

Modules:

astro830 **Elective Advanced Lectures**
 astro850 **Modern Astrophysics**

Course:**Star Formation**

Course No.: astro857

| Category | Type | Language | Teaching hours | CP | Semester |
|----------|------------------------|----------|----------------|----|----------|
| Elective | Lecture with exercises | English | 2+1 | 4 | WT |

Requirements:**Preparation:****Form of Testing and Examination:**

Written or oral examination

Length of Course:

1 semester

Aims of the Course:

An introduction to basic concepts, modern theories, and the current observational basis of star formation.

Contents of the Course:

The structure and evolution of the interstellar medium in relation to Star Formation: molecular excitation, interstellar chemistry; the star formation process: conditions, cloud collapse, protostellar evolution; low mass vs. massive star formation; related phenomena: jets and outflows, protostellar disks, shocks, photodissociation regions; the initial mass function, global star formation, starbursts, the star formation history of the Universe, the very first stars.

Recommended Literature:

Stahler, Palla: The Formation of Stars (Wiley-VCH, 2004)

Additional literature will be given during the course