



De La Salle University-Manila  
Laboratory Procedures,  
Policies and Guidelines  
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University Research Coordination Office  
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# Introduction

## The University and Its Laboratories

A laboratory may be a place of specialized work, research, clinical or diagnostic evaluation, and teaching or learning. Laboratories are commonly used in many scientific disciplines from chemistry, physics, botany, and zoology to medicine, psychology, dentistry, chemical engineering, agriculture, and veterinary science. The term 'laboratory' may equate with workshop in engineering areas such as mechanical, electrical, and civil engineering (<http://www.usyd.edu.au/su/ohs/labsafety.html>).

Aware of the varied needs of the faculty and students, De La Salle University-Manila provides laboratories for different departments such as the Behavioral Sciences Department and the Psychology Department of the College of Liberal Arts. In the College of Science, there are laboratories for the Biology Department, Chemistry Department, and Physics Department. In the College of Engineering, laboratories are provided for the Chemical Engineering Department, Civil Engineering Department, Electronics and Communications Engineering Department, Industrial Engineering Department, Manufacturing Engineering Management Department, and Mechanical Engineering Department. Under the College of Education, the Department of English and Applied Linguistics maintains the Speech Lab and Writing Lab while the College of Computer Studies has the Computer Technology Laboratory. Finally, the University's computer resources and needs are managed and serviced respectively by the Information Technology Center.

The laboratories are equipped with materials, tools or instruments, and pieces of equipment which need proper handling by the users.

Safety awareness has to be observed while in the laboratory and the right information has to be provided to the faculty and students. To maintain the conditions of the laboratories, policies and guidelines have been set by the respective departments.

## **Objectives**

The De La Salle University-Manila laboratory policies and guidelines aim to:

- safeguard the health and safety of De La Salle University-Manila faculty members, laboratory technicians, and students
- promote safety awareness and encourage safe work practices in the laboratory
- update the faculty members, laboratory technicians, and students on any information pertaining to health and safety practices or hazards
- prevent incidents that endanger the health and safety of faculty members, laboratory technicians, and students, and to encourage them to report hazards that they identify in the laboratory

## **Research Involving Human Subjects**

Research involving human subjects includes a variety of activities ranging from actual experimentation using human volunteers, to gathering information using questionnaires or utilizing existing information such as medical records. Some projects involving human subjects are therapeutic in nature; some pursue the development of new instrumentation or techniques; some involve the use of trace quantities of radioactive material in managing studies; others involve only the analysis of blood or urine samples of volunteers; and still others need follow-up studies on workers previously employed at sites that stored or used radioactive materials (<http://www.usyd.edu.au/su/ohs/labsafety.html>).

# College of Liberal Arts

## 1. Behavioral Sciences Department

The Behavioral Sciences Department recognizes certain ethical and professional responsibilities (<http://www/sfaa.net/sfaaethic.html>) that ensure sound and healthy laboratory practices.

### 1.1 People as Subjects

We at the Behavioral Sciences Department owe the people we study disclosure to our research goals, methods, and sponsorship. The participation of people in our research activities is done only on a voluntary basis. We provide a means through our research activities and in subsequent publications, to maintain the confidentiality of those we study. They are made aware of the likely limits of confidentiality and are not promised a greater degree of confidentiality than can realistically be expected under current legal circumstances in our respective nations. We shall, within the limits of our knowledge, disclose any significant risks to those we study that may result in our activities.

### 1.2 Communities

We owe the communities that are ultimately affected by our activities respect for their dignity, integrity, and worth. We recognize that human survival is contingent upon the continued existence of a diversity of human communities, and that it guides our professional activities accordingly. We avoid taking or recommending action on behalf of a sponsor which is harmful to the interests of the community.



**1.3 Social Colleagues**

To our social colleagues, we have the responsibility of not engaging in actions that impede reasonable professional activities. This means that while respecting the needs, responsibilities, and legitimate proprietary interests of our sponsors, we do not impede the flow of information about research outcomes and professional practice techniques. We accurately report the contributions of colleagues to our work. We do not condone falsification or distortion of facts by others. We do not prejudice communities or agencies against a colleague for reasons of personal gain.

**1.4 Students, Interns, or Trainees**

We owe our students, interns, or trainees nondiscriminatory access to our training services. We provide training which is informed, accurate, and relevant to the needs of the larger society. We recognize the need for continuing education so as to maintain our skill and knowledge at a high level. Our training gives information to students as to their ethical responsibilities. Student contributions to our professional activities, including both research and publication, are adequately recognized.

**1.5 Employers and Other Sponsors**

We owe our employers and other sponsors, accurate reporting of our qualifications and competent, efficient, and timely performance of the work we undertake for them. We establish clear understanding with each employer or other sponsors as to the nature of our professional responsibilities. We report our research and other activities accurately. We have the obligation to prevent distortion or suppression of research results or policy recommendations by concerned agencies.

**1.6 Society as a Whole**

We owe the society as a whole, the benefit of our special knowledge and skills in interpreting sociocultural systems.

We communicate our understanding of human life to the society-at-large.

## **2. Psychology Department**

### **2.1 Vision-Mission**

The *Laboratory ng Pananaliksik sa Sikolohiya (LaPiS)*, student arm of the Psychology Department, aims to make its mark as a pioneer in the field of Psychology by offering the best quality service to students and faculty, providing modern resources and facilities, and serving as a venue for research and learning.

### **2.2 General Guidelines**

2.2.1 The *Laboratory ng Pananaliksik sa Sikolohiya (LaPiS)* is open from 7:00 a.m. to 9:00 p.m. on Mondays, Wednesdays and Fridays. It opens at 8:00 a.m. and closes at 9:00 p.m. on Tuesdays and Thursdays. In line with the University Break observed every 12:40 p.m. to 2:30 p.m. on Wednesdays, *LaPis* may be open if and only if there is a request from the Department, or when there is a LaPiSta (student-in-charge) present. Operations start from the first day of classes to the last day of regular classes (before final exams) in every trimester.

2.2.2 Similar to other offices in the University, *LaPiS* is open on Saturdays from 8:00 a.m. to 12:00 noon only. The laboratory technician is present to answer the needs of users.

2.2.3. *LaPiS* shall observe a different operating schedule during the final exams week depending on the availability of a LaPiSta willing to take the shift. Otherwise, it remains closed through the exams week until the trimestral break.

2.2.4. The chosen students responsible for *LaPiS* operations are known as LaPiStas. Their selection is based on a strict criteria.

- 2.2.5. Since *LaPiS* caters only to the needs of Psychology students doing Psychology-related concerns, other activities (e.g., non-Psychology subjects and assemblies/meetings) are strictly prohibited. LaPiStas, being the staff of the laboratory, have the authority to ask these people to leave the place. In sum, students with no official business are not allowed to loiter inside the laboratory to preserve an atmosphere conducive to learning.
- 2.2.6. Cleanliness and order inside *LaPiS* should be observed at all times. Users are reminded to clean up before they leave the place.
- 2.2.7 Posters and announcements may be posted in the *LaPiS* bulletin board provided they are official, Psychology-related, and/or approved by *LaPiS*.
- 2.2.8 Messages addressed to a particular LaPiSta may be placed in the staffers' respective pigeon holes located inside the laboratory.
- 2.2.9 Students using the needed equipment and materials must properly log in their names and leave their DLSU Identification Cards with the LaPiSta-on-duty before availing of these services. Students will be held responsible for the loss or damage of the equipment and/or materials they borrow.
- 2.2.10 Eating and drinking are strictly prohibited inside the laboratory. LaPiStas may ask violators to leave the place.
- 2.2.11 The *LaPiS OPIS* is exclusively for the faculty members and LaPiStas only. Students are prohibited from entering the room.
- 2.2.12 Users are encouraged to keep an eye on their own belongings. Due to the volume of users and transactions encountered daily, *LaPiS* will not be held liable for any case of loss or theft.
- 2.2.13 Any user responsible for damage to, or loss of *LaPiS* property will be held liable.
- 2.2.14 LaPiStas are trained to be courteous and accommodating. Thus, respect is expected from lab users.

- 2.2.15 LaPiStas are authorized to implement the rules and policies governing the laboratory. Hence, violators may be asked to leave the place or face sanctions.

### **2.3 Services Offered**

- 2.3.1 Lending of theses, books, journals, psychological tests, and student papers.

A student is allowed to borrow a maximum of 3 theses at a time. Theses are for room use only. Photocopying is prohibited.

- 2.3.2 Lending of Brains

Brains should first be reserved before the day of borrowing. Brains will not be delivered; it is requested that borrowers pick up and return the brains at the office. Students are to bring their own dissecting kit (gloves, forceps, probe, pins, etc.)

- 2.3.3 Computer Use

Computers are reserved on a first-come, first-served basis. Reservation for individual use is not entertained. However, a faculty may reserve the computers for a class taking up methods of research, cognitive psychology, psychometrics and other psychology courses.

- 2.3.4 Dyad Rooms

Dyad rooms are available for students who study, perform experiments, and do other school tasks. Reservations may be made with a LaPiSta-on-duty.

### **3. APA (American Psychological Association) Ethical Guidelines for Research with Human Subjects**

The decision to undertake research rests upon a considered judgment by the individual psychologist about how best to

contribute to psychological science and human welfare. Having made the decision to conduct research, the psychologist considers alternative directions in which research energies and resources might be invested. On the basis of this consideration, the psychologist carries out the investigation with respect and concern for the dignity and welfare of the people who participate and with cognizance of federal and state regulations and professional standards governing the conduct of research with human participants.

- 3.1 In planning a study, the investigator has the responsibility to make a careful evaluation of its ethical acceptability. To the extent that the weighing of scientific and human values suggests a compromise of any principle, the investigator incurs a correspondingly serious obligation to seek ethical advice and to observe stringent safeguards to protect the rights of human participants.
- 3.2 Considering whether a participant in a planned study will be a subject at risk or a subject at minimal risk, according to recognized standards, is of primary ethical concern to the investigator.
- 3.3 The investigator always retains the responsibility for ensuring ethical practice in research. The investigator is also responsible for the ethical treatment of research participants by collaborators, assistants, students, and employees, all of whom, however, incur similar obligations.
- 3.4 Except in minimal-risk research, the investigator establishes a clear and fair agreement with research participants, prior to their participation, that clarifies the obligations and responsibilities of each. The investigator has the obligation to honor all promises and commitments included in that agreement. The investigator informs the participants of all aspects of the research that might reasonably be expected to influence willingness to participate, and explains all other aspects of the research about which the participants inquire. Failure to make full disclosure prior to obtaining informed consent requires additional safeguards to protect the welfare and dignity of the

- research participants. Research with children or with participants who have impairments that would limit understanding and/or communication requires special safeguarding procedures.
- 3.5 Methodological requirements of a study may make the use of concealment or deception necessary. However, before conducting such a study, the investigator has a special responsibility to:
- 3.5.1 Determine whether the use of such techniques is justified by the study's prospective scientific, educational, or applied value.
  - 3.5.2 Determine whether alternative procedures that do not use concealment or deception are available.
  - 3.5.3 Ensure that the participants are provided with sufficient explanation as soon as possible.
- 3.6 The investigator respects the individual's freedom to decline to participate in or to withdraw from the research at any time. The obligation to protect this freedom requires careful thought and consideration when the investigator is in a position of authority or influence over the participant. Such positions of authority include, but are not limited to, situations in which research participation is required as part of employment or in which the participant is a student, client, or employee of the investigator.
- 3.7 The investigator protects the participant from physical and mental discomfort, harm, and danger that may arise from research procedures. If risks of such consequences exist, the investigator informs the participant of that fact. Research procedures likely to cause serious or lasting harm to a participant are not used unless the failure to use these procedures might expose the participant to risk of greater harm or unless the research has great potential benefit, and fully informed and voluntary consent is obtained from each participant. The participant should be able to contact the investigator within a reasonable time following participation if stress, potential harm, or related questions or concerns arise.

- 3.8 After the data are collected, the investigator provides the participant with information about the nature of the study and attempts to remove any misconceptions that may have arisen. Where scientific or humane values justify delaying or withholding this information, the investigator incurs a special responsibility to monitor the research and to ensure that there are no damaging consequences for the participant.
- 3.9 Where research procedures result in undesirable consequences for the individual participant, the investigator has the responsibility to detect and remove or correct these consequences, including long-term effects.
- 3.10 Information obtained about a research participant during the course of an investigation is confidential unless otherwise agreed upon in advance. When the possibility exists that others may obtain access to such information, this possibility, together with the plans for protecting confidentiality, is explained to the participant as part of the procedure for obtaining informed consent.

# College of Computer Studies

## Laboratory Safety in Research

### 1. Laboratory Class Sessions

#### 1.1 Policies Regarding Borrowing Test Equipment, Tools and Electronic Components

- 1.1.1 The Computer Technology Laboratory (CT-lab) technician is the regular custodian of the College of Computer Science (CCS) laboratory. The borrowing of test equipment, tools and components needed for a particular experiment is facilitated by the CT-lab technician.
- 1.1.2 For all prescheduled laboratory sessions (i.e., regular laboratory classes), the test equipment, tools and electronic components needed for that particular session are prepared and made available for borrowing by individual groups, at the start of the class session. The basis for this a priori knowledge of the materials to be borrowed is based on the laboratory subject and session, where the required materials are spelled out in the CT-lab's copy of the experiment to be done. (Note: A class session can be started and ended solely by the instructor. Therefore, students may NOT borrow experiment materials if the instructor has not yet arrived for class).
- 1.1.3 Any test equipment, tools, and components (including previous theses hardware, trainer kits and the like) are normally not allowed to be taken out of the CT laboratories (G405, G407 and G408).



- 1.1.4 Everyone should note that the technician's area is OFF LIMITS to all regular students, including those working on their thesis or project. The only exceptions to this rule are the CT-lab student assistants (SAs). Please see subsection 4.6—'Computer Technology Laboratory Student Assistants'—in section 4, "Miscellaneous Policies and Guidelines."
- 1.1.5 Procedure for Borrowing of Materials (Regular Laboratory Class, following scheduled experiment)
  - 1.1.5.1 A group member shall approach the CT-lab technician's area and present his or her student ID.
  - 1.1.5.2 The CT-lab technician takes the student ID and hands over all pertinent materials for the experiment to the student.
  - 1.1.5.3 Designated areas within the CT-lab technician's area, such as pigeon holes and numbered test instruments and racks ensure that the association between materials lent out and the student (via his/her student ID) remains intact and correct.
- 1.1.6 Procedure for Borrowing of Materials (Regular Laboratory Class with Additional Materials, or Special Session Laboratory Class)
  - 1.1.6.1 If a regular laboratory session will require additional materials outside of what is listed in the materials list of the said experiment (as authorized by the instructor), a borrower's slip can be availed of from the CT-lab technician, and the additional materials listed by the student. Special laboratory sessions wherein the CT-lab does not have a copy of the materials list for the said experiment or

- work likewise will require filling out the same borrower's slip.
- 1.1.6.2 The duly filled-out borrower's slip is given to the CT-lab technician, along with the student ID of one of the group members. If a student ID has already been given (i.e., 1.1.5.2), the borrower's slip is associated with that same student ID.
- 1.1.6.3 The CT-lab technician hands out to the student the materials as listed in the borrower's slip.
- 1.1.7 It is the responsibility of group members to check and verify the operability of test equipment, tools and components they have borrowed BEFORE beginning an experiment or work. Instructors are enjoined to remind their students to do this verification, as well as to reiterate proper equipment handling and settings. Of particular note are the vertical sensitivity and horizontal timebase verniers of the oscilloscopes, which, if left in the 'uncalibrated' positions will cause incorrect amplitude and time/frequency readings.
- 1.1.8 If, PRIOR to the experiment or work, the operation, performance or characteristic of any of materials lent to a group appear anomalous, students are requested to seek the assistance first of the laboratory session instructor, then, if advised to do so, have the suspect equipment/tool component replaced by the CT-lab technician. Any materials found to be defective at this stage will NOT be charged to the student group.
- 1.1.9 Any equipment, tools or components that fail or are damaged during the course of the experiment or work shall be assessed by the instructor and the CT-lab technician to determine if the failure or damage is due to 'normal wear and tear' or not. Any material (equipment, tool or component) damaged or having failed not

due to 'normal wear and tear' shall need to be replaced by the group with the same or equivalent, or repaired. An 'Outstanding Account' will be associated with the group until replacement or repair is accomplished.

- 1.1.10 The CT-lab shall keep a record of groups with 'Outstanding Account' balances. See subsection 1.3.

## **1.2 Policies Regarding the Return of Test Equipment, Tools and Electronic Components**

- 1.2.1 It is mandatory that all materials borrowed are returned at the end of the laboratory session. Extended borrowing may be allowed if deemed necessary by the laboratory session instructor. Instructors are requested to take into consideration the work breaktime of the CT-lab technicians, if by extending the laboratory session will conflict with said breaktime.
- 1.2.2 The CT-lab technician shall check that all materials returned are in good working order and within specification. It is not possible, however, to test all materials that all groups return at the same time at the end of the laboratory sessions. These tests are carried out when the technician has available time—between sessions, or in the time between lending out and receiving materials of the next session.
- 1.2.3 The CT-lab technician does minor repair work, recalibration and general maintenance. Any test equipment, tools and components that are found to be unserviceable are removed from service and set aside.
- 1.2.4 Procedure for the Return of Materials (Regular Laboratory Class, following scheduled experiment)
- 1.2.4.1 Students must ensure that all equipment, and powered tools are turned off at the end of the laboratory session.

