



**CANCER BIOLOGY (Dr. Yubaraj Pokhrel)**

**(2 credits)**

1. Introduction and overview to cancer, cancer hallmarks, and types of cancer
2. Growth factors, receptors and cancer
3. Cancer signaling- the story of Ras
4. Introduction to cell cycle and pRb
5. P53- the guardian angel
6. Steps of tumorigenesis.
7. Metastasis: EMT and cancer invasion, Role of Ras like GTPase in adhesion, cell shape and cell motility, osteoblast and osteoclasts.
8. Tumor immunology
9. Cancer therapy-personalized medicines.

***Suggested reading:***

*Biology of Cancer-Robert A Weinberg*