Guidelines and Policies in the Operation of the

Science Research Center

February 2023

1.0 PREFACE

Because individual faculty and institutional research projects are well-acknowledged complements to instruction, the College of Science (CS) of the University of the Philippines Baguio (UPB) strived to establish a research arm, the Science Research Center (SRC). SRC was initiated by the College through a draft proposal in 2013 and, in the years that follow, introduced refinements that will be in consonance with its aim to further enhance science research not only in UPB but in Northern Luzon and the rest of the country. The SRC has been envisioned to serve as a center of excellence in basic research and innovation projects that will contribute to the development of technologies and products beneficial to Filipinos and the rest of the world.

The SRC as a research arm of UPB with its defined organizational structure was formally established in July 6, 2020 through the UPB 73rd University Council meeting.The SRC building currently houses UPB's science laboratories that support research programs and projects in nanotechnology, plasma physics, energy physics, modelling and simulation, natural products, microbiology, and ecology. These laboratories all contribute to research outputs responsive to the needs of the various sectors of Baguio City and the neighboring towns of the Cordillera, and the larger society, and benefit the academic programs offered by the College, namely the Master of Science in Conservation and Restoration Ecology, the Master of Science in Mathematics and the Doctor of Philosophy in Mathematics programs, and Bachelor's degree in Biology, Computer Science, Mathematics, and Physics. The SRC will likewise serve as the facility to support research areas in other disciplinal clusters: in Chemistry, in Geology, and in Human Kinetics.

In line with the UPB's commitment to public service, the SRC is mandated to provide testing and analytical services for the use of specific and available laboratory equipment and relevant in research and research-related initiatives. It is for these reasons that this Guidelines and Policies in the operation of the Science Research Center was developed.

Coordinator, Science Research Center

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3.0 RATIONALE

The University of the Philippines Baguio (UPB) Science Research Center (SRC) is the research center of the College of Science that aims to be a center of excellence in scientific research through basic research, innovation, and development of technologies and products that benefit Filipinos. All technical project proposals, ventures, and undertakings of UPB College of Science (CS) will pass through endorsement by the SRC Board and by the Chancellor. To date, UPB CS has established laboratories, acquired equipment, trained students, faculty members, staff, and collaborators, published quality articles in reputable journals, produced products, filed patent applications, and provided services for facilities and equipment obtained from UP funds and externally funded projects. This policy lays out the general operational guidelines of the SRC.

4.0 OBJECTIVE

To establish guidelines and policies for its stakeholders, which includes UP Baguio faculty, REPS and administrative staff, and non-UP Baguio individuals, researchers, and institutions, who intend to make use of the facilities available in the College of Science for their research undertaking or avail of the Center's services for an internship program. The policies and guidelines in this document mainly include general requirements that stakeholders must meet when requesting project application endorsement, use of facility, internship program, and other research partnerships.

5.0 SCOPE AND COVERAGE

The UPB is the research arm of the College of Science. As such, the SRC is, therefore, the lead entity of the college for any research-related activities. Therefore, this policy document covers all researchers under UPB College of Science and its authorized and affiliated institution's researchers who require UPB-SRC assistance and service. The guidelines also cover instructions about the use of facilities (available supplies, materials, equipment, and space), internship program requests, research-related information dissemination, management of research-related databases, and establishing linkages and collaborations with potential partners.

6.0 DEFINITION OF TERMS

Approval
An acceptable or favorable decision given by an authorized office.

Biosafety
Refers to the use of operational practices, safety equipment, and facilities meant to ensure that users are protected from accidental exposure to infectious agents, toxins, or other type of biohazards.

Biohazard
Refers to any biological substance that has potential risk to human health or the environment.

Data
Any factual information collected to be examined and considered and used to help in decision-making.

Database
Refers to any information management system used to record data such as inventory, utilization of supplies, and tracking of projects, etc.

Ethics Review
An evaluation of research protocol on both technical and ethical grounds by the UPB Research Ethics Committee.

Equipment
Tool, apparatus or machine used to fabricate sample materials and determine sample properties that were acquired either through University funds or external sources.

Laboratory
A room inside the College of Science and SRC buildings specifically designed and equipped for research or any scientific investigations.

Laboratory Head
Primary individual or point-person responsible for the management of the specific laboratory and equipment that they are responsible for and are housed in their respective laboratories.

Laboratory Supplies
Pertains to solvents, reagents, chemicals and all other materials needed to perform experiments.

Memorandum of Agreement
is a formal business document that outlines an agreement made between two separate entities, groups or individuals. A MOA usually precedes a more detailed contract or agreement between the parties.

Non-Disclosure Agreement
An agreement between SRC (regulatory body) and stakeholders not to disclose confidential information that the stakeholders submitted as a necessary part of the SRC process (in applying for a project).

Partnership
An agreement, whether verbal or in writing, between two parties to work together to attain specific objectives and goals.

Project Leader
The person who directs a research project or program. The Project Leader or PL (or in some cases referred to as the Principal Investigator or PI) typically writes and submits the grant application, oversees the scientific and technical aspects of the grant, and has responsibility for the management of the research.

Project Proposal
Any new application of any scientific endeavor to answer a research question to be submitted to any grant/funding agency.

Research[1]
Any collection of information utilizing scientific procedures, observation, inference, and analysis, with the goal of developing or contributing to generalizable knowledge (including theories, principles, and correlations)

Requester
An individual (regardless of affiliation) who asks for services of any type of request where the SRC has jurisdiction over. This includes the use of specific equipment, laboratory space, conference room, or consultation services from faculty and/or research personnel.

Samples
Any substance (biological or non-biological) that subject for testing in the laboratory.

Service
Any activity that provides expertise or use of equipment to a requesting party.

Research Space or Space
Pertains to any physical area within the responsibility and custody of the College of Science where any form of research is performed

Stakeholders
Individuals, groups, or organizations who are affiliated to the College of Science, UP Baguio, by direct or indirect employment or by agreements in the form of MOA or MOU, as well as unaffiliated individuals, groups or organizations requiring the assistance and/or services of individuals or groups affiliated to CS, UP Baguio or the SRC

Super User
A person who is qualified and authorized to operate a specific equipment. To be a super user, one must undergo proper training on the use and maintenance of the equipment and must be authorized by the faculty responsible for the equipment.

The SRC Trust Fund
The SRC Trust Fund is derived from the miniLab Trust Fund, which was expanded to include any generated funds from services provided by the SRC. The trust fund shall be utilized in accordance with existing government accounting and auditing principles and guidelines and will be fully allocated for the regular maintenance and repair of the equipment, cost of electricity and water consumption, and other consumables needed for the use and operation of the equipment.

UPB Research Ethics Committee
the board or committee constituted of professionals and board members to review the ethical acceptability of research conducted within the institution.

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[1] Definition by the Philippine Health Research Ethics Board (2017). National Ethical Guidelines for Health and Health related Research, 2017. Department of Science and Technology - Philippine Council for Health Research and Development.

User
Any individual who requested and granted approval to use a specific equipment or room in SRC.

