Research Policy Guidelines of the University of Colombo

Team

Dr. Janaki Jayawardena, Director, Centre for Research Development, UOC

Prof. Shervanthi Homer-Vanniasinkam, Senior Advisor Research & Research Commercialization, UOC

Dr Nishantha Sampath Punchihewa , Director, University Business Linkage (UBL Cell), Faulty of Law

Priyadarshani Galappathithy, Professor, Dept. of Pharmacology, Faculty of Medicine

Prof. Naazima Kamardeen, Professor, Dept. of Commercial Law, Faculty of Law

Prof. Kumudinie Dissanayake, Professor, Dept. of Organizational Studies, Faculty of Management & Finance (Representing Faculty of Graduate Studies)

Prof. Pavitra Kailasapathy, Professor, Dept. of Human Resources Management, Faculty of Management & Finance

Dr. Kaushalya Perera, Senior Lecturer, Dept. of English, Faculty of Arts

Dr. GAS Premakumara, Senior Lecturer, Faculty of Nursing

Dr Pradeepa Wijethunga Librarian UOC

Ms. Tharushika Pathiranage, Senior Assistant Registrar, Faculty of Science

Mr. M. Shifar, Assistant Registrar, Academic & Publications branch

Preamble:

The University of Colombo is committed to maintaining the highest standards of consistency and integrity in the conduct of research, innovation, artistic and scholarly work that is carried out both within the university and outside by its affiliates. The University expects all those involved in research to observe high standards, to adhere to good practice in all aspects of their work and maintain the quality and integrity of research in a transparent manner. The University as a higher education entity aims to produce and disseminate knowledge, promote research and innovations, advocate and make aware its good practices and maintain professionalism in its research culture. Thus, the research policy guidelines of the university of Colombo is intended to provide a clear and precise public statement of the University's research policies and practices.

Vision:

To enhance and expand knowledge production and the dissemination of knowledge is a central commitment of the University of Colombo while ensuring its responsibilities and safeguarding academic freedom. To facilitate this endeavour, the University of Colombo will foster an environment conducive for research, allocate resources for research programs intended to produce knowledge for the common good of the people. While acknowledging the scholars have freedom to conduct research on events and phenomena that generate intellectual curiosity and would produce a deeper understanding of the natural and social worlds, the university will not acknowledge or provide such conducive environment for research work that will not ensure such scholarly merits.

Four functions are central in this regard:

- Research and Innovation
- Commercialization
- Safeguarding ethics
- Dissemination of Knowledge

Research and Innovation

a) Scholars attached or affiliated to the university have the freedom to formulate their own research plans, carry out research and produce their own conclusions based on the findings of the research.

The University is obliged to provide space, facilities, funds, and other resources of the university that are needed for research. Researchers have the right to seek support for their work from the university and use its space, facilities, funds, and other resources needed for research.

b) Research is defined as the production, application and dissemination of new knowledge towards a scientific understanding of a topic through research, scholarly and artistic work. Therefore, the policy applies to all members of the University of Colombo involved in research, i.e. professors emeriti, faculty members, trainees, clinical faculty, postgraduate and undergraduate students, visiting staff, visiting scholars, professional affiliates and postdoctoral fellows.

The aforementioned parties are bound by this Research Policy of the University of Colombo and if violations of the Policy are reported, they will be dealt with under the provisions of the Research Policy of the University of Colombo. All parties involved in research are bound by this Research Policy and lack of awareness of the Policy, or lack of cultural awareness or personal issues are not reasons for its breach.

