**HPC Governance Committee**  
**University of Kentucky Information Technology**

**Account and Allocation Policies for the W. Lipscomb Supercomputing Cluster**

**Statement of Purpose**

The mission of the Lipscomb Cluster is to serve the citizens of Kentucky by enabling transformative advances in science and technology by researchers within the Commonwealth.

This document describes how to obtain and account and one or more allocations of compute time on the William N. Lipscomb, Jr., Supercomputing Cluster (Lipscomb Cluster) located at and administered by the University of Kentucky.

**Account and Allocation Policies**

**Definitions:**

User: An individual who accesses and/or uses the Lipscomb Cluster for any purpose.

Account: Basic user privileges allowing access to the Lipscomb Cluster. A user account allows a single user to log into the system, provides the user a home directory for storing files, and allows use (e.g., for compiling code) of the interactive login nodes.

Allocation: Allows a group of users to conduct computations relating to a specific research project on the batch compute nodes of the Lipscomb cluster. Allocations are made in units of core-hours and are awarded to eligible individual user upon application.

**Eligibility for Accounts and/or Allocations:**

Professional researchers employed by non-profit or academic institutions physically located in the Commonwealth of Kentucky are eligible for user accounts and allocations of computer time on the Lipscomb Cluster. Students and designated collaborators of otherwise eligible account holders are also eligible for user accounts, but not for allocations of computer time.

![Eligibility Flowchart](image)

FIG. 1 Eligibility flowchart for accounts and allocations on the Lipscomb Cluster.
Procedure for obtaining an Account:

Eligible researchers and scholars apply via the web [WEBFORM TO BE DEVELOPED] to CCS for a user account. CCS will verify the researcher's eligibility and notify the applicant of their determination (usually within one day). In the user account application, students and collaborators not eligible for direct allocations of time must indicate the name of the faculty/researcher (who must be a current account holder) with whom they are affiliated and to whom their usage should be charged. CCS staff will verify with indicated researcher that the student/collaborator is, in fact, associated with the researcher, and ask to which project(s) the student/collaborator should have access.

Applicants notified that they are eligible for a user account will then complete a brief, online introductory training session covering basic usage of HPC systems and HPC codes, and specific usage policies of the Lipscomb cluster. The session will end with an online quiz that will be emailed to CCS staff as a verification of the completion of training. As part of the quiz, applicants will be required to indicate the code package(s) to be used on the cluster for follow-up purposes from CCS Campus Champions. Once an applicant has successfully completed the training, CCS staff will request that UK IT create a user account for the applicant.

Basic Allocation Policies:

Professional researchers (which does not include students or graduate students) are eligible for direct allocations of compute time. Time is allocated in the form of core-hours, and allocated time is charged by multiplying the number of nodes allocated to a job by the number of cores per node times the wall clock time the calculation runs. Three types of allocations are made on the Lipscomb Cluster, “Automatic Allocations”, “Reviewed Allocations” and “Emergency Allocations”. While eligible researchers may only hold one Automatic Allocation at a time, Reviewed Allocations are associated with research projects, and, as such, researchers may hold any number of such allocations at a time.

Reporting Requirements:

Faculty or researchers holding any type of compute time allocation are responsible for reporting on the computational research completed under each allocation held. Separate reports are due for each separate allocation (including automatic allocations). Reports consist of a brief white paper describing the nature of the research completed, the codes or methods used to complete the research, any difficulties relating to system usage or operation that were encountered during the research, and listing any publications resulting from calculations under the allocation. A report template is available [HERE].

Automatic Allocations:

Users who are eligible for direct allocations of compute time and who fulfill the reporting requirements for previous automatic allocations will automatically be allocated 40,000 core-hours (roughly 0.1% of total available time, or ~5 weeks of continuous calculation on 4 nodes [48 cores]) on an annual basis. New users will receive an automatic allocation at the time their accounts are created. New users Automatic Allocations expire on the date of the quarterly Allocations Committee meeting closest to but no more than one year after the initial allocation and account creation, while all other automatic allocations expire after one year. All renewals of automatic allocations will therefore occur on the date of quarterly Allocations Committee meetings.
**Reviewed Allocations:**

In addition to their automatic Allocations, researchers eligible for direct allocations of time (or teams of such researchers) and who fulfill the reporting requirements for all previous allocations may submit proposals for compute time to be applied to specific research projects. The overall project need not be supported by external or formal internal funds, but should have a definite, demonstrable research purpose. Proposals for project-based allocations will be considered at quarterly meetings of the Allocation Committee, and must consist of a white paper describing the proposed work and justifying the requested compute time. The proposal should explicitly describe the methods to be used and the status of codes to be employed. A proposal template is available HERE. The allocation committee will determine if the proposed research and computational methods are consistent with the mission of the Lipscomb Cluster, and will seek to balance applications against the compute time available for allocation in an effort to maximize the research impact and value of the Cluster.

Faculty and researchers eligible for direct allocations of time may hold multiple reviewed allocations. Each allocation must be associated with a distinct research project.

Reviewed allocations expire one year after the allocation was made. Each reviewed allocation requires a separate annual report, to be due by the date of expiration of the allocation, as described above.

Researchers may apply for additional time to be added to an existing allocation. Such requests will be considered at the next quarterly meeting of the Allocation Committee.

**Emergency Allocations:**

Emergency requests (e.g. those requiring an immediate response) for up to 40,000 hours to be used within the current quarter may be made by researchers eligible for direct allocations of time once each calendar year. Emergency requests are made online and are evaluated immediately by CCS staff. Emergency requests must be associated with a project, and require the submission of a letter indicating the project for which the time is to be used and an explanation for why an immediate response is required.