# Seminar - astro890

$Module\ No.$	astro890
Category	Elective
Credit Points (CP)	4
Semester	8.

Module: Seminar

Module Elements:

					Teachi	Teaching	
Nr	Course	Course No.	$\mathbf{CP}$	$\mathbf{Type}$	hours	Semester	
1	Seminar on Cosmology	astro891	4	seminar	2	WT/ST	
2	Seminar on Radio Astronomy	astro892	4	seminar	2	WT/ST	
3	Seminar on Stellar Systems:	astro893	4	seminar	2	WT/ST	
	"Star Clusters and Dwarf						
	Galaxies"						
4	Specialized Seminars	astro894	4	seminar	2	WT/ST	

## Requirements:

# Preparation:

Content: Modern developments in astrophysics are discussed using recent literature

## Aims/Skills:

These seminars will introduce the student for the first time into professional research in astrophysics. Active participation will furnish the student with the skill to read and present modern research topics

Form of Testing and Examination: Talk

Length of Module: 1 semester

Maximum Number of Participants: ca. 100

Registration Procedure: s. https://basis.uni-bonn.de u. http://bamawww.physik.uni-bonn.de

#### Note:

# Seminar on Cosmology - astro891

$\overline{Course}$	Seminar on Cosmology
Course No.	astro891

		Teaching			
Category	Type	Language	hours	$\mathbf{CP}$	Semester
Elective	Seminar	English	2	4	WT/ST

## Requirements:

Preparation: astro812 (Cosmology)

Form of Testing and Examination: Talk

Length of Course: 1 semester

**Aims of the Course:** The students will be introduced to the newest state of knowledge in cosmology. They will familiarize themselves with open questions and acquire knowledge on the newest methods in research

Contents of the Course: The newest literature (in particular using papers from the astro-ph preprint server) relevant to the research on cosmology will be presented in short talks and will be reviewed

#### Recommended Literature:

## Seminar on Radio Astronomy - astro892

$\overline{Course}$	Seminar on Radio Astronomy
Course No.	astro892

		Teachi	Teaching		
Category	Type	Language hours	$\mathbf{CP}$	Semester	
Elective	Seminar	English 2	4	WT/ST	

## Requirements:

Preparation: astro841 (Radio Astronomy: Tools, Applications, Impacts)

Form of Testing and Examination: Talk

Length of Course: 1 semester

Aims of the Course: The participating students will learn in depth how the radio-astronomical tools can be utilized in practice to scrutinize a wide range of astrophysical phenomena. Technically, this will cover the whole radioastronomical band, from meter-wavelengths to the sub-mm regime

Contents of the Course: The students will give oral presentations on a selected subject from the recent literature (refereed journals and proceedings). These will cover both, scientific advancements made with radio-astronomical techniques as well as technical developments. The presentations will be prepared by the students with support by the supervisor(s)

#### Recommended Literature:

# Seminar on Stellar Systems: "Star Clusters and Dwarf Galaxies" - astro893

Course	Seminar on Stellar Systems: "Star Clusters	and Dwarf Galaxies"
Course No.	astro893	

		Teachi	Teaching		
Category	Type	Language hours	$\mathbf{CP}$	Semester	
Elective	Seminar	English 2	4	WT/ST	

## Requirements:

Preparation: astro811 (Stars and Stellar Evolution), astro821 (Astrophysics of Galaxies)

Form of Testing and Examination: Talk

Length of Course: 1 semester

Aims of the Course: The students will be introduced to the newest state of knowledge in the field of Star Clusters. They will familiarize themselves with open questions and acquire knowledge on the newest methods in research

Contents of the Course: The newest literature (in particular using papers from the astro-ph preprint server) relevant to the research on stellar populations, star clusters and dwarf galaxies will be presented in short talks and discussed

#### Recommended Literature:

# Specialized Seminars - astro894

$\overline{Course}$	Specialized Seminars
Course No.	astro894

		Teaching			
Category	Type	Language hours	$\mathbf{CP}$	Semester	
Elective	Seminar	English 2	4	WT/ST	

## Requirements:

Preparation: Good results in the first Semester of the M.Sc. in Astrophysics programme

Form of Testing and Examination: Talk

Length of Course: 1 semester

Aims of the Course: Students will gain insight in special fields and their most recent developments. Knowledge about the newest methods and newest results will be acquired

Contents of the Course: The newest literature from preprints, reviews and other up-to-date material on specialised topics, chosen based on the most recent developments in special areas of astrophysics, will be presented in short talks and discussed. The main theme will vary from semester to semester

#### Recommended Literature: