrative services, the Director of Research, Enterprise and Graduate Services has been identified as the single point of contact for reporting allegations of research misconduct and is the Research Integrity Officer for the University as part of the revised procedure, who will refer these to the appropriate procedure dependent on the nature of the allegation.

ii. Brief anonymised summary data on any formal investigations conducted by your institution into allegations of research misconduct

Between 1 August 2015 and 31 July 2016, formal investigations were conducted by the University on 1 member of staff for allegations of research misconduct. The investigation carried out under the University Disciplinary procedure was related to Falsification of data. The complaint was upheld and the employee was dismissed.

Between 1 August 2014 and 31 July 2015, formal investigation was conducted by the University on 1 postgraduate research student for allegations of research misconduct related to failure to follow ethical approval guidelines for data management and resulted in a written warning.

There had been two further cases of plagiarism by PhD students, these were not upheld and the cases were investigated by the relevant Faculty Associate Pro-vice Chancellor.

The University confirms that it fulfils all requirements to make reports to external bodies, including regulatory and professional bodies, regarding the initiation or completion of a formal investigation.

4. External Engagement

i. Collaborations or initiatives with external organisations to support and strengthen understanding and application of research integrity issues.

Four Schools and one faculty have reported to have either collaboration, initiatives or memberships with external organisations. For example,

- In the School of English, 3 members of staff are Fellows of the English Association; 4 are members of the AHRC peer review college; a member of staff sits on the AHRC Council and on the ESRC's Capability Committee. Staff regularly deal with issues relating to research integrity via their work as reviewers for a range of national and international funding bodies, including the Leverhulme Trust, ESRC, AHRC and Wellcome Trust; and via serving on the editorial boards of leading journals. They participate in the governance of national and international subject organisations, including, for example, as the President and as an Executive Officer of the Scottish Text Society; Research Officer of TAPRA, the national Theatre and Performance Research Association for UK and Ireland; as Convenor, Theatre Historiography Working Group, International Federation of Theatre Research; and as a Board Member and Trustee of Red Earth Theatre, touring theatre for children and young people with a commitment to making work that is diverse (Deaf and disability).
- In Engineering, a senior academic is a member of EPSRC Strategic Advisory Network and so deals with research integrity issues.
- Linked to previous work on a Hate Crime Commission in 2014, the School of Geography has ongoing links with Nottingham Citizens e.g. picking campaigning topics, attending commission launches, and integrating students with the Citizens work (through the Techniques in Human Geography module). Teaching (F630 Environmental Geoscience) and Research (Centre of Environmental Geochemistry) links with the British Geological Survey ensure regular exposure for students and staff to professional practice from an external organisation, for example, in risk assessment, complementing the School's own robust procedures for fieldwork.
- The School of Veterinary Medicine and Science has a five yearly visitation by the Royal College of Veterinary Surgeons to evaluate all aspects of teaching and research in the School; this acts to strengthen research integrity. Additional action to annually review on-going clinical research has also been instigated.
- In Sociology and Social Policy, many staff and students are members of their professional associations, and these have interest in Research Integrity and Ethics: Social Policy Association, British, European and International Sociological Associations, European Association for the Study of Science and Technology, Society for the Social Studies of Science, Science and Democracy Network.

ii. Details of staff or student contributions or involvement in external events and activities in support of Research Integrity such as: Public Engagement Events, Conferences.

Six Schools and one faculty have reported to have either contributed to or be involved in external events and activities in support of research integrity. For example,

- The School of Computer Science has an extensive programme of Outreach and Public Engagement activities.
- The School of Biosciences ran a workshop on Research Integrity and has an extensive programme of Outreach and Public Engagement activities.
- In Education, a small number of staff and students were involved in external conference presentations in which they discussed dimensions of research integrity in their work.

