

AOU CODE OF RESEARCH ETHICS

APPROVED BY THE AOU BOARD OF TRUSTEES, MEETING NO (26) DECEMBER 21, 2016

November 2015 |

Table of Contents

GLOSSARY OF TERMS	ii
1-PREAMBLE.....	1
2- ETHICAL STANDARDS AND PRINICIPLES OF GOOD PRACTICE IN RESEARCH..	2
2.1 Purpose and Scope.....	2
2.2 Basic Ethical Norms.....	2
2.3 Ethical Principles of Good Practice.....	6
3. ETHICAL CLEARANCE.....	11
3.1 Research Ethics Committee.....	11
3.2 Procedure of Ethical Review.....	12
3.3 Composition of the REC.....	13
Appendix: Ethical Clearance Application- Check List.....	14
References	16

GLOSSARY OF TERMS

AOU: Arab Open University

The University: The Arab Open University

CRE: Code of Research Ethics

Code: Code of Research Ethics

REC: Research Ethics Committee

The Committee: Research Ethics Committee

1- PREAMBLE

Academic freedom is the freedom to teach, study and pursue research without unreasonable interference or restriction from law, institutional regulations or public pressure.

Research freedom is the freedom of researchers to inquire into any subject that evokes intellectual/human concern, and to present findings in the form that they consider professionally appropriate, without control or censorship.

At the same time, integrity, accountability and responsibility in conducting research form the cornerstone of any research-undertaking institution, academic or non-academic, and violations of widely-recognised research standards and ethical principles represent serious offences to the institution within which the research is conducted and to the entire knowledge-advancing community.

Recognising the need to have guidelines that govern the ethical conduct of research, the AOU hereby establishes a Code of Research Ethics (CRE). The CRE applies to all research by and/or in collaboration of its members of staff and students and all those who use the University's facilities for the purpose of undertaking funded or unfunded research.

This Code is to encourage and sustain good ethical research practice through the provision of clear and practical guidelines on the generic principles and processes of research ethics review within the AOU.

'Research' is defined as any form of disciplined inquiry that aims to contribute to the advancement of human knowledge.

'Research ethics' refers to the application of moral principles and professional codes of conduct that guide research from planning, collection and analysis of information through to reporting and publication of results.

Abiding by ethical principles serves the fulfillment of the aims of the research activity and outcome itself.

- **Adhering to these principles promotes objectivity and originality of research (such as seeking truthfulness, and avoiding misrepresentation and errors, aiming for high standards).**
- **As research often is based on collaborative efforts and involves coordination between individuals and institutions, ethical principles, such as fairness, trust, respect, confidentiality and joint responsibility of protecting the**

collaborating individuals/institutions, promote the values that are essential to collaborative work.

- **Ethical principles and rules ensure that the researchers are accountable to the public (avoidance of research misconduct, and procedures to handle it if it happens, defining and removing conflict of interest, protection of the human subjects and animal care).**
- **Adhering to ethical and professional standards in research also helps to build support for research. Institutions are more likely to fund research project if they can trust the quality and integrity of research.**
- **Many of the ethical standards in research serve to promote a variety of other important moral and social values(such as compliance with the law, social responsibility, justice, integrity, truthfulness, respect of the others, human rights, animal welfare).**

This Code will be tackling ethical issues related to non-clinical research only.

2- ETHICAL STANDARDS AND PRINCIPLES OF GOOD PRACTICE IN RESEARCH

2.1 Purpose and Scope

2.1.1 This Code provides guiding ethical standards and principles of good practice in research across all faculties and branches of the University.

2.1.2 It applies to all those undertaking research in the University, or on its behalf, including members of staff, students, visiting staff, associates, and consultants.

2.1.3 The Code underpins the University's commitment to effective research governance, and, together with other University policies and rules, allows all those involved in research to engage effectively with the ethical, practical and intellectual challenges inherent in the pursuit of excellence in research.

2.2 Basic Ethical Norms

The below are general ethical norms and values that do not apply only to research or academic work in general, but to every aspect of social behaviour. They are examined in this section from the perspective of their relevance to research.

2.2.1 Honesty and Transparency

Honesty and transparency are central to the relationship between the researcher(s), the research subjects (human subjects; institutions) and other interested parties (beneficiaries of the outcome; funding agencies; community at large).

Researchers should foster and support honesty and transparency in relation to their own research and that of others.