- 1.2.4.2 They must properly coil up wires, probes, power cords and the like to facilitate transport and storage of materials.
  - 1.2.4.3 Unless instructed to do otherwise, students must carefully remove all components and wires from the breadboard(s) especially the integrated circuits (ICs) using proper tools to reduce the possibility of bending the components' legs. All components must be put back into their proper container(s).
  - 1.2.4.4 Students must bring all materials back to the CT-lab technician in an orderly fashion. The technician will receive these materials, and return the student IDs.
- 1.2.5 Procedure for the Return of Materials (Regular Laboratory Class with Additional Materials, or Special Session Laboratory Class)
- 1.2.5.1 The same materials return procedure as listed in 1.2.4.1 to 1.2.4.4 shall apply. Additionally, the CT-lab technician will give the borrower's slip to the student at the same time the student ID is returned.

### **1.3 Policies on Outstanding Accounts**

- 1.3.1 The CT Laboratory shall regularly post and update a list of students/groups with outstanding accounts with the laboratory. Postings shall be at designated areas in each of the CT laboratories (G405, G407 and G408).
- 1.3.2 The CT lab coordinator shall inform faculty members of students with outstanding accounts with the CT lab. Students have until the last day of course cards distribution to settle all outstanding accounts. A student's course card for the laboratory subject from which an outstanding account exists shall be withheld.

- 1.3.3 The Computer Technology Laboratory reserves the right to bar a student from using its facilities, depending on the amount of that student's unsettled outstanding account from previous trimesters.
- 1.3.4 Procedure for Settling Outstanding Accounts with the Laboratory
  - 1.3.4.1 Replacement of Test Equipment, Tools or Components
    - 1.3.4.1.1 If the replacement test equipment, tool or component is the exact same unit or model, it should be brought to the CT-lab technician where the replacement will be tested and verified to be operating to specification.
    - 1.3.4.1.2 If the exact test equipment, tool or component is no longer available, a substitute unit may be acceptable, subject to approval by the CT-lab coordinator. A letter addressed to the CT-lab coordinator providing the necessary technical information (performance specification, dimensions, etc.) should be given and agreed upon PRIOR to any purchase of the substitute. Replacement by a substitute shall be subject to testing and verification by the CT-lab coordinator.
    - 1.3.4.1.3 Once the replacement is accepted, that particular outstanding account entry will be removed. If no other

pending account entries for that person exist, the student's name will be removed from the list of those with outstanding accounts.

1.3.4.2 In-house Repair of Test Equipment or Tools

1.3.4.2.1 If in-house repair of damaged equipment or tools is possible, the student will be required to provide replacement of any materials (i.e., components) used to accomplish the repair. Subsections 1.3.4.2.1 to 1.3.4.2.2 then apply.

1.3.4.2.2 In some cases where in-house repair is possible but requires a part or parts that are not in the CT-lab inventory, the student will be advised and required to purchase the part(s). Again subsections 1.3.4.2.1 to 1.3.4.2.2 apply.

1.3.4.2.3 Once the test equipment or tool has been serviced and confirmed to be operational, that particular outstanding account entry for that student shall be removed. If no other account entries for that person exist, the student's name will be removed from the list of those with outstanding accounts.

1.3.4.3 Repair of Test Equipment or Tools by Supplier, Service Center, and the like.

- 1.3.4.3.1 Suppliers or service centers may be called upon to repair the test equipment or tools that are deemed irreparable in-house, or are under warranty. A cost estimate for the repair shall be presented to the student for his/her approval. A student may opt for direct replacement of the damaged test equipment or tool if he/she feels this would be a more cost-effective approach.
- 1.3.4.3.2 Once the repair bill has been received by the CT-lab, the student will be required to pay the cost of repair at the Accounting Office.
- 1.3.4.3.3 The receipt for payment shall then be presented to the CT-lab technician. The particular outstanding account entry for that student shall be removed. If no other account entries for that person exist, the student's name will be removed from the list of those with outstanding accounts.

#### **1.4 Policies on Laboratory Free Slots**

- 1.4.1 Extra or make-up classes are requested by the class instructor. Laboratory sessions are posted in the CT-lab technician's area and can readily be consulted to ensure that extra or make-up classes do not conflict. Students as a class may not request for extra or make-up classes on their own.
- 1.4.2 Individual students or groups may request for free slots to work on unfinished experiments, projects, and the like. Free slots are given on a

first-come, first-served basis. Free slots may be pre-empted by extra or make-up classes, or other reservations such as these defense. Under such circumstances, the CT Laboratory will do its utmost to accommodate students in another free laboratory room if there is one.

- 1.4.3 The borrowing of test equipment, tools and components under 'Free Slots' are subject to the policies and procedures outlined in section 1 and subsection 1.1.6 respectively.

## **2. Project Work for Computer Systems Engineering and Network Engineering Students**

2.1 Several specialization subjects under the Computer Technology Department require hardware-related project work, and thus need the facilities of the CT Laboratory. Project work is generally unsupervised, although faculty members handling such subjects are encouraged to periodically supervise the students under these circumstances.

2.2 Borrowing of test equipment, tools, data books, references and components for project work falls under the rules as outlined in section 1, subsection 1.4, 'Policies on Laboratory Free Slots.'

Please note that 'Policies Regarding the Return of Test Equipment, Tools and Electronic Components,' under section 1, subsection 1.2., and 'Policies on Outstanding Accounts,' under section 1, subsection 1.3., apply equally here.

2.3 Cognizant of the fact that project development will normally entail several continuous days or even weeks of work, materials such as breadboards, electronic components and wires borrowed (through a borrower's slip) may be brought out of the laboratory premises. Test equipment and tools, however, may not be brought out of the laboratory, and are still subject to the requirement of being returned immediately after each free slot.



- 2.4 In project work, there is much greater probability that the development will entail the use of power tools and hand tools with much greater potential for physical harm. Test equipment needed may also be more sophisticated and expensive. Therefore, the subject's lecture instructor and/or the CT-lab technician is required to brief and demonstrate the proper use and handling of the equipment before allowing a student to utilize the tool.
- 2.5 A student is not allowed to 'lend' a tool or equipment he or she has borrowed to another student who is 'in line.' Damage to the tool or test equipment under any circumstances will be associated and charged to the person who has the tool or equipment listed on his or her borrower's slip—thus, it is the original borrower who will incur an outstanding account balance, not the student 'down the line' who has gotten or obtained the tool or test equipment informally.
- 2.6 Students may request the assistance of the CT-lab technician in the fabrication of project parts, handling of tools, and similar work.

**3. Thesis Work for Computer Systems Engineering and Network Engineering Students**

- 3.1 One whole laboratory room is allocated as a thesis room for groups requiring continuous services offered by the CT Laboratory. Reservation and the allocation of slots (table space) are handled by the Adric Director.
- 3.2 The CT Thesis Laboratory is open during the hours that a CT-lab technician is available to supervise the lending out of equipment and other work materials. Depending on trimestral changes in laboratory class schedules, the thesis laboratory may be opened by the technician at 8:00 a.m., and will continue to operate throughout the day (save for breaktime of the technicians) until 9:00 p.m.
- 3.3 Groups awarded a slot area in the thesis laboratory are lent a toolbox each, containing the most-often used hand tools and test equipment. The actual list of materials put into the toolbox in the beginning

changes and evolves as technology and budget allows, so students are advised to check with the CT-lab technician to verify that the contents of the toolbox are complete. Please note that the term ‘toolbox’ refers to both a physical carrying case as well as other materials and equipment that may not necessarily fit into the physical toolbox. The replacement or repair policies as outlined in section 1, subsection 1.3.4, ‘Procedure for Settling Outstanding Accounts with the Laboratory,’ applies to the toolbox and its content. The toolbox and its complete contents are returned to the CT-lab technician once a group no longer has a slot in any of the thesis rooms (usually at the acceptance and submission of the thesis in the final trimester of study).

3.4 Storage space is provided in cabinets built into the work tables in the laboratory. The toolbox and other thesis materials may be kept in this storage space. However, the following are not be allowed:

- 3.4.1 Flammable materials or chemicals
- 3.4.2 Highly acidic or noxious chemicals
- 3.4.3 Any liquid not in a well-sealed, leak-proof container
- 3.4.4 Any material, explicitly or implied, banned by the Student Handbook.

Students should note that electrical wires run from the storage area to reach the power distribution strips at the back of each of the worktables. For security reasons, all groups must provide their own locks so that the cabinets may not be indiscriminately opened by unauthorized personnel.

3.5 Any test equipment or tools (and components as well as data books/reference materials) not included in the standard-issued toolbox must be borrowed in the same way as outlined in ‘Policies on Laboratory Free Slots,’ under section 1, subsection 1.4. Please note that ‘Policies Regarding the Return of Test Equipment, Tools and

Electronic Components,’ under section 1, subsection 1.2, and ‘Policies on Outstanding Accounts,’ under section 1, subsection 1.3., apply equally here.

- 3.6 The thesis laboratory provides for several computer data port connections in the belief that the most up-to-date research materials and technical data are easily retrieved over the Internet. Groups are required to provide their own UTP cable to reach the data switches in the room.
- 3.7 The following is a list (not necessarily complete) of banned activities in the thesis laboratory:
  - 3.7.1 Eating and drinking at any time
  - 3.7.2 Loudly playing music through external speakers. It is recommended that music be played at low to moderate levels through earbuds or headphones. A student must respect the rights of others who may not share his/her own taste in music.
  - 3.7.3 Talking or laughing loudly, or any behavior in general that is deemed inappropriate for a scholastic research and development environment.
  - 3.7.4 Playing of games of any kind (including computer games)
  - 3.7.5 Watching any kind of entertainment video
  - 3.7.6 Downloading of any kind of software, video, mp3, pictures or data in general, that is unrelated to thesis work
  - 3.7.7 Only bona fide students of the College of Computer Studies may stay in the CT Thesis Laboratory for any extended periods of time.

Students are especially warned to take note of restrictions 3.7.4 to 3.7.6. Any group caught violating these rules, directly or indirectly (i.e., letting a friend “borrow” their computer and this friend starts playing computer games) can have their slot revoked and be permanently banned from further using the CT Thesis Laboratory facilities.

#### **4. Miscellaneous Policies and Guidelines**

4.1 Although it has been mentioned in section 1, subsection 1.1.4, it is reiterated here that the CT-lab technician's area is OFF LIMITS to all students, except the CT-lab student assistants (SAs). See subsection 4.6. for more information.

4.2 Bringing-out of Test Equipment and Tools from the Laboratory Premises

When development work for a thesis or project absolutely requires the use of test equipment or tools outside the laboratory premises (i.e., building a large robot maze or system is to be characterized as 'outdoors'), a Letter of Request for such must be written and addressed to the CT-lab coordinator (see the following subsection 4.3). The borrowing party (i.e., thesis group) takes on absolute responsibility for any loss or damage to any equipment or tools that are allowed to be taken out of the laboratory premises under these conditions. Please note that such authorization, if given, only allows the materials to be brought out of the laboratory—the equipment or tools **MUST** remain within the DLSU campus.

4.3 Letter of Request to bring out Test Equipment and/or Tools. This Letter of Request is addressed to the CT-lab coordinator as a free-form letter. It should, however, contain, at the minimum, the following information:

4.3.1 Group member's names and signatures

4.3.2 Date the letter is written

4.3.3 Thesis or project topic, with a brief description of the work

4.3.4 The test equipment and/or tools needed, and reason(s) they need to be brought out of the laboratory

4.3.5 Duration for which the test equipment and/or tools will be outside of the laboratory premises

4.3.6 A sentence stating to the effect that the group takes on the full responsibility for any loss or damage to the equipment and/or tools lent to them

4.3.7 Counter-signature of thesis adviser or subject instructor from whom the project requirements emanate.

#### 4.4 Lab Technician's Work Schedule

Two technicians are assigned to provide extended laboratory operating hours. Each provides 7.5 hours of service, with a mandatory one-hour lunch break if the work time straddles noontime. The morning-shift technician starts the laboratory service at 7:30 a.m. and ends his shift at 3:30 p.m., (one-hour lunch break), and the afternoon-shift technician times in at 1:30 p.m. and provides services until 9:00 p.m. Short breaks for 'merienda' and other personal needs are inclusive of the technician's rights and part and parcel of their work schedule.

#### 4.5 When a Technician is Absent

The Human Resource Development Office (HRDO) requires that personnel under its jurisdiction call in and inform their office if they will be absent. The College of Computer Science, generally, does not receive this information before the fact. However, to minimize the resulting disruption of service this would normally cause, two alternatives are in place:

4.5.1 For standard laboratory classes, the class instructor may take on the task of lending out and receiving the materials. This is generally only feasible for laboratory classes with a short list of materials for a particular experiment.

4.5.2 Student assistants (SAs) can take the place of the laboratory technician in disbursing and collecting experiment materials. These SAs also have the authority to open all CT laboratories, including the thesis lab. Faculty members can contact SAs when necessary so as to allow laboratory classes to continue. The composition, schedule of availability, and contact numbers of the SAs can change every

term, and thus updated information is sent via e-mail to all CT faculty by the CT-lab coordinator at the start of each term.

A copy of the keys to open any of the CT laboratories is kept by the Computer Technology Department secretary. Only CT faculty members, CT-lab student assistants and the CT-lab technicians have the authority to get these keys and open a laboratory.

#### 4.6 Computer Technology Laboratory Student Assistants

The CT lab seeks out students in their fourth (4<sup>th</sup>) year of studies, and working on their thesis to help in the operations of the laboratory. Candidates for student assistants, or SAs for the CT laboratory are assessed on their interest, enthusiasm, skill, knowledge and availability. An accepted candidate can take the place of the laboratory technician in disbursing and collecting experiment materials. An SA has the authority to open all CT laboratories, including the thesis lab. In return for their service and for being at the beck and call of the laboratory, the SAs have the privilege of having continuous access to the laboratory facilities and its resources, including the technicians area, at all times. Interested, qualified individuals should seek out and contact the CT-lab coordinator for more details.

#### 4.7 Airconditioner Maintenance/Problems

The airconditioners are the responsibility and jurisdiction of the Physical Facilities section of the DLSU Administrative Services Office. As such, the CCS can only call the attention to any problems or complaints of the office about the operation of these units. Maintenance is supposed to follow a regular schedule, though this may be disrupted in consideration of the greater discomfort the maintenance work may cause to the users of the laboratories.

4.8 Who to Contact in Case of Request for Acquisition/  
Upgrades, Complaints, etc.

For any requests or complaints related to the facilities, test equipment, tools, components, personnel, and operations of the CT laboratories, contact the CT-lab coordinator. Check with the Computer Technology Department chair or CT Department secretary for the name of and contact information on the current CT-lab coordinator.

# College of Education

## Department of English and Applied Linguistics

### The English Language Laboratory

The English Language Lab (ELL), formerly known as the Speech and Writing Lab (SWL), was established in 1986 as an adjunct of the Languages Department, now named the Department of English and Applied Linguistics (DEAL). At present, two components make up the lab: 1) the Reading/Writing Lab, and 2) the Speech Lab.

#### **The Reading/Writing Lab.**

This component is housed in M405 where students' reading and writing skills in English are further developed and enhanced. Reading-into-writing materials, which are either paper-based—that is, produced in-house or commercially published—or computer-based, are used to address students' needs. Each activity ends with a writing task that challenges students to put into writing the insights they might have drawn from the given exercise, and to relate these ideas with their realities. Tutor-student conferencing is a major part of the sessions in the Reading/Writing lab.

#### **Who can avail of the services offered in the Reading/Writing Lab?**

University students, both local and foreign, and who are enrolled in English One, may avail themselves of the lab services. Walk-in students from other English courses are accepted. The lab likewise accommodates students who might need assistance on oral production of sounds, specifically on pronunciation and articulation of words.

#### **How long is one session in the lab?**

Length of sessions varies according to students' needs. Individualized instruction and small group interactions are made available to facilitate learning.

#### **The Speech Lab**

This other component of ELL is housed in M407 where students' speech presentations are held and videotaped. Students enrolled in oral communication courses are trained to deliver different types of speeches; the videotapes enable them to do self-critiquing which eventually helps



them identify their weak points and address them accordingly. Materials in the Speech Lab include video cameras, video-playback machines, video players (V-8, VHS), cassette recorders, overhead projectors, and microphones—all aimed at enhancing students' oral communication skills.

**The English Language Lab**, therefore, exists to help students enhance their communication skills in English and to motivate them to access various language resources towards personal development. Accomplishment of this mission can lead to the realization of De La Salle University's vision as a world-class institution—that of producing graduates who are competent in English communication, both in oral and spoken forms.

