



**JARAMOGI OGINGA ODINGA UNIVERSITY OF
SCIENCE AND TECHNOLOGY**

RESEARCH AND DEVELOPMENT POLICY

DECEMBER, 2013

Jaramogi Oginga Odinga University of Science & Technology

Research and Development Policy

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This policy was written and produced by
Jaramogi Oginga Odinga University of Science and Technology
P.O. Box 210-40601 Bondo, Kenya
Telephone: + 254 - 57 2501804 / 2058000
Fax: + 254 - 572523851
Email: vc@jooust.ac.ke
Website: <http://www.joust.ac.ke>

Research and Development Policy

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Vice Chancellor, Secretary to Council
Prof. S. G. Agong'

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Date

Chairman of Council
Dr. B.J. Mwandotto

24th Jan. 2014

Date

Research and Development Policy

PREAMBLE

The Government of Kenya recognizes research as a key pillar in development and as such continues to encourage research institutions including institutions of higher learning to define their research agenda based on the science, technology and innovation (STI) policy. To realize this development, the Government has committed to contribute 2% of the Gross Domestic Product (GDP) to research in the country. In order to effectively utilize these funds, research institutions as well as institutions of higher learning will need to put proper and appropriate structures in place for managing and implementing their research plans. It is for this reason that many institutions including the Jaramogi Oginga Odinga University of Science and Technology (JOOUST) have drawn up policies and guidelines to help manage research and development. Furthermore, to be self sustaining, the institutions are encouraged to seek for alternative funding through research and innovation within or outside the country. This policy framework aims at guiding research in JOOUST and help the institution to implement its research agenda as well as develop a research culture in the University.

DEFINITIONS

Conflict of interest:

Shall mean undisclosed research relationship with an external agency that requires a commitment of time, effort or resources to non-University activities such that the researcher cannot meet the usual obligations to the University or makes decisions that are injurious to the University or its partners' interests.

Misconduct in research:

Shall mean plagiarism, fabrication and falsification of research and research findings, productions and misappropriation or conversion of research resources BUT shall not include honest error or honest differences in interpretation or judgment of data.

Publication:

Shall mean putting into the public domain any paper, book, report, brochure, thesis, model or any such manuscripts, orally or in writing.

Research:

Shall mean creative work undertaken on a systematic basis to increase the scope of knowledge, which includes knowledge on nature, human, culture and society, and the use of this knowledge to devise new mechanisms of its applications. Research is used to establish or confirm facts, reaffirm the results of previous work, solve new or existing problems, support theories, and/or develop new ones. It is also used as an expansion on past work in the field to test the validity of instruments, procedures, or experiments. For purposes of this policy, the types of research under consideration shall include both basic and applied sciences.

Research fund:

a fund set aside for the purpose of supporting a research activities in the University.

LIST OF ABBREVIATION AND ACRONYMS

Research and Development Policy

For purposes of this policy, unless otherwise stated, the following abbreviations and acronyms shall apply:

AA	Academic Affairs
ARG	Annual Research Grants
COP	Community Outreach Programme
CRIT	Centre for Research, Innovation and Technology
DVC	Deputy Vice Chancellor
FTSE	Full Time Student Equivalent
ICT	Information and Communications Technology
IG	Income Generation
IRD	Innovative Research and Development
JOOUST	Jaramogi Oginga Odinga University of Science and Technology
NACOSTI	National Commission for Science, Technology and Innovation
PAF	Planning, Administration and Finance
PI	Principal Investigator
R&D	Research and Development
RPPC	Research, Publications and Press Committee
RPO	Research, Publication and Outreach
RIO	Research, Innovation and Outreach
URF	University Research Fund
VC	Vice Chancellor

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1.0 Introduction

One of the core functions of Jaramogi Oginga Odinga University of Science and Technology is to participate in the discovery, transmission, preservation and enhancement of knowledge and to stimulate the intellectual participation of staff and students in the economic, social, cultural, scientific and technological development of Kenya. Research plays a significant role in support of this function. This policy has been developed to articulate research related issues and promote research and development at the University in line with the country's Vision 2030 as well as the UN Millennium Development Goals. The policy provides a framework for ensuring effective and efficient use of research resources and foster an open and conducive environment for collaborative research. It provides clear guidelines for research and create an environment of fairness and accountability in the award and utilization of research grants, and in the storage and protection of research findings.

2.0 Vision

The beacon in training, research and sustainable development

3.0 Mission Statement

To provide quality University education that nurtures creativity and innovation through integrated training, research and community outreach.

