The engineering department owns several models of spectrum analyzers. All are expensive and should be handled with care. Fortunately, spectrum analyzers include a lot of protective circuitry. They are therefore difficult (but not impossible) to damage through negligence.

There are three safety guidelines for using a spectrum analyzer:

1) **Obtain permission before using any spectrum analyzer**
   Remember that you must obtain special permission each time you wish to use a spectrum analyzer. We have a limited quantity of spectrum analyzers and they are expensive to replace, so the EE/CE technician needs to know any time a spectrum analyzer is in use. (EXCEPTION: You may use a spectrum analyzer without explicit permission if it is part of a pre-built lab setup that a faculty member has constructed for a class lab.)

2) **Always use an outlet with earth ground connected**
   Most of the safety mechanisms in a spectrum analyzer rely on a connection to earth ground. You must use a 3-prong outlet receptacle (receptacle with earth ground).

3) **Actively prevent over-voltage conditions**
   One easy way to damage a spectrum analyzer is to apply too high a voltage to the input. Please limit the voltages you apply.