PHY7212: GEODYNAMICS

1. Course Name: Geodynamics

2. Course Code: PHY7212

3. Credit Units: 3

4. Course Description:

This course deals mainly with data acquisition techniques.

5. Course Objectives:

At the end of the course, the students should be able to:

- Use Fourier analysis and signal processing.
- Use different methods of detecting earthquakes.
- Model earth's internal heat flow.

6. Course Outline:

Content	**Hours**
Geophysical Data acquisition and processing.	15
Fourier analysis and signal processing; Mathematical treatment of solar system.	10
Earth's figure and gravitation; Space geodetic methods for crustal strain studies;	10
Earthquakes and seismotectonics; Rigid plate theory and global tectonics	5
Earths internal heat and heat flow.	5
Total	**45**

7. Mode of Delivery :

This course will consist of lecture sessions and there will also be data analysis using theories leant.

8. References:

3. C.M.R Fowler. The Solid Earth: Introduction to Global Geophysics. Cambridge Univ. Press (Textbook)

4. P.V. Sharma. Geophysical Methods in Geology. Elsivier Sci. Pub. Co.