4.0 Objectives of Research and Development Policy

The policy objectives are to:

- a. Develop a research and publication culture in the institution.
- b. Expand research capacity of the institution across all disciplines.
- c. Enable the commercialization of research and development outputs, for the benefit of the researcher, the University, and the wider community
- d. Provide framework to support and empower staff to manage, conduct, disseminate and research.
- e. Provide a framework to support and empower staff to manage, conduct and disseminate research.
- f. Enhance the profile of JOOUST through quality publications, research citations and awards.
- g. Provide a structure and framework for continual improvement of research and development.

- h. Promote research and development.

5.0 Scope of the Policy

The Policy applies to all members of staff and students who are involved or interested in research. It also applies to persons affiliated to JOOUST who wish to conduct research in partnership with staff and/or students of JOOUST. It is meant to provide a holistic environment to conduct research while promoting University-Industry linkage.

6.0 Policy Guidelines

6.1 Requirement to Undertake Research

- a. Academic staff and postgraduate students are required to conduct research, engage in scholarship and publish their findings.
- b. Academic staff and postgraduate students should, where appropriate, seek research funds in support of their research activities.
- c. The requirement for academic staff to undertake research is a career expectation and over time will be balanced as appropriate with the other obligations of academic staff including significant administrative responsibilities.

6.2 Research Priority Areas

The University shall support research in both applied and basic research. The research priority areas shall be guided by contemporary and emerging issues and those that enhance the University's vision and mission. These areas include:

- a. Agriculture and Food Security
- b. Biodiversity
- c. Biological Sciences
- d. Climate change and global warming
- e. Computer Sciences
- f. Culture and Material Sciences
- g. Education
- h. Special needs and disability
- i. Energy
- j. Engineering Sciences
- k. Environment issues
- l. Health Sciences

- m. Psychological Sciences
- n. Herbal Products
- o. Social Sciences and Humanities
- p. Human Safety and Security
- q. ICT
- r. Indigenous Knowledge Systems
- s. Mathematics and Statistics
- t. Microfinance and Entrepreneurship
- u. Nanotechnology
- v. Planning and Design
- w. Product Development
- x. Solid and E-waste
- y. Water and sanitation

7.0 Research Management

Advice and policy in research matters shall be coordinated through the following offices and committees:

- a. DVC (RIO) has the overall responsibility for the management of the research activities of the University.
- b. Director (CRIT), coordinates the activities of centre and provides assistance to DVC (RIO) in monitoring research policy implementation.
- c. Research, Publications and Press Committee, as provided for under Statute LVI, Schedule VII (4).
- d. Schools research committees as established by respective Deans and Board of Schools and Institutes to support the research activities of their staff and postgraduate thesis students.
- e. Each School/Institute/Centre is required to develop and implement its own research plan. These plans shall be drawn up by Heads of School/Directors in consultation with Director (CRIT) and DVC (RIO).

8.0 Resources in Support of Research

The University recognizes two sources of funding for research activities namely, internal and external sources.

8.1 Internal Funding or University Research Funds (URF)

- a. The University shall set aside funds annually for research purposes.

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- b. The URF shall be used to support research that is aligned with University strategic priorities and which shall be seen as investments on the range of outcomes that the University expects from research.
- c. URF shall be allocated by the RPPC and will be distributed as follows:
 - i. 60% as Annual Research Grants (ARG)
 - ii. 10% for development of critical capital equipment
 - iii. 10% to support research publications
 - iv. 18% to support research extensions services
 - v. 2% to support administrative services
- d. The University shall operate an account dedicated to research funds.

8.2 Award of Annual Research Grant

- a. The ARG shall be used for competitive research and project proposal, staff research development, University annual research conferences and development of research resource centre.
- b. The ARG fund shall be distributed as follows:
 - i. Competitive research and/or project proposals which shall constitute 60%.
 - ii. University Annual Research conference/workshops/seminars 20%.
 - iii. Staff Research Development 15%.
 - iv. Developing a research resource centre 5%.

9.0 Eligibility for Annual Research Grant

- a. The grant shall be awarded to staff members and postgraduate students (as per the criteria in Appendix A).
- b. The awards shall be given to vetted proposals submitted (according to submission procedure in Appendix B).
- c. The award shall be for one year period and renewable for a maximum of three years on successful completion.
- d. The amount of the grant shall be determined by the RPPC

10.0 Administration of Research Grants

All research grants shall be administered by the office of the DVC (RIO).

