

UNBC Enhanced High Performance Computing Center Membership and Usage policies

This policy is based, with modifications, on policies at HPCVL and WestGrid. In cases where these policies are inconsistent with other UNBC policies governing computing, the other UNBC policies shall apply.

This policy is effective once approved by the HPC Management Board and the Senate Committee on Research and Graduate Studies. Fees are not retroactive and will be phased in as new grants and contracts are sought by Principal Investigators.

Membership Policies

The UNBC Enhanced High Performance Computing Center (called “UNBC HPC” hereafter) provides computing resources and services to members and their authorized students and employees to facilitate research. Users have responsibilities that will ensure the maximum availability of UNBC HPC’s resources, reduce risk, minimize liability, and protect other users. This policy lists the rights and responsibilities both of users and of UNBC HPC as the provider of services. Each user must agree, in writing, to abide by the policies governing the use and operation of UNBC HPC facilities. These policies will be available and maintained on the UNBC HPC web site (<http://web.unbc.ca/hpc>) for easy access.

All researchers at UNBC, including postdoctoral associates, graduate students, undergraduate students, research associates, and research staff are eligible to apply for accounts on UNBC HPC systems. Principal Investigators (PIs) must pay the appropriate membership fee for their research groups. When the fee has been paid, accounts will be issued. Researchers from other institutions are welcome to apply for membership at the appropriate fee. All users, whether internal or external, are subject to the same policies.

UNBC HPC acknowledges that high-quality research projects often require parallel computation and / or substantial resource allocations. UNBC HPC encourages researchers to tackle problems that require as much computing as can be delivered. Nevertheless, UNBC HPC's resources must be shared equitably. UNBC HPC reserves the right to allocate serial jobs to a serial batch pool. UNBC HPC seeks to balance the two goals fairly.

- Normally, all users have equal access to UNBC HPC's resources.
- Users may increase their priority by paying a high-priority membership fee.
- Users who need and can use all of UNBC HPC's computing resources on a large-scale problem should arrange with the HPC Senior Lab Instructor for appropriate access.

Membership Categories

There are five levels of membership:

- An Associate Membership is for UNBC researchers and their research group making very limited or occasional use of the UNBC HPC resources. This membership category may also be appropriate for new members wishing to try the facilities. The fee for Associate Membership is in Category I.
- A General Membership is for UNBC researchers and their research group making frequent use of UNBC HPC resources and whose computing needs are moderate. Low priority access to UNBC HPC resources is normally granted. The fee for General Membership is in Category II.
- An Enhanced Membership is for UNBC researchers and their research group making frequent use of UNBC HPC resources and whose computing resource needs are high. Higher priority access to UNBC HPC resources may be granted. The fee for Enhanced Membership is in Category III.
- A Contract Membership is for UNBC researchers conducting industrial research or research under contract. Access priority and fee is negotiated with the HPC Management Board on a case by case basis.
- An External Membership is for researchers and their research groups from outside of UNBC. Access priority and fee is negotiated with the HPC Management Board on a case by case basis depending on the nature of the research, but will be consistent with the fees charged to internal members. The amount of access may be limited, and the machines available normally do not include the windows terminal server for software licensing reasons.

For each level of membership, the PI of a research group is the only person to pay a membership fee – members of the research group are covered by the one fee. Researchers collaborating on projects, but who are not under the supervision of the PI, are not included in that research group. If a PI is conducting both grant-funded and contract research, then the PI would be required to have two categories of membership.

The appropriate membership category will be suggested by the applicant and approved by the Chair of the HPC Management Board on the advice of the HPC Senior Lab Instructor. In the case of disagreement concerning the membership category or fee, the HPC Management Board will make the final determination.

Services

All categories of membership include access to UNBC HPC facilities under general resource sharing principles such as batch queue streams at a priority level depending on their membership category. All members have access to basic porting, coding, and support help from the HPC Senior Lab instructor, depending on available time. The level of support provided is expected to be less for External, General or Associate members.

Responsibilities of Members

Each user/member will agree to follow and abide by the UNBC HPC Usage and Security policies and practices, as well as, any other policies established by the UNBC HPC Management Board. It is emphasized that:

- The member recognizes that generic grant-supported research and contractual research must be done under distinct membership categories. A researcher performing both types of research must join each of the appropriate membership categories.
- In accordance with the rules stated in the Usage Policy document, it is understood that prior to a large resource allocation, the member will have made all the necessary efforts to optimize and parallelize their codes.

The need to meet funding agency reporting requirements that can withstand an actual audit means that each user/member will have to provide information on their use of the facility according to funding agency requirements, in a timely fashion to allow reports to be generated. It is the responsibility of the PI to ensure that this information is provided by all members of a research team.