7.0 LIST OF ABBREVIATIONS

AdPFC	Administrative Personnel Fellowship Committee
CAR	Cordillera Administrative Region
CS	College of Science
CSC	Cordillera Studies Center
DB	Department of Biology
DMCS	Department of Mathematics and Computer Science
DOST	Department of Science and Technology
DPS	Department of Physical Science
EdRA	Educational Research Assistant
HKP	Human Kinetics Program
LIB	Line Item Budget
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
PL	Project Leader
REC	Research Ethics Committee
RIMS	Research Information and Management Systems
SEARCH	Systematic Exploration of Available Research and Development Institutions
SG	Salary Grade
SRC	Science Research Center
TTBDO	Technology Transfer and Business Development Office
UPB	University of the Philippines Baguio
UP OIL	University of the Philippines - Office of International Linkages
URA	University Research Assistant

8.0 FUNCTION AND ROLE OF THE SCIENCE RESEARCH CENTER

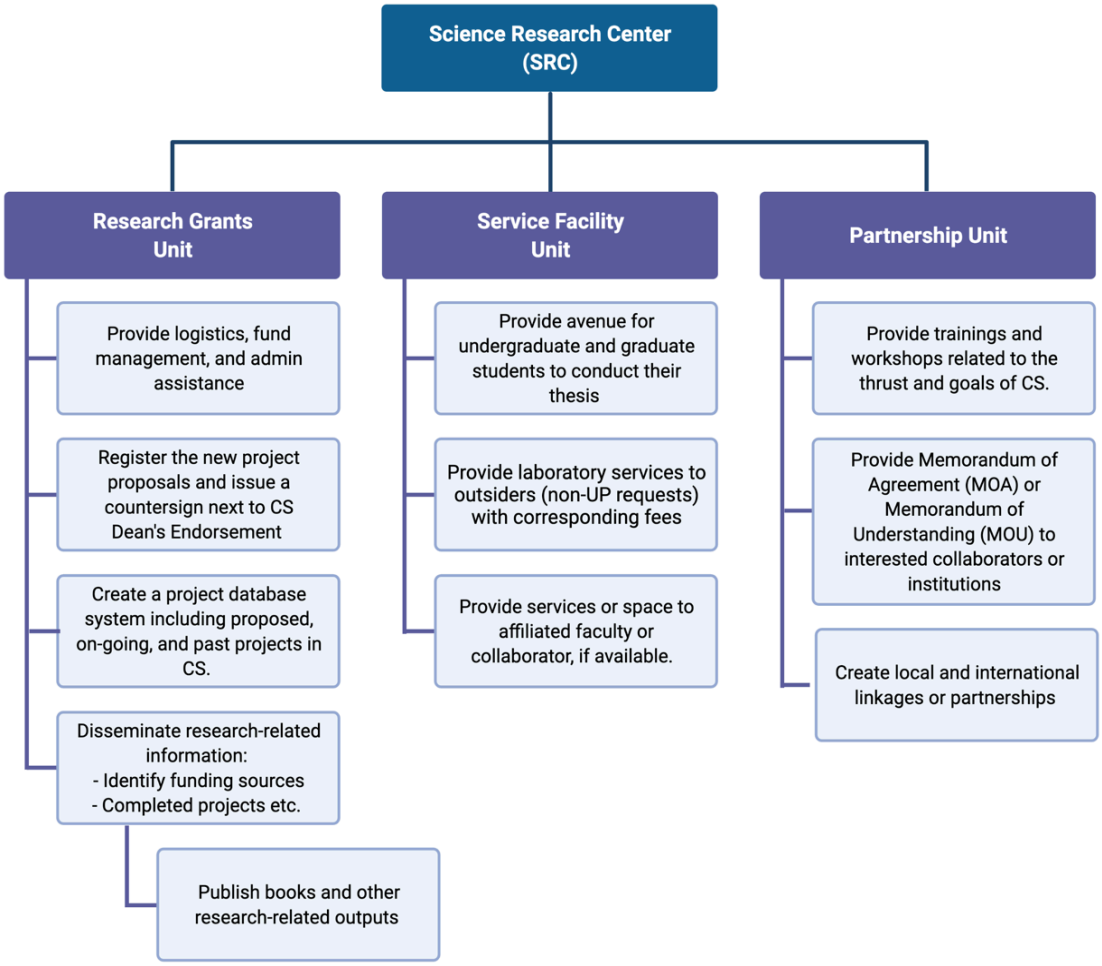

Figure 1. Overview of the SRC Framework.

The overall function and role of the SRC is divided into research, service and partnership (Figure 1).

8.1 Research. SRC is the research support unit of the College of Science. It will provide logistics and administration assistance to stakeholders. Other functions include identifying funding sources and assisting the investigators in completing all the documentary requirements for protocol and grant application submissions including provision of endorsement letter, overseeing and ensuring that the proposal merits and/or has undergone research ethics review, maintaining a repository of all official research grants/awards managed by the University as well as inventory of ongoing and completed researches, monitoring research implementation (from award set-up to project close-out) by assisting in

the processing of administrative requirements, and assisting in the facilitation of research dissemination (publication and presentation).

8.2 Service. SRC will provide an avenue for stakeholders to conduct their research in the university. These include UP Baguio undergraduate and graduate students, faculty, collaborators, and other researchers not affiliated with UP Baguio who wish to request available services offered by SRC.

8.3 Partnership. SRC will facilitate partnerships specifically the processing of research collaboration requirements such as, but not limited to Memorandum of Agreements, Memorandum of Understanding, and Material Transfer Agreement, etc. SRC plans to establish local and international linkages or partnerships (with the aid of UP OIL) in order to flourish the research culture in the college. In addition, SRC will provide training and workshops as a means of community service and as an avenue to promote research and development in the region.

9.0 DEFINITION OF RESPONSIBILITIES

9.1 Science Research Center (SRC) Coordinator

Responsible for the management of SRC operations. S/he is appointed by the Chancellor. The Coordinator presides over the SRC Board meetings. S/he will be entitled to 4.5-6 units ALC, with cumulative leave credits and honorarium. S/he will also have the following responsibilities:

- Oversee the overall management of the personnel, physical space, equipment and accessories within the SRC building and all research space under the College, including the inspection and reporting of problems in the SRC and waste managements and safety, in coordination with the Pollution Control Officer
- Assess requests from other Schools and Universities to undergo Immersion Programs/Internship/On-the-job Trainings in UP Baguio specifically in the various Science Research Center Research Laboratories
- Assess and approves requests from UP Baguio students and individuals/groups from other Schools and Universities for the use of UP Baguio equipment and accessories and monitors the conduct of the users and the usage of the equipment
- Convenes the SRC Board
- Sits in CEB Meetings in matters pertaining to research activities, personnel, or equipment
- Represent the College of Science to Cordillera Studies Center (CSC) Board in the evaluation and approval of research proposals funded by the CSC
- Manage the implementation of acceptable research standards, dissemination of publication of research work, and workshop preparation and management
- Ensure compliance with the university policies on research ethics and intellectual property rights
- Coordinate with the TTBDO or any equivalent office or institution, as necessary, in relation to issues related the Intellectual Property of CS constituents

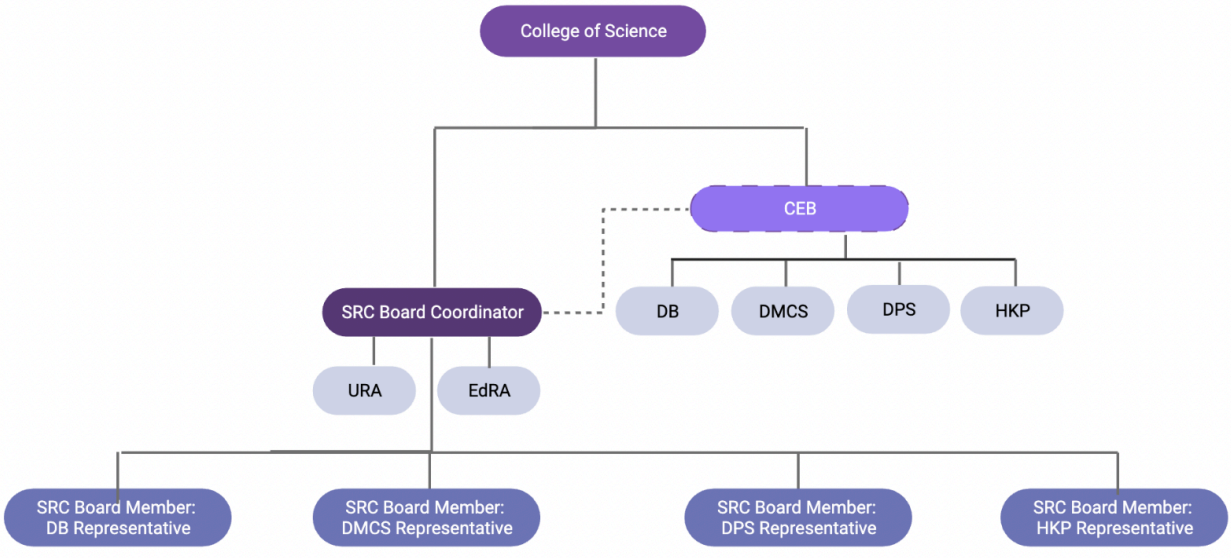

Figure 2. Summary of Organizational Chart of the UPB SRC.

