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UNIVERSIDADE DE MACAU
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Institute of Collaborative Innovation Sharing Policy for General Equipment

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1. Objectives

- 1.1 To strengthen the management of equipment purchased by the University of Macau via the Institute of Collaborative Innovation (ICI) through facilitating appropriate allocation of resources and raising the usage efficiency of academic equipment.
- 1.2 To ensure convenient access to the shared equipment by all researchers of ICI, especially principal investigators, and their Ph.D. students, research assistant professors, post-doctoral fellows, and research assistants (RA).
- 1.3 In advocating the pursuit of effective use of resources in society, sharing equipment with the local community is encouraged on the conditions that the needs of teaching and scientific research of the University are safeguarded, and equipment operations, maintenance, and personnel safety are pledged.

2. Scope

- 2.1 General equipment refers to the equipment, used for teaching and scientific research purpose in ICI, including but not limited to such small and medium-sized equipment as EEG, fNIRS, eye tracking device, physiology recording device, rTMS, tDCS, and TUS.
- 2.2 For major equipment such as fMRI, there is a set of separate guidelines for usage and management purposes.

3. General Rules to Use Equipment

3.1 Equipment Management

- 3.1.1 Each piece of equipment is assigned to be managed by a Lab representative PI. User can contact the Lab representative PI or Laboratory Technician for training or assistance on using the equipment. Please refer to Appendix “Duties of the Lab Representative PI”.
- 3.1.2 Lab representative PIs, RAs, Laboratory Technician, Functional heads, and Center Head have access right to open the laboratory door.
- 3.1.3 The Lab representative PI or the Laboratory Technician will update the usage of each piece of equipment monthly and report to the Equipment Management Committee and for the research group to keep track of the current usage situation.

3.2 Priority of Use

The Centre for Cognitive and Brain Sciences (CCBS) PIs and his/her group have the first priority to use the allocated equipment concerned in this policy. Other time slots may be open for access.

3.3 Eligibility



- 3.3.1 Before operating the equipment, user should have registered as an eligible experimenter.
- 3.3.2 For application of using equipment, project proposal/ description, ethics approval, and the proposed hours of usage should be submitted to ICI for evaluation.
- 3.3.3 The use of equipment should have been endorsed by the PI or others deemed appropriate by the unit.
- 3.3.4 User must receive training and/or authorization from the corresponding Lab representative PI or Laboratory Technician or Centre RA to be an eligible user of the equipment.
- 3.3.5 The center should provide training and qualification for every piece of equipment which includes a lecture, manual of the equipment, quizzes, and an evaluation.

3.4 Reservation

- 3.4.1 Before use, user should reserve the equipment through the booking system for the equipment. Upon receiving confirmation, user can get access to the equipment/laboratory within the reserved period.
- 3.4.2 The maximum reservation duration of each equipment for each PI is 15 hours a week with a maximum of 4 hours a day.
- 3.4.3 User should obtain access to the laboratory from Lab representative PI or Laboratory Technician or Centre RA on the day of reservation.
- 3.4.4 User should cancel the reservation if they no longer need the equipment for the reserved time period.
- 3.4.5 Walk-in use of the equipment is feasible, but it is advised to reserve on the booking system so as to notify other users of the equipment occupancy. User also needs to reserve the equipment even for walk-ins and remember to put usage records in the logbook and the online check-in/out form.
- 3.4.6 The experiment will be suspended without prior notice if you are using the equipment during a period when the equipment has been reserved in advance.
- 3.4.7 For those who would like to reserve the equipment exceeding the hours' limitation that lists in 3.4.2, please make the reservation on the system and must provide information such as the start/end date, the equipment that needs to be used, and a justification for this extra usage on the equipment to the office, and the equipment only can be reserved and used after approval.
- 3.4.8 The maximum reservation duration of those special request is 14 days. The equipment should be returned to the laboratory on the end date.
- 3.4.9 For special requests or usage on non-office hours, user can borrow the access card from the office. The access card should be returned to the office when the reservation is ended.
- 3.4.10 In general, all equipment should not be taken out of the campus for usage. Internal user can request to loan equipment out of the laboratory but not out of the campus.



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3.5 Reservation approval procedures

- 3.5.1 For equipment loans for internal use within the campus, applicants should apply and input the required information including the project and ethics approval documents on the booking system for approval from Laboratory Technicians. For any special cases of reservation, user can only use the equipment with unit confirmation.
- 3.5.2 Proof of training of the equipment is required while reservation. Eligible user’s training records will be automatically registered.
- 3.5.3 For equipment loans for external use out of campus, applicants should contact the responsible PI of the equipment for his/her consent. The application for external use shall be submitted to the Finance Management Committee (FMC) for approval. With FMC approval, the new location of the equipment should be submitted to the Finance Office for the record.