The following are the responsibilities and duties in research, innovation and conduct for any scholarly activity:

a) All members of the university who are involved in research, innovation and artistic work must maintain the highest standards of research integrity

b) Obtain all required approvals and training for research including, but not limited to, research involving human participants and animal subjects, fieldwork, biohazards, radioisotopes, environmental impact.

c) Adhere to approved protocols

d) Adhere to national and institutional policies on freedom of information, right to know Acts, and protection policies relating to the conduct of research and innovation

e) Acknowledge all authors, contributors and contributions to research, including writers, funders and sponsors.

f) Disclose any breach of the Responsible Conduct of this Research Policy

g) University officials be responsible for promoting and overseeing research and innovation, and encouraging research integrity among members of the University

h) Adhere to openness in research as one of the overriding principles, including freedom of access to all interested parties. The University of Colombo prohibits secrecy, including limitations on publishing results of research and innovations

i) Encourage collaborative research to bridge the gap between research and practice including more interdisciplinary collaborative research at university, national and international levels

j) Adhere to University policies and regulations when managing centres, libraries, institutions and the press; property management, disposal of remains and waste after research, sponsored projects, financial management, project administration, reporting and appointing committees and panels to support research **(all policies and regulations documents should be attached here)**

Safeguarding Ethics

The Policy on Research Ethics (PORE) of the University of Colombo (UOC) provides the overall framework for the principles of action in planning and conducting research, publishing research findings and data management. It applies to all members of the university community including staff, students and visitors who conduct research within, or on behalf of the university involving human and animal subjects and sensitive / personal data. The purpose of developing the PORE of UOC is to promote good practices in all aspects of research while ensuring integrity, accountability, professionalism and academic excellence. This PORE will help in recognizing and managing in advance any possible risks and harms associated with a research project proposed or conducted by those affiliated to UOC.

[Note: This PORE should be read in conjunction with other relevant policies, operating procedures, codes of practices and any regulations of the UOC pertaining to this subject matter].

Policy on Research Ethics (applicable to the entire University)

1. **Basic Principles**

a) The research project should aim at maximizing benefits to individuals, organizations, communities or to the entire society.

b) Researchers should envision, recognize, respect and safeguard the dignity, rights, safety and well-being of human subjects throughout the research process.

c) Researchers should ensure that the data/ database used in the research is appropriate, free from errors and redundancies, sufficiently inclusive and comprehensive, realistic and reliable, stored and preserved securely and appropriately, and accessible as required.

d) Researchers should take appropriate actions to ensure the anonymity and confidentiality of the collected data.

e) Researchers should utilize all possible means for effective data management throughout the research process and during a sufficient post study period.

f) Research projects involving human and animal subjects and sensitive / personal data should obtain ethics clearance from the relevant Ethics Review Committees (ERCs) prior to the commencement of the research work.

g) Researchers should consider the regulatory, legal, socio-cultural and political environments and standards relating to the research context in which the research is carried out.

2. Basic Values

a) The proposed research projects to be novel, adding value to the existing knowledge base and beneficial to the intended stakeholders

b) All relevant information regarding the research including purpose, procedures, conduct, expectations and outcomes to be appropriately revealed to the participants

c) Participants' right to withdraw from participation and withhold already revealed information without being subject to any penalty to be ensured

d) Participants' right to seek further information, contact relevant persons and make any complaint in the event of their dissatisfaction to be ensured

e) Researchers to take all possible action to protect all the participants, including themselves, from any physical or mental harm during the course of research

f) Informed consent to take part in the research to be obtained from all the participants

g) Researchers to take special care when dealing with vulnerable participant groups such as differently-abled people, children, people with physical and mental illnesses, prisoners, people in rehabilitation centers etc.

h) All participants to be treated with dignity and equality without any prejudice or discrimination.

Policy on Research Publications

Authorship assign responsibility and give credit for intellectual work. Authorship practices shall represent of actual contributions to the end product and must reflect the honesty in acknowledging authorship . Such action is of paramount importance to the reputation of the University of Colombo and individuals involved in research , for their academic promotion and grant support .

This policy applies to all staff of University of Colombo , undergraduate and postgraduate students when they publish their research work related to a degree program at University of Colombo, and any visitor whose publication is based on research carried out under UOC affiliation:

a) All those who engaged in a substantial part of the research work, including developing the research idea, conducting the research, and interpreting the results, should be duly acknowledged.

b) Authorship of a research publication can only be claimed by a person/persons who has actually written a substantial part of the said publication and ,who has made substantial intellectual contributions to the work . The said contribution shall be measured in terms of conception, design, analysis and/or interpretation of data. The exact percentage shall be decided by individual faculties and institutes.

c) Authors of research publications should acknowledge their affiliation to a particular Department, Faculty, Institute, or Campus of the UOC.

d) Authors of research publications should use a standard and persistent author identifier.

e) Authors should disclose any conflict of interest or influence experienced when conducting research and/ or reporting the results.

f) Authors should acknowledge any financial or other support obtained from another party.

g) Authors should deposit all published research outputs such as peer-reviewed research articles and conference proceedings in the UOC Repository.

h) Authors should comply with the Intellectual Property policy of the UOC.

Policy on Research Commercialization

One of the key strengths of the University of Colombo (UOC) is the dedicated, diverse and mature team of researchers who engage in cutting-edge research. Therefore, these research policy guidelines envisage the University's commitment to promoting research, development, innovation and commercialization. The UOC endeavours to create a research and innovation-driven academic culture and envisions that research results should be turned into useful products and services for public use and benefit people by enhancing their quality of life. The UOC believes that inventions and technology resulting from University research should be protected and commercialized. To achieve the above-mentioned objective, it is imperative that the research outcomes of the University be transferred to industries and businesses.

Role of the UBL Cell-UOC

Universities around the world are currently embracing a paradigm shift in academic research commercialization in addition to their traditional missions. The University Business Linkage (UBL) Cell of the UOC, founded in 2018, reinforces the University's commitment to the protection and commercialization of research outputs of the University in accordance with the Intellectual Property Policy for the University of Colombo. The UBL-UOC functions as the technology transfer office of the University. It provides necessary support to university researchers, *inter alia*, to facilitate the transfer of technology developed in the University, protect and manage intellectual property rights resulting from R&D efforts of academics, and enhance University-industry collaborations etc.

Ethical Considerations Pertaining to Disciplinary Areas

Ethical considerations pertaining to different disciplinary areas shall be considered and handled by the Research Committees (RCs) and/ or the Ethics Review Committees (ERCs) of the respective Faculty, Institute or Campus of the UOC. For this, each Faculty, Institute or Campus should appoint an ERC, develop ethics guidelines, set up an ethics clearance process and procedure, develop documents relevant to ethics clearance in its particular disciplinary area and operationalize the process appropriately. Research proposals at the commencement stage (for conferring ethics clearance) as well as the final research output at the end of the project (for checking adherence to ethics) should be reviewed by the ERC in each project that involves human and animal subjects and sensitive / personal data.

Ethics Clearance in Different Disciplinary Areas

Applications for obtaining ethics clearance should be forwarded to the relevant ERC with a complete Research Proposal before commencing the research project. The ERC shall conduct ethics reviews in time on a regular basis, and provide feedback with reference to the following areas:

a) The research is novel and adds to the existing knowledge base of the disciplinary area

b) The research results are beneficial to its stakeholders

c) Whether the researchers are qualified enough to carry out the proposed project

d) Whether the proposal complies with legal, financial, professional, ethical and other guidelines

e) Whether appropriate actions are proposed to minimize the possible risks and harms to the researchers and other participants

f) Whether the costs and risks outweigh the potential benefits of the research project

Procedure to be followed in Reporting Violations of Research Ethics

The adoption and enforcement of procedure for violations of research ethics validates the university of Colombo's commitment to enhancing ethics among practitioners and these Procedures are designed to encourage the maintenance of ethical standards and to enforce such standards in those instances when an alleged violation reported.

Violations of research ethics shall be duly reported, and action taken to ensure that all aspects of the research process are protected. There will be:

a) The Establishment of a review panel under the auspices of the Research Development Centre which will examine alleged violations of research ethics, hear complaints and decide on their merits.

b) Composition of the Panel:

I A member from the research committee of the faculty

ii. A legal counsel

iii. A subject expert from the discipline

iv A subject expert from an external organization

c) Reporting Process:

Anonymity and Confidentiality: Anonymity will be disallowed because of the potential harm to reputation that could be caused by a false allegation. However, the identity of the person reporting the research violation shall be kept strictly confidential.

d) Ethics Review panel decision and directives

After the investigation, the ethics review panel will prepare a summary of the case that includes the summary of relevant factual findings based on the record of the hearing, A final ruling on the ethics violations charged and a statement of any disciplinary actions.

Copies of the decision and directives shall be sent to the respondent and the complainant.

d) Reporting documentation:

Suitable actions to be taken where it has been proved that ethics have been violated in research. These actions will consider the gravity of the violation and include, but are not limited to:

i.   A private reprimand   with a note to the personal file
ii.   A public reprimand

e) Non-retrospectivity: The panel will only hear reports of ethics violation that take place one year after the research policy and guidelines come into effect.

Establishing an ethics office complying with international standards

Research findings of all scholars of the University of Colombo should be available for scrutiny and criticism to safeguard openness in research.

Research methodology and techniques must not violate established professional norms in research ethics

Thus, the University of Colombo has the right to establish an ethics office and appoint an Ethics Officer. This office shall work in collaboration with the ethics review committees operating in the University of Colombo.

The function of this office will be to ensure that any research carried out by scholars of the University of Colombo should not harm the health, safety, privacy and other personal rights of individuals or communities and prevent the infliction of injury or pain on animals.

Research Data Management Policy

Research Data is defined as "facts, observations or experiences on which an argument, theory or test is based. Data may be numerical, descriptive or visual. Data may be raw or analysed, experimental or observational. Data includes: laboratory notebooks; field notebooks; primary research data (including research data in hardcopy or in computer readable form); questionnaires; audiotapes; videotapes; models; photographs; films; test responses. Research collections may include slides; artefacts; specimens; samples. Provenance information about the data might also be included: the how, when, where it was collected and with what (for example, instrument). The software code used to generate, annotate or analyse the data may also be included." (Melbourne University 2009).

Formal management of research data at institutional level has become an important aspect of the contemporary research domain today due to several reasons. It enables other researchers to discover, interpret, and reuse data. It enables verification of findings thereby avoiding any possible data falsifications and fabrications. It also facilitates long-term preservation of, and access to datasets providing a Return On Investments by the funding authorities. An increasing number of funding organizations make data management an essential component of grant applications.

Scope

The scope of this draft policy document covers the research undertaken by the staff, students and researchers of the University of Colombo.

Policy Implementation

a) The Responsible Officer [UOC needs to appoint a responsible officer to develop, monitor and review the policy guidelines].

b) The Implementing Officer [UOC needs to appoint a responsible officer to implement the policy in accordance with the scope identified above]

c) Review – The Policy shall be reviewed every three years [or as decided by the University authorities].

The Policy

1. **Management of Research Data and Records**

a) The university shall ensure that the research data and records created by the staff, students and researchers of the University of Colombo are identifiable and retrievable whenever needed and securely maintained in compliance with the appropriate rules and regulations of the country, University and the funding organizations.

b) The University shall retain the research data and records for a minimum period of [five] years after the completion of the research project or longer if the researcher specifies. Disposal of the data and records needs to be in compliance with the appropriate circular of the Department of National Archives of Sri Lanka.

c) The University shall maintain a repository (or repositories) using appropriate software to maintain the research data and records. [The repository can be maintained centrally or at faculty level as decided by the Management].

d) The University shall maintain a Research Data Registry in addition to the Research Data Repository to record all relevant data of research (this will contain the records of data removed from the repository at the end of the specified retention period)

2. **Researchers**

a) The researchers shall submit a brief Research Data Management Plan (RDM), to the University with the grant application covering the type of data collected/created; method of collection/creation; what documentation and metadata will be provided; how the ethical issues, copyright and intellectual property rights will be managed; how the data will be stored and backed up during the research; how the security of data will be maintained; how access to data will be managed; what data should be retained and for how long; what data should be shared with other researchers and how; any restrictions on sharing the data (ie. confidential or personal data); how the destruction of data should be carried out at the end of the retention period, and what resources will be required to implement the RDM plan.

b) The researcher or the Principle Investigator in the case of a research team shall ensure that;

    i) The RDM is implemented according to the formulated document, and in the case of any deviations, a revised RDM Plan be submitted to the University

    ii) The research data and records submitted to the university are accurate, complete, authentic and reliable

    iii) The research data and records are stored in a retrievable manner

iv) The data and records are submitted to the University at the end of the research to be added to the repository

v) The appropriate data and records are submitted to the University with the necessary concurrence when the project is collaborative

vi) The confidentiality of the data is maintained through appropriate measures in the case of personal or sensitive data being submitted to the University

vii) The data and records are destroyed according to the Plan at the end of the retention period

viii) A suitable person or persons are identified and named to take over the responsibilities of implementing the RDM Plan in the case of the researcher or Principle Investigator leaving the University or withdrawing from the research

ix) The Research Assistants or students are made aware of the RDM plan and the submission of final data to the University repository

3. Deans and Heads of Departments

Deans and Head of Departments shall

a) Be aware of the RDM policy and the implementation strategy of the University,

b) Raise awareness of the RDM policy among all faculty members and research students

c) Ensure that a RDM plan is submitted together with grant applications

d) Ensure that the researchers adhere to the submitted RDM plan and policy of the University

e) Support the maintenance of the repository (if maintained at faculty level), by providing satisfactory infrastructure

f) Ensure that the records of the Research Data Registry are updated from time to time

4. The University Library

The University Librarian shall be:

a) Aware of the RDM policy and the implementation strategy of the University

b) Raise awareness among all staff members on the RDM policy

c) Support researchers in preparing the RDM Plan using appropriate software

d) Support maintenance of the (Central or Faculty level) Research Data Repository and Central Research Data Registry using the appropriate tools and skills of librarians

Dissemination of Knowledge

The University of Colombo facilitates and encourages dissemination of research findings and conclusions. For this purpose:

a) The University will provide training and workshops on academic writing and publishing research, and establish its own digital and printing facilities.

b) The University will facilitate and encourage the dissemination of research findings and conclusions that will help towards policy, planning and implementation of evidence-based practices in Sri Lanka.

c) The University will provide resources and support services for students, novice researchers and junior scholars to increase the quality of their research publications and presentations.

d) Researchers are encouraged to disseminate their research findings to the general public in addition to scholarly audiences. This may involve the dissemination of research findings amongst the study participants themselves, or policy briefs, newspaper articles, videos etc.

e) Researchers (students, staff, affiliated researchers of the UoC) should adhere to ethics in the presentation of their analysis and findings, and should not engage in manipulating or "cherry picking" data to suit what they want to say or engage in practices such as "HARKing".

f) Research dissemination should not include material that is plagiarized including self-plagiarized

g) Predatory journals, conferences and "salami" publications are not acceptable forms for dissemination. Researchers should refrain from using these avenues to publish or present their research.

h) There should be no conflict of interest in relation to supervision or funding of the research or undue influence made on the direction of the research and its findings.

i) Collaborative research or research undertaken for other institutions should include provisions on the dissemination of research from the outset. This includes agreements on ownership of data and consequent output such as patents, publications, and other outputs based on the data

j) Authorship of research writing or presentations should be based on the contribution to the study. The order of authorship should be decided collaboratively and must reflect the nature of the contribution made

k) In dissemination, due acknowledgement should be made of any parties that contribute to the study. These may be funding sources, research support services (statistical analyses, translators etc.), as well as acknowledgement of scholarly contributions by adhering to accepted norms of citation

l) As Sinhala and Tamil research publications in Sri Lanka do not have indexed platforms as yet, researchers should ensure that publications are written in an accepted academic writing style for Sinhala/Tamil; that the publications are presented well, are published by reputed publishing companies in the country, and that they have followed an editorial process of scholarly peer-review.