9.2 Science Research Center (SRC) Board
is a committee consisting of the SRC Coordinator and one representative each from the Department of Biology, Department of Mathematics and Computer Science, Department of Physical Sciences, and the Human Kinetics Program. The representatives are nominated and agreed upon by the Faculty Assembly. The SRC board is a decision-making body that ensures all policies and guidelines are being followed.

9.3 University Research Assistant (URA, SG-14)
will have the following responsibilities: (1) perform administrative functions related to compliance with proper laboratory protocols, monitoring of equipment and supplies, ensuring the safety of users, surveying the building for items that require attention and/or repair; assist in the undertaking and implementation of research projects, collect primary and secondary data related to assigned project/research (online literatures and resources search of materials, key informant interviews, FGD, etc.); (3) assist in designing, implementation, testing and documentation of appropriate research methods for the assigned project, and (4) collate research project data (e.g. title, duration, objectives, budget, personnel, accomplishments, etc.). SRC coordinates with the UPB Administrative Personnel Fellowship Committee (AdPFC) in the hiring of the URA.

9.4 Educational Research Assistant (EdRA, SG-10)
will have the following tasks: (I) assist in the performance of administrative functions related to ensuring that laboratory protocols are implemented, monitoring of equipment and supplies, ensuring the safety of users, surveying the building for items that require attention and/or repair; (2) manage requests for use of equipment; and (3) assist in the training of other users on the use of equipment. SRC coordinates with the UPB Administrative Personnel Fellowship Committee (AdPFC) in the hiring of the URA.

9.5 Laboratory Technician (Lab Tech II, SG-8)
will have the following tasks: (1) operate, manage, and maintain equipment; and (2) train other users on the use of equipment. SRC coordinates with the UPB Administrative Personnel Fellowship Committee (AdPFC) in the hiring of the URA.

10.0 GENERAL GUIDELINES AND PROCESS FLOW

10.1 New Project Proposals Without Ethical Restrictions

Researchers who intend to submit new research project proposals to external or internal funding agencies and require the use of research space, materials and equipment in the College of Science must register their research by providing a copy of their research proposal to the SRC through the SRC Coordinator.

One of the main roles of the SRC is to document the new proposal(s) in the Master List of CS Researches, take a note of the spatial requirements, and verify whether the project has ethical concerns. The SRC will also assist the project leaders and/or research staff in placing the research information on the DOST-CAR research database (Systematic Exploration of Available Research and Development Institutions (RDIs) in the Cordillera Highlands or SEARCH) through the SEARCH website and in the UP System research database (Research Information and Management Systems or RIMS) through the UIS.

The SRC Coordinator will also make a notation of the requirements and assess any ethical concerns based on a checklist provided by UP Baguio's Research Ethics Committee (REC).

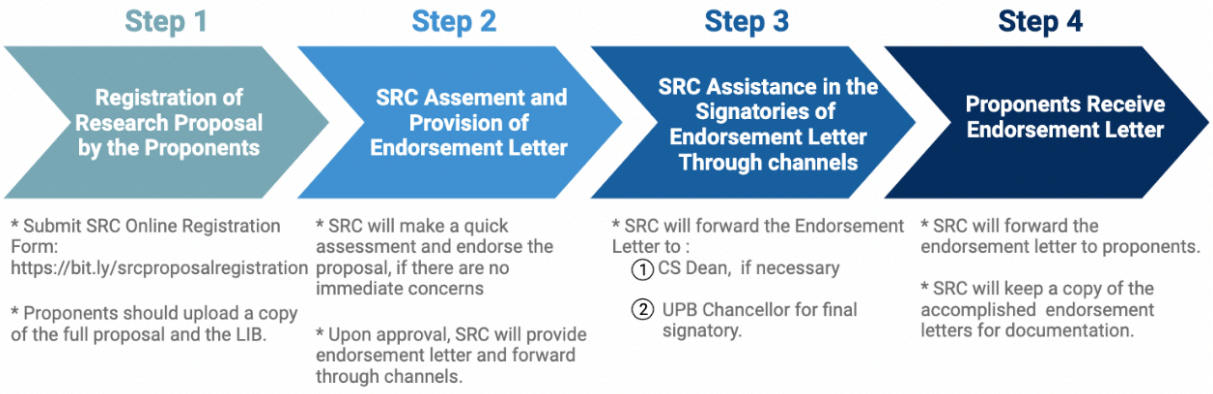

Figure 3. Workflow for Registration of a New Project Proposal Without Ethical Issues.

If there are no ethical concerns or questions, the SRC Coordinator countersigns next to the CS Dean's endorsement OR sends an official document via email to the proponent(s) endorsing the proposal with comments, if any, if the funding agency only requires the endorsement of the Chancellor of UP Baguio.

The information regarding the project is then included in the Master List of CS Research. The SRC Coordinator also forwards the proposal to the SRC Board and the REC for further assessment in their immediate succeeding next meeting. The SRC Board may ask for the reevaluation of the proposal and impose certain conditions prior to the conduct of the project, if the project is approved.

If there are concerns regarding ethics in the project proposal, the SRC Coordinator will return the proposal to the proponent with his/her comments, questions and suggestions on how to revise the proposal accordingly. Figure 3 shows the workflow for the registration of new project proposals.

Here is the link to the Registration of New Research Proposals.

10.2 New Project Proposals with Ethical Restrictions

Researchers who intend to submit new research project proposals to external or internal funding agencies and require the use of research space, materials and equipment in the College of Science must register their research by providing a copy of their research proposal to the SRC through the SRC Coordinator.

One of the main roles of the SRC is to document the new proposal(s) in the Master List of CS Researches, note and confirm availability of the spatial requirements of the project, and verify whether the project has ethical concerns. The SRC will also assist the project leaders and/or research staff in placing the research information on the DOST-CAR research database (Systematic Exploration of Available Research and Development Institutions [RDIs] in the Cordillera Highlands or SEARCH) through the SEARCH website and in the UP System research database (Research Information and Management Systems or RIMS) through the UIS.