Membership Fees

It is important to create a small revenue stream to allow repair and replacement of hardware and the acquisition of new software and continuation of software licenses. However it is not the intention of fees charged for UNBC HPC Memberships to limit access to the UNBC HPC infrastructure. If researchers are unable to pay the fee for their appropriate category, then a request can be made to the HPC Management Board, to have the fee waived for a given year. Payment of fees will be phased in as researchers apply for new grants and contracts. It is expected that researchers will include UNBC HPC fees in their grant and contract applications. If a researcher's only source of funding is competitive grants that do not provide funding at the requested level (e.g. NSERC Discovery Grants), then a request can be made to the HPC Management Board to pay pro-rated fees proportional to the size of grant awarded compared with the amount requested.

Fee and Membership Administration

- Membership must be renewed, and the appropriate fee paid each year by March 1
- Membership renewal will consist of the PI for a group completing the Annual Group Membership Renewal form (Appendix A.2) and indicating the group members who continue to require access to HPC resources
- Membership renewal will normally also include an annual questionnaire to obtain information required by the funding agencies, on use of the infrastructure by the PI and members of the PI's research group.
- Failure to renew membership and pay applicable usage fee by March 31, may result in suspension of access to HPC resources

- The fee paid by a member covers the year following the renewal, with fee changes applying only at the time of the renewal unless a member decides to upgrade their membership category.
- A membership category upgrade, for example from General Membership to Enhanced Membership, is paid in proportion of the remaining portion of the year on top of the fee already paid.
- The membership fees start to apply at the opening of the member accounts.
- The HPC Senior Lab Instructor is responsible for administering and accounting for memberships and fees.

Membership Fee Schedule

This fee schedule may be modified from time to time by the HPC Management Board. See the HPC web site (<http://web.unbc.ca/hpc>) for the current fee schedule.

Category I	Associate Membership	\$0
Category II	General Membership	\$2000
Category III	Enhanced Membership	\$5000
Category IV	Contractual and External Membership	To be negotiated

Application Procedure

1. Read all Policy Documents.
2. Fill out an HPC Account Application at <http://web.unbc.ca/hpc/account.html> . Indicate whether you are applying as a PI or as the member of a Research Group.
3. If applying as a PI, complete the Annual Group Membership Renewal form (Appendix A.2).
4. Print and fill out the Membership Application form (Appendix A.1) and fax or mail it to UNBC HPC.
5. Upon approval and receipt of a signed Membership Application form and (if applicable) the Annual Group Membership Renewal form, your account will be activated.
6. The activation of your account typically takes a couple of days.
7. Upon receiving your user password, you can proceed with using the UNBC HPC systems.

Usage Policy

Permitted Uses

The UNBC HPC facilities were purchased with funds from CFI (<http://www.innovation.ca/>), BCKDF (<http://www.aved.gov.bc.ca/bckdf/>), as well as contributions from industry. These institutions impose limitations on use of the facilities.

The UNBC HPC resources must be used exclusively for research projects that fit into one of the following categories:

1. Research projects that are supported by a recognized funding agency
2. Research projects that are eligible for funding from such an agency
3. Industrial research projects
4. Research under contract

Note that teaching and commercial uses are not allowed.

Access to UNBC HPC Facilities

1. Access to UNBC HPC is limited to members, and authorized users. All other access is prohibited, unless authorized in advance by the HPC Senior Lab Instructor.
2. UNBC HPC accounts will terminate when the researcher is no longer a member, or authorized user, of UNBC HPC.
3. A user may not permit any other person, including other authorized UNBC HPC users, to access UNBC HPC facilities through his or her account. Authorization to use UNBC HPC resources may not be loaned, or given to others, except for temporary access by UNBC HPC staff for the purpose of diagnosis or problem correction.
4. False or misleading, information provided for the purpose of obtaining access to UNBC HPC facilities violates this policy.
5. Access to UNBC HPC will be denied to users who violate this policy.

UNBC HPC's Rights and Responsibilities

UNBC HPC reserves the right to modify this policy at any time.