They should ensure research purpose, designs, methodologies, data, findings and results are open to appropriate scrutiny (subject to protection rules and confidentiality as being ethically justified and cleared).

They should strive to ensure the accuracy of data and reporting of results, acknowledge the contributions and work of others, and neither engage in misconduct nor conceal it.

Participants should be given opportunities to access the outcomes of research in which they have participated, and debriefed if appropriate after they have provided data.

Organisations should work to create and maintain a culture conducive and supportive to honesty and transparency in research.

2.2.2 Integrity and Objectivity

The general principles of integrity and objectivity should inform all research activities.

Research must be conducted with integrity and objectivity. Prejudice and bias must be avoided when designing experiments and observations, analyzing data, and interpreting findings. Fabrication, falsification or plagiarism of the ideas, data, or research findings of any other party is a violation of generally accepted standards for scientific research; such conduct can never be tolerated.

The researchers should ensure that research has been appropriately reviewed, and necessary regulatory, funding and ethical approvals, internally to the University and externally, have been obtained.

They should declare any actual, perceived or potential conflicts of interest- this includes disclosing personal or financial interests- that may affect research, and seek advice and/or to take steps to resolve them.

Research is only ethically and professionally justified if there is a reasonable likelihood that the populations from which research participants are drawn stand to benefit from the results of the research.

Accountability of whether research has been carried out with integrity lies with the researcher.

2.2.3 Justice and No-discrimination

The ethical principle of distributive justice requires the fair distribution of the benefits and burdens of research within a given population.

Individuals who are vulnerable and unable to protect their own interests must not be exploited for research endeavours. Research participants should not be selected simply because they are readily available, or because they are easy to manipulate as a result of their personal, social or socio-economic conditions

Distributive justice also imposes duties to neither neglect nor discriminate against individuals or groups who may benefit from advances in research.

Researchers should not discriminate in the selection and recruitment, whether by inclusion or exclusion, of actual and future participants except where the exclusion or inclusion of particular groups is essential to the purpose of the research (discrimination may be based on ethnicity, race, age, disability, religious affiliation, gender, sexual orientation, marital status, employment status, family status, language or spiritual/ethical/political beliefs).

In the selection of the research teams, researchers should avoid discrimination against colleagues or students on any other bases that are not related to their scientific competence and integrity.

2.2.4 Legality and Accountability

It is the responsibility of the researchers to know, and abide by relevant institutional and governmental policies, and all legal, regulatory and ethical requirements, including professional body codes of practice, in countries where any aspect of the research is conducted.

Researchers should ask about and adhere to institutional and governmental requirements for identifying, disclosing, and managing conflicts of interest and other conflicts that may arise when and where the research is conducted.

They should ensure that any research undertaken complies with any agreements, terms and conditions relating to the project, and have fully auditable records that allow for proper governance; inspection and scrutiny.

Individual researchers and institutions conducting research should recognise that in and through their work they are ultimately accountable to the general public and should act accordingly.

2.2.5 Social Responsibility and Cultural Sensitivity

Researchers must strive to promote social good and prevent or mitigate social harms through research.

Research is only considered ethical if it is perceived to contribute to the advancement of knowledge and to bring benefits to the research population(s).

In order to conduct research in communities outside the researcher's own, the researcher must have appreciation for those attitudes, values, accountability systems, articles and actions, which constitute the cultural property, and traditions of the communities.

Approval and/or active support by the community involved in the study should be sought before fieldwork begins. Cultural sensitivity in research practice means respecting the decision of the communities not to participate, or to discontinue participation at any time.

Where research involves the acquisition of material and information transferred on the assumption of trust between persons, the rights, interests, cultural and intellectual property of the research participants must be safeguarded.

Contribution of the population(s) of the research should be recognised in the publication of results.

2.2.6 Confidentiality

Personal information of any sort must be regarded as confidential, and a guarantee given. Failure to keep confidentiality may become a civil court case.

Wherever possible, participants should know how information about them is used, and have a say in how it may be used.

Researchers have to take every precaution to respect and safeguard the privacy of the participant, the confidentiality of the participant's data and to minimize any possible negative impact of the study on the participant.

A confidentiality agreement must be obtained from any person other than the researcher/supervisor who has access to the data.

Normally, researchers must ensure they have each person's explicit consent to obtain, hold and use personal information.

All personal information must be coded as far, and as early, as possible.

