Optical Observations - astro847

Degree - M.Sc. in Astrophysics (PO von 2014)

Module	**Elective Advanced Lectures: Observational Astronomy**
Module No.	astro840

Course	**Optical Observations**
Course No.	astro847

Category	**Type**	**Language**	**Teaching hours**	**CP**	**Semester**
Elective	Lecture with exercises	English	2+1	4	ST

Requirements for Participation:

Preparation: Astronomy introduction classes

Form of Testing and Examination: Requirements for the examination (written or oral exam): successful work with exercises

Length of Course: 1 semester

Aims of the Course: The students should get familiar with major aspects of optical astronomical observations, data reduction, and image analysis.

Contents of the Course:

Optical CCD and near infrared imaging, data reduction, catalogue handling, astrometry, coordinate systems, photometry, spectroscopy, photometric redshifts, basic weak lensing data analysis, current surveys, how to write observing proposals.

Practical experience is gained by obtaining and analysing multi-filter CCD imaging observations using the 50cm telescope on the AIfA rooftop, as well as the analysis of professional data from the archive.

Recommended Literature: Provided upon registration