will give the opportunity for students to learn the structure and function of some of the major voltage- and ligand-gated ion channels and their relationship to channel related diseases. Mechanisms of ligand binding, gating and ion selectivity will be covered. The structure of the course will be based on lectures overviewing a topic and presentations and critical discussions of primary research papers. The course will also cover electrophysiological, fluorescence and crystallography techniques used to study structure-function of ion channels. e will also e!amine how alterations in ion channel function can contribute to specific nervous system disorders such as nicotine addiction and epilepsy.

Instructor:

"r. #aad \$ashmi <u>raad% uvic.ca</u> & '() * ++, - in the subject line. /hone0, 12-3234

Time and Place: 5ep + - "ec 6+, 1624. Mon, Thur 1076 pm 8 7096 pm. Engineering : omp

5cience 'ldg 26+

Office hours: by appointment, 194b: unningham

Reading Material: There is \$) required te!tboo; for the course. #eading material will be based on primary research papers.

Assigned papers to specific classes can be found in a more detailed course schedule available online on coursespaces.uvic.ca.

5tudents are e!pected to read ahead of time the assigned paper and participate in discussions of the paper in class.

#eading material, course outlines, and other material relevant to the course can be downloaded at coursespaces.uvic.ca.

Prerequisites:

Midterm and inal E!ams:

E!ams will be based on information covered in lectures and reading material.

The final e!am will be cumulative.

=ailure to write the midterm test will result in a grade of 6< for the e!am. (f you miss the midterm test for a valid reason >documented illness, accident, family affliction, or sporting commitments as a ? @ic athleteA, please contact the instructor as soon as possible >no later than +B hrs from the date of the e!amA and provide suitable documentation for your absence. (f you qualify for a missed midterm test, you will be accommodated so that you will not incur any penalty.

The final e!am can be deferred in cases of documented illness, accident, family affliction, or sporting commitments as a ?@ic athlete. (f you miss or e!pect to miss the e!am for any of these reasons, please notify the instructor and produce supporting documentation as soon as possible. Cou must also fill out a #equest for Academic : oncession form, available from the #ecords office, as soon as possible in order to have your request for deferral considered. Travel plans are not a valid reason for missing the midterm test or the final e!am.

u **E**& g **X**EO \dot{a} " p