

## **BIOC 556 - Biochemical basis of cellular regulation**

### Course Description

This 12 lecture module will teach the fundamentals of the major signal transduction networks that regulate cellular function. The topics will cover the roles of post-translational protein modifications, protein-protein interactions and subcellular localizations of proteins in the transduction of signals received at the cell surface into information that can modulate gene expression, cell proliferation, cell death and cytoskeletal organization. Emphasis will be on how perturbations in signaling pathways can contribute to diseases such as cancer. The course will consist of introductory lectures, and student presentations of selected articles. Students will be graded based on their presentations, and participation in discussions. This course will be taught in alternating years in 2022 and 2024.

Instructor: Dr Shoukat Dedhar

Format: 45 minute lectures. 1.5 credits

Time: Tue/Thurs (10:00-11:30 am) from October 25<sup>th</sup> to December 7<sup>th</sup>, 2022

Location: LSC 5510

Number of seats: 18