It is to be noted that the duty of confidentiality is not absolute in law and may in exceptional circumstances be overridden by more compelling duties such as the duty to protect individuals from harm. Where limits to confidentiality might arise, the potential participant should be informed of the nature of the limits, and these should be specified in the protocol of the research.

2.2.7 Respect of others

Respect involves recognition of the personal dignity, beliefs (including cultural and religious beliefs), privacy and autonomy of individuals participating in research (as research subjects or as fellow researchers).

Individuals have the right to decide whether or not to participate in, or to withdraw from, research without giving reasons.

2.3 Ethical Principles of Good Practice

The general ethical norms and standards listed above affect, and to be adhered to in, every aspect of research. The ethical principles of good practice that come in this section are relevant to, and guide all stages of research activity, from research design, data collection, handling and retention to reporting and publication. Misconduct and disputes that may arise in research are also covered in this section.

2.3.1 Excellence

Organisations and researchers should promote good research practice and strive for excellence when conducting research.

They should aim to design, produce and disseminate research of the highest quality and ethical standards.

This Code intends to promote and support these objectives.

2.3.2 Originality

Originality in scientific research is to be valued above all else.

Individual projects of original research accumulate into intellectual assets which will lead to greater advancement of human knowledge.

Researchers must strive to demonstrate objectively and accurately the originality of their own research, while at the same time they must also properly give credit to the research results of others.

They must respect, from both an ethical and a legal standpoint, the intellectual property created by previous researchers.

2.3.3 Plagiarism

Researchers should not knowingly (re)present the published or unpublished work of another person as their own or assist anyone else in doing so.

The use by a researcher of work done by others, and/or the researcher herself/himself, must be appropriately and adequately acknowledged.

Plagiarism is an act of academic dishonesty and is considered to be misconduct meriting the most severe disciplinary penalties.

Act of plagiarism by students is dealt with on the basis of the student by-laws and plagiarism policy.

Act of plagiarism by University members of staff can be reported by anyone, from inside or outside the University, and has to be passed on the Rector who will form an investigation committee, and on the basis of its findings, takes the necessary measure in accordance with staff disciplinary rules.

2.3.4 Research Involving Human Subjects

Human subject refers to a living or dead human subject about whom a researcher obtains information.

From a living human subject identifiable private information is obtained:

- a) Through direct interaction,**
- b) Through questionnaires/oral history interviews, and/or,**
- c) Through stored data.**

When conducting research on human subjects, researchers should strive to minimise harms and risks and maximise benefits; respect human dignity, privacy, and autonomy; take special precautions with vulnerable populations; and strive to distribute the benefits and burdens of research fairly.

2.3.5 Protection from Harm

Researchers must make every effort to minimise the risks of any harm, either physical or psychological, arising for any participant, researcher, institution, funding body or other person.

Every project should carry out a risk analysis and, where significant risks are identified, should specify a risk management and harm alleviation strategy in the protocol.

In some research projects, there is a possibility of harm to the researcher. This should be recognised and minimised. Consideration should be given to safety factors when interviewing alone.

Publication of research results has the potential to harm groups, communities and institutions. Researchers must be aware of this in writing up results.

Unavoidable risk of harm, including inconvenience and discomfort to participants, will be balanced against possible benefit to the participants and the community. In judging the ethical acceptability of research, an element of risk in research has to be identified and assessed

2.3.6 Informed Consent

Researchers have the duty to provide information to potential participants about the nature and purpose of the research project, in a manner comprehensible to them.

Reasonable steps should be taken to ensure that the research participants are aware of the nature of the research and their involvement in it and that they have freely agreed to participate.

The research process must include a procedure for obtaining consent. Researchers should address in their application for ethics approval both how informed consent can be achieved and demonstrated.

Consent may be obtained orally, particularly where this is culturally appropriate or where a participant is unable to provide written consent because of a disability, or because a written consent may pose a risk to the participant.

Participants have a right to withdraw consent to participation in research at any time.

If it is proposed to undertake research in situations in which consent has not be obtained for example, covert research then this will require separate justification.

2.3.7 Data

"Data" include the methodology used to obtain results, the actual research results and the analysis and interpretations by the researchers.

The integrity of research depends on integrity in all aspects of data management, including the collection, use, and sharing of data. All researchers have an interest in, and responsibility for, protecting the integrity of the research record.

The gathering of data and research materials must be undertaken with honesty and integrity. Researchers should never publish as true, data they know to be false or the result of deliberate acts of falsification.