3.6 Upon operation

- 3.6.1 Before the operation of equipment, user must has received training and/or authorization from the corresponding Lab representative PI or Laboratory Technician or Centre RA to be an eligible user of the equipment. After the training, user should be able to operate the equipment independently.
- 3.6.2 Before beginning the experiment, user should check the equipment and sign on to the logbook and the online check-in/out form for checking in. Whenever having encountered problems such as equipment abnormality, it is necessary to report to the corresponding Lab representative PI or Laboratory Technician or Centre RA immediately.
- 3.6.3 After finishing, user should sign on the logbook and the online check-in/out form for checking out, clean up the equipment, turn off the equipment when necessary, tidy up its surroundings, and remove all belongings.
- 3.6.4 For equipment with portable property, it is acceptable to conduct experiments outside the laboratory, given that user has to reserve the equipment via the booking system, and return and clean up the equipment to the CCBS laboratory every day after use.

4. Fee

- 4.1 Each type of equipment requires an operation cost for supporting the operation of the laboratory such as purchasing consumables and equipment maintenance. The research group is responsible for preparing the total amount as they planned to use the equipment from their grant for their usage. The operation cost is as table below.

Equipment Type	Hourly cost (MOP)
fMRI	200
EEG	30
fNIRS	30
Eye-tracker and other equipment	30

- 4.2 The research group is responsible for their participant recruitment fees



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5. Penalty Policy

- 5.1 To discourage improper use of the equipment, the Centre introduces this penalty policy.
- 5.2 Upon receiving reports on improper use of equipment, a written warning will be issued to user.
- 5.3 User who forgot to sign the logbook or the online check-in/out form will be banned from using any CCBS's equipment for three days.
- 5.4 User who provides incorrect information will be banned from using any CCBS's equipment for three weeks.
- 5.5 User who has accumulatively received three warnings of improper use listed in 5.4 and 5.3, the whole research group will be forbidden to reserve any CCBS's equipment in the subsequent week and the corresponding user will be banned from using any equipment for one year.
- 5.6 Improper use of equipment includes:
 - (1) Have not registered before using the equipment;
 - (2) Have not reserved/communicated with the corresponding Lab representative PI or Laboratory Technician or Centre RA before using the equipment;
 - (3) Have not cleaned up the equipment (and/or turned it off when necessary) after use;
 - (4) Have not reported equipment abnormalities to the corresponding Lab representative PI or Laboratory Technician or Centre RA after notifying problems;
 - (5) Have intentionally disturbed others' experiments;
 - (6) Have recklessly abused the equipment.

6. Sharing Principles

- 6.1 Equipment shall be open for sharing with priority given to the University community over external organizations.
- 6.2 ICI should not be responsible for the authenticity and reliability of research and experiment results, including relevant analysis and tests.
- 6.3 Use of equipment in fulfilling teaching duties and research purposes in the University is fee exempted.
- 6.4 Sharing of equipment with external organizations shall be on a fee basis.
- 6.5 The charging scheme for external organizations in using equipment shall be on a cost-recovery basis. In addition to the operation cost of the equipment itself, the calculation of total cost should reasonably cover items including repair and maintenance cost of the equipment, overtime work compensation for the person in charge of the equipment, laboratory space cost, and appropriate depreciation of the equipment.
- 6.6 External user should provide proof of the capability of operating the related equipment, otherwise the equipment shall not be open for sharing.
- 6.7 The equipment can be loaned out of the laboratory room if appropriate but should not be taken out of the campus.



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6.8 The user is held liable for damages made to the equipment due to improper use.

7. Other Provisions

7.1 The user of ICI general equipment shall acknowledge in all kind of publications, with the following recommended format:

This work was performed in part at Centre for Cognitive and Brain Sciences, Institute of Collaborative Innovation at the University of Macau.



Duties of the Lab Representative PI

1. General

- 1.1 Equipment is divided into categories by system, such as EEG, fNIRS, and Eye-tracker. Each system has a communication group that includes the Lab representative PIs, RAs, Laboratory Technician, Functional heads, and Center Head, for updating any abnormalities, equipment status, and distributing the demanded usage to other models of that system.
- 1.2 The Lab representative PI can assign a student as representative to assist in laboratory management when the Lab representative PI is on leave. The LA should be responsible and eligible to operate the equipment.

2. Maintenance Duty

- 2.1 Lab representative PI should list the accessories and consumables of the equipment.
- 2.2 Lab representative PI should update a “Laboratory Status record” once a month. The list is for keeping track of the equipment status, consumables storage, and accessories list.
- 2.3 Lab representative PI should propose a maintenance request by filling the “Maintenance Request Form” to the Center when necessary. The request will be endorsed by the “Equipment Management Committee”.

3. Training Duty

- 3.1 Lab representative PI should provide training for the equipment. Training can be provided on UMMoodle or onsite.
- 3.2 Lab representative PI should assist in the qualification of the equipment which includes to provide lectures, quizzes, and assist in the evaluation.
- 3.3 Lab representative PI should update the eligible user list of the corresponding equipment.

4. Management Duty

- 4.1 Lab representative PI should only allow eligible user to use the equipment.
- 4.2 Lab representative PI should only allow eligible user with an approved reservation to use the equipment.
- 4.3 Lab representative PI should remind the user to fill out the online check-in/out form and logbook when giving laboratory access to the user.
- 4.4 Lab representative PI should check the laboratory randomly to make sure the experiment is conducted by an eligible user.
- 4.5 Lab representatives PI should assist in updating the equipment monthly usage record.