### **Some Helpful Writing Lab Reminders for Students**

1. **Logging in and out accordingly** and completing given tasks at every given schedule can get you full credit for your attendance.
2. Maintaining **silence** at all times will help you concentrate on your work more fully. Subdued voices may be used when talking becomes necessary.
3. **Eating** and **drinking** are **not allowed** inside the lab. **Texting** and **calling** during sessions are also discouraged.
4. **Technical problems** concerning your computer will be dealt with by your tutor. Please refrain from making any attempts to fix them.
5. Those needing extra work or make-up sessions may **make arrangements at least a day before** with the **tutor** and the SWL-ELL **secretary**.
6. The session hall is **off-limits** to outsiders when tutorial sessions are going on.
7. **Courtesy** and **respect** are valuable traits that true Lasallians like you should practice here and everywhere at all times.
8. **Tidying up** the workstations before leaving is one of the marks of a disciplined worker. Students whose sessions end at twelve noon or at closing time in the afternoon are requested to **properly shut down** the computer properly.
9. Goals are better achieved when **communication** lines are kept **open**. You may use the interactive writing board or the students' logbook to make suggestions and comments. It is important, however, that you observe the right choice of words.
10. ELL materials are for lab use only. No materials are to be brought outside.
11. The last user/s of the computer is/are requested to shut down the computer properly.

# College of Engineering

## 1. Chemical Engineering Department

The Chemical Engineering Department of the Center for Engineering and Sustainable Development Research (CESDR) consists of six (6) laboratories with their respective locations as follows:

- Biochemical Process Laboratory STRC 216
- Engineering Materials and Process Development Laboratory V511
- Energy Laboratory STRC 107
- Environmental Engineering Laboratory STRC 219
- Computing, Simulation and System Engineering Laboratory STRC 214
- Process Control Laboratory V101

### 1.1 Activities Allowed in the Ch.E. Research Laboratories

- 1.1.1 Faculty research work and research-related activities including thesis consultation.
- 1.1.2 Research activities of undergraduate/graduate students that are particularly related to their thesis/dissertation.
- 1.1.3 Laboratory services, training, and consultancy that may be offered to outsiders for a fee in accordance with the guidelines and policies of the university.

### 1.2 Duties and Responsibilities of the Ch.E. Research Coordinator

- 1.2.1 Coordinates activities related to Physical Facilities, DOST-ESEP and CHED-COE research equipment.
- 1.2.2 Oversees the Instrumentation Room, Reading Room and Technician's Room.

- 1.2.3 Approves the request for use of equipment/ apparatus found in the Ch.E. Instrumentation Room
- 1.2.4 Prepares the requirements for the accreditation of Ch.E. research laboratories in coordination with the laboratory heads and Ch.E. chair
- 1.2.5 Constantly reviews the service fees and charges for all laboratory services.

**1.3 Duties and Responsibilities of the Ch.E. Laboratory Head**

- 1.3.1 Oversees research activities within the area of responsibility, and coordinates with the thesis dissertation advisers in the conduct of research activities by the undergraduate/graduate students.
- 1.3.2 Assists the chair in the monitoring of research progress of Ch.E. faculty and in the evaluation of research proposals.
- 1.3.3 Approves requests for laboratory use.
- 1.3.4 Keeps an inventory of equipment in their respective laboratories.
- 1.3.5 Submits requisitions for materials, supplies and facilities and/or related requests to the Ch.E. chair.
- 1.3.6 Takes direct responsibility and accountability for all equipment, instruments, parts, tools, apparatus, pieces of furniture, and fixtures found in his designated laboratory.
- 1.3.7 Oversees operation, maintenance, and repair of equipment.
- 1.3.8 Coordinates and schedules group fora.
- 1.3.9 Accommodates external requests for laboratory services.
- 1.3.10 Submits plan/budget to the Ch.E. chair.
- 1.3.11 Submits to the Ch.E. research coordinator a schedule of maintenance and calibration record of each equipment.
- 1.3.12 Observes good housekeeping.
- 1.3.13 Issues laboratory clearance, in coordination with the thesis adviser, to graduate/undergraduate

students prior to submission of final bound copies of the dissertation/thesis.

- 1.3.14 Implement policies/guidelines specific to his/her laboratory.

#### **1.4 Policies on the Use of Equipment**

- 1.4.1 Each instrument should have a logbook/maintenance record to be monitored by the laboratory head/laboratory technicians.
- 1.4.2 Students should not use any of the instruments unless approved by the laboratory head.
- 1.4.3 Instruments should not be brought out of the room without a form properly filled out and duly signed and approved by the laboratory head.
- 1.4.4 Schedule of use of instruments should be chartered.

#### **1.5 Policies for the Students**

- 1.5.1 Only those authorized to work inside the laboratory are allowed to enter the area. Students should log before and after working in the laboratory.
- 1.5.2 Appropriate laboratory outfit should be worn whenever necessary.
- 1.5.3 Good housekeeping and safety precautions should be observed at all times.
- 1.5.4 Eating and bringing of food and softdrinks are strictly prohibited inside the laboratories. Food/drinks should not be put inside the locker.
- 1.5.5 Log-in/out notebook should be filled out every time a particular equipment is to be used. Any malfunctioning of an equipment should be immediately reported to the thesis adviser/laboratory head.
- 1.5.6 Breakages must be reported immediately to the thesis adviser/technician and an immediate replacement should be arranged.
- 1.5.7 Students who conduct research activities outside the regular working hours must be accompanied

- by their adviser or the research technician. Activities after 10:00 p.m. are classified as overnight and require the completion and submission of an overnight form.
- 1.5.8 Graduate students can work beyond the regular office hours without a technician or adviser provided that he/she had attended the safety seminar and he/she is accompanied by another graduate student or research assistant.
  - 1.5.9 Student should inform the laboratory head of the particular laboratory where he/she is going to perform overnight experiments.
  - 1.5.10 The computer connected to the equipment should not be used for other purposes not related to the operation of the equipment where it is attached.
  - 1.5.11 All computers in the research laboratories should be used for official and research-related activities only.
  - 1.5.12 The last person who leaves the room should see to it that every utility (equipment, lights, water, gas, aircon, etc.) is turned off.
  - 1.5.13 All students must submit the laboratory clearance to the thesis coordinator prior to the submission of the hardbound copies of their thesis/dissertation.
  - 1.5.14 All students are required to attend the “Laboratory Safety Seminar” sponsored by the department prior to their actual experimentation.
  - 1.5.15 Safety audit requirements must be submitted to the thesis adviser before the use of any equipment.

## **2. Civil Engineering Department**

### **2.1 Policies on the Use of the Engineering Laboratories**

- 2.1.1 Only students with laboratory subjects are allowed to enter the laboratory areas and only on the time designated. All other users should secure a permit from the laboratory coordinator.

- 2.1.2 Instructors are requested to inform the laboratory coordinator or technician about any changes in schedule at least one day in advance.
- 2.1.3 A laboratory technician is assigned to assist the instructors in the preparation of materials and operation of an equipment for the duration of the laboratory session. He is not expected to perform the function of the laboratory instructor.
- 2.1.4 No equipment can be issued or operated for a laboratory class, even during the scheduled time if the instructor is not physically present. This policy applies to make-up classes which, in addition, require a permit from the laboratory coordinator.
- 2.1.5 For students intending to do overtime or make-up work, a permit from the laboratory coordinator must be secured at least one day before the performance of the experiment. A technician must be designated to attend to the needs of the students.
- 2.1.6 The borrower's ID must be attached to all requisition slips. Transfer of equipment to other borrowers is not allowed. The person whose name appears on the requisition slip is responsible for returning all items borrowed.
- 2.1.7 All damages and/or losses of items like tools, instruments, and equipment, consumable or not, are charged to the individual concerned. However, if the experiment is done by a group, damages are equally distributed among the group members unless special arrangements have been made. As much as possible, replacement of damaged items is made in kind and if not, payment has to be made at the Accounting Office.
- 2.1.8 The instructor or student concerned should promptly report all damages and/or losses either verbally or in writing to the technician or laboratory coordinator.
- 2.1.9 No items, tools, or equipments can be taken out of the laboratory premises without the proper authorization from the laboratory coordinator. If

items are to be used outside the campus, permit must be secured from the Physical Facilities Unit of the Administrative Services Office at least two days before the actual use with recommendation from the instructor, laboratory coordinator, and department chair.

- 2.1.10 No modification, repair, or alteration of any equipment in the laboratory is allowed without a written authorization from the laboratory coordinator and department chairman.
- 2.1.11 Everybody should strictly observe safety measures inside the laboratory. The students and instructors must wear the laboratory gown when performing experiments or operating an equipment.
- 2.1.12 Instructors/technicians are required to fill out the laboratory status report at the end of each laboratory class to indicate the status of the instrument, equipment, and materials, and to make recommendations to improve the conduct of the laboratory. This report is submitted to the laboratory coordinator for action.
- 2.1.13 Operating manuals for instrument and equipment are available to borrowers (students and instructors) at the M113 office.

## **2.2 Policies on the Use of Computers and Their Peripherals in M113 and V513**

- 2.2.1 The use of computers and their peripherals is neither a right nor a privilege. As these are pieces of office equipment, the department and its representative (laboratory coordinator) have the prerogative to allow or disallow their use by the students. The department has priority in the use of computers at all times.
- 2.2.2 A qualified user is required to log in and log out for control and monitoring purposes. A logbook is provided for this purpose. (Qualified users include the faculty of the department, technicians,

- secretary, graduate students, as well as third and fourth year undergraduate students).
- 2.2.3 Nonqualified users may be allowed to use the computers but should obtain prior permission from the CE lab coordinator.
  - 2.2.4 For students, the maximum allowable time of usage is two hours per use/sitting per day. However, the user can continue if a qualified user has not reserved the next time slot. The time extension allowed may not be longer than one hour.
  - 2.2.5 Reservation is made on a first-come, first-served basis and may be accepted at least one day before the intended use. It must be reflected on the logbook in consultation with the technician on duty to avoid time schedule conflict with the department's usage.
  - 2.2.6 Computer games are absolutely not allowed. Any user caught playing computer games will be banned from using the computer thenceforth.
  - 2.2.7 The user is not allowed to boot from his/her diskette so as not to infect the hard disk with a virus. The hard disk is used when booting.
  - 2.2.8 The user is required to bring his/her own work diskette and to scan it before use to determine the presence of virus. Any user without his/her work diskette is not allowed to use the computer.
  - 2.2.9 No work files or documents should be stored in the hard disk. Files stored in the hard disk are to be erased.
  - 2.2.10 Any student found violating any of the above policies will be banned from using said equipment.
  - 2.2.11 Only the registered user for a particular hour/period is allowed to sit in front of the console/terminal.

**2.3 Policies on the Use of Soil Mechanics, Materials Testing, and Hydraulics Laboratory particularly in Borrowing Instruments/Equipment**

- 2.3.1 A student or group of students can only borrow instruments and/or equipment upon submission



- of the filled-out borrower's form together with his/her identification card. (All policies issued by the college on this matter apply, i.e., experiments or fieldwork can only be performed in the presence of the instructor except for make-up experiment where a permit is required and is duly signed by the instructor and the laboratory coordinator).
- 2.3.2 The student or the group is responsible for disposing/keeping his/their leftovers or scraps. The group should observe good housekeeping.
  - 2.3.3 All borrowed instruments and equipment should be cleaned thoroughly and must be returned properly.
  - 2.3.4 Any malfunction, irregularity, or loss of an instrument or equipment should be reported at once to the attending technician or laboratory instructor. Any expenses that may be incurred for the repair or replacement of the damaged or lost item would be charged to the student or group of students involved.
  - 2.3.5 Students should make it a habit to ask the assistance of the attending instructor or technician for instructions on the proper use or operation of the instrument or equipment. Improper use may damage the instrument/equipment.
  - 2.3.6 Students are reminded not to handle/operate any instrument or equipment that is not used in the experiment/exercise they are to perform.
  - 2.3.7 Overtime or make-up experiments should be arranged in advance with the necessary permit duly signed by the instructor and with the recommendation of the laboratory coordinator.
  - 2.3.8 The laboratory rooms are normally closed during breaktime and between scheduled laboratory classes.
  - 2.3.9 Students are advised to place personal things in spaces provided for and to keep the working areas clear and clean.

## **2.4 Policies on the Use of the CTM/TRE Laboratory**

- 2.4.1 Only students with laboratory classes/or those students officially using the laboratory as their classroom are allowed to enter the CTM/TRE laboratory and only on designated time.
- 2.4.2 The CTM/TRE laboratory is open only during the designated time. No students are allowed to stay in the laboratory outside their scheduled time. (The laboratory is normally closed during breaktime and between scheduled laboratory classes).
- 2.4.3 The CTM/TRE laboratory is not to be used as a venue for meetings (except with a written authorization from the laboratory coordinator and CE chair), hangouts, and other activities outside laboratory classes.
- 2.4.4 All equipment and gadgets that belong to the CTM/TRE laboratory are exclusively for the use of CE-CTM/TRE faculty members for their laboratory instruction.
- 2.4.5 No equipment and gadgets can be taken out of the laboratory premises without the proper authorization from the laboratory coordinator.
- 2.4.6 The instructor/professor concerned should promptly report all damages and/or losses either verbally or in writing to the technician or laboratory coordinator.
- 2.4.7 The students are held liable for any vandalism, destruction of tables, chairs, and any equipment in the laboratory.
- 2.4.8 A laboratory technician is assigned to assist the instructor/professor in the preparation and operation of the equipment for the duration of the laboratory session. For classes outside the official schedule, a laboratory permit should be secured first at least a day before the actual use of the laboratory. Forms may be obtained from the laboratory technician.
- 2.4.9 Students are reminded to follow the signages posted on the walls of the CTM/TRE laboratory.

## **2.5 Policies on Borrowing and Use of Surveying Instruments/Equipment**

- 2.5.1 A student or group of students can only borrow instruments and/or equipment upon submission of the filled-out borrower's form together with his/her identification card. (All policies issued by the college on this matter apply, i.e., experiments or fieldwork can only be performed in the presence of the instructor except for make-up experiments where a permit is required and is duly signed by the instructor and the laboratory coordinator).
- 2.5.2 All borrowed instruments and equipment should be cleaned thoroughly and must be returned properly. It must be returned 12 minutes before the end of the scheduled laboratory class time.
- 2.5.3 Any malfunction, irregularity, or loss of an instrument should be reported at once to the attending technician or laboratory instructor. Any expenses that may be incurred for the repair or replacement of the damaged or lost item would be charged to the student or group of students involved.
- 2.5.4 Students should make it a habit to ask the assistance of the attending instructor or technician for instructions on the proper use or operation of the instrument or equipment. Improper use may damage the instrument/equipment.
- 2.5.5 Overtime or make-up experiments/fieldwork should be arranged in advance with the necessary permit duly signed by the instructor and with the recommendation of the laboratory coordinator.
- 2.5.6 The laboratory rooms are normally closed during breaktime, and between scheduled laboratory classes.

## **3. Electronics and Communications Engineering Department**

### **3.1 General Laboratory Policies and Guidelines**

- 3.1.1 The Electronics and Communications Engineering Laboratories are located at V303A, V303B, V401,

- and V403 of the Velasco Building, and M204, M205B of the Miguel Building.
- 3.1.2 Only students with ECE laboratory subjects are allowed to enter the ECE laboratory areas concerned and only on the time designated. All other users should secure permit from the ECE laboratory coordinator.
  - 3.1.3 Laboratory instructors are requested to inform the coordinator or assistant coordinator and laboratory technicians about changes in schedule at least a day or so in advance.
  - 3.1.4 Laboratory technicians are assigned to assist the instructors in the preparation of instruments/equipment for the duration of the laboratory. Technicians are regularly available from 9:00 a.m. to 5:30 p.m.
  - 3.1.5 No equipment will be issued or operated for a laboratory class, even during scheduled time if the instructor is not present. This regulation also applies to make-up classes which, in addition, will require a permit from the coordinator.
  - 3.1.6 For student intending to do overtime or make-up work, a permit from the instructor and approved by the coordinator must be secured at least one day before the performance of the experiment. A technician must be designated to attend to the needs of the students.
  - 3.1.7 The borrower's ID should be attached to the requisition slip. Transfer of materials to other borrowers is not allowed. The person whose name appears on the requisition slip is responsible for the borrowed items. The borrower's ID will not be returned until all materials are surrendered.
    - 3.1.7.1 All borrowed materials should be returned properly ten minutes before the end of the scheduled time. Overtime use of equipment is strongly discouraged.
    - 3.1.7.2 A borrower's ID will not be required only on meritorious occasions, i.e., thesis

defense next morning, with the authorization from the coordinator. In lieu of the ID, the ECES card and EAF will be required.

3.1.8 The instructor or students concerned should promptly report all damages and losses of equipment or materials and/or accidents either verbally or in writing to the technicians and coordinator.

3.1.8.1 All damages and/or losses of items like tools, instruments and equipment or any other materials, consumable or not, that may be deemed unusable or unserviceable, will be accounted to the individual concerned. However, if the experiment is by a group, damages will be equally distributed among the group members unless special arrangements are made.

3.1.8.2 As much as possible, replacement of damaged or lost items must be made in kind. Replacement of equipment must be made as soon as possible. Replacement of components must be done within 24 hours, otherwise, charges on a per day basis will accrue on the student's account.

3.1.8.3 For damaged items that need to be brought outside the campus for repair, the students concerned should secure the necessary letters, permits and gate passes from the Physical Facilities Unit of the Administrative Services Office, Warehouse Office and Security Office. Damaged equipment must be brought to the desired supplier of the department and must be returned as soon as possible. A receipt from the supplier must be presented upon return of the equipment.