Researchers have to be extremely clear, both to themselves and to others, about the methods being used to gather and analyze data. Critical decisions about selection and analysis must be made before the research commences, when possible

Data must be organised in a manner that allows ready verification.

Subject to exceptions based on a duty of confidentiality and the laws respecting intellectual property and access to information, after data are published, they must be made available to any party presenting a reasonable request, with justification, to examine them. In cases where there is a disagreement between the researcher and the person requesting the data, the matter shall be referred to the Research Ethics Committee.

2.3.8 Joint/Outside Research

Where a joint research project with another institution was proposed the principal investigator in each of the collaborating institutions is required to secure ethical approval from their own institution.

Each individual researcher participating in joint research is responsible for ensuring that proper research ethics are observed by all members of the research team.

Where it is proposed to undertake research outside the country, researchers have an obligation to comply with laws, regulations and cultural practices of that country as appropriate.

Compliance with ethical principles which may be regarded as appropriate in the country where the research is being undertaken is not a substitute for ethical approval from the AOU.

2.3.9 Reporting of Results

There is an ethical obligation upon researchers to accurately and appropriately disseminate research results.

Publication of research results is important as a means of communicating to the scholarly world so that other researchers can build on the findings

All those participating in the research, as appropriate, are to receive research results.

Researchers are to disseminate results of their work responsibly and with an awareness of the consequences of dissemination in the wider media.

Reports of research not in accordance with the principles laid down in this Code should not be submitted for publication.

2.3.10 Authorship

Publication must give appropriate credit to all authors for their roles in the research. If more than one person contributes significantly, the decision of which names are to be listed as co-authors should reflect the relative contributions of various participants in the research.

In the absence of an agreement between the researchers (including students) the following rules governing the authorship apply:

Authorship is attributed to all those persons (including students) who have made significant scholarly contributions to the work and who share responsibility and accountability for the results;

An administrative relationship to the investigation (e.g. technical assistance, provision of materials or facilities) does not of itself qualify a person for co-authorship.

AOU does not recognise honorary authorship.

The order of the names in a publication is decided according to the quality of the contribution, the extent of the responsibility and accountability for the results, and the custom of the discipline.

The attribution of authorship is not affected by whether researchers were paid for their contributions or by their employment status.

Where multi-authored work is based primarily on the student's dissertation/thesis, the student should have a position of priority on the list of co-authors.

Research collaborators should establish how the allocation of copyright are to be divided between them.

2.3.11 Misconduct

Misconduct in research means actual or attempted acts, or facilitation of acts by others, of fabrication, falsification, plagiarism or deception when proposing, conducting or reporting results of research, or deliberate, or negligent deviations from accepted practices in carrying out research. It includes failure to follow established protocols if this failure results in unreasonable risk or harm to humans,

other vertebrates or the environment. It also includes unauthorised use, disclosure or removal of, or damage to, research-related property of another.

It does not include honest error or honest differences in the design, execution, interpretation or judgment in evaluating research methods or results, or misconduct unrelated to the research process. It does not include poor research, and it does not include students' examined work, which is handled under students' disciplinary code.

The details of how research is conducted are often known only to those actually working on a project. Hence, often, reporting misconduct will only come from someone close to the project

Reporting suspected research misconduct is an obligation of all members of the academic community (whether from inside or outside the institution where research is conducted), and is to be directed to the Vice-Rector for Research, Planning and Development, or to any Branch Director of the University, who will forward it to the competent university authority for investigation.

All reports are treated confidentially to the extent possible, and no adverse action will be taken, either directly or indirectly, against a person who makes such an allegation in good faith.

3. ETHICAL CLEARANCE

All research in the AOU (defined in 2.1.2) that involves human subjects require ethical clearance before it commences. Ethical approval will be granted by the Research Ethics Committee (REC).

3.1 Research Ethics Committee

A 'Research Ethics Committee' (REC) is defined as a multidisciplinary, independent, body charged with reviewing research involving human participants to ensure that their dignity, safety, rights and welfare are protected.

There are two levels of REC; branch level and University level.

The University REC will be reviewing proposals that:

- involve university-level research, involving researchers from different branches, and/or researchers from outside the University;**
- have not been approved by the Branch and are presented as an appeal case.**
- Have been re-directed from the Branch seeking advice (e.g. when major risks have been identified).**

The Branch REC will be reviewing all proposals that do not involve researchers from other branches and/or from outside the University.