10.1 Applications for Internal Research Grants

- a. Research proposals for internal funding shall be submitted to RPPC through the Director (CRIT);
- b. The calls for proposals for internal research grants shall be made at least three months prior to the date of award;
- c. The call for proposals shall be announced internally through internal memos posted to all notice boards within the University;
- d. The research work plan shall be executed as indicated in the proposal;
- e. Any amendments to the work plan shall be approved by the Director (CRIT) only, upon confirmation that there has been consultation between the PI with other collaborators;
- f. Implementation of the work plan shall be done by the PI in consultation with other collaborators in the research project;
- g. The Principal Investigator (PI) shall be required to submit a final report as per RPPC format outlined in Appendix C.

10.2 External Research Grants

- a. Research proposals for external funding shall be submitted through the DVC(RIO) and shall conform to the guidelines outlined in Appendix D;
- b. PI who obtains grants through the University shall either sign research contract with the University or with the University and the external partners (s) in prescribed format before receiving the first release of the funds;
- c. All signed contracts shall be under the custody of the DVC (RIO);
- d. The University shall retain 15% of all external research grants received to meet its research management costs including compensation to researchers as per JOOUST prevailing policy 2013;
- e. The PI shall submit half-year and annual technical and financial reports to the DVC (RIO);
- f. The reports shall be as per the RPPC format outlined in Appendix C;
- g. All research projects shall be monitored and evaluated annually by the Monitoring and Evaluation Committee prior to further funding or termination.

11.0 Equipment from External Research Funds

- a. All research equipment, unless supplied by the donor or procured through the donor's guidelines, shall be procured using the University procurement guidelines and in accordance with the Public Procurement laws and regulations.
- b. All equipments and consumables purchased through research grants shall become property of the University upon completion of the project.
- c. All repairs on equipment shall be undertaken by the project until the end of the project.

12.0 Research Planning

Each School/Institute/Centre shall be required to develop and implement its own research plan. These plans shall be drawn by the Deans Schools/Directors in consultation with Director (CRIT).

13.0 Research Career Development Framework

This policy aims to facilitate the development of careers in research for University staff and students. Through the policy:

- (i) The University shall encourage staff and students to become increasingly productive in research to rise up in ranks of seniority and be useful in the fulfilment of the research and development objectives;
- (ii) Schools and Departments shall observe the research and teaching load in the proportion of 60% Teaching, 30% Research and 10% Outreach as per the FTSE policy of the University;

14.0 Records of Research Activities

- a. Researchers shall be required to keep and archive proper field and laboratory records that may comprise notes and/or log books, other publications, video recordings, audiotapes, CD-ROM's, DVD's, Flash Disks or in any other retrievable media.
- b. The office of the DVC (RIO) shall establish and maintain an up-to-date electronic and printed database of all research findings in the University.
- c. The database shall be in the form of abstracts of reports and other publications arising from research.
- d. The office of the DVC (RIO) shall forward copies of the research findings/reports to the University library for archiving.

15.0 Misconduct in Research

- a. The University shall endeavor to promote honesty, trust and openness in research and collaboration with partners. This is aimed at improving the quality and quantity of research and protecting the reputation of researchers, the University and the collaborating partners according to the University's ethical board requirements
- b. Reported cases of misconduct in research shall be referred RPPC for investigation.
- c. Where the case of misconduct is established, the Chairman of RPPC shall inform the University Management in writing within two weeks for appropriate action.

16.0 Conflict of Interest in Research

Cases of conflict of interest in research shall be considered and dealt with as misconduct in research.

17.0 Monitoring and Evaluation

- a. The relevant Dean/Director shall monitor school/ centre performance against their research plans on the basis of agreed criteria and will advise the DVC (RIO) on the outcome of this process.
- b. The research performance of individual staff will be monitored and evaluated as part of the staff development planning process.
- c. Members of staff will be required to supply full and accurate details of their research outputs on an annual basis to their head of school/centre who will supply the information to the office of the DVC (RIO) through the Director (CRIT).
- d. The office of the DVC (CRIT) shall publish an annual list of staff and student publications in the annual research booklet.

18.0 Commercialization of Research Outputs

- a. Commercialization of research outputs shall be governed by guidelines as outlined in the Intellectual Property policy.
- b. The University will work with partners and industry to commercialize research outputs where appropriate on the basis of benefit to the University and the Nation.
- c. The aim of commercialization shall be to advance the intellectual and human resource capability of the local, nation and the international community.

