

**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