Chemistry 341
Lewis Dot Structures

1. Establish connectivity

2. Add up number of valence electrons
   (only valence electrons – obtain from periodic table group #)

3. Add electrons, if anionic (−)
   Subtract electrons, if cationic (+)

4. Put an electron (e^−) pair between atoms bonded to each other

5. Put in unshared e^− pairs to try to satisfy octet rule

6. If necessary, form double or triple bonds
   to decrease the number of unshared electrons

7. Include Formal Charges

Formal Charge = number of valence e^− ! ½ (# shared e^−) ! (# unshared e^−)
in the neutral atom

= group number ! ½ (# bonding e^−) ! (# nonbonding e^−)
of the neutral atom