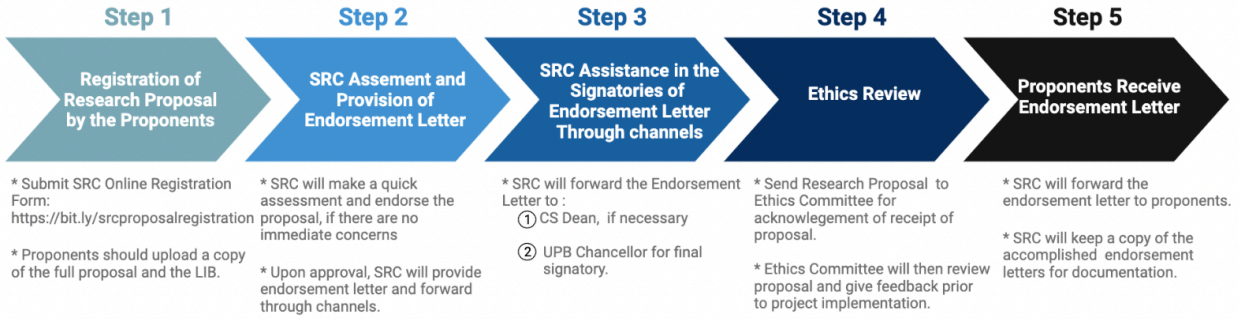

Figure 4. Workflow for Registration of a New Project Proposal with Ethical Issues.

The SRC Coordinator will forward the proposal to UP Baguio's Research Ethics Committee (REC). Once the REC has acknowledged receipt of the proposal, the SRC Coordinator countersigns next to the CS Dean's endorsement OR sends an official document via email to the proponent(s) endorsing the proposal with comments, if any, if the funding agency only requires the endorsement of the Chancellor of UP Baguio. The endorsement is done prior to the approval of the REC since the SRC understands the time limitations in the submission of proposals. However, the project will not proceed without the approval of the UPB REC.

The information regarding the project is then included in the Master List of CS Research. Figure 4 shows the workflow for the registration of new project proposals.

Here is the link to the Google Form Registration of New Research Proposals.

10.3 Newly Approved Projects

A. Submission of Documents

Project Leaders or proponents must ensure that the following documents are provided to the SRC prior to project implementation:

1. Copy of the approval of the approved proposal where the title of the project, name of the project leader and project staff, and the total budget is indicated
2. Copy of the approved version of the proposal
3. Copy of the approved version of the LIB
4. As soon as available, copy of the appointment papers of the hired research staff

The documents are to be uploaded to the Google Form Registration of Newly Approved Projects. Project Leaders or proponents

B. Training of Hired Research Staff

Prior to the start of their appointments, the newly hired research staff must submit a copy of their appointments in this Google Form Registration of Research Staff.

All new research staff must undergo the Orientation and Training of Research Staff. This will orient them on what is expected of them as a researcher, what they should expect as an employee of the University and undergo training in laboratory conduct and safety and waste management. The research staff will undergo this orientation and training only once, unless a violation of the laboratory conduct, and safety or waste management has been done.

In the form, the research staff will be asked for their email addresses so that they can be registered in the UP Baguio Virtual Learning Environment (UPB VLE), where the orientation and training will be done. At the end of the training, there is a multiple-choice test which they need to pass. A certificate will be automatically sent once the exam has been passed. The instructions on how to access the UPB VLE will be sent to their email addresses.

10.4 Graduate and Undergraduate Thesis

Graduate and undergraduate students who require the use of research space, materials and/or equipment in the College of Science must first register their research topic by providing a copy of their research proposal, endorsed by their Thesis Adviser, to the SRC through this Google Form Registration of Graduate Research or Registration of Undergraduate Research, whichever is appropriate.

In the Google Form, they will need to type in their name(s), student number(s), email address(es), thesis topic or tentative thesis title, and a list of space, materials and/or equipment needed for the research/thesis work and the name and email address of his/her/their adviser.

When typing down the list of space, materials and/or equipment needed, the students must list down everything they need, since the SRC staff will seek approval or use of equipment to respective laboratory heads.



Figure 5. Workflow for the registration of graduate and undergraduate thesis work.

The URA or EdRA will then forward the Google Sheet to the Thesis Adviser for his/her endorsement. The adviser confirms and approves the information provided by the students by typing in his/her initials in the Google Sheet.

The URA or EdRA will also forward the Google Sheet to the respective Laboratory Heads, if necessary, for his/her endorsement or as advanced information. The Lab Head(s) approves or denies or makes a comment in the Google Sheet on the use of space, materials and/or equipment provided by the students.

The URA or EdRA will also make a notation of the requirements and assess any ethical concerns based on a checklist provided by UP Baguio's Research Ethics Committee (REC). If there is any doubt, the URA or EdRA forwards the specific concern or question to the SRC Coordinator. If necessary, any ethical concerns will be forwarded to the REC for their recommendation.

The URA or EdRA collects all this information and gives the necessary feedback to the students.

In the next SRC Board meeting, the SRC Coordinator will submit a list, prepared by the URA or EdRA, and report all graduate and undergraduate thesis work to the Board and, if necessary, point out specific research work that needs to be closely monitored. The monitoring will be collectively done by the URA, EdRA and the Laboratory Technician.

Figure 5 shows the workflow for the registration of graduate and undergraduate thesis work.

10.5 Scheduling of Orientation and Training

When the research/thesis topic has been endorsed, the EdRA enrolls the names of the students in the UPB VLE Module for SRC Orientation and Training and sends out the link to them to their UP email addresses. The students may then proceed with the module at their own time and pace. At the end of the training, there is a multiple-choice test which they need to pass. A certificate will be automatically sent once the exam has been passed, which allows them access to the Biochemistry area, and to the Plasma Physics Laboratory and Molecular Biology areas, in the SRC building under strict supervision by the Thesis Adviser, Co-Adviser, URA, EdRA, Laboratory Technician, and registered Research or Project Technical Staff. Access to other parts of the research facilities under CS jurisdiction must be approved by the Laboratory Heads.

Figure 6 shows the workflow for scheduling the orientation and training for the use of the SRC facilities.

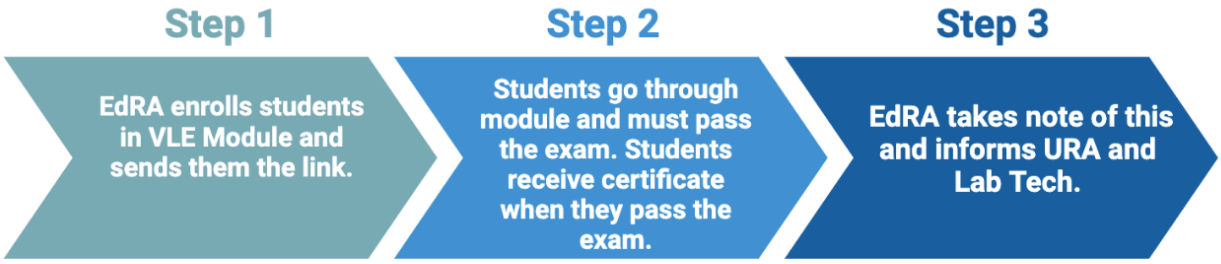

Figure 6. Workflow for SRC Laboratory Orientation and Training Appointment for the Use of SRC Facilities

10.6 Booking of Equipment

If it is the first time that a user will book an equipment, the user makes a request to the Google Form Request to Book an Equipment to be included in the list of allowed persons to book equipment. The URA, EdRA, Laboratory Technician or the person responsible will then assess and approve the user, him/her access to the Google Calendar Booking System and send the Google Calendar invite link for booking the equipment.

The basic requirement is that the person is currently full-time or part-time employed directly or indirectly by UP Baguio and has passed the exam for the SRC Orientation and Training Module.

