

Lingnan University

High-Performance Computing (HPC) Resources Allocation Policy

Version 1.0

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Revision History

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1.0	ITSC	ISMB	16 April 2025	Initial version

High-Performance Computing (HPC) Resources Allocation Policy

1. Purpose

The purpose of this policy is to establish comprehensive guidelines for the use and allocation of High-Performance Computing (HPC) resources at Lingnan University. All HPC resources of the University regardless of its funding are centrally hosted at ITSC High-Performance Computing Centre. Based on the [Policy of Sharing Server Resources Hosted at ITSC Data Centre](#), all these HPC resources should be shared by all members of the University to support University research and teaching activities. This policy is to ensure that these resources are shared and utilised fairly, effectively, efficiently and securely to support the mission of the University, while fostering an environment of collaboration and innovation.

2. Scope

This policy applies to all users of the University's HPC resources, including but not limited to faculty members, administrative/service staff, students, research collaborators, visiting scholars and any other individuals or entities affiliated to the University and granted access to these resources and use them in a fair and efficient manner.

3. User Eligibility

- Users must be affiliated with the University as staff, students, or authorised external collaborators as approved by the University.
- Users must demonstrate a genuine need for HPC resources for research, teaching and learning.
- Undergraduate students and taught postgraduate students must seek approval from their course instructors to ensure their needs are course related.
- Research postgraduate students must seek approval from their supervisors to ensure their needs are related to their research.

4. Access Approval

4.1. Approval procedures on account creation

- Access requests to create a user account must be submitted through the designated HPC access request form on the [ITSC/Library Helpdesk system](#).
- Access requests from faculty or staff members must be endorsed by the Head of Department (HoD).
- Access requests from undergraduate and taught postgraduate students must be course-related and endorsed by their course instructors and the HoD.
- Access requests from research postgraduate students must be related to their research and

endorsed by their supervisors and the HoD.

- Access requests from external collaborators must be submitted by the Principal Investigator (PI) / Co-Investigators (CoIs) of the research project and endorsed by the HoD.
- Instructors of academic courses who find the need to offer HPC resources for their students should approach ITSC to request appropriate access arrangements at least 30 days before the start of the semester. Instructors will be expected to provide primary support for their students using HPC resources, with secondary support from ITSC staff as appropriate.
- A HPC Resources Management Committee comprising VP (Research and Innovation) as Chair, VP (Administration), ITSC representatives and other members to be appointed by the University will advise the development of HPC at the University, vet and approve or delegate ITSC Research Computing Team to approve access requests should there is any competing demands based on the merit of the request, resource availability and alignment with university's goals.
- Approved requests will be allocated resources. The job scheduling using workload manager software will be based on the following priority order,:
 - Departments / divisions with contributions to HPC resources have the highest priority in using their contributed resources, idle resources will be shared to other eligible users
 - HPC resources acquired by research grants / private research funds will be solely used for the funded projects for the first two years, after which all eligible users will have access to the resources, while the funded units still retain higher priority.
 - Ground-breaking significant research essential to the strategic development of the University
 - First-come, first-served for all other non-contributing users

4.2. Account termination

- Accounts of faculty, staff members and research postgraduate students will remain valid until the expiry of their campus-wide accounts.
- All accounts created for course use will be terminated and deleted 30 days upon completion of the course at the end of the semester. Data associated with these accounts will also be purged immediately accordingly.
- For external collaborators, the account renewal and termination process will be in line with the University's third-party account handling procedures.
- Users shall download their data for permanent or long-term storage, if necessary, before account termination. The University will not be responsible for any loss or damage of data should user failed to do so. All user data associated with terminated accounts will be cleaned up irreversibly 30 days after termination.

5. Charging

- The University reserves the rights to charge the use of HPC resources as and when

needed to ensure long-term sustainability of this facility.

6. Acceptable Use

6.1. Authorized Activities

- HPC resources must be used for legal and legitimate academic, research or teaching purposes.
- Personal, commercial or other unauthorised use of HPC resources is strictly prohibited.
- Users must respect and comply with all laws applicable to Hong Kong Special Administrative Region (HKSAR).

6.2. Prohibited Activities

- Unauthorized access, distribution, or modification of system data or software is prohibited.
- Users must not engage in activities that compromise the integrity, performance, or security of the HPC system.
- Users are prohibited from copying system configuration files for unauthorized personal use or distribution to unauthorized third parties.
- Activities involving illegal content, copyright infringement or violation of university policies are forbidden.

