**CSB 327H1F - EXTRACELLULAR MATRIX DYNAMICS AND ASSOCIATED PATHOLOGIES**

36L

**Lecturer:**

Prof. M. Ringuette [maurice.ringuette@utoronto.ca](mailto:maurice.ringuette@utoronto.ca)

**Prerequisite:** BIO 230H1/BIO 255H1

The development, structural integrity and physiological functions of tissues in animals are dependent on dynamic reciprocal communications between cells and their extracellular matrix (ECM) microenvironments. The course examines the molecular design, biomechanical properties, and functions of collagens, proteoglycans, glycoproteins, and elastomeric proteins. Emphasis is placed on how they act in concert to form complex 3D matrices that promote tissue morphogenesis, growth and remodeling throughout life and how dysregulated ECM dynamics is the underlying cause of several developmental defects and pathologies.

**Evaluation:** Two term tests worth 30% each. A final exam worth 40%