

| Week  | Main Topics                        | Description  |
|-------|------------------------------------|--|
| 1, Th | Introduction to course             | Syllabus, TACC account, canvas and piazza account  |
| 2, T  | Types of computers                 | Architectures (laptop, cluster, supercomputer). What computers look like and how the pieces interact |
| 2, Th | Unix tools and environment, part 1 | How to interact with a linux box and edit files  |
| 3, T  | Unix tools and environment, part 2 | Using TACC systems. ssh and remote access. How to transfer files and manipulate a machine remotely   |
| 3, Th | Unix tools and environment, part 3 | Advanced Unix, tips and tricks   |
| 4, T  | Version control                    | Overview of version control systems, Using Git   |
| 4, Th | Version control                    |  |
| 5, T  | Representation of numbers          | Floating point error and related numerical representation issues with computers                      |
| 5, Th | Computing environments             | Machines, operating systems, tools, differences  |
| 6, T  | Compilers                          | What they are, how they work, and why we need them, how to use them                                  |
| 6, Th | Compilers                          |  |
| 7, T  | Make                               | An introduction to build automation tools and how to use them  |