m) Researchers should adhere to practices of data protection, protection of confidentiality and honour any non-disclosure agreements (NDAs) agreed upon. Data should be retained for a minimum of 05 years from the date of publication

n) When data is made publicly available or made available as part of research dissemination (i.e. for journals or data sharing platforms), such sharing should be done in an ethical manner, and honouring confidentiality and the privacy of participants

o) Making research accessible and available is important for ensuring rigor, wider dissemination and for use in teaching, policy and practice. Publishing in open access journals are encouraged subject to the authenticity of the journal/platform. Researchers are required to provide access to their publications through the e-repository of the UOC Library or on Faculty/Depatment webpages (subject to journal embargo conditions)

p) All PhD, MP, MSc and MA theses with research components should be archived in an e repository of the University. The award of the degree should be made at the convocation after submission of the electronic version of the thesis to the e-repository following a plagiarism checking, for which facilities should be offered through the library. Any reasons for the thesis not being uploaded (ex. potential for patent application) should be given in writing.

q) The University e-repository of publications should be updated on a regular basis and all conference proceedings and accepted abstracts should be uploaded onto the e-repository

r) Every year when research allowance applications are submitted, researchers should upload the research abstracts onto the e-repository and provide a link to the evidence of research including conference proceedings

s) Researchers should always try to publish their research in high impact journals and try to engage in high quality research studies adhering to robust methodologies that are likely to be accepted by high impact journals.

t) The University will organize workshops with top level researchers in each field with high h-indices as resource persons, to guide the junior researchers on how to publish successfully in reputed journals

u) High quality research projects should aim at publishing the research methodology before, or while conducting the study, so that important methodological and ethical issues relating to the projects will be peer reviewed by the reviewers. This would contribute to a high quality research study that could be subsequently published in a high impact journal.

v) Every academic staff member should have Researchgate, Publons, Academida.edu and Google scholar accounts that are made public so that the research publications of the University can be accessed by independent ranking bodies. Researchers are also encouraged to obtain an ORCID ID.

Perceptions and Prejudices

a) Within University Departments, senior researchers /colleagues exert undue influence over research conducted by junior researchers/colleagues. This includes using juniors to perform substantive parts of the research without due acknowledgement of their role in the research, the farming or appropriation of their ideas and passing them off as their own, and the active discouragement of research in certain subject areas. These negative practices should be identified as such and actively discouraged

b) Where senior colleagues are in a position to decide on funding opportunities for the research done by junior colleagues (ex: sitting on committees that recommend research for small grants etc), there should be transparency and accountability for the decisions made

c) The perceptions and attitudes of officers at senior executive levels should not be the basis for evaluation and criteria of approval for proposed research programmes and projects. In such instances, researchers should have the right to resolve conflicting interests by requesting that

their proposal be represented at, and evaluated by an independent committee of experts appointed by the University of Colombo

Intuitional measures to develop and enhance research and innovations in university of Colombo

A) centralized management :

  All research and innovation related activities to be under the Centre for Research and Development. The research and development center to also work as a capacity builder by providing training and organizing workshops to young researchers of the UOC

B) Establishing a think tank :

Establishing a think tank comprising Senior Advisor, research and research commercialization, all directors of centers related to research and innovations, Senior Librarian of UOC, Legal officer.

C) Research committees

Expand and strengthening the role of Research committees in all Faculties to ensure and oversee complying with research ethics and safeguarding research integrity (two levels of monitoring – at proposal level and the final outcome of the research or innovation)

D) Dissemination of knowledge:

Linking the university of Colombo press to encourage publishing research done by staff, undergraduate and postgraduate students.

Appendices:

a) List of areas identified by each Faculty for the development of research and innovations

b) A list of Funders: UOC as a plot funder/intramural funding/extramural funding

c) A list of stake holders

d) Regular timeline with the projects that come under Department/Faculty/University levels

e) A list of clear guidelines on generating and expending funds/role of University on overhead/non overhead policy/international collaborations (Link with polices and guidelines of faculties).

f) A list of research priorities at University/ local/international levels which

g) University research Calendar/ Agenda

h) Potential list of ethical clearances

i) A comprehensive ethics policy of the UOC