

**Module: Elective Advanced Lectures:
BCGS Courses**

Module No.: physics70d

Course:



Relativity and Cosmology II (T)

Course No.:

| Category | Type | Language | Teaching hours | CP | Semester |
|----------|------------------------|----------|----------------|----|----------|
| Elective | Lecture with exercises | English | 4+2 | 8 | ST |

Requirements for Participation:

Preparation:

Training in theoretical physics at the B.Sc. level

Form of Testing and Examination:

Written or oral examination

Length of Course:

1 semester

Aims of the Course:

Application of Einstein's theory of general relativity to black holes and cosmology

Contents of the Course:

Black holes
Introduction to cosmology
The early Universe

Recommended Literature:

V. Mukhanov, Physical Foundations of Cosmology
T. Padmanabhan, Gravitation: Foundation and Frontiers
J. B. Hartle, Gravity: An introduction to Einstein's general relativity