- 3.1.8.4 For damaged items that the technicians can repair and need not be brought outside, the students concerned must pay a developmental fee directly to the Accounting Office.
- 3.1.9 No items, tools, instruments or equipment can be taken out of the laboratory premises without the proper authorization from the coordinator. Use of equipment, instruments or manuals outside the campus is not allowed.
- 3.1.10 No modifications, repairs or alterations of any equipment or computers in the laboratory are allowed without the written authorization from the coordinator.
- 3.1.11 Students intending to do some project experimentation or troubleshooting can avail of the scheduled free slots. Free-slot students are not allowed to use the laboratory during class hours unless there is permission from the instructor concerned and ample supply of equipment.
- 3.1.12 Operating and specification manuals, data books, technical books and laboratory experiment manuals are available at the technicians' booths and the coordinator's office. Students are allowed to borrow or photocopy these manuals provided they do not tear the pages or write anything on the materials.
- 3.1.13 Safety precautions and measures should always be exercised and practiced by everybody inside the laboratory. Proper laboratory attire and gadgets should be worn by the students and instructor whenever performing laboratory experiments or operating the equipment as specified in the laboratory policies and guidelines.
- 3.1.14 Violations, disobedience, negligence or ignorance of any of the above and other laboratory policies and guidelines will be treated as minor offenses and subjected to necessary disciplinary actions.

### **3.2 Rules and Regulations in Performing an Experiment and Making a Laboratory Report**

Laboratory work supplements classroom work by providing practical experience in experimental procedures and analysis of results. Proper laboratory work forms a very valuable part of a student's theoretical training.

Procedures for doing the experiment and writing the laboratory report are two important aspects of laboratory work and certain guiding principles apply. A logical procedure for doing experiments will enable a group of students to carry out the experiment much more smoothly, easily, and certainly more understandably. It will assist the group in writing a clear report.

### **3.3 How to Perform a Group Experiment (Addressed to the Student)**

3.3.1 As a student, read the experiment manual carefully, particularly the assignment, until you have a clear understanding of what the experiment is about and what is expected of you in the form of results.

Note: It is wrong to set up your experiment and follow the procedure blindly—just to get the desired results.

3.3.2 One member of your laboratory group should be appointed as the leader for the experiment. This position should be assigned to each member of the group on a rotational basis.

3.3.3 After members have gathered the equipment required, the leader should make the necessary connections. Make sure that ranges on which your instrumentation has been connected are correct and safe for the probable measurement. For direct current measurement, make sure that the polarities of your voltmeters and ammeters are appropriate. These connections should then be checked by the other members.

- 3.3.4 Only after all group members are satisfied that the connections are correct should you then ask your instructor for verification. Never perform an experiment without your instructor's authorization.
- 3.3.5 Almost all experiments are to determine a cause-and-effect relationship—that is, what happens to each parameter of the system (effect) when one parameter is varied (cause). Thus, you must determine which measurements are going to vary. The leader decides on who among the group members will read what instruments. Usually, the member reading the fewest instruments is given the assignment of recording the results.
- 3.3.6 The leader responsible for varying the “cause” parameter should make the necessary adjustments. All instruments should be read at the point in time as quickly as possible. Be sure that you are reading the measurement in the correct range as there is nothing more frustrating than trying to make sense of your results when one of your measurements has been consistently made in the wrong range.
- 3.3.7 Whenever appropriate, it is usually a good idea to make a trial test quickly before starting on the series of measurements called in the experiment. This also gives a check on the correct ranges of your instrumentation.
- 3.3.8 Now you can start to perform your experiment according to procedure.
- 3.3.9 Many experiments will call for measurements to be taken in overload condition for an extended period of time. Often, it is wise to reduce the load to normal limits or zero load between each of the overload measurements.
- 3.3.10 The majority of the experiments call for a series of readings, which are later plotted on a graph. It is usually cautious and advisable to work out the answer for at least two or three points on the graph to see if they are reasonable before putting the equipment away.



### **3.4 How to Write a Laboratory Report**

The writing of reports, letters and original papers is a major activity of the engineer in the industry. All reports are similar because they reflect the engineering method of attack—object, method, results, and conclusions. It is logical to report a project in the sequence in which it is done, and many engineering reports are organized on this basis, with successive sections covering the following: a) objectives, b) introductory information or theory, c) materials needed, d) methods and procedure, e) data and results, and f) analysis, conclusions, and interpretations.

While this historical sequence is logical, an important condition in business and industry militates against its use; viz., there are more things written than the target audience has time to read.

The following lists will furnish suggestions regarding the quality and completeness of a report. Abbreviated reports will sometimes be called for, but discretion should be used in setting up such short forms. Reports should be written in the third person impersonal, past tense.

- 3.4.1 All records of laboratory work should be entered at the time the experiment is set in your laboratory report in such a manner that an experiment could be repeated in exactly the same way at a later date.
- 3.4.2 Generally, a sample of a complete calculation of each type involved in the determination of calculated data and the solution of problems should be included.
- 3.4.3 If a graph is to be plotted, it should normally show the independent variable as abscissa (x-axis) and the dependent variable as the ordinate (y-axis). Simple scales should be chosen to avoid mistakes in plotting and reading. Sizes of scales should be chosen so as not to make errors of observation so prominent. In general, both axes, should begin

at zero. Each graph must have a title and sufficient additional information, such as the value of other variables, which are kept constant.

- 3.4.4 Finally, it is important to state clearly the experimental results obtained and any conclusions drawn from them.

### **3.5 The Preliminary Report**

3.5.1 It should be checked by the laboratory instructor.

3.5.2 It should be accomplished on yellow pad or on the experiment hand-outs (if available).

3.5.3 It should contain the following:

3.5.3.1 Experiment Number

3.5.3.2 Experiment Title

3.5.3.3 Name of the Group Leader

3.5.3.4 Names of the Group Members who are present during the Performance of the Experiment

3.5.3.5 Date Performed

3.5.3.6. Experimental Results

3.5.3.7 Instructor's Signature

3.5.4 It should be handwritten in a neat and organized manner.

3.5.5 It should be presented to the laboratory instructor at the end of the laboratory experiment, for the instructor's signature and evaluation of the report.

3.5.6 It should be submitted to the laboratory instructor together with the final report.

### **3.6 The Final Report**

3.6.1 It should be accomplished on 8- $\frac{1}{2}$ " x 11" bond paper.

3.6.2 It should be computer-generated with: one-inch (invisible) borders on all sides, double spacing; graphical presentations should also be computer-generated and labeled properly.

- 3.6.3 It should follow the pre-defined format:
  - 3.6.3.1 Cover Page (*see next section*)
  - 3.6.3.2 Report Outline
    - 3.6.3.2.1 Objectives
    - 3.6.3.2.2 Introductory Information or Theory
    - 3.6.3.2.3 Materials Needed
    - 3.6.3.2.4 Procedure
    - 3.6.3.2.5 Data and Results
    - 3.6.3.2.6 Analysis and Conclusion
    - 3.6.3.2.7 Answers to Guide Questions
- 3.6.4 The final report should be submitted one week after the performance of the experiment.
- 3.6.5 Reports that are submitted late will receive five per cent (5%) deduction for each day of overdue.
- 3.6.6 Title Page/Cover Page
  - 3.6.6.1 A title page should be used, with full identification, including names and dates.
  - 3.6.6.2 Title should be brief but fully descriptive (*see cover page format*).
- 3.6.7 Objectives
  - 3.6.7.1 The object should be concisely stated, in the past tense, using complete sentences.
  - 3.6.7.2 Education of the experimenters is only a secondary object and should not be stated as the primary object of the experiment.
- 3.6.8 Introductory Information
  - 3.6.8.1 Pertinent principles, laws and equations should be stated, and any unfamiliar terms defined.
  - 3.6.8.2 Analytical diagrams should be included here.

3.6.8.3 The nature and significance of experimental coefficients, correction factors, or efficiencies should be indicated.

### 3.6.9 Data and Results

3.6.9.1 Summary tabulations of data and results should be included here.

3.6.9.2 Graphical representation should be used for added clearness. Use of other scales (e.g., logarithmic) should be considered.

3.6.9.3 Data should be examined and analyzed by cross plotting, by computing mean deviations or errors, by comparing with theoretical curves, etc.

3.6.9.4 Apparent discrepancies should be pointed out and explained, and deviations from smooth curves carefully checked.

### 3.6.10 Analysis and Conclusion

3.6.10.1 Conclusions should be stated with reference to the object of the experiment.

3.6.10.2 Each conclusion should be supported by specific reference to the tabulations or curves.

3.6.10.3 An analysis of accuracy is always in order, indicating effects of probable errors in observed quantities, or duration of runs, of frequency of readings, and of methods of calculation and analysis.

3.6.10.4 Constructive criticism of apparatus, instruments, and test methods should be given, with positive suggestions for improvements.

3.6.10.5 Recommendation/s should be made for any further work that will help to accomplish the original object.

3.6.10.6 A discussion that could have been written without doing the experiment is not a set of conclusions.

3.6.11 Hints on English

- 3.6.11.1 Simple technical English should be used, and reports written in third person impersonal, past tense.
- 3.6.11.2 Engineering and trade terms should be used, but the style should be dignified, though not necessarily formal.
- 3.6.11.3 Correct spelling is very important.
- 3.6.11.4 Correct sentence construction is even more vital. A sentence must be grammatically, syntactically, and logically correct.
- 3.6.11.5 Acknowledgments and references may be inserted.
- 3.6.11.6 A report should be edited before typing or encoding. Few persons can compose a report at the typewriter or computer and use the best English. Do not assume that you are among those gifted. Put down your report in writing first. When finished, read the entire report and make the necessary corrections before typing or encoding it.
- 3.6.11.7 Avoid redundancies and hanging sentences. Avoid extremely long statements which exceed three lines.

**De La Salle University-Manila  
College of Engineering  
Electronics and Communications Engineering**

Experiment Number: \_\_\_\_\_

Experiment Title: \_\_\_\_\_

Date Performed: \_\_\_\_\_

Date Submitted: \_\_\_\_\_

Instructor: \_\_\_\_\_

Subject/Section: \_\_\_\_\_

Group Number: \_\_\_\_\_

Group Leader: \_\_\_\_\_

Group Members: (Members Present)

\_\_\_\_\_

\_\_\_\_\_

Presentation: \_\_\_\_\_

Data and Results: \_\_\_\_\_

Analysis and Conclusion: \_\_\_\_\_

Answers to Questions: \_\_\_\_\_

Total: \_\_\_\_\_

Remarks: \_\_\_\_\_

\_\_\_\_\_

Instructor's Signature: \_\_\_\_\_

### **3.7 Safety Precautions to be Followed in the Laboratory**

- 3.7.1 Arrange the instruments in an orderly manner within the vicinity of the equipment to be tested so that reading and recording of data are facilitated.
- 3.7.2 Do not alter live circuit connections with your bare hands or by using non-insulated tools. Put off the main switch or breaker before making changes in the connections or instruments. Use rubber gloves if necessary.
- 3.7.3 Do not turn on the circuit unless you are sure that no person is touching the circuit.
- 3.7.4 Avoid loose or hanging connections. Loose connections can cause erroneous results in the experiment. They can cause short circuits when the loose connection touches other wires in the circuit. Hanging wire connections may cause somebody to trip and may cause electric shock to a group member.
- 3.7.5 Keep wires, instruments and yourself away from rotating parts of a running machine.

- 3.7.6 Handle instruments and yourself away from the rotating parts of a running machine.
- 3.7.7 Set the instrument range at the highest when the quantity to be measured is not known.
- 3.7.8 Before using the machines or instruments, report their defects first.
- 3.7.9 Do not touch heaters, resistors and rheostat after they have been energized for some time.
- 3.7.10 Use tools properly; improper use of tools can cause personal injury.
- 3.7.11 Beware of pointed wires when splicing and when making circuit connections.
- 3.7.12 Do not look at an intense electric arc for a long time.
- 3.7.13 Use the proper size of fuse or fuse wires. Fuses are used to protect against short circuits and improper fusing can cause burning of circuit wires, thus starting a fire.
- 3.7.14 Ground high voltage equipment properly whenever it is used. Breakdown of insulation in the equipment can cause a fatal shock to the operator.
- 3.7.15 Do not touch the terminals of a capacitor after it has been energized. Electric discharges of a capacitor can be fatal to a person. Short-circuit the terminals before handling them.
- 3.7.16 Do not play or make jokes with each other when performing an experiment. Horseplay or jokes take your mind away from what you are doing and mistakes can be costly, leading to damage of the instruments or personal injury to a group member.
- 3.7.17 In case someone is electrocuted, turn off the main switch or the power breaker. Never hold the injured person with your bare hands. If necessary, push him away from the live circuit or equipment with a stick that is not a conductor. If he faints, revive him with CPR while someone else calls for a doctor.

### **3.8 Laboratory Policies and Guidelines for Thesis Students**

- 3.8.1 The undergraduate ECE thesis rooms are for the use of undergraduate ECE thesis students who

- are enrolled in ECEPRO. These rooms are located at M113 mezzanine and M104H of the Miguel Building. The use of the laboratories is a privilege and not a right.
- 3.8.2 The thesis rooms are available for use starting on the second week of classes until the course card distribution day of every trimester.
- 3.8.3 Only students, who are currently enrolled for the trimester, can use the thesis rooms upon approval by the laboratory coordinator. Only accepted students are allowed to enter the thesis rooms concerned. All other users should secure permit from the laboratory coordinator.
- 3.8.4 Registration
- 3.8.4.1 Students intending to use the thesis rooms should fill up an occupancy request form (ORF). The forms may be obtained from the laboratory technicians.
- 3.8.4.2 Reservations and requests are made every trimester and on a first-come, first-served basis.
- 3.8.4.3 Requests will only be accepted during the first week of classes of the trimester. Priority is given to ECEPRO3 students.
- 3.8.4.4 Anyone who would like to work during the trimester break or summer must fill out a new form.
- 3.8.4.5 The laboratory coordinator has the right to deny requests.
- 3.8.5 Regular working hours is from 9:00 a.m. to 9:00 p.m. from Monday to Saturday. Students who wish to work overtime (beyond 9:00 p.m.) or overnight must secure a permit from the Physical Facilities Unit of the Administrative Services Office, and the Security Office, with the recommendation from the thesis adviser and approval from the dean and chair. The adviser, or a representative, and a technician (for overtime



use of equipment only) must be present throughout the overnight/overtime period to attend to the needs of the students.

### 3.8.6 Opening of Thesis Rooms

3.8.6.1 The keys may be borrowed from the laboratory technicians, starting at 9:00 a.m.

3.8.6.2 The student ID must be surrendered when borrowing the keys.

3.8.6.3 The students are required to log out and log in the time they borrow and return the keys.

3.8.6.4 The keys must be returned within five minutes.

3.8.6.5 Duplication of keys by students is strictly prohibited.

### 3.8.7 Closing of Thesis Rooms

3.8.7.1 Students may work up to 9:00 p.m.

3.8.7.2 If a student is to leave the room without other users inside, he is requested to lock the doors. If this happens, the keys must be borrowed again from the laboratory technicians.

3.8.7.3 The last student to leave the room must make sure that all the lights, equipment and air-conditioning units are turned off, and all the doors are locked.

### 3.8.8 Use of Equipment

3.8.8.1 Equipment may be borrowed from the ECE laboratories. The borrower's ID, or ECES card and EAF (upon presentation of and in exchange of the ID) must be attached to all requisition forms. Transfer of equipment to other borrowers is not allowed. The person,

- whose name appears on the requisition form, must be the one to return all items borrowed, and on or before the specified time. The student ID, ECES card or EAF will not be returned until all materials are surrendered.
- 3.8.8.2 Technicians have the right not to lend equipment if it is being used by an ongoing class, or depending on the availability of the equipment. Priority is given to regular laboratory classes.
- 3.8.8.3 Students intending to work overtime and borrow equipment for overtime use must fill out an overtime use of equipment form (OUEF). A technician must be present to attend to their needs.
- 3.8.8.4 Return of equipment on the following day is not allowed. Overnight use of equipment is only allowed if the students are to work overnight. Students intending to work overnight and borrow equipment for their use must fill out an overnight use of equipment form.
- 3.8.8.5 A thesis student or group is allowed to borrow only one set of equipment. The students are responsible for any damage or loss of laboratory equipment and other materials.
- 3.8.8.6 Any equipment not returned on or before the specified time or date, the person whose name appears on the requisition form, and student ID, ECES card or EAF will be promptly reported to the Discipline Office.
- 3.8.9 Students are requested to observe the following while inside the thesis rooms:
- 3.8.9.1 Safety—Each group is responsible for anything that will happen in their testing. Hazardous testing is discouraged.

