

## 226711 HIGH-ENERGY ASTROPHYSICS

(ฟิสิกส์ดาราศาสตร์พลังงานสูง)

Number of Credits: 3

### Course Description :

Particles acceleration and radiative processes, pulsing sources, accretion disks, x-ray binaries, bursting stars, supermassive black holes, the high-energy background and observation of high-energy astrophysics phenomena.

### Course Objective :

Students will be able to describe the most energetic phenomena in the universe, the release of energy from the fallen of material from accretion disks onto compact objects, explosion of objects and the accelerated particles from their shocks and the emission from hot gas in galaxies and the background emission.

Course Contents	No. of Lecture Hours
1. Particles acceleration and Radiative processes	9
2. Pulsing sources	3
3. Accretion disks	6
4. X-ray binaries	6
5. Bursting stars	6
6. Supermassive black holes	6
7. The high-energy background	6
8. Observation of high-energy astrophysics phenomena	3
<b>Total</b>	<b>45</b>