

# NASSP – GA3: Galactic/Extragalactic Course Program

- Lecture 1:* Classification  
Global properties of galaxies  
& Luminosity Function (LF)
- Lecture 2:* Luminosity profiles: ellipticals, spirals & dwarfs  
Density profiles, disks structure
- Lecture 3:* Interstellar Matter (ISM)  
Neutral Hydrogen (HI), Ionized Hydrogen (HII)  
& Molecular Hydrogen (H<sub>2</sub>)
- Lecture 4:* Kinematics (elliptical galaxies & bulges)
- Lecture 5:* Kinematics & mass distribution  
of spiral & dwarf galaxies  
Dark Matter (DM) in galaxies  
Semester homework (mass models)
- Lecture 6:* Distance scale  
Distance indicators  
TF & FJ relations
- Lecture 7:* Formation and evolution of galaxies:  
Environmental mechanisms
- Lecture 8:* Milky Way & its satellites  
Bulge, bar, thin & thick disk  
Halo (stars & globular clusters)
- Lecture 9:* High z galaxies  
Formation of spiral and elliptical galaxies  
Galaxy evolution
- Lecture 10:* From the Local Group to the Large Scale Structures

## **Evaluation**

➤ Classification	September 20	20%
➤ Semester homework: mass model	October 12	40%
➤ Final Exam	October 26	40%

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