- Soldering of lead is allowed but is not advised since the lead fume is hazardous to one's health.
- 3.8.9.2 Security—Only authorized persons are allowed to enter and use the thesis rooms. Leaving of personal and valuable assets is also not advised. The department will not be responsible for any damaged or lost personal belongings.
  - 3.8.9.3 Silence—Other users may want to concentrate on their research. Also, there is an ongoing class in the lower floor. As much as possible, disturbing other users or classes must be avoided.
  - 3.8.9.4. Cleanliness and Orderliness—Each group is responsible for the cleanliness and orderliness of their assigned working area. Littering inside the thesis rooms is strictly enforced.
- 3.8.10 The following are not allowed inside the thesis rooms
- 3.8.10.1 PCB Etching. This is strictly forbidden. Do the etching outside the room.
  - 3.8.10.2 Vandalism. Do not write anything on the tables and walls.
  - 3.8.10.3 Smoking, Sleeping and Playing Cards.
  - 3.8.10.4 Computer Games, especially obscene and pornographic ones.
- 3.8.11 Submission and Reacquisition of Thesis Prototypes
- 3.8.11.1 All thesis prototypes must be submitted directly to the laboratory coordinator and technicians on or before the date set by the thesis coordinator.
  - 3.8.11.2 The prototypes must be properly cased, labeled (thesis title, group members,

group number, and term completed/ submitted) and sealed, including a complete inventory or list of all parts or materials that are submitted.

3.8.11.3 Thesis prototypes may be reacquired from the laboratories after a period of one trimester.

3.8.11.4 A letter of intention to reacquire the thesis prototype from the group or a representative of the group, noted by the thesis adviser, must be submitted to the laboratory coordinator. If after a year no one reacquires the prototype, it will be considered as a property of the department.

3.8.11.5 Full details appear on ‘Guidelines for Thesis Prototype Submission and Reacquisition.’

3.8.11.6 The department has the option to acquire the prototypes from the students by reimbursing them the cost of the materials and parts. However, the students will have to surrender the official receipts of these purchased materials and parts before they can be reimbursed in full.

3.8.12 Violations, disobedience, negligence or ignorance of any of the above and other laboratory policies and guidelines will be treated as minor offenses and subjected to necessary disciplinary actions.

### **3.9 Guidelines for Thesis Prototype Submission and Reacquisition**

3.9.1 Thesis prototype submission to the ECE laboratories is a requirement in ECEPRO3.

3.9.2 The thesis prototype is submitted at the V402 ECE laboratories through the laboratory coordinator and/or technicians on or before the date and time set by the thesis coordinator.

- 3.9.3 All pertinent materials and parts of the thesis prototype must be submitted to the ECE laboratories. The laboratory coordinator may not allow the submission of some materials or parts.
- 3.9.4 Please be guided by the following when submitting the thesis prototype:
  - 3.9.4.1 Thesis prototypes should be boxed, sealed and labeled properly, and should include a complete inventory of the materials to be submitted.
  - 3.9.4.2 Thesis groups should bring their own box(es), (packaging) tape and marker.
  - 3.9.4.3 Labels should include the following: Thesis Title, Name of Members and Group Number, Date and Term Submitted.
- 3.9.5 The thesis prototype along with the inventory of materials to be submitted should be checked first by the laboratory coordinator and/or technicians before sealing it in the box.
- 3.9.6 A “Certification for Submission of Prototype” and “Inventory of Materials,” to be submitted to the thesis coordinator, must be prepared by the thesis group concerned. These must be accomplished in three (3) copies, the thesis coordinator, laboratory coordinator and thesis group concerned getting one copy each.
- 3.9.7 The thesis prototype may be reacquired after a period of one term from the date of submission. Prototype not claimed after a period of one year from the date of submission will be disposed of.
- 3.9.8 Students intending to reacquire their thesis prototype may do so in writing to the laboratory coordinator noted by the thesis adviser.

**3.10 Policies on the Use of Lockers**

- 3.10.1 The lockers at V303B ECE laboratories are available for use specifically by ECE students

- currently enrolled in laboratory courses with projects or in thesis writing.
- 3.10.2 The lockers are for the safekeeping of projects, prototypes, electronic devices or technical books for a short period of time, such as overnight, two days, or one week.
  - 3.10.3 The use of lockers is free of charge and is availed of on a first- come, first-served basis.
  - 3.10.4 Students must ask permission and register first with the laboratory technicians before they can use the lockers.
  - 3.10.5 The use of lockers is allowed from the first day of classes up to the course card distribution day of every trimester.
  - 3.10.6 The use of lockers during the trimester break is not allowed.
  - 3.10.7 Anything left inside the lockers after the course card distribution day will be disposed of.
  - 3.10.8 Students may use the lockers anytime during the allowed period.
  - 3.10.9 Students who don't actually use the lockers are requested to vacate them for students who have real use for the lockers.
  - 3.10.10 Students must bring their own locks. The combinational type of locks is advised.
  - 3.10.11 Students are advised to ask permission from the instructor of the ongoing laboratory class if they need to use the lockers.
  - 3.10.12 Students must enter the room and use the lockers one at a time if there is an ongoing laboratory class.
  - 3.10.13 The lockers are not for safekeeping of valuables, such as bags, calculators, cellular phones, multimeters, jewelry, etc.
  - 3.10.14 The ECE Department will not be liable for lost belongings or valuables.
  - 3.10.15 Any violation of the above policies will be considered a minor offense.

#### 4. Industrial Engineering Department

##### 4.1 For students attending classes

- 4.1.1 Cleanliness of the laboratory should be maintained. Littering is strictly prohibited.
- 4.1.2 Drinking, eating, chewing gum, and smoking are not allowed inside the laboratory.
- 4.1.3 Leaving unnecessary marks or scratching the surface of laboratory tables with any sharp-edged or pointed object is strictly prohibited. Vandalism in any form is absolutely not allowed and is considered a major offense as stipulated in the student handbook.
- 4.1.4 Students are not allowed to write on the whiteboard; they are also obligated to erase whatever they have written on the blackboard.
- 4.1.5 Ergonomic chairs inside the laboratory require extra care. Destruction of such is considered a major offense as stipulated in the student handbook. Furthermore, the students are held responsible for returning and placing the ergonomic chairs in their proper positions after the class.

IMPORTANT NOTE: The laboratory coordinator and technician conduct random inspection of laboratories. In case any act of vandalism or destruction of school property is detected, all the students in the class occupying the lab immediately before the inspection will be held liable. A case will be filed with the Discipline Office against them unless a certain student or group of students admit to doing such an act. *It is therefore the responsibility of all students to check for and report to their respective professors/instructors any form of vandalism or destroyed property noticed before the start of their class.*

If a student in a certain class reports any form of vandalism or destroyed property, then all the students of the last or previous class will be held liable unless a particular student or group of students admit to the wrongdoing.

##### 4.2 For students who want to use the laboratory for project presentation or thesis defense

- 4.2.1 Any equipment found inside the laboratory should be properly taken care of. Students are

- absolutely responsible for the equipment for the duration of their use in the laboratory.
- 4.2.2 Keys to the laboratory and any of the cabinets (casing found inside ) are to be obtained from the department and returned immediately after the project presentation or thesis defense.
  - 4.2.3 The lights and the air-conditioning system, as well as the computers, television, projector, VHS, etc. should be turned off after using the laboratory. The whiteboard, if it is used during the course of the presentation of the project or thesis defense, should be cleaned.
  - 4.2.4 Writings on the laboratory table or scratches made on the surface with any sharp-edged or pointed object are prohibited. Vandalism in any form is absolutely not condoned and is considered a major offense as stipulated in the student handbook.

## **5. Manufacturing Engineering Management Department**

### **5.1 Computer Integrated Manufacturing (CIM) Laboratory Policies**

- 5.1.1 Eating and drinking inside the laboratory are not allowed.
- 5.1.2 Playing of games inside the laboratory is prohibited.
- 5.1.3 Littering and vandalism are not tolerated.
- 5.1.4 Unauthorized tampering of the equipment is strictly prohibited.
- 5.1.5 Notes or loose leaves scattered on the floor or on the table should be disposed of at the end of the day.
- 5.1.6 Students are discouraged to leave their things unattended inside the laboratory. The laboratory is not a depository area.
- 5.1.7 Those who have no official business or activity inside the laboratory are asked to leave the premises.
- 5.1.8 Students are encouraged to put back things (chairs, keyboard, pop-up sockets, etc.) in their proper places and positions after their use.
- 5.1.9 Those conducting thesis work in the CIM laboratory are allowed to stay and do their work



- as long as they do not use the place as a hangout. Silence and proper conduct must still be observed.
- 5.1.10 Computers inside the laboratory faculty room are for exclusive use of the faculty. Students are not allowed to type their projects, documentations, or use the printer.
  - 5.1.11 The Faculty/ASF has the right to advise any user to leave the premises in case the user violates any of the policies.
  - 5.1.12 Persistent violators of the policies shall be sent to the Discipline Office for disciplinary action. A minor or major offense shall be sanctioned or penalized depending on the gravity of the offense.

## **5.2 Computer-aided, Three-dimensional Interactive Application (CATIA) Laboratory Policies**

- 5.2.1 Everyone must leave his/her personal belongings on the shelves designated for that purpose. The Faculty/ASF will not be held liable for the loss or damage of any property of any user inside the laboratory.
- 5.2.2 Users must stay at the terminals assigned to him/her by the ASF on duty. Swapping of tag numbers is not allowed. Loitering in the laboratory is also prohibited.
- 5.2.3 No one is allowed to alter the setting configuration of any lab facility without proper authorization from the MEM Department. Any malfunction or damage in the terminals used must be immediately reported to the Faculty/ASF on duty.
- 5.2.4 Chewing gum, eating, drinking, smoking and any form of vandalism are prohibited inside the laboratory.
- 5.2.5 Playing of games is not allowed inside the lab. The term GAMES encompasses computer-related games, card games and other games that may disturb the operation of the laboratory.
- 5.2.6 Any form of CHAT, MUDS, MOO and the like and accessing PORNOGRAPHIC sites are strictly prohibited.
- 5.2.7 Use of radios, cassette players, CD players or any similar equipment is prohibited. Cellular

phones should be turned off before entering any computer laboratory.

- 5.2.8 Silence should always be observed.
- 5.2.9 The faculty is held responsible for the behavior of his/her class held in the lab.
- 5.2.10 The Faculty/ASF has the right to advise any user to leave the premises in case the user violates any of the policies.

## **6. Mechanical Engineering Department**

### **6.1 Laboratory Policies and Guidelines**

- 6.1.1 Safety measures in the laboratories must be strictly observed by everyone at all times. Appropriate personal protective garment and other accessories must be worn by the laboratory personnel, instructors, and students throughout the experiment or shop work. For instance, safety goggles must always be worn whenever operating machines in the shop and laboratory gowns must likewise be worn when performing experiments.
- 6.1.2 Only students with laboratory subjects are allowed to use the laboratory equipment and stay at the laboratory areas concerned during the time designated. All other users should secure a permit from the coordinator of the laboratory concerned.
- 6.1.3 Instructors are requested to inform the laboratory coordinator about a changes in schedule at least a day in advance.
- 6.1.4 Laboratory technicians are assigned to assist the instructors in the preparation of materials and the operation of any equipment for the duration of the laboratory session.
- 6.1.5 No equipment is issued or operated for a laboratory class, even during the scheduled time, if the instructor is not present. This regulation applies to make-up classes which, in addition, require a permit from the coordinator of the laboratory concerned.
- 6.1.6 For students intending to do overtime or make-up work, a permit from the laboratory instructor and approved by the laboratory coordinator must

- be secured at least one day before the performance of the experiment.
- 6.1.7 The borrower's I.D should be attached to all requisition slips. Transfer of any equipment to other borrowers is not allowed. The person whose name appears on the requisition slip should be the one to return all items borrowed.
  - 6.1.8 All damages and/or losses of items like tools, instruments, and equipment, consumable or not, are charged to the individual concerned. However, if the experiment is done by a group, damages are equally distributed among the members unless special arrangements have been made. As much as possible, replacement of damaged items is made in kind and if not, payment should be made at the Accounting Office.
  - 6.1.9 All damages, losses, and/or accidents/incidents should be promptly reported either verbally or in writing to the technician or laboratory coordinator by the instructor or student concerned.
  - 6.1.10 No items, tools, or equipment can be taken out of the laboratory premises without the proper authorization from the laboratory coordinator. If the items are to be used outside the campus, a permit must be secured from the Physical Facilities Unit of the Administrative Services Office with recommendations from the instructor/department chair and the laboratory coordinator.
  - 6.1.11 No modifications, repairs, or alternations of any equipment in the laboratory are allowed without the written authorization from the laboratory coordinator and department chair.
  - 6.1.12 Instructors are required to fill out the laboratory status report at the end of each laboratory class to indicate the status of the instruments, equipment, and materials used in the experiment or shop work, and to make recommendations on how to improve laboratory procedures and/or facilities. This report is submitted to the concerned laboratory coordinator for proper action.
  - 6.1.13 Operating manuals for instrumentation and equipment may be borrowed from the secretary of the engineering laboratories.

# College of Science

## 1. Biology Department

### 1.1 Wearing of Laboratory Gowns

Faculty and students are required to wear laboratory gowns during laboratory classes except in the following courses: LABGENE, HISTLAB, EMYOLAB, LABOTA2 and LABZOO2. For LABZOO2 and HISTLAB, laboratory gowns may be required occasionally or as specified by the faculty. BIORÉ-2 students are also required to wear laboratory gowns while performing their experiments.

### 1.2 Laboratory Requisitions

#### 1.2.1 Biology Laboratory Classes

1.2.1.1 The list of materials must be submitted by the course coordinator or faculty to the laboratory staff at least one week before their intended use. As much as possible, the quantity of each material should be specified.

1.2.1.2 In the absence of a laboratory manual detailing the laboratory exercises for the course, or any change(s) thereof in laboratory activities in courses with manuals, the course coordinator(s) should inform the laboratory staff of the specific class activities at least a week earlier. This is particularly necessary for exercises requiring materials purchases off-campus.

2.1.1.3 Faculty members are enjoined to assist in maintaining cleanliness and orderliness in

laboratory rooms including switching off transformers of OHPs, aircons, lights and TV after use.

## 1.2.2 Thesis Students

- 1.2.2.1 A thesis student is required to submit to the assigned laboratory technician at SJ and STRC stockrooms, a photocopy of his/her proof of enrollment in BIORE-2 (or graduate thesis course) or receipt of payment of laboratory fees for BIORE-2 for record purposes. This is required before the student is allowed to make his/her materials requisition. Arrangements outside this (e.g., student did not avail of laboratory materials during his/her first enrollment in BIORE-2) would need confirmation with the thesis adviser. The proof of enrollment in BIORE-2 has to be signed by the BIORESEARCH coordinator.
- 1.2.2.2. Requisitions of students working on their thesis are serviced by the laboratory staff at SJ 6th floor and at STRC 2nd and 4th floors.
- 1.2.2.3 The student fills out the requisition forms completely in triplicate copies and submit these to the staff at least three working days excluding Saturday prior to use. The signatures of his/her thesis adviser, who checks the appropriateness of the requisitions, and the laboratory coordinator are required.
- 1.2.2.4 The laboratory staff issues the materials three to five working days after the submission of the accomplished form. In cases where a number of reagents are requested, the student is asked to provide containers/bottles.

- 1.2.2.5 The department provides the student with materials which are of general use in the laboratory. Special materials like chemicals and glassware are supplied by the student himself/herself. The amount of consumable materials to be issued to the student is roughly approximated from the laboratory fees charged for the research course. This ranges between ₱800 to ₱1,000 per student.
- 1.2.2.6 The student is assigned a locker when needed, either at the STRC 2nd and 4th floor or SJ 6th floor depending on the proximity of the laboratory facilities they need. The student has to provide his/her own lock and key.
- 1.2.2.7 Advisers are discouraged from directly requisitioning materials for their advisees.

### 1.2.3 Faculty

A faculty requiring laboratory materials for his research fills out a requisition form. Expenses on consumables are charged to his research fund. Request for additional research-related assistance from the department must be formally communicated by the faculty concerned to the department for approval.

## 1.3 Use of Laboratory Equipment/Instruments and Research Facilities

- 1.3.1 Pieces of equipment which are sensitive and are for general use are limited in number. They are secured at the 2nd, 4th floor, and 6th floors of the SJ Instrument Room. However, should future provisions allow, some pieces of equipment may be permanently placed in rooms where they are most frequently used. Depending on the amount/nature

- of materials requested, these needs may not be serviced on the day of requisition.
- 1.3.2 All users are required to log in entry to the instrument and research rooms, and the use of instruments/equipment. The staff may be requested for assistance in the use of instruments/equipment.
- 1.3.3 Users are required to clean up work space including tables and sinks, and accidental chemical spillover. Unwashed glass wares and unlabeled specimen and other research-related items lying or left unattended to in the laboratory/workplace/sink will be cleared away/discarded by the laboratory staff assigned 48 hours from the time the student(s) has/have been notified through her/his/their thesis adviser. Proper sanction will be given to students for non-compliance of this policy.
- 1.3.4 Priority of Use
- 1.3.2.1 Biology class use takes precedence over individual use or group use outside that of a class (e.g., a thesis group)
- 1.3.2.2 Lending of equipment to other users is done on a first-come, first-served basis.
- 1.3.2.3 Reservation of equipment is made not earlier than two weeks before the intended day of use. Exceptions to these are in courses whose schedule of activities have been communicated to the laboratory staff before the start of classes. Reservations and requisitions are to be properly recorded and monitored by the staff at SJ and STRC.
- 1.3.5 Certification that the equipment is in good working condition is done by the technician-in-charge, in the presence of the borrower, before and after its use.