19.0 Consultancies

- a. The University policy on Income Generating Units shall apply where appropriate to research contracts.
- b. Institutional consultancies will be encouraged and supported in preference to private consultancies.
- c. The RPPC will have a centralized quality management system for monitoring the quality of all institutional consultancies.

20.0 Ethical Obligations

The University community shall adhere to a code of ethics as per the Ethics and Review Committee's guidelines, the National Commission for Science, Technology and Innovation (NACOSTI) guidelines and other relevant legislation when dealing with issues arising from the nature of research, including genetic engineering and research involving animal and human subjects.

21.0 Implementation

Implementation of this policy shall be vested in the DVC (RIO).

22.0 Review

This policy shall be reviewed every three (3) years.

23.0 Amendments

Any amendments to this policy shall be approved by the University Council.

References

1. Research and Development Policy, University of Botswana RD02/02N
2. Research and Extension Policy Masinde Muliro University of Science and Technology 2012
3. Research Policy, Victoria University of Wellington 2011
4. Research Policy Draft Multimedia University College 2011
5. Draft Maseno University Research Policy June 2012
6. JOOUST Strategic Plan 2010 - 2015
7. JOOUST Statutes 2013
8. JOOUST Staff Training Policy 2013
9. JOOUST Income Generating Policy
10. JOOUST Criteria for Appointments and Promotions 2013.

Appendices

APPENDIX A: Criteria for reviewing submitted proposals

- (i) The ARG is designed for multidisciplinary research and only research proposals which are adjudged after the screening process as meeting this criterion shall qualify for reviewing;
- (ii) A minimum of two reviewers who are conversant with the research areas shall be appointed for the review process;
- (iii) All information regarding the evaluation and critique of the grant proposals shall be treated as confidential and shall not be released to any applicants;
- (iv) To ensure fair and impartial review of the proposals the names of the applicants shall be omitted from the application forms and a coding system shall be used to identify the applicants;
- (v) Allocations of funds shall depend on the quality of the proposals and the general research record of the applicants;
- (vi) In assessing proposals the reviewers shall be guided by the following principles depending on the discipline and the nature of the project:
 - a) Originality and potential to contribute to the generation of new knowledge;
 - b) The involvement of several staff and/or postgraduate students working on a common theme;
 - c) The development of new research frontiers which have the potential to develop academic and research excellence;
 - d) Multi-disciplinary approach to problems solving;
 - e) Previous attraction of research funding or the ability to attract funding from other sources;
 - f) Demonstration of synergies between methods and disciplines.

APPENDIX B: Procedures for submitting research proposals

- (i) Applications shall be submitted on invitation only;
- (ii) Three copies of the completed application forms together with fully developed proposals shall be submitted to the office of the Director (CRIT)
- (iii) Upon receiving the applications, the Director (CRIT) shall acknowledge all the applications received within two weeks from the deadline of submission of proposals;
- (iv) Incomplete applications shall be returned to the applicants and shall not be forwarded to the reviewers;
- (v) Proposals received after the deadline shall not be considered.
- (vi) All applicants shall be informed of the decision of the RPPC after the reviewers' reports have been deliberated and grants awarded to the successful applicants.

APPENDIX C: The Final Report Format

- a) The project title;
- b) The project number;
- c) The name(s) of the investigator(s);
- d) A brief introduction outlining the aims of the research project or activity;
- e) A statement on the progress of the research with respect to achieving the project objectives indicated in the application document, and whether or not this particular research project or activity is completed;
- f) Details on what the benefits of the grant were to the researcher and University, such as any new findings/approaches, and possible future research directions arising from the project or activity;
- g) Any other comments, such as a brief review of any problems with the research components that arose during the project and how these were solved;
- h) A list of publications arising from the project or activity;
- i) A financial statement providing details of expenditure.

APPENDIX D: Guidelines for sourcing external funds for research

- (i) Contributes to and enhances the academic endeavour of the University and academic staff;
- (ii) Should preferably be undertaken through the University;
- (iii) Should not drain University resources;
- (iv) Should not unduly expose the University to legal risk;
- (v) Should be undertaken in ways that enhance collegiality, transparency, equity and good governance;
- (vi) Must take place within a broad set of University-defined guidelines and principles such as the Policy on Intellectual Property and the University's human resources policies;
- (vii) While permission may be granted for employees to engage in external research activities, it is not an entitlement;
- (viii) The university shall only accept a research project if it is considered to be in the university's best interest to do the research.