

TERMS OF REFERENCE

NWU Engineering Research Ethics Committee

(NWU-ENG-REC)

1 Name of the Committee

North-West University Engineering Research Ethics Committee (NWU-ENG-REC)

2 Purpose of the Committee

The NWU-ENG-REC provides operational management of the research ethics process in the faculty of engineering

3 Scope

Ethics approval must be obtained for all research proposals before a research study commences.

Note: The NWU-ENG-REC will not consider research studies for approval if it is apparent that the research has already been conducted (retrospective).

The Faculty of Engineering REC functions according to the requirements as stipulated by the terms of reference provided by the Rules for the Management of Research Ethics at the North-West University, 2016.

4 Responsibilities

The NWU-ENG-REC, within its specific field of research expertise will:

- Function within a strict code of conduct as appropriate for the specific, research field and approved by the RERC, and will ensure confidentiality of all information revealed to it;
- Have, in the recommended format, the following documents:
 - Terms of Reference (ToR)
 - Standard operating procedures (SOP)
 - Templates and/or application and report forms
- Ensure that researchers have a proper understanding of research ethics as applicable to the specific research field of expertise by providing subject-specific training;
- Ensure that all researchers working within its research field of expertise sign the NWU research code of conduct;

- Formulate and seek approval from the RERC for a set of operational rules for ethics applications within the specific research field of expertise;
- Formulate and seek approval for a set of research field-specific examples of Risk Level Descriptors, in line with the RERC guidelines, to make a suitable classification of research ethics proposals.
- Provide feedback on specific ethics matters as requested by the RERC;
- Receive applications for research ethics approval from researchers via the provided research management system;
- Consider these applications at its regular meetings, and communicate and minute the REC's decision regarding applications to the applicants;
- Approve the issuing of research ethics approval letters for approved projects;
- In cases where the REC cannot reach consensus, or some other conflict arises within the REC, follow the general NWU rules for conflict resolution;
- Consider and act appropriately on the annual reports of approved projects;
- Consider applications to change any of the details of the research project as specified in the original proposal;
- Consider and act appropriately, in accordance with the approved SOP, in cases of ethical misconduct by researchers;
- Report via the approved Faculty structures to the relevant Dean;
- Report to the RERC on an annual basis, using the prescribed reporting template;
- Report to the appropriate statutory body (if applicable) on an annual basis, as applicable.

4.1. Minimum standard for the ethics application procedure

The ethics application procedure shall include at least the following steps:

1. A completed research proposal must be submitted to the relevant Scientific Committee for review.
2. The Scientific Committee will advise (based on the information in the research proposal) whether ethics approval is required and refer the application to the NWU-ENG-REC.
3. The NWU-ENG-REC will handle each application for ethics approval according to the rules and operating procedures of the NWU-ENG-REC.

4. If deemed necessary, or if required, the NWU-ENG-REC, will refer an application to a suitable NHREC registered committee.

5 Authority of the NWU-ENG-REC

The NWU-ENG-REC functions as a sub-committee of the Faculty Board and in close collaboration with the Faculty Research Committee and Scientific Committee. The NWU-ENG-REC functions within their research field of expertise within the structure of the RECs for the NWU.

The NWU-ENG-REC derives its authority from the governance rules formulated by the RERC, as well as in the case of registered RECs, the governing statutory body. As such, the establishment of the NWU-ENG-REC must also be approved by the RERC. If the NWU-ENG-REC is dissolved by the engineering faculty, this must be reported to the RERC.

6 Membership of the NWU-ENG-REC

Members of the NWU-ENG-REC are recommended to, and approved by, the Faculty board for a period of five years, in accordance with the governance rules of the RERC. Members are recommended based on their independence as well as their specific research ethics knowledge and expertise. Upon appointment, a formal Letter of Appointment will be issued by the RERC. This appointment must reflect in and count towards the annual task agreement of the staff member.

6.1. Composition of the NWU-ENG-REC

The NWU-ENG-REC will consist of **at least** the following:

- At least 7 members, with a quorum being a simple majority
- Where the number of members is more than 15, the quorum may be 33%.
- A chairperson, being an academic staff member with appropriate experience, expertise and leadership skills to ensure efficient functioning of the committee.
- At least one member of each school representing specialists in the particular research fields.
- One member who is non-academic staff member of the North-West University (lay person or community representative).
- It is recommended that at least one member should be an expert in the field of statistics.
- Ad hoc attendees with required fields of expertise may be nominated for meetings, legal advisor, bioethicist, biosafety, clinical or procedure expert, etc,
- A total of 7 members constitutes the committee with a minimum of 4 members forming a

quorum

6.2. Appointment of members

The Faculty Management, in consultation with the NWU-ENG-REC, will suggest possible candidates. Members are approved by the Faculty board, and formally appointed by the RERC, in its role as standing committee of Senate.