- 1.3.6 The borrower(s) whose name(s) appears (appear) on the requisition form or logbook (instrument/research rooms) is(are) responsible for any damage done to or loss of equipment.
- 1.3.7 An equipment to be used off-campus should be cleared with the Office of the Assistant Vice-President for Administrative Services. The student/group of students must first accomplish the requisition slip for field work equipment and materials (RSFWE) duly signed by the adviser or faculty-in-charge and the laboratory coordinator.
- 1.3.8 Research-related items may be loaned out for one term and renewable for another term, but subject to recall when the need arises.
- 1.3.7 Delinquent users (i.e., those not returning the equipment on schedule) are not allowed to borrow laboratory materials needed outside regular class for two weeks. Likewise, they are reported to the faculty concerned (i.e., class teacher or thesis adviser) who reprimands or institutes the proper sanction.

#### **1.4 Laboratory Clearance**

- 1.4.1 Biology Laboratory Courses Other Than Thesis Courses
  - 1.4.1.1 Before the start of the final exam week, the assigned laboratory staff at the STRC and SJ 6th floor stockrooms prepares the list of students with laboratory obligations. The names are relayed to the faculty to inform the students concerned.
  - 1.4.1.2 The laboratory staff issues a clearance slip signed by the laboratory coordinator after the student has settled his/her accounts. This slip is presented to the faculty (NOTE: The grade to give students who fail to settle their accounts



before the submission of the final grade will be threshed out first with the Registrar's Office. The faculty has requested the chair to present this matter during the COC meeting).

#### 1.4.2 Breakage of Prepared Microscope Slides

1.4.2.1 For cracks on the specimen slide, the student will be charged a breakage fee for maintenance.

1.4.2.2 For cracks on the specimen itself, the student has to replace the slide.

1.4.2.3 For embryology slides, if a student breaks one of the slides in a serial set, he/she has to replace the whole set.

1.4.2.3 For record purposes, students concerned will be required to furnish the laboratory coordinator/staff photocopies of receipts of purchases and payments made to the Accounting Office. The assigned technician keeps the records of these replacements or payments by the student for one year before discarding them. He also notes these in the inventories, especially items which have to be included in future purchases.

#### 1.4.3 BIORE-3 and Graduate Thesis Courses

Every student finishing these courses has to obtain a laboratory clearance from the laboratory staff at SJ and STRC and duly signed by the laboratory coordinator, which he/she presents to his adviser together with the bound thesis.

1.4.4 Schedule of the signing of clearance by the laboratory coordinator is to be posted on the Biology Bulletin Board on a term basis.

1.4.5 Graduating, Shifting and Transferring Students

The laboratory staff (SJ and STRC) are tasked to issue student clearances to be signed by the laboratory coordinator.

**1.5 Use of Laboratory Facilities/Rooms Outside of Regular Schedule**

Free laboratory periods allow a student to use lab facilities to make up on missed or unfinished laboratory exercises. These activities should be held in the building (SJ or STRC) where the courses are held.

1.5.1 Approval from the teacher of the course is required.

1.5.2 The student then arranges with the laboratory staff the time and venue for such, taking into consideration the availability of the room, materials, and technicians. A form should be duly accomplished.

1.5.3 The student is responsible for keeping the room clean and for securing the place after its use.

1.5.4 Supervision of a faculty is required in cases where delicate procedures and equipment are utilized.

**1.6 Overtime Faculty, Graduate, and Undergraduate Research Work**

1.6.1 For graduate and undergraduate students who have to do overtime research work, a letter requesting for an extended stay in campus should be accomplished specifying the date, time, and place. The letter must be addressed to the Assistant Vice-President for Administrative Services and duly noted by the chair and laboratory coordinator.

1.6.2 For overnight research work, the faculty, graduate, and undergraduate students are allowed to stay from 6:00 p.m. up to 6:00 a.m. of the following day.

- 1.6.3 The undergraduate students must observed the following:
  - 1.6.3.1 Submission of a duly accomplished and signed PERMIT FOR OVERNIGHT STAY or overtime work at least 24 hours before the scheduled activity. Forms may be secured from the COS Dean's Office or from the secretary of the Biology Department.
  - 1.6.3.2 Submission of a WAIVER FORM signed by the guardian or parent. Forms should be provided by faculty concerned to the students.
  - 1.6.3.3 The student must be accompanied by the thesis adviser, another faculty, or the laboratory technician familiar with the research work.
- 1.6.4 For faculty and graduate students, only the submission of a duly accomplished PERMIT for AN OVERNIGHT stay is required. It is advised that they do not work alone.

## **1.7 Laboratory Technicians' Work Schedule**

- 1.7.1 A technician is required to render 41.5 hours of work per week.
- 1.7.2 The work schedules of the technicians for the trimester are patterned after the plantilla for that trimester. This is to ensure that laboratory services are always available when laboratory classes are going on. The technician is asked to review and comment on the schedule prepared for him.
- 1.7.3 Laboratory services are also made available on Saturdays mornings and afternoons in the presence or absence of laboratory classes. This arrangement will ensure uninterrupted service to faculty and students doing research.
- 1.7.4 The laboratory technicians may be asked to accompany laboratory classes during field trips.

## **1.8 Laboratory Budgets**

The Biology Laboratory is given two different budgets every school year: the capital budget and the laboratory operational budget.

The capital budget is used to purchase laboratory equipment and to pay for physical fixtures.

1.8.1 The laboratory operational budget is divided into the following sub-budgets:

1.8.1.1 Salaries of laboratory personnel

1.8.1.2 Chemicals

1.8.1.3 Glassware

1.8.1.4 Repairs and maintenance

1.8.1.5 Telephone

1.8.1.6 Supplies

1.8.1.7 Specimens

1.8.1.8 Mimeo and xerox

The laboratory coordinator, in consultation with the chair and the faculty, prepares the proposed budget for the succeeding school year.

## **1.9 Laboratory Purchases**

1.9.1 Equipment Purchases charged to the Capital Budget

1.9.1.1 Identification of equipment for purchase is done during the third trimester of each school year for the preparation of the proposed capital budget for the succeeding year.

1.9.1.2 Pieces of equipment identified for purchase but were not purchased during the school year form the priority items for acquisition during the succeeding school year, unless the faculty members decide otherwise.

- 1.9.1.3 The faculty members are asked to list down the pieces as well as specifications of equipment to be purchased.
- 1.9.1.4 The laboratory coordinator then requests for quotations from suppliers through the purchasing office to approximate the price using product catalogues. He/she then prepares the proposed capital budget for the coming school year, also taking into account the amount of physical fixtures.
- 1.9.1.5 Due to budget constraints, equipment for class use is a priority over equipment for research. Other factors taken into account are the number of users, the existing holdings of the laboratory, the cost of the equipment, and the approved budget for the year.
- 1.9.1.6 The final list of equipment ranked according to priority is prepared by the laboratory coordinator after consultation with the department.
- 1.9.1.7 At the start of the school year, the laboratory coordinator accomplishes the materials requisition form (MRF) for the purchase of the equipment. A copy is kept by the coordinator for file.
- 1.9.1.8 The faculty member chooses the model for the equipment to be purchased from among those presented or demonstrated by the suppliers.
- 1.9.1.9 The choice is relayed by the coordinator to the purchasing office. She also prepares the payment requisition slip (PRS), a copy of which is kept for file.

1.9.2 Chemical and Glassware

- 1.9.2.1 The laboratory staff prepares the list of chemicals and glassware for purchase based on the inventory and projected needs. Such

list includes the specifications and quantity of the materials.

- 1.9.2.2 The faculty are requested to do likewise for chemicals and glassware needed in class but which are not routinely used in preparation for courses not usually offered.
- 1.9.2.3 A copy of the MFR is sent by the laboratory coordinator to each of the Biology stockroom, against which the items are checked during delivery.
- 1.9.2.4 The purchasing office sends the purchase order to the coordinator for the preparation of the PRS.
- 1.9.2.5 For chemicals and glassware which are not routinely purchased by the department, the purchasing office asks the department for advice.

### 1.9.3 Specimens and Others

- 1.9.3.1 Considering that the suppliers for specimens that have to be purchased in big numbers such as embalmed cats and frogs are usually are small entrepreneurs, the following are followed:
  - 1.9.3.1.1 At the start of the school year, the coordinator accomplishes the MRF indicating the items, quantity, and the dates of delivery. This form is sent to the purchasing office.
  - 1.9.3.1.2 The respective course coordinators inform the laboratory coordinator of the quantity and the dates when the items are to be delivered. This information is sent to the purchasing office.
  - 1.9.3.1.3 The purchasing office is informed of the needed items.

1.9.3.1.4 The laboratory coordinator then fills out the PRS to facilitate the payment of the items.

1.9.3.2 Specimens like fish, fruits, vegetables, and other small items can be purchased with the petty cash handled by the laboratory coordinator. The laboratory staff should be informed by the concerned course coordinators of their needs at least a week before use, including changes, if any, in the sequence of laboratory exercises/experiments.

1.9.3.3 School Supplies  
These are ordered from the university bookstore by accomplishing the order forms.

## **1.10 Receipt of Laboratory Purchases**

1.10.1 Pieces of equipment delivered are referred to the department for approval.

1.10.2 The personnel (SJ and STRC) are tasked to receive deliveries and to inform the laboratory coordinator of these purchases, particularly those involving bulky deliveries such as equipment, instruments and others.

1.10.3 The items are checked against the specifications stated in the MRF. Items which do not conform to the specifications are referred to the laboratory coordinator.

1.10.4 Deliveries of prepared slides are referred to the laboratory coordinator who then requests the faculty member/s to check and approve the slides. Unsatisfactory slides are returned to the supplier for replacement.

1.10.5 The items are catalogued, and the kind, number, specifications, cost, name of supplier, and date of acquisition duly noted/recorded.

## **1.11 Inventory**

The assigned technicians prepare an inventory of laboratory equipment, chemicals, and glassware at the end of each school year.

## **2. Chemistry Department**

### **2.1 General Guidelines for Working in the Laboratory**

#### **2.1.1 Laboratory Awareness (for faculty and students)**

- 2.1.1.1 Know the procedures in the laboratory. Study the experimental procedures beforehand. Familiarize yourself with the chemicals, materials and apparatus to be used.
- 2.1.1.2 Research and understand the known hazards associated with the materials being used. Read the labels and review additional handling information especially for chemicals you are unfamiliar with. Follow the hazard precautions.
- 2.1.1.3 Do not use any substance from unlabeled or doubtfully labeled containers.
- 2.1.1.4 Many by-products of chemical reactions can be very hazardous. Planning for the handling and control of these toxic by-products should be part of the experimental procedure.
- 2.1.1.5 Be familiar with the location and use of safety facilities and equipment—eye wash station, sand pails, fire extinguishers, fire alarms, safety showers, emergency and fire exits, gas mains, stretcher etc.)
- 2.1.1.6 Observe proper conduct at all times. Horseplay, practical jokes, or other behavior that may startle, confuse, or distract other laboratory workers should



neither be engaged in nor condoned. Do not loiter along the laboratory corridors.

2.1.1.7 Be alert to unsafe conditions and actions, and call attention to them or report them so that corrections can be made as soon as possible.

## 2.1.2 Personal Safety

2.1.2.1 Avoid unnecessary contact with chemicals.

2.1.2.2 Proper attire must be worn in the laboratory for eye and skin protection.

2.1.2.3 Safety glasses/goggles must be worn in the laboratory at all times regardless of whether you are performing an experiment or not. Dark glasses in place of safety goggles are not allowed.

2.1.2.4 Open-toed footwear, sandals, and high-heeled shoes must not be used.

2.1.2.5 Laboratory gown or apron must be worn in the conduct of experiments.

2.1.2.6 Long hair must be tied back and loose clothing confined to avoid coming in contact with chemicals, flames, or moving equipment.

2.1.2.7 Eating, drinking, smoking, and applying cosmetics are not allowed in the laboratory or storage area. There are university-designated eating places in the campus. Residues on surfaces as well as airborne powders/sprays/vapors can contaminate food and drink. Accidental ingestion of hazardous chemicals can result from this contamination.

2.1.2.8 Never pipette by mouth; use a bulb. It is extremely dangerous to pipette by mouth. It is possible to ingest liquids into the body and/or draw vapors into the mouth and lungs.

2.1.2.9 Never taste anything. When smelling a chemical, do so by carefully fanning the

- top of the bottle so that a little vapor is directed toward your nose.
- 2.1.2.10 Comestibles can only be stored in the Food Chemistry Laboratory.
  - 2.1.2.11 Wash hands after handling chemicals and before leaving the laboratory.
  - 2.1.2.12 Launder laboratory aprons/gowns regularly. Change the laboratory apron/gown when necessary.
  - 2.1.2.13 Never work alone in the laboratory.
  - 2.1.2.14 Never perform unauthorized experiments or reactions.
  - 2.1.2.15 Use common sense.
- 2.1.3 Good Housekeeping
- 2.1.3.1 Maintain exits, aisles, safety equipment (e.g., fire extinguishers, sand pails) free of all obstruction.
  - 2.1.3.2 Maintain bench tops and hoods clean and free of clutter. Bags, books, etc. are to be placed in designated areas.
  - 2.1.3.3 Label all containers: name of chemical, date acquired, owner's name, disposal date, etc.
  - 2.1.3.4 All spilled chemicals must be attended to by authorized lab personnel.
  - 2.1.3.5 An annually updated emergency contact card should be posted conspicuously on each floor where laboratories are located. The card should contain the names and phone numbers of personnel and offices to be contacted in case of emergency.
  - 2.1.3.6 Inspect all pieces of equipment before use. Be sure that your glassware and equipment are free from flaws such as cracks, chips, and obvious defects. Chipped or cracked glassware should not be used; cracks can cause the glassware to fail during use and cause injury. Return these to the stockroom for repair or disposal.

2.1.3.7 Do not leave an ongoing experiment unattended.

2.1.4 Laboratory Material Handling, Storage, and Disposal

2.1.4.1 Ordering and Procurement

2.1.4.1.1 In order to reduce personal risk and minimize waste at the source, limit the quantities of materials purchased, and use what is only needed. Use the smallest amount of the least hazardous chemical available that will achieve the desired research result.

2.1.4.1.2 Never return chemicals to reagent bottles. Get only the prescribed amount.

2.1.4.1.3 Requests for chemicals, specimens, glassware or any other laboratory materials from the stockroom must be made through the lab supervisor/ASF/technician. You may not enter and help yourself to the contents of the stockroom.

2.1.4.2 Inventory

2.1.4.2.1 Every research laboratory must maintain an inventory of chemicals used or stored in the laboratory. It is the responsibility of the principal investigator or faculty-in-charge of the laboratory to coordinate with members of his/her group and submit an

updated inventory at the start of every schoolyear.

2.1.4.2.2 The chemical inventories for all research laboratories must be entered into the department's chemical inventory database.

2.1.4.2.3 The laboratory supervisor shall take charge of the overall annual inventory of chemicals, glassware, apparatus, specimens, and equipment in the St. Joseph's Hall and STRC labs and stockrooms.

#### 2.1.4.3 Labeling and Identification

2.1.4.3.1 All chemicals/samples/specimens must be labeled at all times. Commercially obtained chemicals have the original manufacturer's label affixed to the container. Researchers should ensure that the original manufacturer's labels remain legible, uncontaminated with chemical residues, and in good condition.

2.1.4.3.2 Secondary containers (e.g., vials, bottles, flasks filled by researchers) must be labeled with:

- Name of reagent/sample/specimen
- Date when originally filled
- Name of researcher
- Warning/Hazard posed (if any)

➤ Date when material can be disposed of

2.1.4.3.3 Storage areas or cabinets/shelves must be labeled with the class of chemicals.

2.1.4.4 Seismic Protection

Researchers need to consider the hazards posed by earthquakes. Chemical shelves and equipment containing hazardous chemicals must be secured or braced to the building or some immovable object in the lab, and should have barrier lips or restraints to prevent chemicals from sliding off the shelf during an earthquake.

2.1.4.5 Segregation

2.1.4.5.1 Chemicals are segregated by 2compatibility and according to hazard classes into the following groups:

Flammable liquids	e.g, organic solvents
Inorganic acids	e.g, sulfuric acid
Strong organic acids	e.g, trichloroacetic acid, formic acid
Inorganic bases	e.g, NaOH
Oxidizers	e.g, $\text{KMnO}_4$ , $\text{HClO}_4$
Water reactive materials	e.g, Na metal, aluminum chloride
Pyrophorics	e.g, Butyl lithium, dimethylaluminum chloride
Misc. Organics	e.g, Hydroquinone, benzoic acid
Misc. Inorganics	e.g, common salts, heavy metals

From UC Berkeley, Health and Safety Manual  
<http://www.cchem.berkeley.edu/cchasp/section5/section5chp.html#trans>

2.1.4.5.2 Physical segregation or separation of different hazard classes can be achieved by storing different hazard classes of chemicals:

- in different cabinets or on different shelves, or
- on the same shelf each in physically separated spill containment trays or
- at a distance of more than 20 feet from one another.

As a guide, the CHED Technical Sub-Panel for Chemistry in its “Policies and Guidelines for Chemistry” provides the following list of incompatible chemicals.

