

# Accessing Software



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## Overview

The policies regarding the installation of software are on [this page](#). In general, scientific software is installed as requested with the caveats noted in that section. There are over 100 software applications installed as modules so you should look there before submitting an installation request. As an alternative, you are always welcome to install your own software or other software in your file space.

Puma, Ocelote, and El Gato are built with CentOS 7 along with the system libraries, compilers and utilities that are needed for HPC operations.

## Available Software

Software packages are available as modules and are accessible from the compute nodes of any of our three clusters. **They are not available on the login nodes** so you will need to be in an interactive session to access them. A list of installed software is kept on [this page](#), but may not be as current as using the `module avail` command as shown below.

## Module Commands



If multiple versions of software are available on the system, the newest is made the default. This means loading a module without specifying the version will select the most recent. We **strongly** recommend including version information in your module statements. This ensures that you maintain a consistent environment for your analyses in the event of a software upgrade.

To see, access, and get information on individual software packages available on the system, use the module commands detailed below. If you have trouble accessing the module command, see [our FAQ section](#).

Module Command	Description
<code>\$ module avail</code>	Display all the software and versions installed on the system
<code>\$ module avail module_name</code>	Display all installed versions of the software "module_name"
<code>\$ module list</code>	Display the software you have loaded in your environment
<code>\$ module what-is module_name</code>	Displays some descriptive information about a specific module
<code>\$ module load module_name</code>	Load a software module in your environment
<code>\$ module unload module_name</code>	Unload a specific software package from your environment
<code>\$ module purge</code>	Unload all the software modules from your environment

<code>\$ module help</code>	Display a help menu for the module command
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## Compilers

Puma, Ocelote, and El Gato all run CentOS7 and have the following compilers available:

Compiler	Version	Module Command
Intel	2020.1	<code>\$ module load intel/2020.1</code>
Intel	2020.4	<code>\$ module load intel/2020.4</code>
gcc	5.4.0	<code>\$ module load gnu/5.4.0</code>
gcc	7.3.0	<code>\$ module load gnu7/7.3.0</code>
gcc	8.3.0	<code>\$ module load gnu8/8.3.0</code> This one is loaded by default

## Common Software Packages

Follow the links below for detailed information on using the listed software packages.

[Perl](#)

[Python](#)

[R](#)

[Matlab](#)

[Anaconda](#)

## Installing additional software

To submit a request to have software installed on the UA HPC systems, use our [HPC Software Install Request form](#). (This link might be under construction, so send an email to [hpc-consult](mailto:hpc-consult)) There is no expected timeframe for how long it takes to install software, there are many variables that determine this. If you haven't heard back in a week, it is reasonable for you to follow up with a [support ticket](#)

You may also install software packages into the space that is allocated to you with your HPC account. However, you cannot install software that requires root permission, or use a method like "yum install" that accesses system paths. For information on installing software locally, see [our online guide for an example](#).