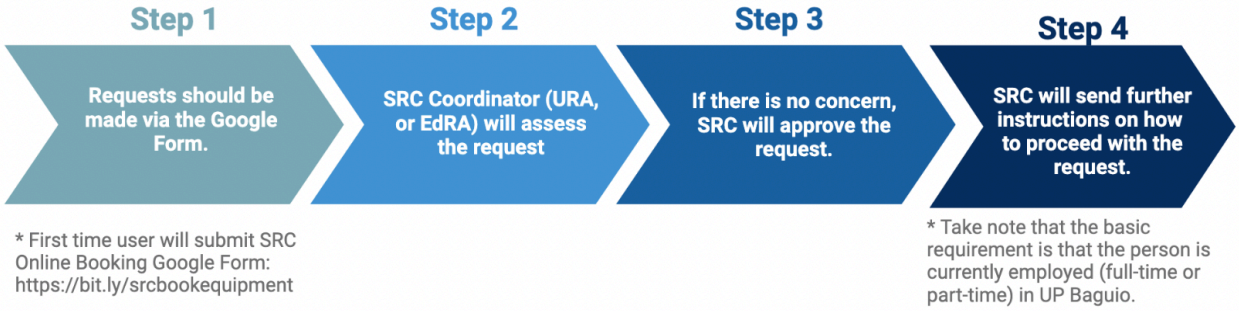

Figure 7. Workflow for Booking and Equipment for First Time User

In succeeding bookings, the user may book the equipment himself/herself using Google Calendar through his/her own UP email account. Note that the request e of equipment will depend on the availability and must be approved by the person responsible for the use of the equipment and the person who will assist you in using the equipment.

A Super User is a person who is qualified and authorized to operate the equipment. A user may be a faculty member and research and extension personnel and staff. A user may be promoted to a Super User after undergoing training. If a student or students require the use of certain equipment, either the adviser books the equipment for them or the adviser endorses one of the students to become a Super User. The equipment that may be booked are those owned by UP Baguio. Equipment that are obtained through external funding and are technically owned by the funding agency may or may not be included in the booking list upon the discretion of the Project Leader who is responsible for the equipment.

The Laboratory Technician will regularly update the list and remove persons that are no longer affiliated with UP Baguio.

Figure 7 shows the workflow for the booking available in the College of Science.

10.7 Request to be Super User of an Equipment

In some cases, an individual or a group requires the use more frequently. In this case, the individual or group must fill out the Google Form Request to be a Super User.

The requester must fill out the Google Form Request to be a Super User where he/she will type in his/her name, position (faculty or REPS) or student number (student), and equipment to be requested. It is the Laboratory Technician's job to look at this request. The Laboratory Technician then forwards the request to the Trainor, who is also a Super User or the Laboratory Technician himself or herself. The Trainor contacts the requester for a common time for the training. After the training, the Trainor evaluates and assesses the user if he/she has met the requirements to be able to use the equipment on his/her own and sends a report by email to the SRC Coordinator and the Laboratory Technician. For some equipment, it may be necessary to conduct training sessions several times. The Laboratory Technician then annotates in the Google Sheet for the Request to be a Super User of the new status of the requester. At this point, the new Super User may book and use the equipment any time.

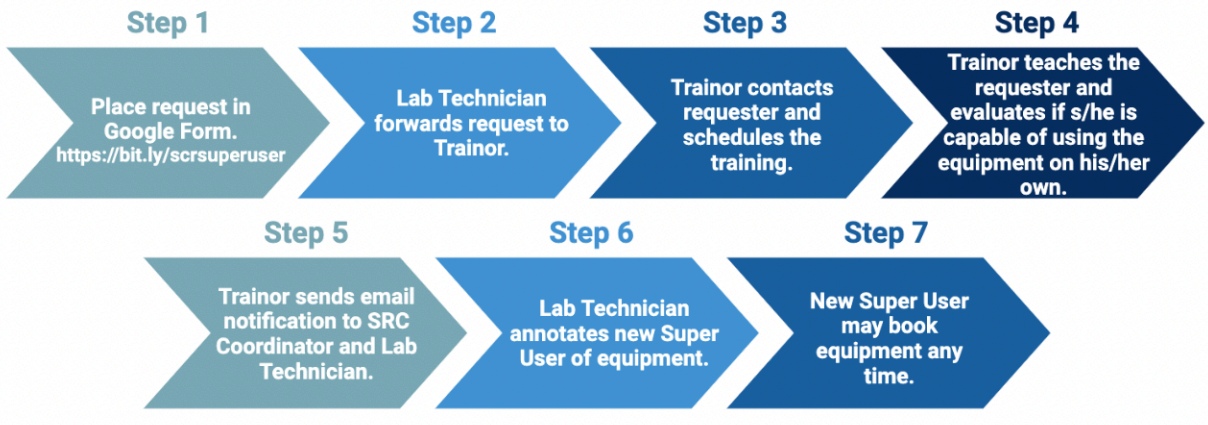

Figure 8. Workflow for requesting to be a Super User.

The SRC reserves the right to deny training to the user for any reason upon deliberation by the SRC Board.

10.8 Requesting Laboratory Supplies

This applies to UP graduate or undergraduate students with no research funding or is not part of any funded research project but needs to in order to fulfill course requirements. Requests for laboratory supplies (solvents, reagents, chemicals and all other materials) needed to accomplish experiments shall be filed online by filling out the Google Form Request for Laboratory Supplies where they will need to type in their name(s), student number(s), contact information, list of laboratory supplies, date and time when they will need the supplies, and the name of their adviser. Since these laboratory supplies are only available either in the Chemistry Laboratory, Biology Laboratory or in the SRC Biochemistry Laboratory, the Biology and Chemistry Laboratory Technician or the SRC Laboratory Technician check these requests daily. The Google Sheet is then forwarded to the adviser for verification and approval. The adviser approves by typing in his/her initials or full name in the Sheet. After the Lab Tech has verified the approval of the adviser, the Lab Tech then confirms the availability of the requested supplies, approves fully or partially or disapproves the requests and creates a New Calendar item using the name of the Course/Class in the SRC Google Calendar, marks them and sends the list of approved laboratory supplies through the Google Calendar. The decision is then sent to the requesting student.

Take note that a graduate or an undergraduate student who is doing his/her thesis for a funded research project should first utilize resources available from the project and should have already made a request through the Google Form Registration of Graduate Research or Registration of Undergraduate Research.

The Lab Tech provides the supplies to the students and records the number and/or amount in the Google Sheet. At least one of the students (but preferably all in the group) must confirm the receipt by signing in their initials in the Google Sheets using their own UP email accounts.

After the supplies are returned, the Lab Tech checks if the materials are complete and undamaged and confirms it in the Google Sheet. If there is damage, the Lab Tech takes note of the damage and all of the students acknowledge the damage in the Google Sheets by typing in their initials next to the notation.

