**MTU12 / M122**

**PW Geometric & Physical Optics**

**(1h30’ PW/ week. ou 3h PW/15d) ; 22h30’/Semester**

**5 practical experiences to choose from, the list of practical experiences is not exhaustive and depends on the availability of equipment at the establishment level**

1- Introduction: the different light sources and detectors.

2- Reflection (planar mirror, spherical mirror) and refraction (air/glass, glass/air).

3- Study of the prism: deviation.

4-Study of the prism: dispersion.

5-Study of the network: dispersion.

6- Prism spectroscope, grating spectroscope.

7- Focometry (determination of the focal length of a lens).

8-Microscope.

9-Light polarization (rectilinear, circular, elliptical).

10-Reflection on a blade of a flat OEM.

11- Spectrophotometry (transmission of different optical filters).

12- Interferometry (determination of wave length, index of a parallel-faced blade, speed).

13- Diffraction (slits and gratings: Bragg law, monochromator).