- In Geography, researchers made a number of presentations at international conferences (e.g. a number of the Geoscience theme presented at the INQUA congress in Nagoya, Japan in July 2015 and at the International Conference of Historical Geography, London, July). Many staff also serves on journal editorial boards, often as Editor or Editor-in-chief, and so often deal with a range of ethical issues (e.g. dual submissions, unattributed copying). Staff and students from the School of Geography have contributed to engagement events through the Universities WP programs such as the Sutton Trust Summer School and Ambition Nottingham.
- A team of 6 Engineering PhDs beat off strong competition to win the national final of Engineering Young Entrepreneurs Scheme (YES) held on 15 June 2016. This team was drawn from several research groups and was established solely for this competition.
- In the School of Health Sciences, staff members sit on data monitoring committees for clinical trials. As part of the mentoring scheme, mentors may offer support on research integrity issues for research active staff.
- In Sociology and Social Policy, there were (i) Public lecture on 7 March 2016 by David Guston (Director of the NSF-funded Virtual Institute for Responsible Innovation/VIRI & Founding Director, School for the Future of Innovation in Society, Arizona State University) as part of the University of Nottingham Discipline Bridging Award exploring ways of Embedding Responsible Research and Innovation in the University. (ii) Academic Champion of Nottingham Discipline Bridging Award presented an overview of Embedding Responsible Research and Innovation at the VIRI conference in San Sebastian, March 2016. (iii) The Institute of Science and Society, which conducts cross-disciplinary research and teaching on the social, political and ethical aspects of science and technology, celebrated the achievements of Making Science Public and discussed the agenda for future work at the one day conference Making Science Public: Opening Up Closed Spaces, 22 June 2016, University of Nottingham.

iii. Memberships of, or collaborations with, organisations with a particular interest in research integrity and related issues.

Seven Schools and one faculty reported memberships or collaboration with organisations with a particular interest in research integrity and related issues. For example,

- In Chemistry, UG Chemistry courses are accredited with the disciplines professional body, the Royal Society of Chemistry (RSC). The RSC issues specific guidelines around research ethics which are adopted by the School.
- Engineering has a number of professional bodies with explicit interests in research integrity and research ethics who assess and accredit courses, grant professional memberships on academic staff and some cases also provide registration to research groups. These organisations are both UK based (IMechE, IED, IET, JBM, ICE, IStructE, IHT, IIHE, CIBSE, IChemE, CIEHF) and international (e.g. Board of Malaysian Engineers) and nearly all staff and students can expect their research or training activity to fall under one or more.
- In School of English, 3 members of staff are Fellows of the English Association; 4 are members of the AHRC peer review college; a member of staff sits on the AHRC Council and on the ESRC's Capability Committee.

- In Geography, a number of staff serve on editorial boards or on committees of learned societies therefore providing international research leadership for these communities e.g. European Councillor for International Society of Biometeorology, Secretary of the International Biogeography Society. Staff also contribute to the work of RCUK and European funding routes, through reviewing, but also sitting as panel members and/or chairs of: the AHRC Peer Review College; the NERC Airborne Research and Survey Facility Steering Committee and the European Facility for Airborne Research; and the NERC Radiocarbon Steering Committee.
- Member of Nottingham University Business School is involved ARMA Special Interest Group (SIG) for research ethics and research integrity.
- Staff members from Biosciences are members of The Nutrition Society, Society for Applied Microbiology, Society for Experimental Biology, British Ecological Society, British Society of Animal Science (BSAS). Each of these organizations has a Code of Conduct / a form of Scientific Integrity Policy.
- Members of School of Health Sciences hold positions which impact on research integrity for example, roles on editorial boards of journals, membership of funding bodies (NIHR, specific charities), membership of professional bodies (RCP, RCN, CSP). Two members of staff are current members of NHS RECs and in this capacity, they will also undergo regular training and updates. Members of staff are members of the professional bodies BPS and UKSBM.
- The British Psychological Society (the professional body for psychologists that accredits our UG degrees) publishes guidelines on research integrity and ethics matters and the School of Psychology Ethics Committee work to those guidelines as well as to meet European legislation (allowing the School staff members to apply for EU funding schemes).

Conclusion

The annual statement on research integrity is a valuable opportunity for a reflection on and internal review of strategies, processes, activities and. This annual statement on research integrity to the Council on the actions that the University have undertaken to sustain and further enhance research integrity confirms compliance with the commitments of the Concordat to Support Research Integrity and the requirements of HEFCE.