6.3. Resource Fairness

- Users must adhere to fair usage policies to ensure equitable access to HPC resources for all authorized users.
- Resource hogging or monopolising HPC resources for extended periods without justification is prohibited.
- Login nodes are reserved for editing code and job scripts, code compilation, data movement and submitting jobs.
- All production jobs should be submitted to run on compute nodes via the workload manager software.
- Users are allowed to install their research software applications such as TensorFlow, Pytorch, etc. in their project directories using their accounts on the login node. The installed research software applications will be available on the compute nodes for the submitted jobs.
- Job submissions must only request required resources, waste of cluster resources by poorly scheduled jobs may result in your jobs being held or deleted.
- Job submissions must only use their allocated resources, using additional resources not allocated by the scheduler may result in the job being automatically or manually deleted.
- Job scheduling policy as endorsed by the HPC Resources Management Committee will be implemented to accommodate various needs of researchers and ensure fair share of computing

resources.

- Quota system will be implemented and updated from time to time to maintain the fair use of resources for all users.
- ITSC will regularly examine the queued and running jobs in order to maintain the healthiness of the system.

7. Data Management

7.1. Data Storage and backup

- Users are responsible for managing and storing their data appropriately.
- Users are responsible for regularly backing up their data to external media for long-term or permanent storage.
- ITSC will carry out appropriate system/data backup for system recovery purposes. Request of recovery of individual files from users will not be accepted.
- The “scratch” storage is a high-speed storage area for users to temporarily store their working data for job execution. Users are responsible to move out the results/output upon the completion of their jobs. The HPC system will regularly scanning all the data in this scratch storage area and automatically purge any data which has not been accessed for more than 30 days.

7.2. Data Security

- Sensitive or confidential data must be handled in accordance with University’s policies and legal requirements.
- Users must read and understand the [Information Security Policy](#) in order to protect their own and other users’ data.
- Users shall not attempt to view or copy any data belonging to other users without the data owners’ prior approval.

8. Access Control and Monitoring

8.1. Authentication

- Users must use their Lingnan accounts and credentials to sign in the system.
- Account sharing under any circumstance is strictly prohibited. Violation of this policy may result in the suspension or termination of one’s access to HPC resources temporarily or permanently depending on the decision of the HPC Resources Management Committee.
- Users must not attempt to bypass security measures or gain unauthorized access to HPC systems.
- Regular security updates and patches will be applied to HPC systems to maintain integrity.

8.3. Monitoring and Auditing

- The university reserves the rights to monitor and audit HPC usage to ensure compliance with this policy.
- Users' activities will be logged and reviewed to detect and prevent misuse or security breaches.
- ITSC reserves the rights to lock/suspend/terminate any account which is found to conduct malicious/unauthorized activities.

9. Compliance

9.1. Legal Compliance

- Users must comply with all laws, regulations and statutory requirements applicable to HKSAR
- Users are responsible for understanding and adhering to any specific legal requirements related to their research activities and data.

9.2. Policy Violations

- Violations of this policy may result in disciplinary action, including suspension or termination of access to HPC resources as determined by the HPC Resources Management Committee
- Severe violations may result in further disciplinary actions as per university regulations, up to and including termination of employment or expulsion.

9.3. Policy Updates

- The university reserves the rights to modify this policy at any time to address emerging threats, changes in technology, government laws or regulations or organizational needs.
- Any updates will be submitted to the Information Services Management Board for approval.
- Users will be notified of significant policy changes and are expected to review and comply with the updated policy.

10. User Responsibilities

10.1. Code of Conduct

- Users must adhere to all the University's code of conduct and policies in the use of the University's computing and network resources, including but not limited to the [Acceptable Use of University Computing Facilities](#), [Network Acceptable Use Policy](#), [Policy of Sharing Server Resources Hosted at ITSC Data Centres](#), and [Information Security Policy](#), etc.
- Users are expected to treat HPC resources, staff, and fellow users with respect and professionalism.
- Users must comply with the requirements stipulated in sections 6 – 9 above.

10.2. Resource Usage

- Users must utilise HPC resources efficiently and avoid activities that could degrade system performance or accessibility for others.
- Users should optimize their code and workflows to make effective use of HPC resources.
- Users must comply with job scheduling and resource allocation policies.

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