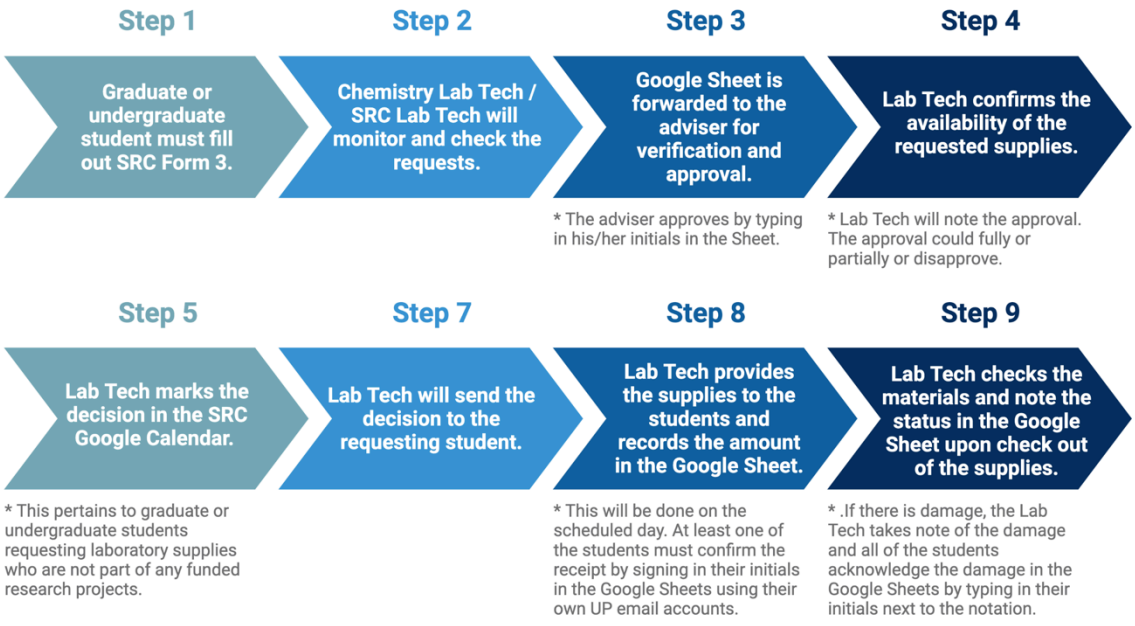

Figure 9. The workflow for requesting laboratory supplies.

10.9 Booking of SRC Conference Room by a UP Baguio affiliated individual

First-time of SRC Conference Room must file a request by accomplishing the Google Form Request to Book the SRC Conference Room to be included in the list of allowed persons to book the room. The user only needs to give his/her full name and his office of designation and the date and time when the room is needed. The SRC Coordinator will then assess and approve the user, him/her access to the Google Calendar Booking System and send the Google Calendar invite link for booking.

Only those who are currently employed directly or indirectly by UP Baguio, full-time or part-time, will be allowed to book the SRC Conference Room. In succeeding bookings, the user may book the SRC Conference Room himself/herself using his/her own UP email account through the Google Calendar. All bookings must be made by a single individual.

No student will be allowed to book the SRC Conference Room and in case of thesis defense, it will be the thesis adviser who should request for the use of the facility.



Figure 10. The workflow for the booking of the SRC Conference Room for UPB affiliated .

10.10 Booking of SRC Conference Room by a non-UPB affiliated individual

The user makes a request to the Google Form Request to Book the SRC Conference Room and needs to fill out all fields. The SRC Coordinator will then assess and approve the user, him/her access to the Google Calendar Booking System and the Google Calendar invite indicating his/her scheduled booking. All requests must be made by a single individual.



Figure 11. The workflow for the booking of the SRC Conference Room for non-UPB affiliated individual.

10.11 Request for Analytical Services from non-UP Baguio affiliated individuals

Non UP Baguio-affiliated individuals must file their request through the Google Form Request for Analytical Services. The requester may type the letter of request in the Google Form or upload a letter of request addressed to the College of Science Dean or the Science Research Center Coordinator. The request must indicate which equipment they would like to use or what kind of service they would like to avail. They must also provide sufficient information about the samples they wish to test.

For microbiological samples (eg. virus or bacteria) or have the potential to cause damage or harm or disease to s, the requester must fully disclose this information to the SRC Coordinator. The SRC Coordinator will, at the soonest possible time, consult with the SRC Board whether to approve or the request and may have to seek consultation with experts, whenever necessary.

For equipment that have been acquired through University funds or turned over and/or donated by the external funding agencies, the SRC Coordinator approves or disapproves the request. For equipment that belong to UP Baguio, the Project Leader or individual who signed the Material Requisition Form has the full authority for its use. The request will therefore be forwarded to this individual for approval.

When the request has been approved, the requester(s) is/are notified and the request is forwarded to the Laboratory Technician or Super User, who then contacts the requester to confirm the schedule. The requester must be informed that only samples included in the request will be processed.

During the day, only samples that have been approved are allowed and under no circumstances shall samples not included in the request be characterized. Any samples brought by the requester(s) shall be reassessed, if necessary, and rescheduled for another time

After the samples have been characterized, the bill is given to the requester(s) and should be settled at the Cash Office. A copy of the bill and the receipt shall be given to the EdRA for documentation and accounting purposes.

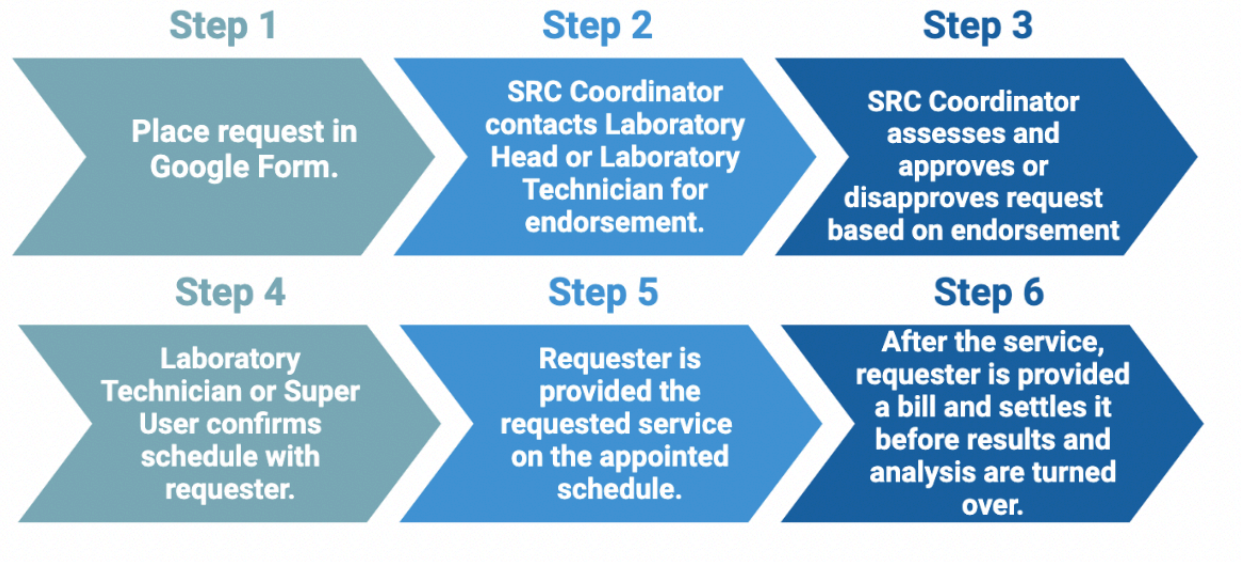

Figure 12. Workflow for Request for Analytical Services.

10.12 Request for Summer Immersion Programs, Internships and Similar Undertakings

Requests from non-UP Baguio affiliated institutions or individuals for training use of the facilities in UP Baguio must be addressed to the Dean of the College of Science and sent to csdean.upbaguio@up.edu.ph. The Dean forwards the request to the SRC Coordinator, who then gets in touch with the respective Laboratory Heads to determine if the request is doable. The Laboratory Heads will then get in touch with the requesting institution or individual and organize how the program, internships or research work will be conducted.

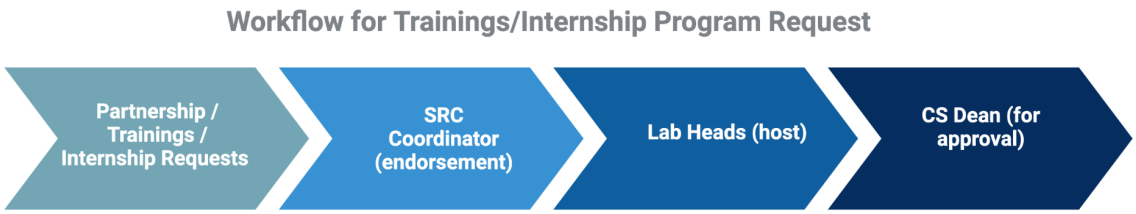

Figure 13. Workflow for internship programs (from request to conduct of programs)

10.13 Signing of MOA/MOU/NDA and Other Similar Documents

This pertains to collaboration or partnership documents such as memorandum of understanding/agreement, non-disclosure agreement, material transfer agreement, and other similar documents that require notarization.