6.3. Appointment of Chairperson and Vice Chairperson

The Faculty Management, in consultation with the NWU-ENG-REC, suggests possible candidates for chairperson. The Faculty Board appoints a chairperson in consultation with the Faculty Management and the NWU-ENG-REC. The vice-chairperson is selected and appointed by the NWU-ENG-REC and need not be appointed by the Faculty Board.

6.4. Co-opted members, observers and visitors

The NWU-ENG-REC co-opts members as and when needed. Since the NWU-ENG-REC functions within a strictly confidential environment, observers and visitors will only be allowed in exceptional cases and for a specific purpose. In such cases a confidentiality agreement must be signed. Researchers may be invited to attend the discussion of their application and to be present to clarify any uncertainties.

6.5. Voting rights

All members will have voting rights, while co-opted members, observers and visitors will not have such rights.

6.6. Secretariat

Corporate and Information Governance Services (CIGS) will ensure that the appropriate secretarial services are provided.

6.7. Meeting arrangements

The following minimum requirements apply for a meeting, in addition to any applicable statutory requirements when applicable to the NWU-ENG-REC:

Frequency	A minimum of four per annum, if there are matters to consider. These meetings should preferably be face-to-face meetings, but can also be held via interactive electronic media where practical. The timing of meetings should be such that research projects are not delayed unnecessarily while waiting for ethics approval.
Extraordinary meetings	If and when necessary
Quorum	The quorum of the meeting will be at least half (50%) plus one of all the members, excluding vacant positions. Where the number of members is more than 15, the quorum may be 33%
Notice	At least 14 days before the meeting date, the Secretariat electronically notifies the members of the time and place where the meeting is to be held. At least 2 days before an extraordinary meeting, the Secretariat electronically notifies the members, provides the reason for an extraordinary meeting, as well as the time and venue. In exceptional cases, for urgent matters such as with serious adverse events with significant risk or potential harm to participants, animals, researchers, students and/or the environment, immediate action may be required which must then be ratified at the next meeting.
Agenda	At least 5 days prior to the meeting, the Secretariat provides the complete agenda pack electronically to all members.
Reporting	A report of the REC's activities, excluding confidential information, serves at the appropriate Faculty board for discussion and approval. An annual report must be submitted to the RERC in the prescribed or agreed upon format in the case of NHREC registered RECs.
Decision-making process	Matters are decided by means of general debate and consensus. When consensus cannot be obtained, minor change that will allow consensus must be sought, or further consultation can be requested if the matter at hand is not urgent. When consensus is

	<p>still not possible and a timely decision is required, the Chairperson should put the decision to a vote.</p> <p>The Chairperson may decide that voting must be by secret ballot, provided that voting by members must always be by secret ballot.</p> <p>The Chairperson has an ordinary vote, but must in addition exercise a casting vote in the event of an equality of votes on any matter.</p>
Conflict of Interest	<p>A member may not take part in the discussion of, or vote on any matter in which the member has a direct financial or other interest. In such cases the member is required to declare conflict of interest and should abstain or obtain the leave of the meeting during such discussion and voting.</p>
Point of Order	<p>A point of order, clarification or information may be raised against any member, in which instance the ruling of the Chairperson is binding.</p> <p>Should the above point of order, clarification or information be immediately challenged by a member, the ruling is put to the meeting for determination – without it being discussed, and the decision of the meeting is final.</p>
Disrespectful / Disorderly conduct	<p>Anyone attending a meeting who, after having been requested to refrain from disrespectful or disorderly conduct, continues to disobey a ruling from the Chairperson, must be requested to leave the meeting.</p> <p>If that person does not leave the meeting immediately, such a person could be removed from the meeting with the assistance of Protection Services.</p>
Apology	<p>Members absent from the meeting, with apology prior to the meeting, are allowed to participate.</p> <p>The views of a member who is unable to attend a meeting may be submitted in writing.</p>
Round Robin Process	<p>The Chairperson may electronically submit urgent matters in between scheduled meetings. The Secretariat will assist in this process.³</p> <p>At least two thirds of the members have to electronically confirm their involvement in the process by giving feedback, approval or non-approval. When a majority of members reaches agreement it</p>

	is taken as a resolution. Such resolution is equivalent to a resolution of the committee and must be recorded in the minutes of the next meeting.
Resources and Budget	The Chairperson submits a budget to the appropriate faculty as part of the annual budgeting process.
Records management	All records of the committee (terms of reference, membership list, agendas, attendance register, correspondence, etc.) will be kept electronically on the research ethics management system (InfoEd), or as otherwise specified as per approved SOP. Records management must be according to the file plan of the university's record management system.