1. Systems connected to UNBC HPC's resources must be configured according to its security policy.
2. UNBC HPC is responsible for supporting only software that it has explicitly agreed to support. The list of supported software will be reviewed periodically and will be posted on the UNBC HPC Web site. Requests for new software should be forwarded to the HPC Management Board.
3. UNBC HPC exercises no control over the content of the information passing through UNBC HPC's equipment. UNBC HPC makes no warranties of any kind for the service it provides.
4. UNBC HPC will not be responsible for any damage a user, or any other person, suffers in connection with use of UNBC HPC's facilities. This includes damages resulting due to delays or service interruptions.
5. Effort is made by UNBC HPC staff to prevent the loss of data in the event of hardware or software failure, or through human error. In rare cases, it may not be possible to restore the latest version of every data file from backups, and some data may be lost.
6. UNBC HPC will not be liable to any person for any loss or corruption of any data, records or information placed on the system. Users agree to indemnify, and hold UNBC HPC harmless, from all liability in connection therewith.
7. UNBC HPC will maintain an up-to-date registry of all UNBC HPC computer resources, licensed software, and the location of those resources.
8. In the event that UNBC HPC has actual knowledge, or there are reasonable grounds to believe, that the user may be in violation of any of the restrictions under this policy, UNBC HPC shall have the unrestricted right to terminate or suspend the user's rights under this policy.
9. UNBC HPC's resources must not be applied to unlawful purposes. Use of UNBC HPC's resources in violation of applicable law or regulation is prohibited. Such prohibitions include, but are not limited to: data that are threatening, obscene, or defamatory; hate propaganda; data that belong to a third party, and data that are protected by copyright, trade secret, patent, or other intellectual-property laws.
10. Each user agrees to indemnify and hold harmless UNBC HPC from any claims resulting from user's use of the service.
11. UNBC HPC reserves the right to refuse extra computing resources to users if their code cannot use the extra resources efficiently. Users are encouraged to attempt problems that require large resources, but the onus is on such users to ensure that their code can use the resources efficiently.

Users Rights and Responsibilities

1. UNBC HPC's facilities are provided to enable users to conduct research. All other use is strictly prohibited unless by approval of the HPC Management Board.
2. Users are responsible at all times for using the UNBC HPC facilities in a manner that is ethical, legal, and consistent with the terms of this policy.
3. Users shall not harass, intimidate or threaten others by means of UNBC HPC facilities. Users are responsible for reporting to UNBC HPC all instances of harassment, intimidation or threats. Such conduct may constitute a violation of law and is a violation of this policy.
4. Programs, objects, and information created on UNBC HPC by a user are the property of the user, subject to the policies of the user's University.
5. Files controlled by individual users and residing on UNBC HPC, computers are considered to be confidential, whether or not they are accessible by other users.
6. Accounts issued on UNBC HPC facilities should not be utilized for e-mail by members unless for systems queries and assistance.
7. Users must not send proprietary or confidential information to any unauthorized party. Lending confidential information to an unauthorized party is a breach of this policy.
8. Although UNBC HPC has no obligation whatsoever to monitor, review, inspect, screen, audit or otherwise verify content of the information passing through UNBC HPC's facilities, UNBC HPC reserves the right to undertake any such activities concerning compliance with this policy.
9. Users are responsible for complying with the UNBC HPC security policy. Failure to do so shall constitute a breach of this policy. In particular:
 - Users are responsible for selecting a secure password for their account, and for keeping that password secret at all times. Passwords should be changed regularly. Passwords should not be written down, stored on-line, or given to others. If it is necessary to give the password to support personnel for fixing a problem with the user's machine, the password must be changed as soon as the need for others to know the password is passed.
 - Users are responsible for protecting their own files and data from reading and/or writing by other users, using whatever protection mechanisms are provided or approved by UNBC HPC.

- Users must not transmit confidential information in un-encrypted form over publicly accessible media, e.g., the internet or broadcast mechanisms such as those used for wireless communication. Users who need to send confidential information across public media must contact the HPC Senior Lab Instructor for an appropriate encryption solution.
- Users are responsible for reporting any system security violation, or suspected system security violation, to UNBC HPC staff immediately.

Failure to adhere to any of the above provisions constitutes a fundamental and material breach of this policy. Users must notify UNBC HPC immediately of any use of UNBC HPC's facilities of which the user has actual knowledge that would, or could reasonably be considered to, constitute a violation of this policy.

Although UNBC HPC's security efforts are consistent with best practice, complete privacy, confidentiality, and security is not guaranteed. Users agree that UNBC HPC shall not be responsible, or liable, for any damage that the user may suffer in connection with communication of private, confidential or sensitive information using UNBC HPC's equipment.

Proper Use

1. UNBC HPC facilities are a service provided to users to conduct research. All users are responsible for seeing that these computing facilities are used in an effective, efficient, ethical, and lawful manner.
2. Many resources, including disk space, CPU cycles, and software licenses, are shared among all users. Users shall not monopolize these resources without prior authorization from the HPC Management Board.
3. Users should not load the system in such a way that hinders others from performing useful work.
4. For software with a shared license, users should relinquish their licenses when no longer using the license.
5. Users must never leave their login sessions open and unattended.
6. Files controlled by individual users are to be considered as private information, whether or not they are accessible by other users.
7. The ability to read a file does not imply permission to read that file.
8. Under no circumstances may a user alter a file that does not belong to him or her without prior permission of the file's owner or other appropriate authority. The ability to alter a file does not imply permission to alter that file.