2.1.4.5.3 List of Incompatible Chemicals

<b>Chemicals</b>	<b>Incompatible with</b>
Acetic Acid	chromic acid, nitric acid, hydroxyl compounds, ethylene glycol, perchloric acid, peroxides, permanganates
Acetylene	chlorine, bromine, copper, fluorine, silver, mercury
Acetone	conc, nitric acid and sulfuric acid mixtures
Ammonia gas	mercury, (e.g. in manometers), chlorine, calcium hypochlorite, iodine, bromine, hydrofluoric acid (anhydrous)

Ammonium nitrate	acids, powdered metals flammable liquids chlorate, nitrates, sulfur, finely divided organic combustible materials
Aniline	nitric acid, hydrogen peroxide
Arsenical materials	any reducing agent
Azides	acids
Bromine	see chlorine
Calcium oxide	water
Carbon (activated)	calcium hypochlorite, all oxidizing agents
Chlorates	ammonium salts, finely divided organic or combustible materials
Chromic acid and chromium trioxide	acetic acid, naphthalene, camphor, glycerol, alcohol, flammable liquids in general
Chlorine	ammonia, acetylene, butadiene, methane, propane (or other petroleum gases), hydrogen, benzene, finely divided metals, turpentine
Chlorine dioxide	ammonia, methane, phosphine, hydrogen sulfide
Copper metal	acetylene, hydrogen peroxide
Cumene hydroperoxide	acids (organic or inorganic)
Cyanides	acids
Flammable liquids	ammonium nitrate, chromic acid, hydrogen peroxide, nitric acids sodium peroxides, halogens
Fluorine	all other chemicals
Hydrocarbons (such as butane, propane, benzene)	fluorine, chlorine, bromine, acid, as sodium peroxide
Hydrocyanic acid	nitric acid, alkali
Hydrofluoric acid	ammonia (aqueous or anhydrous)

Hydrogen sulfide	fuming nitric acid, oxidizing gases
Hydrochlorites	acids, activated carbon
Iodine	acetylene, ammonia (aqueous or anhydrous), hydrogen
Mercury	acetylene, fulminic acid, ammonia
Metals of Groups I and II and powdered Group III metals	water, carbon tetrachloride, halogens
Nitrites	acids
Nitric acid (concentrated)	acetic acid, aniline, chromic acid, hydrocyanic acid, hydrogen sulfide, flammable liquids and gases, copper, brass, any heavy metals
Nitroparaffins	inorganic bases amines
Oxalic acid	silver, mercury
Oxygen	oils, grease, hydrogen, flammable liquids
Perchloric acid	acetic anhydride, bismuth and its alloy, alcohol, paper, wood grease, oils
Peroxides, organic	acids (organic or mineral) [ <i>Avoid friction; store cold</i> ]
Phosphorous (white)	air, oxygen, alkalis, reducing agents
Potassium metal	carbon tetrachloride, carbon dioxide, water
Potassium chlorate	sulfuric and other acids
Potassium perchlorate (see also chlorates)	sulfuric and other acids
Potassium permanganate	glycerol, ethylene glycol, benzaldehyde, sulfuric acid
Selenides	reducing agents
Silver metal	acetylene, oxalic acid, tartaric acid, ammonium compounds, fulminic acid



Sodium metal	carbon tetrachloride, carbon dioxide, water
Sodium nitrite	ammonium nitrate and other ammonium salts
Sodium peroxide	ethyl or methyl alcohol, glacial acetic acid, acetic anhydride, benzaldehyde, carbon disulfide, glycerin, ethylene glycol, ethyl acetate, furfural
Sulfides	acids

#### 2.1.4.5 Disposal

2.1.4.5.1 Dispose of waste properly in specified containers. Always consult the faculty-in-charge if unsure of how to dispose of the material.

2.1.4.5.2 Dispose of broken glassware in specified glass container only, not in trash cans.

2.1.4.5.3 Clean up spills immediately. All spilled chemicals must be attended to by authorized lab personnel.

## **2.2 Chemical Instrumentation Use (FT-IR, GC, AA, GC-MS, TMA, CV, UV-VIS, HPLC, etc.)**

2.2.1 Researchers needing instruments should file their application for utilizing these instruments at least two (2) days prior to actual use. Reservations may be canceled if the user fails to arrive within 15 minutes of the appointed time. No one is allowed to use the instruments without the approval of the lab supervisor or his/her designate. All users must sign in the logbook provided each time an instrument is used.

- 2.2.2 All users of instruments (students, faculty, researchers) will be billed for use of equipment. The effective rate for instrument use is listed, updated, and posted. All payments are to be made at the Accounting Office.
- 2.2.3 Faculty members should incorporate the instrumentation cost into their research proposals. For the undergraduate students, the cost for instrumentation use should be incorporated into their budget proposals.
- 2.2.4 The department will no longer accept requests from outsiders for use of rotary evaporators because of the attention and work entailed in the process.
- 2.2.5 The computers attached to the instruments are solely devoted for instrument use.

### **2.3 Additional Laboratory Protocol Concerning Graduate and Undergraduate Students in Thesis or Dissertation Work**

- 2.3.1 Common Policies
  - 2.3.1.1 Only students who are officially enrolled (CHYRES2/THSCHE1, CHYRES3/THSCHE2, RESCHEM, Thesis, Dissertation, Directed Research) are allowed to work in the laboratory or accommodated for research consultation.
  - 2.3.1.2 A laboratory journal is required of all thesis/dissertation students. This is submitted to the adviser upon completion of the thesis/dissertation. This journal must be thread-bound (not spiral), and paginated consecutively with no loose sheets.
  - 2.3.1.3 The stockrooms (at SJ and at STRC) are off-limits to all students (graduate and undergraduate). Entry to the instrumentation rooms and laboratories

is restricted to authorized personnel and researchers.

- 2.3.1.4 All students must be properly supervised and must not be allowed to work alone.
- 2.3.1.5 No experiment is to be undertaken without prior approval by the adviser.
- 2.3.1.6 No chemicals, specimens or equipment may be removed from the chemistry building without prior approval of the adviser and laboratory supervisor.
- 2.3.1.7 No student should attempt to use a piece of equipment which he/she is unfamiliar with until having been instructed on how to use it.
- 2.3.1.8 An appropriate gate pass must be secured from the Office of the Assistant Vice-President for Administrative Services for entry of materials/equipment into the campus and/or pull-out of the same from the campus.
- 2.3.1.9 The last day students are permitted to work in the laboratory will be the final day of the term (course card distribution day).
- 2.3.1.10 A lab clearance must be submitted prior to thesis/dissertation defense.

### 2.3.2 Working in the Laboratory during Off-Hours

- 2.3.2.1 Students working beyond 5:30 p.m. must be accompanied by at least one faculty member (teaching or non-teaching).
- 2.3.2.2 All students working overnight must have an accompanying overnight permit and, in the case of undergraduate students, a parent/guardian's waiver form secured from the College of Science and approved by the Office of the Assistant Vice-President for Administrative Services.

2.3.2.3 When students require the services of a technician outside the latter's office hours, they must request the department to sign and approve the overtime work of the technician. The overtime pay of the technician will be charged to the students who have to course their payment through the Accounting Office. Note that the overtime rates vary for evening, overnight, or Sundays and holidays.

2.3.2.4 Requests for use of analytical instruments during overnight work may be accommodated only on Fridays and Saturdays.

### 2.3.3 Research Laboratory Clearance

All thesis students (graduate and undergraduate) need to secure a laboratory clearance at the end of every term. No grade will be given prior to clearance. A lab clearance must be submitted prior to thesis/dissertation defense.

2.3.3.1 By signing a clearance, the thesis adviser agrees that the student:

- Has cleaned the adviser's research lab, refrigerator, locker, glassware, etc.
- Has properly disposed of his/her waste, or properly segregated and labeled his/her waste bottles.
- Is not returning to the stockroom the adviser's personal property or inventory, or goods that the adviser borrowed from the stockroom. (Advisers are instructed to put their names on their property for easy identification by ASFs and technicians.)

- Has returned all manuals, CD, etc. borrowed from the adviser.
- Has submitted all receipts and other documentations required by funding agencies (e.g., CHED)

2.3.3.2 The technicians agree that the student:

- Has returned what he/she had borrowed.
- Has paid for his/her breakage and consumables.
- Has left in clean and good order condition any facility he/she used in the teaching labs, such as hoods, balances, etc.
- Did not leave any waste in the teaching labs.

2.3.3.3 The ASF agrees that the student:

- Has returned what he/she had borrowed, including instrument parts, manuals, and glassware
- Has paid for his/her breakage and consumables.
- Has left in clean and good order and condition any facility (hood, locker, refrigerator, etc.) he/she used in the instrumentation laboratories and undergraduate research lab.
- Did not leave waste in the instrumentation labs.

## **2.4 Guidelines for Laboratory Instructors**

### **2.4.1 Conduct of Laboratory Classes**

2.4.1.1 Only students who are officially enrolled in the laboratory class are allowed to enter

- the laboratory room. Instructors must check whether the student meets the academic requirements of and prerequisites for the course.
- 2.4.1.2 The lab instructor is responsible for the full implementation of all lab safety policies. He/she must comply with all safety policies as well.
  - 2.4.1.3 The laboratory instructor must be the first and the last person in the laboratory room. Students are NOT allowed to enter the laboratory unless the instructor is already present. Before leaving the room at the end of the lab class, he/she should check if all gas/water outlets and electric lights and equipment are turned off.
  - 2.4.1.4 The laboratory course should emphasize techniques and should teach the students how to conduct proper scientific investigation.
  - 2.4.1.5 Check-in schedule is on the first laboratory session. The laboratory instructor should sign the check-in form accomplished by the student.
  - 2.4.1.6 Students must bring their own padlocks by the second lab meeting. Use of combination-type padlocks is discouraged. The students will be solely responsible for the safekeeping of the items in their lockers.
  - 2.4.1.7 Before the start of the first experiment, the students should provide themselves with the following: detergent, sponge, soap, matches, labeling paper, masking tape, marking pen, rags, tissue paper or paper towel, and a pair of scissors.
  - 2.4.1.8 Items not stocked in student lockers are borrowed as needed. Students fill out and submit a borrower's slip with their ID cards to the attending technician.

Students should be reminded to inspect all stockroom-issued equipment for damages which may otherwise be charged to them.

2.4.2 The Laboratory Journal/Advance Study Assignment (ASA)/Worksheets

2.4.2.1 The use of a laboratory journal is a strict requirement. A standard threaded (NOT SPIRAL) notebook should be used. The pages of the journal should be numbered consecutively. Tearing pages is absolutely NOT allowed. Loose sheets should NOT be used during the conduct of the experiment.

2.4.2.2 When submitting the lab journal to the instructors, students should place the journals in the assigned lockers of the instructors located outside the department office. Instructors need to lock these lockers to prevent students from getting other students' journals.

2.4.2.3 All ASAs should be handwritten. Photocopies and computer-generated ASAs are not acceptable. The instructor must return the corrected ASAs to the student before the start of the corresponding experiment.

2.4.2.4 All laboratory reports, lab journals, and ASAs should be collected at the end of the term.

2.4.3 Examinations and Grades

2.4.3.1 A midterm examination is given in all Science and Engineering General Chemistry laboratory classes. This is usually scheduled on the 6th or 7th week of the term. A practical examination may also be required in other classes.

2.4.3.2 A midterm grade must be given to the students.

2.4.3.3 The laboratory grade will be based on the following criteria:

2.4.3.3.1 Lab Journal (includes pre-lab report and data)

2.4.3.3.2 Lab Performance (includes punctuality, attendance, adherence to safety regulations, techniques, preparedness, ability to answer questions)

2.4.3.3.3 Final Report/Worksheets/ASAs, Quizzes/Exercises, Exams (Midterm Exam/Practical Exam/Final Exam)

#### 2.4.4 Safety in the Laboratory

2.4.4.1 The lab instructor must acquaint students with the safety features of the laboratory such as location of safety showers, fire extinguishers, sand pails, medicine boxes, fire escapes, gas mains, stretcher, etc.

2.4.4.2 Proper laboratory attire must be worn at all times inside the lab, starting from the first experiment. Students with no lab gowns and/or approved safety glasses/goggles must NOT be allowed to perform any experiment. They should be sent to the Discipline Office and are considered absent for the day. Prescription glasses with appropriately sized lenses may serve the requirement of safety glasses unless otherwise required by the instructor.

2.4.4.3 Students are not allowed to perform experiments in any laboratory room without the teacher's supervision.



2.4.5 Injuries

2.4.5.1 Students must report all injuries to the instructor immediately, however minor. The lab instructor must fill out the appropriate form and report the incident to the laboratory coordinator/chair without delay.

2.4.5.2 The lab instructor or technician may administer first aid and then have the student sign the form. The student should be sent to the clinic accompanied by another person (authorized by the instructor) together with a form to be signed by the attending nurse/physician at the clinic.

2.4.6 Lab Breakages

2.4.6.1 The students are charged for any loss or breakages of glassware/equipment. They are issued a laboratory accounts assessment form for billing purposes.

2.4.6.2 All payments must be made to the Accounting Office. The student presents the official receipt to the technician and an exam permit/clearance slip is issued to the student.

2.4.7 Unavailability of Gas, Water, Electricity

2.4.7.1 No experiment should be performed when there is no water in the laboratory. Instead, a dry lab or discussion is recommended.

2.4.7.2 In case of power failure, suspension of classes will depend on teacher's discretion. Classes will be automatically suspended for evening classes.

2.4.7.3 In case of low pressure of gas or no gas at all, experiment may still be performed if the burner may be substituted with a hot plate.

2.4.8 Make-up Classes

- 2.4.8.1 If an instructor is late or absent, he/she must inform the vice-chair or the department secretary so that a substitute can be assigned.
- 2.4.8.2 No make-up class is required when laboratory classes/experiments are missed due to holidays, natural calamities, power or gas outages, lack of water, etc. Instead, two experiments will be performed in the next laboratory session. The laboratory coordinator and/or technician must be informed of such arrangements.
- 2.4.8.3 Should a student be absent in an undergraduate laboratory class, there is absolutely no make-up. The student gets a zero grade for the lab journal/worksheet, lab report and performance for the missed experiment.
- 2.4.8.4 Students who missed a laboratory experiment due to official absence will have the total number of experiments required reduced by the number of missed experiments for grading purposes.

2.4.9 Clearance

- 2.4.9.1 The laboratory instructor must be present to supervise the check-out of students in the lab classes.
- 2.4.9.2 All students must secure clearance from the laboratory before taking their final examination. The clearance is presented to the instructor/proctor before taking the examination. No student will be allowed to take the final exam without any laboratory clearance.

### **3. Physics Department**

#### **3.1 Research Laboratory Policies**

- 3.1.1 Eating and drinking are not allowed in the laboratory.
- 3.1.2 All thesis students have to submit the material safety data sheets (MSDS) of all the chemicals they need for their thesis. They have to give a signed copy (sign their respective names, ID numbers, thesis advisers, and title of the thesis on the sheets) of the MSDS to the ASF before they can get their chemicals. This ensures that the students have read the MSDS and that they know what to do in case of an accident.
- 3.1.3 A copy of the thesis proposal has to be submitted to the ASF as soon as it has been presented. Include in the proposal the list of all materials and equipment to be used as well as the tentative schedule of their use.
- 3.1.4 Faculty, technicians, and students must wear the appropriate attire in the laboratory. Laboratory gown (white, knee-length or longer with sleeves at least elbow length) and safety goggles must be worn properly during the performance of the experiments. No open-toed footwear is allowed. Long hair must be tied back. Dark glasses in place of safety goggles are not permitted. Students without lab gowns and/or safety goggles are not allowed to perform their thesis experiments in the laboratory.
- 3.1.5 Proper disposal of waste chemicals must be observed such as the use of specified containers. Waste containers must not be filled past the “fill line” (about 80% full). All spilled chemicals must be cleaned according to the MSDS profile of the chemical. If the students do not know what to do, they should ask for the help of the technician or the ASF.
- 3.1.6 Before the start of the thesis experiment, the students should provide themselves with the

- following: detergent, matches, labeling paper, masking tape, marking pen, rags, tissue paper, and a pair of scissors.
- 3.1.7 Bags, books, etc. are to be placed in designated areas, not in the thesis lockers.
  - 3.1.8 Requests for chemicals, glassware, or any other laboratory materials must be made by filling out the materials requisition form. In this way, the academic service faculty and the technician can track down a student who is currently responsible for a particular material/equipment in the lab.
  - 3.1.9 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.
  - 3.1.10 Faculty and students should be familiar with the safety features of the laboratory such as the location of safety showers, fire extinguishers, bucket of sand, pail, medicine boxes, fire escapes, etc.
    - 3.1.10.1 No thesis experiment is to be performed whenever water is not available.
    - 3.1.10.2 All injuries, however minor, must be reported to the thesis adviser, lab technician, and academic service faculty immediately. The ASF prepares the accident report for record purposes.
    - 3.1.10.3 If the injury is minor, the thesis adviser, technician, or ASF may administer first-aid treatment. If the thesis adviser, technician, or ASF does not feel confident in administering the treatment, the student should be sent to the clinic accompanied by another person who is authorized by the thesis adviser.
    - 3.1.10.3 If the thesis student incurs breakage of glassware or equipment, the ASF issues a laboratory accounts assessment form. The

student fills out the form, submits it to his/her thesis adviser, and returns it to the ASF. The ASF prepares the billing for thesis students. Students pay at the Accounting Office and submit the official receipt (OR) number to the ASF as soon as possible, preferably before performing another experiment. Replacement of broken wares is allowed provided a receipt for the item is presented.