The Branch REC may decide to bring a proposal up to the University REC when, in its view, there are some complicated ethical issues in the proposal, and, hence, a second opinion is sought to be helpful.

3.2 Procedure of Ethical Review

The following represents the procedure.

The Primary Investigator (PI) must complete the Application for Ethical Clearance and attach all required information. The application describes all the necessary information required that will enable the Research Ethics Committee to conduct the review.

If the PI believes that the proposal requires no ethical clearance, still the Application is to be filled.

Exemption from ethical approval will only apply to anonymous surveys for improving teaching and learning which are exclusively for the University's internal usage.

If the research received ethical clearance from a third party (e.g. funding agency), the clearance received must be submitted to the appropriate REC, together with the research proposal and a copy of any application made to the third party for ethical clearance. The REC will decide whether it accepts the clearance or whether further review will be required.

If the information for ethical clearance presented by the PI is sought not enough, or if further clarification is required, the researchers will be informed, and asked to complete the necessary information.

The Branch REC may refer back the proposal to the researchers twice, if not meeting the minimum requirements. If after the second referral still the Committee is not convinced that the proposal has met the minimal ethical requirements, it may decide to reject the proposal. The researchers have the right to appeal to the University REC.

After reviewing the appeal, the University REC may decide to provide the ethical approval or refer back the proposal to the researchers to provide extra information. If after the referral still the University is not convinced that the proposal meets the minimum ethical requirement, a rejection may be issues, and the researchers will be advised to submit a new application to their Branch REC after three months.

Projects that come directly under the University REC will undergo the same review procedure as with the Branch REC. Appeals to decisions made by the

University REC will be directed to the University Rector, who may decide to form a special committee to review the appeal.

When referring back any proposal for further clarification, the REC will point out clearly on which ethical requirement it considers the proposal is deficient, and what are the necessary steps/requirements to remove the deficiency.

Unless initially viewing the project as of more than low risk, the Branch Committee may assign the student supervisor and/or a member of the Committee or another staff to sign-off the ethical approval for student projects.

Similarly, other research proposals screened as of low risk, by more than one member of the Committee other than the Convener, may be signed-off by the Convener of the Committee.

3.3 Composition of the REC

Both the Branch and the University RECs should be multi-disciplinary, and composed of members of staff competent in research ethical issues. Regular training is to be organised, especially for new members of the Committee.

One or two members, competent in research ethics, should come from outside the University.

In its reviewing of any proposal, and as it deems necessary, the REC may request external advice.

Appendix

Application for Ethical Clearance -Check List

- 1- What are the aims of your research?**
- 2- What is your research design?**
- 3- What are your methods for data collection?**
- 4- Who are the participants (research subjects), how many, and what are the selection criteria?**
- 5- What are the procedures to secure informed consent? How are you going to document initial and continuing consent?**
- 6- What are the conditions of use set by secondary data providers?**
- 7- Will you have access to all necessary skills and resources to conduct the research? Describe.**
- 8- What are the expected outcomes of the research?**
- 9- What are the benefits to participants and/or third parties?**
- 10- What are the dissemination methods and feedback to participants?**
- 11- Have you conducted a risk assessment to determine:**
 - a- whether there are any ethical issues and whether ethics review is required;**
 - b- The potential for risks to the organisation, the research, or the health, safety and well-being of researchers and research participants;**
 - c- Measures taken to secure confidentiality, privacy and data protection**
- 12- Will your research comply with all legal and ethical requirements and other applicable guidelines, including those from other organisations and/or countries if relevant?**
- 13- Will your research comply with all requirements of legislation and good practice relating to health and safety?**

- 14- **Has your research undergone any necessary ethics review from another party?**
- 15- **Will your research comply with any monitoring and audit requirements?**
- 16- **Are you in compliance with any contracts and financial guidelines relating to the project?**
- 17- **Have you reached an agreement relating to intellectual property, publication and authorship?**
- 18- **Have you reached an agreement relating to collaborative work, if applicable?**
- 19- **Have you agreed the roles of researchers and responsibilities for management and supervision?**
- 20- **Have all conflicts of interest relating to your research been identified, declared and addressed?**
- 21- **Are you aware of the guidance from all applicable organisations on misconduct in research?**

- **The check list has drawn on, and been adapted from:**
- **UK Research Integrity Office (2009), Code of Practice for Research Ethics.**

Economic and Social Research Council (UK- no date), Research Ethics Framework.