9. Any access to UNBC HPC's records, files, information or other data contained on any database or the UNBC HPC, or the use of such records, files, information or such other data when the USER has no proper, contractually related need for such information is prohibited.
10. Because the operation of UNBC HPC relies on the integrity and trust of its users, users are generally not blocked from perusing and investigating computer systems. Such access must not be abused either by attempting to harm the systems, or by stealing/copying copyrighted or licensed software.
11. System-level files (not owned by individuals) may be used and viewed if their access permissions so allow.
12. Most system-level files are part of copyrighted or licensed software, and may not be copied, in whole or in part, except as allowed by the license.
13. The same standards of intellectual honesty and plagiarism apply to software as to other forms of published work.
14. Intentionally making copies of software having a restricted-use license is theft as well as copyright infringement, unless permission to copy the software has been granted by the copyright holder.
15. Deliberate alteration of system-level files is gross misconduct and can lead to termination of any and all use of UNBC HPC's facilities.
16. UNBC HPC's facilities may not be used for the purpose of making unauthorized connections to, breaking into, or adversely affecting the performance of other systems on any network, whether these systems are UNBC HPC-owned or not. The ability to connect to other systems via the network does not imply the right to make use of, or even to connect to these systems, unless properly authorized by the owners of those systems.
17. UNBC HPC recognizes the value of computer security for both network operation and product development. Users may not intentionally develop or use programs that
 - Use resources that the user doesn't have the authority to use.
 - Harass, intimidate or threaten other users.
 - Attempt to bypass system security mechanisms, steal passwords or data, or crack passwords.
 - Attempt to consume all of an available system resource (memory, swap space, disk space, network bandwidth, dial-up ports, etc.).

- Replicate themselves, or that attach themselves to other programs, in the manner commonly called worms or viruses.
- Are designed to evade software licensing or copying restrictions.
- Scan the network to identify security holes.
- Block UNBC HPC in its attempts to collect information about, and manage its systems and network traffic. Users who believe that they have a legitimate reason to use or develop programs in the above categories to perform their contractual obligations must obtain permission from the HPC Management Board before developing or using these programs.

Failure to adhere to these provisions represents a fundamental breach of this policy.

Copyrighted Material and Software

1. Any software to be installed on any device in UNBC HPC must be original and properly licensed from an authenticated source authorized to distribute the software. Software obtained via a public connection (except as specified below), or from unauthenticated sources, may not be used on UNBC HPC's equipment.
2. Users who import software will be held fully responsible for all consequences that result from the use of that software. Users hereby indemnify, and save UNBC HPC harmless, for all damage, cost, expense, loss and liability arising from all acts and omissions related thereto.
3. Copyrighted material must not be knowingly imported, or otherwise copied, without permission from the author. If copyright material is obtained in a manner inconsistent with the rights granted by the author, it must not be stored on UNBC HPC-owned resources, and all copies must be destroyed. Failure to adhere to this provision constitutes a material and fundamental breach of this policy. Users hereby agree to indemnify, and save UNBC HPC harmless, for all liability in connection therewith.
4. Software on UNBC HPC's equipment may not be exported from UNBC HPC without the permission of the copyright holder.
5. Software licensed for academic non-profit use may not be used for non-academic purposes.
6. It is against this policy to violate the copyrights or patents on computer software. It is against this policy and may be a violation of provincial or federal law to violate software licenses.

Appendix A.1 – Membership Application – All Users

Please print this form.

Your Name:	
University / Affiliation:	
Street Address:	
City, Province Postal Code:	
Country:	
Telephone:	
Email Address:	
Principal Investigator:	
Project description: (also indicate anticipated computing resources needed, and project time length)	

I have read and understood the Enhanced High Performance Computing Center (UNBC HPC) Membership, Usage and Security policies and agree to abide by these policies and any other policies approved by the HPC Management Board. I agree to abide by and follow all procedures instituted by UNBC HPC to facilitate these policies and the operation of the Center. I agree to provide information on my use of the facility as needed to meet funding agency and other reporting requirements.

Signature

Date

PI/ Supervisor Signature (if applicable)

Date

Send completed form by mail / fax to UNBC HPC:

High Performance Computing Center
c/o Dr. Jean Wang
3333 University Way
Prince George, BC CANADA
V2N 4Z9 Fax: (250) 960-5845

