## Summary
The aim of this course is to acquire the basic knowledge on specific dynamical phenomena related to the origin, equilibrium, and evolution of star clusters, galaxies, and galaxy clusters.

## Content
1. Introduction: distances, sizes, masses of stellar dynamics systems such as star and galaxy clusters.
2. Potential theory.
3. The orbits of stars.
4. Equilibria of collisionless systems.
5. Stability of collisionless systems.
6. Disk dynamics.
8. Collisions and encounters of stellar systems

## Learning Prerequisites
### Recommended courses
- Bachelor in physics or mathematics and Astrophysics I and II

## Learning Outcomes
By the end of the course, the student must be able to:
- Theorize the laws of stellar dynamics

## Transversal skills
- Access and evaluate appropriate sources of information.

## Teaching methods
Ex cathedra and exercises supervised in classroom

Assessment methods
oral exam (100%)

Resources
Ressources en bibliothèque
- Galactic dynamics / Binney