The involved parties will draft the agreement and carefully verify and analyze the content before Legal Office.

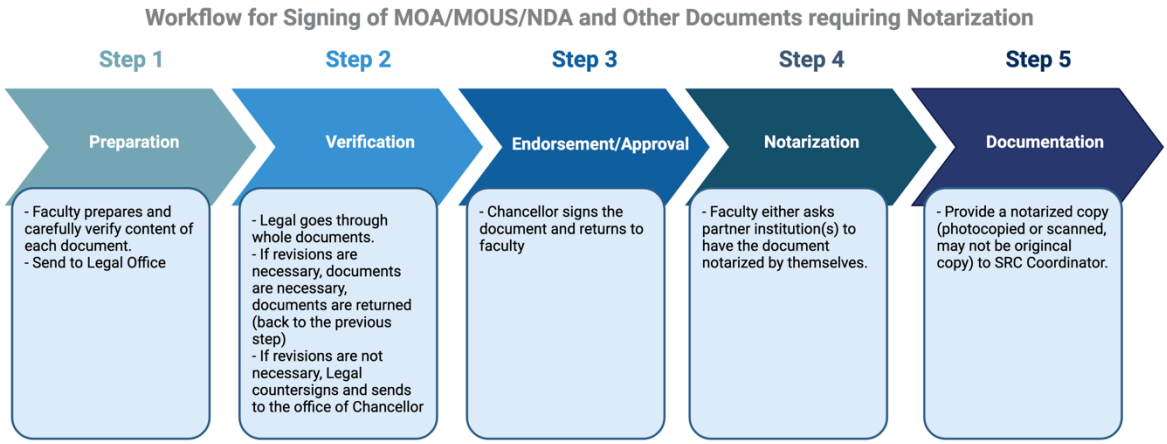

Figure 14. Workflow for internship programs (from request to conduct of programs)

11.0 SPECIFIC GUIDELINES TO THE USE OF FACILITIES

These are guidelines specific to the use of Laboratory Space, Materials, Supplies and Equipment.

11.1 Management of Equipment, Supplies and Materials

A. During the annual inventory of the SPMO of any equipment acquired through University funds or has been officially transferred to the University, the Laboratory Technician or an official representative will assist the SPMO representative. For equipment that are owned by the funding agency but are in the custody of the Project Leaders or Laboratory Heads, the Project Leaders, Laboratory Heads or a designated representative employed directly by or indirectly through the University must be present to assist the SPMO representative.
B. In case of loss or damage, the designated University representative must report the case immediately to the SPMO, or if warranted to the UP Police if the incident is discovered on a weekend or a holiday.
C. The borrower and his/her group members are responsible for the replacement or payment of the broken, lost, or damaged equipment, even if all or some of the group members are not present at the time of the incident.
D. The cost of the damage to the equipment is assessed by the lab coordinator and technicians and a billing statement is forwarded to the borrower.
E. Students must pay for repair, or replace the broken, lost, or damaged equipment.
F. Once the equipment has been paid for, replaced, or repaired, students would be issued a clearance by the lab coordinator.

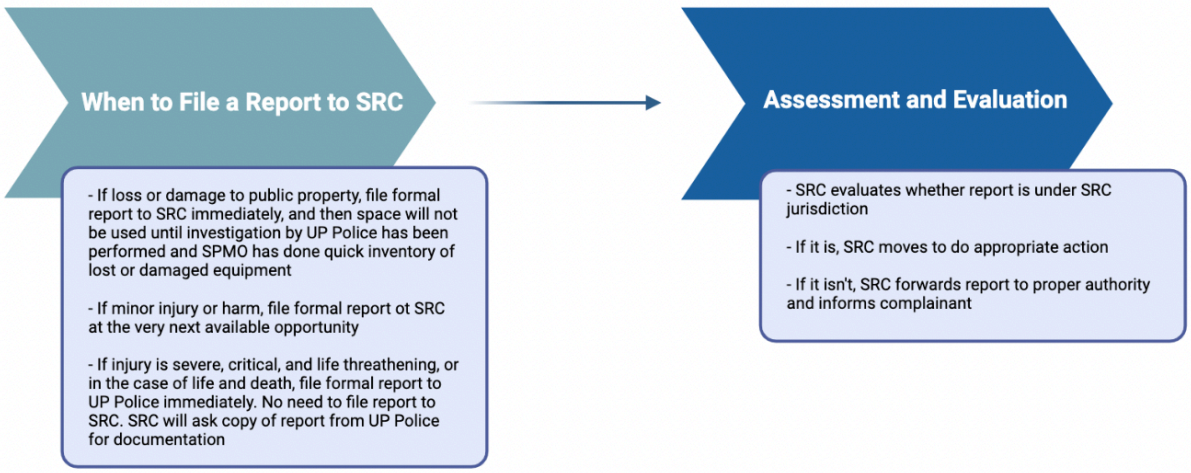

Figure 13. Process of Reporting Damage or Loss

11.2 Management of Research Space

A. No thesis experiment is to be performed whenever water is not available.
B. There should be first-aid kits in all laboratories.
C. PDEA controlled chemicals of the College must be confined to a designated area only (one small room).

11.3 Conduct of Authorized Individuals, Groups or Organizations Inside the Research Space

A. On the Use of Instruments/Equipment
    1. Use of instruments must be in the presence of the laboratory head or the lab technician or the ERA.
    2. Application for the use of an instrument /equipment must be filed at least two (2) days prior to its use.
    3. Use of instruments/equipment during overnight work is discouraged.

B. Faculty, technicians, and students must wear the appropriate attire with proper PPEs in the laboratory.
    1. Laboratory gown should be white, knee-length or longer with sleeves at least elbow length.
    2. Safety goggles must be worn properly during the performance of the experiments. Dark glasses/shades in place of safety goggles are not permitted.
    3. Students without lab gowns and safety goggles are not allowed to perform their thesis experiments in the laboratory.
    4. No open-toed footwear is allowed.
    5. Long hair must be tied back.
    6. No more than ten (10) people are allowed in each laboratory at a time, except for the Computer Science Laboratory.

C. Proper disposal of chemical wastes must be observed. Waste containers must be appropriate for the chemical waste.

D. Biohazardous chemicals/materials/samples should be properly handled and stored.

E. Consumables will not be provided by the lab. Students are expected to bring their own detergent, tissue paper, matches, gloves, masks, (prescribed grade) masking tape, labeling paper, zip lock bags, and other consumables that they may need for their research.

F. Eating and drinking are not allowed in the laboratory.

G. A laboratory notebook and writing materials are allowed to be brought in the laboratory. Bags, books, and other paraphernalia unnecessary to the experiment to be performed are to be placed away from the experiment area. (except for computer labs-dry lab). For personal bags, books, and other paraphernalia, students must use their own lockers.

H. All documents, items, and data gathered from the research experiments (i.e., journal, samples) should not be taken out from the University as stipulated in the non-disclosure agreement.

I. Safety rules and regulations regarding the use of instruments must be strictly followed by all students in the laboratory. Thesis advisers and students must be familiar with all laboratory student policies including policies for overnight work, if necessitated by their research study.

J. Faculty and students should be familiar with the safety features of the laboratory such as the location of safety showers, fire extinguishers, of sand, pail, first-aid kits, fire escapes, etc.