3.1.10.4 At the end of the thesis, students must return all items borrowed from the lab and secure a clearance from the laboratory head. They must present this clearance to the thesis adviser before their final defense. No final grade for the thesis may be issued unless the lab breakage has been settled.

3.1.11 Cabinets for materials, chemicals, etc. needed for the thesis are to be assigned by the ASF. The thesis student is given a key which must be returned in good condition before the lab head signs the clearance form. The ASF has to inspect periodically the cabinet and its contents. Only the items needed in the thesis are to be kept in the cabinet

3.1.12 Use of Instruments

3.1.12.1 Use of instruments must be in the presence of an ASF or the lab technician.

3.1.12.2 Application for the use of an instrument must be filed at least two (2) days prior to its use.

3.1.12.3 Use of instruments during overnight work is discouraged.

3.1.13 Working in the Laboratory at past 10:00 p.m. (This section covers policies to be enforced when working in the laboratory during off-hours, i.e., beyond

10:00 p.m. on weekdays, overnight, and on Saturday afternoons.)

- 3.1.13.1 No student is allowed to work alone in the lab during off-hours. Students must be accompanied by at least one faculty member.
  - 3.1.13.2 All students (graduate or undergraduate) doing research work in the lab during off-hours must sign a waiver form secured from the dean's office.
  - 3.1.13.3 An application form must first be approved by the laboratory supervisor, and then noted by the chair and the dean. The said form must be brought to the Office of the Vice-President for Administrative Services for final approval.
  - 3.1.13.4 The approved form must be filed at least two (2) days prior to the scheduled date.
  - 3.1.13.5 Overnight work requiring the use of instruments may only be done when a faculty that accompanies the students knows how to operate the said instrument.
- 3.1.14 All items left outside the lockers/cabinets of the thesis students are to be confiscated by the ASF at the end of the day. Thesis students are responsible for all their borrowed materials. They are charged for any loss incurred by them.
- 3.1.15 All non-physics users of major pieces of equipment (scanning electron microscope, differential thermal analyzer, hall effect apparatus, high vacuum system, tube furnace, and box furnace) are only allowed to use such during Thursdays and Fridays.

## **3.2 Teaching Laboratory Policies**

### **3.2.1 General Policies**

- 3.2.1.1 Refrain from smoking, eating, drinking, and littering in *all* physics laboratories.
  - 3.2.1.2 Stay inside the laboratory only during lab classes. Only officially enrolled students are permitted inside the lab.
  - 3.2.1.3 Stay away from the physics stockroom.
  - 3.2.1.4 Use all laboratory fixtures properly. Do not sit on tables and do not open cabinets or lockers unless there is an instruction to do so.
  - 3.2.1.5 Turn off all electrical appliances in the lab if they are not being used. *If you are the last person to leave the lab, turn off the lights and fans, lock the doors, and close the windows.*
  - 3.2.1.6 Use only the computers in the physics lab for purposes related to experiments performed.
  - 3.2.1.7 Maintain the cleanliness of the lab at all times.
  - 3.2.1.8 Always observe proper safety procedures in the lab.
- 3.2.2 Borrowing Procedures and Use of Equipment
- 3.2.2.1 All pieces of equipment necessary for physics experiments may be borrowed from the Physics Stockroom at SJ409.
  - 3.2.2.2 Students must present an accomplished *equipment borrowing form* and an ID before any lab equipment is loaned. Equipment-borrowing forms are available at SJ409.
  - 3.2.2.3 Borrow only the pieces of equipment which are specified in your experiment or are required by the lab instructor.
  - 3.2.2.4 The borrower and his/her group are held responsible for all pieces of equipment borrowed from the Physics Stockroom. Refer to subsection 3.2.6 on the lab policies for breakage, damage, or loss of lab equipment.

3.2.2.5 Pieces of equipment borrowed must be returned upon completion of the experiment.

3.2.3 Lab Safety

3.2.3.1 Students are advised to read all precautionary notes on all pieces of equipment before using them. All questions about safety precautions on the equipment being used must be addressed to the lab instructor.

3.2.3.2 The lab instructor must first check the set-up for experiments requiring the use of electrical components before any of these are plugged in or turned on. In case of faulty equipment, the instructor must be informed immediately so that a replacement can be secured from the Physics Stockroom.

3.2.3.3 Experiments involving the use of boiling water, heaters, and the like must be performed close to the water sinks in the lab. Proper safety procedures must be employed when performing such experiments.

3.2.3.4 Chemicals used in some experiments must be handled with utmost care. Used and unused chemicals must be returned to the Physics Stockroom as soon as the experiment is finished. Chemicals should never be thrown into the water sinks or the trash bins.

3.2.3.5 All injuries, however minor, must be reported to the lab instructor.

3.2.3.6 In case of a minor injury, the instructor and/or the lab technicians may administer first aid. The student may be sent by the instructor to the university clinic accompanied by a person designated by the instructor.



3.2.3.7 If the instructor and/or the lab technicians feel they cannot administer the proper first-aid treatment, the student must be brought to the clinic immediately, if possible accompanied by a lab technician.

#### 3.2.4 Special Lab Experiments

3.2.4.1 Special or make-up experiments outside of regular class hours are discouraged.

3.2.4.2 In case of a special or make-up experiment outside the regular class hours, the student 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.

3.2.4.3 Special or make-up experiments outside the regular class hours are 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.

3.2.4.4 Lab technicians are not required to assist the student during the special or make-up experiment.

#### 3.2.5 Role of Laboratory Technicians

3.2.5.1 The lab technicians in SJ409 are responsible for the safekeeping and lending of all pieces of equipment used in the Physics Teaching Lab.

3.2.5.2 The lab technicians may be requested by the lab instructor to assist during a lab experiment but they are not required to stay in the lab rooms.

3.2.5.3 Lab technicians are tasked to check the conditions of all pieces of equipment that are returned to them. In case of broken, lost, or damaged equipment, the technicians are authorized to note down all information about the borrower which will be necessary for proper documentation.

3.2.6 Breakage, Loss, and Damage to Lab Equipment

3.2.6.1 Any incident of breakage, loss, or damage to any lab equipment must be reported immediately to the lab instructor.

3.2.6.2 The borrower and his/her group members are responsible for the replacement or payment of the broken, lost, or damaged equipment.

3.2.6.3 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.

3.2.6.4 Students must pay for, repair, or replace the broken, lost, or damaged equipment on or before the 12th week of the trimester; otherwise, they would not be cleared from the lab and not be allowed to enroll in the following trimester. Furthermore, they would not be given their final grade for that lab subject.

3.2.6.5 Once the equipment has been paid for, replaced or repaired, students would be issued a clearance by the lab coordinator.

3.2.7 Use of Lab Equipment for Overnight Experiments

3.2.7.1 Only faculty members of the Physics Department are allowed to use the lab equipment for overnight experiments.

3.2.7.2 The lab coordinator and lab technicians must be informed in writing, using the

appropriate forms, prior to the use of any equipment.

3.2.7.2.1 The equipment borrowed may only be used in either the Physics Teaching Lab or the STRC Physics Research Lab unless a permission to use the equipment outside the campus has been secured from the lab coordinator.

# Information Technology Center

## 1. Computer Lab Advisory

### 1.1 On the Use of Student Accounts

1.1.1 Log in using your ID number (type it on the Username space)

*Example:* Username: 09876543

1.1.2 Make sure that you have the right password. Type it on the Password space.

*Example:* ID# 09876543's password is "kuych56"; then on the space provided, type it exactly as you see it.

1.1.3 Choose to log in on the "Manila-PSI" domain.

1.1.4 You are now ready to use your MLS (MyLaSalle) account.

While inside the computer labs, students are advised to bring only the needed items in their duly assigned terminals. These include their valuables such as jewelry, cellphones, wallets and handbags. Big bags such as backpacks, gym bags, or sports bags are to be placed on the bag shelves.

As a precautionary measure, students are also advised to deposit their things inside a more secure place such as a locker prior to going to any computer lab to avoid theft.

*Note:* Big bags such as gym bags or sports bags are still preferably, wisely and ideally placed on the bag shelves. The student-owner, however, is held responsible for his/her things left on the shelves.

### 1.2 Students with Personal Laptop or Notebook

Students are advised *not* to bring their unit inside the computer labs. In cases where students need to use it for

presentation purposes, they should ask permission from the IT Center prior to the expected time of the presentation.

### **1.3 Use of Cellphone in the Computer Labs**

Before entering any computer lab, please make sure that your cellphone is on a *silent* mode.

For *voice* calls, please make or receive your call outside the facility to avoid disturbing the other users in the lab.

*Note:* Charging of cellphone batteries is *not* allowed inside the computer labs. The ITC is maintaining an electrical load limit inside the facility.

### **1.4 Saving or Downloading of Files in the Computer Labs**

In downloading files from the Internet, MS Office, or other related files, please be informed that:

1.4.1 In order to save files, you must log in using your activated e-mail account. Logging in using your individual account allows you to have access to a network drive (F:\) that enables you to save important files.

1.4.2 Simply locate drive F:\ in the “My Computer” folder and direct all saving and downloading activities there.

## **2. Basic Policies**

2.1 Everyone must leave their personal belongings on the shelves designated for that purpose. The IT Center, including its SAs and LAs, will not be held liable for the loss or damage of any property of any user inside the laboratory.

2.2 Users must stay at the terminals assigned to them by the SA/LA-on-duty. Swapping of tag numbers is not allowed. Loitering inside the lab is also prohibited.

2.2.1 Only one student should occupy one computer terminal

- 2.2.2. In case of group work, the SA/LA may allow a maximum of two students to occupy a single terminal
- 2.3 No one is allowed to alter the setting configuration of any lab facility without proper authorization from the IT Center.
  - 2.3.1 Equipment and cables are to be moved by authorized personnel only. Lab users may not attach personal hardware or software to the computer lab network without permission from the IT Center
  - 2.3.2 Any malfunction or damage in the terminals used must be reported immediately to the SA-on-duty.
- 2.4 Lab users are required to be out of the facility at closing time (or a few minutes before) so that the SA/LA can carry out closing procedures.
- 2.5 Chewing gum, eating, drinking, smoking, and any form of vandalism are prohibited inside the lab.
- 2.6 Playing of games is not allowed inside the lab. The word *games* refers computer-related games, card games, and other games that may disturb the operation of the lab.
- 2.7 Any form of CHAT, MUDS, MOO and the like and accessing PORNOGRAPHIC sites are strictly prohibited.
- 2.8 Use of radios, cassette players, CD players or any similar equipment is prohibited. Cellular phones should be turned off before entering any computer lab. Silence should always be observed.
- 2.9 Any conduct or activity which disturbs the lab environment is not allowed. Anyone causing continual disturbance will be asked to leave the labs. If the offense done is serious enough, the SA/LA may call the Security Office for assistance.
  - 2.9.1 Persons exhibiting hostile or threatening behavior such as yelling, swearing, or disregarding requests made by lab personnel are asked to leave the lab.

- 2.9.2 Public display of affection inside the lab is prohibited.
- 2.9.3 The faculty is responsible for the behavior of his/her class held in the lab.
- 2.10 The computer labs are designated for academic use. Students who need to use computers to complete academic assignments are given priority over those using the computers for recreation.
- 2.11 Proper decorum must be observed inside the computer laboratory. Wearing of hats/caps and other body or clothing accessories that distract students' attention are not allowed.
- 2.12 The SA/LA has the right to advise any user to leave the premises in case the user violates any of the policies.

**3. Guidelines for Scheduling Classes in the Computer Labs**

These guidelines are basically for those responsible for scheduling classes in the labs; e.g., associate deans or academic programmers.

3.1 The basic lab allocation by college and by lab:

<b>By College</b>	<b>By Lab</b>
CBE - L229, L335, L320	L212 - CCS
CED - Y602	J212 - CCS
CLA - G404, L229	G302 - CCS
COE - V103, V313, V301 G404, V211	G304 - CCS
COS - L229, MSCL	G306 - CCS
CCS - L212, J212, G302 G304, G306	G404 - COE, CLA
GSB - L229, L30	V103 - COE
	V301 - COE
	V313 - COE
	V211 - COE (CAD Classes)
	Y602 - CED
	L229 - CBE, COS, GSBE
	L335 - CBE
	L320 - CBE, CLA
MSCL - COS	

3.2 Maximum number of computers available for students:

<b>For Students of All Colleges</b>	
L212	18 units
J212	20 units
G304	67 units
G302	56 units
G306	56 units
G404	56 units
V103	32 units
V211	46 units
V301	36 units
V313	31 units
Y602	42 units
L229	50 units
L335	40 units
L320	40 units
MSCL	36 units

- 3.3 Labs can be made available from 8:00 a.m. to 9:00 p.m. Labs are opened depending on the class schedules and availability of student assistants.
- 3.4 For classes that do not maximize lab use, available computers can be used by other students (for Internet access).
- 3.5 The OPEN LAB POLICY is in effect only on certain labs that are not highly specialized. Such labs not under this policy are SJ212 and V211.

**4. Lab Reservation Guidelines**

*Note:* This is applicable to the following computer laboratories under the IT Center: LS212, LS229, LS320, LS335, V103, V301, V211, V313, SJ212, G302, G304, G306, G404, Y602, and MSCL.

**4.1 For Computer Classes or Subjects**

- 4.1.1 Inform the ITC of the desired computer lab to be reserved at least a week before the designated



date either by phone (at local 316/466) or thru e-mail at Helpdesk@mail.dlsu.edu.ph.

4.1.2 Be sure that the following pieces of information are ready to help the ITC assess your computer lab needs.

- Date and time
- Purpose of lab reservation (include the name of faculty and subject taught)
- Software needed

## **4.2 For Non-computer Classes or Subjects**

Reserving a computer lab would mean an additional fee of ₱60 per hour per PC terminal per student (e.g., if there are 30 students in the class and they would like to use a lab for an hour, each of them would have to pay ₱60). This excludes printing fees.

4.2.1 The payment procedure is as follows:

- 4.2.1.2 Get a payment slip from the IT Center.
- 4.2.1.2 Inform the ITC personnel of the purpose and the number of hours you intend to use the computer lab.
- 4.2.1.3 Pay the amount indicated on the slip at the Accounting Office.
- 4.2.1.4 Get the white and yellow copies of the official receipt.
- 4.2.1.5 Give the yellow copy of the official receipt to the SA-on-duty upon entry to the computer lab. This serves as your permit to use the facility.

## **5. Implementing Guidelines of the Open-Lab Policy**

5.1 The following computer labs shall observe the open-lab policy: LS229, LS320, LS335, V103, V301, V313, G302, G304, G306, G404, Y602, and MSCL.

- 5.2 The open-lab policy means ALL STUDENTS, regardless of course affiliation, can have access to the aforementioned facilities during free-time schedules.
- 5.3 However, following the computer lab allocation mentioned, students belonging to a specific college will be given priority over other students from a different college if and only if there is a need to access special application software duly installed in the PC terminals in their designated computer laboratories.

*Sample case:*

There is an engineering student who needs to use AutoCAD version 2000. Unfortunately, V103 is already filled with freeslotterers consisting of several other COE, CLA and CBE students. But since it is the only lab installed with the specified version of the software the engineering student needs, the last non-COE student who enters the lab will be courteously requested to log out in favor of the student that needs to use AutoCAD version 2000 PC terminal.

*Note:* Similarly applicable to all computer labs mentioned.

- 5.4 Priority is also given to specific students especially during the time of submission of term projects. Freeslotterers from the other colleges should be forewarned that only designated students assigned to the computer lab are allowed to use the facility.

## **6. Computer Lab Policy on Software Installation**

- 6.1 To facilitate proper planning and allocation of computer lab resources, the ITC urges all colleges to submit their requirements generally two weeks before the start of the term. Such requirements may include:
  - 6..1.1 Lab reservations for special classes and/or non-computer lab classes.
  - 6.1.2 Major software installation (i.e., new additional softwares, OS upgrade, etc.)

6.1.3 Other requirements deemed necessary by the computer subject coordinator or faculty in-charge of the computer subject for the coming term.

In connection with this, the ITC also requests all faculty members to course their computer lab requirements through their respective department chairs for them to be notified of such requests.

*Note:* For lab reservations, please read the Computer Lab Reservation Guidelines

For software installation requests within the term, please allow 2-3 days grace period. Computer lab availability needs to be verified first before actual installation takes place.

Please take note that the ITC installs software duly licensed for DLSU use only. If you are not sure of the software package, please verify with your supplier or contact our Help Desk at local 316 or 466 or e-mail us at [HelpDesk@dlsu.edu.ph](mailto:HelpDesk@dlsu.edu.ph) ■

# REFERENCES

College of Computer Studies

College of Education

Department of English and Applied Linguistics

College of Engineering

Chemical Engineering Department

Civil Engineering Department

Electronics and Communications Engineering Department

Industrial Engineering Department

Manufacturing Engineering Management Department

Mechanical Engineering Department

College of Liberal Arts

Behavioral Sciences Department

Psychology Department

College of Science

Biology Department

Chemistry Department

Physics Department

Information Technology Center

<http://www.sfaa.net/sfaaethic.html>

<http://www.usyd.edu.au/su/ohs/labsafety.html>

**De la Salle University-Manila Laboratory  
Procedures, Policies and Guidelines  
SY 2004-2005**

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