1. RISK LEVELS OF NWU-REC-REC

Adjusted from: "Getting Ethics Approval for Your Research Project. Research Ethics Committee: Humanities. March 2015" University of Stellenbosch.

Risk Category	Definition	Explanation and/or Examples
No risk	No contact with human participants	<ul style="list-style-type: none"> • Certain systematic reviews • Review of literature available in the public domain. • Studies based on theory analysis and theory development
Minimal and/or low risk	<p>The probability or magnitude of harm or discomfort anticipated in the research is negligible and not greater than that ordinarily encountered in daily life ("Daily life" as a benchmark should be that of daily life experienced by the average person living in a safe stable society.</p> <p>Research in which the only foreseeable risk is one of minimal discomfort.</p>	<ul style="list-style-type: none"> • Market research surveys • Research in which the investigation of largely uncontroversial topics is undertaken through interviews, surveys and participant observation. • The participants are adults and not considered to be a vulnerable research population (as discussed above). • The research will collect information that would generally not be regarded as sensitive, such as opinions/perceptions rather than personal information. • Interviews with officials and practitioners in their official capacity e.g. consultation with a practicing attorney who specializes in mineral law to understand how applications for mining rights are done or with educational translators. • Focus groups with the potential loss of anonymity but not a sensitive subject. • Review of privileged literature/documentation e.g. privileged records of a company's annual meetings with a low level of sensitivity
Medium risk	Research in which there is a potential risk of harm or discomfort, but where appropriate steps can be taken to mitigate or reduce overall risk.	<p>One or more of the following apply:</p> <ul style="list-style-type: none"> • The research topic is considered "sensitive". • Information gathered is personal, rather than opinions or attitudes, or is a combination of these. • The information needs to be collected with personal identifiers (name, student number, etc.). • Review of privileged literature/documentation e.g. privileged records of a company's annual meetings with a low level of sensitivity. • The research participants may come from a vulnerable or marginalized group, such as those involved in dependent relationships, with disabilities, the economically disadvantaged, etc.

		<ul style="list-style-type: none"> • Involves face-to-face contact with participants through: <ul style="list-style-type: none"> – interviews dealing with personal sensitive information or within a power differential – focus groups with the potential loss of anonymity about
High Risk	Research in which there is a real and foreseeable risk of harm and discomfort, and which may lead to serious adverse consequences if not managed in a responsible manner.	<p>One or more of the following apply:</p> <ul style="list-style-type: none"> • The intervention can cause serious psychological or social harm. • Research involving highly sensitive topics and/or very vulnerable and marginalized communities e.g. people with multiple vulnerabilities. • Research involving the deception of the participants. • Research investigating illegal activities: e.g. involving participants who are illegal immigrants or engaged in illegal activities. • By agreeing to participate in the research participants will be placed at a real risk of harm. • The researcher (or research team) will be placed at a real risk of harm • The researcher may be placed at risk of breaking the law by carrying out certain activities, e.g. research investigating gang activities and possession of illegal firearms. • The research may reveal information that requires action on the part of the researcher or institutions (private and public sector) that could place the participant or others at risk, e.g. research involving child victims of domestic violence, etc.

RISK EVALUATION FORM FOR RESEARCH WITH HUMAN PARTICIPANTS

Types of risks	Example	Probability (Y/N)	Magnitude 1 – mild discomfort 5 – severe trauma	Justification	Precaution
Physical harm	Fatigue				
	Headaches				
	Physical discomfort				
	Muscle tension				
	Physical side-effects				
	Injury				
	Toxicity				
	Loss of physical capability				
	Loss of safety				
Psychological	Emotional discomfort				

harm	Emotional dependency				
	Loss of mental capability				
	Deception				
	Coercion				
	Emotional distress				
	Boredom				
	Inconvenience				
	Self-disclosure				
	Embarrassment				
	Anxiety				
	Fear				
	Anger				
	Sadness				
	Emotional trauma				
	Loss of privacy and confidentiality				
	Loss of autonomy				

	Loss of freedom of choice				
Social harm	Negative effects of interactions				
	Loss of status or social standing				
	Loss of reputation				
	Stigmatization				
	Discrimination				
Legal harm	Arrest				
	Conviction				
	Incarceration if researchers are bound to report certain actions				
Economic harm	Direct or indirect financial cost e.g. travelling or child care				
	Loss of income not being on the job				
	Time spent in the research				
Dignitary harm (harm to dignity)	Not treated as a person with own values				
	Preferences and commitments are mere a means to an end e.g. informed consent				
	General community knowledge becomes known				
	Abuse indigenous knowledge				