References

The document has used and drawn on the following resources:

1. University of Oxford, "**Academic integrity in research: Code of practice and procedure**", <http://www.admin.ox.ac.uk/personnel/cops/researchintegrity/>
2. European University Institute, "**Code Of Ethics In academic Research**" <http://www.eui.eu/Documents/ServicesAdmin/DeanOfStudies/CodeofEthicsinAcademicResearch.pdf>
3. The University of the West Indies, "**Policy And Code On Research Ethics For The University Of The West Indies**" <http://www.mona.uwi.edu/fms/sites/default/files/fms/uploads/Ethics%20Policy%20and%20Code%5B1%5D.pdf>
4. University of the Witwatersrand, Johannesburg, "**Code Of Ethics For Research On Human Subjects**", http://www.wits.ac.za/academic/researchsupport/19111/code_of_ethics.html
5. University of Pittsburgh, "**Guidelines For Responsible Conduct Of Research**", <http://www.provost.pitt.edu/documents/GUIDELINES%20FOR%20ETHICAL%20PRACTICES%20IN%20RESEARCH-FINALrevised2-March%202011.pdf>
6. Resources for Research Ethics Education, "**Research Ethics**" <http://research-ethics.net/>
7. National Institute Of Environmental Health Sciences, "**What is Ethics in Research & Why is it Important**" May 1, 2011. <http://www.niehs.nih.gov/research/index.cfm>
8. The University Of WARWICK, "**Research Code of Practice**" http://www2.warwick.ac.uk/services/rss/researchgovernance_ethics/research_code_of_practice/
9. UK Research Integrity Office (UKRIO), "**Code of Practice for Research**", <http://www.ukrio.org/publications/code-of-practice-for-research/>
10. Brunel University London, "**Code of Research Ethics**" <http://www.brunel.ac.uk/research>
11. The Open University, "**Ethics Principles for Research Involving Human Participants**" <http://www.open.ac.uk/research/main/sites/www.open.ac.uk.research.main/files/files/OU%20Ethics%20Principles%20for%20Research%20Involving%20Human%20Participant.pdf>

12. **Massey University, “Code Of Ethical Conduct For Research, Teaching and Evaluations Involving Human Participations”**
<http://www.massey.ac.nz/massey/research/research-ethics/human-ethics/code-ethical-conduct.cfm>
13. **University Of Leicester, “Research Ethics Code Of Practice”**
<http://www2.le.ac.uk/institution/committees/research-ethics/code-of-practice>
14. **United Arab Emirates University (UAEU), “Ethical Review”**
http://www.uaeu.ac.ae/en/dvcrgs/research/ethical_review.shtml
15. **ZAYED University, “Ethical Clearance For Research”**
http://www.zu.ac.ae/main/en/research/for_researchers/research_integrity/ethical_clearance.aspx
16. **University Of Oxford, “Research Integrity and the Responsible Conduct of Research- Checklist for Research Students and their Supervisors at the University Of Oxford”,**
https://www.learning.ox.ac.uk/media/global/wwwadminoxacuk/localsites/oxfordlearninginstitute/documents/overview/rsv/Integrity_checklist_August_2014.pdf
17. **The University of Hong Kong, “Human Research Ethics Committee for Non-Clinical Faculties”**
<http://www.rss.hku.hk/HRECNCf/guidelines.pdf>
18. **The University of Adelaide, “Research Ethics- Approval: Guidelines, Application and Reporting”**
<http://www.adelaide.edu.au/ethics/human/guidelines/>
19. **Cairo University, Faculty of Medicine, “Ethical Review Board Policies & Procedures Manual”**
<http://www.medicine.cu.edu.eg/beta/images/stories/docs/research/fp7/cairo-procedure-manual.pdf>
20. **Economic & Social Research Council (E.S.R.C) “Research Ethics Framework”**
https://www.ljmu.ac.uk/Research/Research_docs/ESRC_Re_Ethics_Frame_tcm6-11291.pdf
21. **ENCYCLOPEDIA.COM “Research Ethics”**
<http://www.encyclopedia.com/doc/1088-researchethics.html>
22. **BioMed Central & BMC Ethics 2012, “Review Of National Research Ethics Regulations in Middle Eastern Arab Countries”**
<http://www.biomedcentral.com/bmcmedethics/content?page=7&itemsPerPage=25>
23. **Research Ethica.ca, “Research Ethics”**
<http://www.researchethics.ca>