Useful Unix Commands Cheat Sheet

PHYS3061 Introduction to Computer Simulations of Physical Systems (Spring 2018)

FILE MANIPULATION	
ls	List directories and files here
ls *dir*	List directories and files in a directory
ls -a	List all files including hidden files
ls -lh	List including more data in readable format
pwd	Return path to working directory
cd *dir*	Change directory
cd ..	Go to parent directory
cd /	Go to root directory
cd ~	Go to home directory
cd	Go to home directory
touch *file*	Create en empty file
cp *file1 file2*	Copy file1 to file2
cp -r *dir1 dir2*	Copy dir1 to dir2 including subdirectories
rm *file*	Remove a file
rm -r *dir*	Remove a directory and its files
mv *dir1 dir2*	Move or renames a file
mkdir *dir*	Make a directory
rmdir *dir*	Remove a directory
locate *file*	Search a file

TEXT PROCESSING	
cat *file1 file2 > file3*	Merge files 1 and 2 into file3
head *file*	Print first lines from a file
head -n 5 *file*	Print first 5 lines from a file
tail *file*	Print last lines from a file
tail -n 5 *file*	Print last 5 lines from a file
less *file*	View a file
less -N *file*	View file with line numbers
less -S *file*	View file, wrap long lines
grep *'pattern' file*	Print lines matching a pattern
grep -c *'pattern' file*	Count lines matching a pattern
cut -f 1,3 *file*	Retrieve data from 1,3 columns in a tab-delimited file
sort *file*	Sort lines from a file
sort -u *file*	Sort and return unique lines
uniq -c *file*	Filter adjacent repeated lines
wc *file*	Count lines, words and bytes

COMPRESSION	
tar -cf *file.tar dir*	Group files
tar -xf *file.tar*	Ungroup files
tar -zcf *file.tar.gz dir*	Group and compress files
tar -zxf *file.tar.gz*	Extract and ungroup files

OTHERS	
man *command*	Show command usage
top	Show process activity continuously
top -n1	Show process activity once
command > file	Save STDOUT in a file
command >> file	Append STDOUT in a file
[Tab]	Autocomplete or hints
icc *main.c*	Compile C code
icpc *main.cpp*	Compile C++ code
ifort *main.f*	Compile Fortran code

REMOTE ACCESS	
wget *url*	Download a file
ssh user@server	Connect to a server
scp -r *local_dir* *user@server:remote_dir*	Copy file from local to remote computer
scp -r *user@server:remote_dir* *local_dir*	Copy file from remote to local computer