## TCSH CheatSheet

| I/O Redirection        |                                  | History                       |         | Job Control                   |           |
|------------------------|----------------------------------|-------------------------------|---------|-------------------------------|-----------|
| input                  | command < file                   | previous                      | !!      | stop foreground job           | CTRL-Z    |
| output                 | command > file                   | n command                     | !n      | terminate fg job              | CTRL-C    |
| append                 | command >> filename              | nth-to-last command           | ! –n    | stopped/bg job to fg          | fg %j     |
| output STDIN+STDERR    | command >& file                  | command begins with str       | !str    | stopped job to bg             | bg %j     |
| append STDIN+STDERR    | command >>& file                 | command contains str          | !?str?  | kill stopped/bg job           | kill %j   |
| If noclobber is set:   |                                  | current command line          | !#      | stop bg job                   | stop %j   |
| output                 | command >! file                  | Word designators:             |         | suspend shell                 | suspend   |
| append                 | command >>! file                 | word 0                        | 0       | display job list              | jobs –l   |
| output STDIN+STDERR    | command >&! file                 | word n                        | n       | Forms of %j:                  |           |
| append STDIN+STDERR    | command >>&! file                | word 1                        | ^       | current job                   | % %+ %%   |
| pipe                   | command   command                | last word                     | \$      | previous job                  | %-        |
| subshell               | ( command ; command )            | m thru n                      | m-n     | job n                         | %n        |
| execute in subshell    | `command args`                   | 0 thru n                      | -n      | job begins with str           | %str      |
|                        | m thru last word (no include) m- |                               | m-      | job contains str %?str %\?str |           |
| Special characters     |                                  | 0 thru last word (no include) | _       | Short versions:               |           |
| ~ * ^ ? [ ] { } \$   < | >                                | m thru last word              | m∗      | fg %j                         | %j        |
| ! & ; \ ' " ` ( )      |                                  | 1 thru last word (or empty)   | *       | fg %                          | fg        |
|                        |                                  | (following !?str?) word match | %       | fg %                          | %         |
| Wildcards              |                                  | Examples: !!:^ !5:            | \$!#:2  | bg %j                         | %j&       |
| 0 or more              | *                                | Short versions: !*!^!\$       | !% !#^  | bg %                          | bg        |
| 1 character            | ?                                | Modifiers:                    |         | bg %                          | %&        |
| range                  | []                               | short for !!:s/old/new/ ^o    | ld^new  | run in bg                     | command & |
| not in range (buggy)   | [^]                              | root of filename              | r       |                               |           |
| not match pattern      | ^pattern                         | extension of filename         | е       | Prompt                        |           |
| string expansion       | <b>{</b> }                       | head of pathname              | h       | Colored prompt:               |           |
| home dir expansion     | ~                                |                               |         | %{\033[32m%}%h%{\033[0m%}     |           |
| user's home dir        | ~user                            | substitute s/ol               | .d/new/ | history number                | %h        |
| Exaple:                | ls file{,1,2}                    | repeat previous substitution  | &       | > user, # root                | %#        |
| Result:                | ls file file1 file2              | modifiers a g l p             | qux     | short path                    | %~        |
|                        |                                  |                               |         |                               |           |