K. Any individual, group or organization must report any misbehavior or misconduct of other students, research staff, researchers, faculty, if such results to loss or damage of public property or injury/harm/death of another individual or group of persons

L. Any individual, group or organization must report any immoral or unethical practices of other students, research staff, researchers, faculty in the conduct of doing research or in the project or research implementation

11.4 Special Lab Experiments

A. Special or make-up experiments outside of regular class hours are discouraged. These will be allowed only upon the approval of the lab instructor. No special or make-up experiments are allowed if the lab instructor cannot be present during the special or make-up experiment.
B. The student who will undertake the special or make-up experiment outside the regular class hours has to confirm the availability of the technicians, the equipment, and the lab room before scheduling one with his/her instructor. Special or make-up experiments must only be performed in a lab room.
C. Lab technicians are not required to assist the student during the special or make-up experiment.
D. All guidelines concerning the use of SRC facilities must also be observed by the student(s).

11.5 Use of Lab Equipment for Overnight Experiments

A. Working or performing experiments overnight are requested to the Office of the Vice-Chancellor for Administration through Adviser, Dept. Chair and ODSA Coordinator.
B. Students, faculty, and research staff are not allowed to bring equipment outside the University.
C. There should be a safety seminar to prospective users before working in SRC. Faculty or the Research Assistants may be tapped as resource persons.
D. Special arrangements should be made for experiments that are team requirements or that involve collaboration with other students.

ANNEX A. SCHEDULE OF FEES

The maintenance and repair of the equipment, electricity consumption, cost of the service of technician, and other consumables that are used during operation of these equipment were all e computation of the fees. The proposed schedule of fees is summarized in Table 1.

TABLE 1. PROPOSED SCHEDULE OF FEES FOR THE USE OF SAMPLE PREPARATION AND PROCESSING EQUIPMENT, AND SAMPLE CHARACTERIZATION EQUIPMENT

	SERVICE	Externally Funded Research	UP Faculty and Students REPS and Other Personnel*	Academic (Non-UP)*	Commercial/ Industrial
	Cost multiplier	1	0.625	0.75	1.5
	Sample Prep & Processing (All prices indicated are on a per hour basis unless otherwise indicated.)				
1.	Chemical Vapor Deposition System (CVD)	640.00	400.00	480.00	960.00
2.	Water Purification System (Type 1)	200.00/liter	125.00/liter	150.00/liter	300.00/liter
3.	Drying Oven	160.00	100.00	120.00	240.00
4.	Ultrasonic bath	120.00	75.00	90.00	180.00
5.		160.00	100.00	120.00	240.00
6.	Pulse Sonicator	160.00	100.00	120.00	240.00
7.	Vacuum Filtration	120.00	75.00	90.00	180.00
8.	Analytical/Top Loading/Semi Micro Analytical Balance	50.00	31.25	37.50	75.00
9.	Autoclave	200.00	125.00	150.00	300.00
10.	Biosafety cabinet level II	150.00	93.75	112.50	225.00
11.	refrigerated microcentrifuge	150.00	93.75	112.50	225.00
12.	DNA Gel electrophoresis (per run)	250.00	156.25	187.50	375.00
13.	Gel documentation (per gel)	50.00	31.25	37.50	75.00

14.	DNA isolation (kit based; per sample)	250.00	156.25	187.50	375.00
15.	Microplate reader	500.00	312.50	375.00	750.00
16.	Hot Plate Magnetic Stirrer	100.00	62.50	75.00	150.00
17	Incubator (per day)	150.00	93.75	112.50	225.00
18.	Shaking incubator (per day)	200.00	125.00	150.00	300.00
19.	pH Meter	50.00	31.25	37.50	75.00
20.	Rotary Evaporator,	200.00	125.00	150.00	300.00
21.	Sohxlet Extraction (solvent not included)	200.00	125.00	150.00	300.00
22.	Suction Machine	300.00	187.50	225.00	450.00
23.	Thermocycler (per tube, with PCR master mix; primers not included)	100.00	62.50	75.00	150.00
24.	Normal phase thin layer chromatography (per sample)	300.00	187.50	225.00	450.00
25.	UV TLC Viewer	50.00	31.25	37.50	75.00
26.	UV-VIS Spectrophotometer	200.00	125.00	150.00	300.00
27.	Water Bath Shaker	100.00	62.50	75.00	150.00
28.	Water Bath Sonicator	150.00	93.75	112.50	225.00
29.	Autoclave	160.00	100.00	120.00	240.00
	Sample Characterization				
30.	Scanning Electron Microscope (SEM)	1,840.00/hr** 2,240.00/ hr***	1,150.00/ hr** 1,550.00/ hr***	1,380.00/ hr** 1,780.00/ hr***	2,760.00/ hr** 3,160.00/ hr***
31.	Potentiostat	1,720.00/ sample	1,075.00/ sample	1,290.00/ sample	2,580.00/ sample
32.	Light Microscope w/ camera	400.00/ sample	250.00/sample	300.00/ sample	600.00/ sample
33.	Plant extraction (product: crude extract): (per kg/ whole plant)	4500.00	5000.00	4500.00	6000.00

34.	Test for anti-bacterial property (per bacteria)	3000.00	3500.00	3000.00	4500.00

All prices indicated are on a per hour basis unless otherwise indicated.
*For students who are doing their thesis, the request must be coursed through and endorsed by their faculty advisers or faculty-in-charge. In the case when the student thesis is funded by an external funding agency, such as DOST or any of its councils, CHED, etc., the rates for Externally Funded Research will apply
**Conducting samples refer to electrically conducting materials.
***Non-conducting samples refer to insulating materials or biological samples. Samples must be prepared in advance and dried before placing them in the machine

All prices are quoted in Philippine peso and are subject to applicable tax. They may be subject to adjustment inflation and prevailing maintenance costs.

For equipment no. 1 and 3 - 8, the charging of fees is on a per hour basis. Services offered by these equipment are based on the duration of usage regardless of the amount and/or number of samples as certain samples may require shorter preparation and/or processing time while other samples may take much longer time. Clients may take advantage of this by maximizing the amount/number of samples for analysis.

For equipment 30 and 31, charging of fees is on a per hour basis. The run time of sample characterization for these equipment is fixed regardless of the type of sample. In particular, the Potentiostat equipment can do several electrical characterizations on one sample so it would actually be more cost effective to the clients if the rate is on a per sample basis.

Services and fees from equipment to be procured and acquired in the future and lodged in the SRC building or in any of the research laboratories of the College of Science and increase in fees due to inflation will be added accordingly in the Schedule of Fees without further requests.

DOST Funded Research refers to projects funded by the DOST or any of its agencies. A formal letter of request signed/endorsed by the project leader and a copy of the proof of funding that states the project title, the name of the project leader and the duration of the project must be submitted to the SRC.

Academic (Non-UP) refers to persons from other universities or academic institutions and without s funded by the DOST or any of its agencies. A formal letter of request endorsed or approved by their immediate supervisor must be submitted to the SRC.

UP Faculty and Students, REPS and Other Personnel must have approved projects in the University, endorsed or approved by their immediate supervisor. A formal letter of request signed/endorsed by the project leader and a copy of the proof of funding that states the project title, the name of the project leader and the duration of the project must be submitted to the SRC.

Commercial/Industrial refers to individual or individuals who are way connected to the government or does not directly/indirectly work for or provide direct/indirect service to the government.

The proposed rates for Academic (Non-UP) or UP Faculty, REPS and Other Personnel will apply, depending on the affiliation of the endorsing or approving adviser, faculty or faculty-in-charge, or the student(s), at the time of the request and the usage of the equipment.