Developmental Neurobiology
NROC35
Winter 2004

Instructor: Bryan Stewart, Ph.D.
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Office Hours:
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Teaching Assistant: Paula Nunes
Room S331

Lectures: Tuesday 3-5 pm

Tutorials: Tuesdays 5-6 pm

Textbook (recommended):
Development of the Nervous System by Sanes, Reh, & Harris. Academic Press, 2000

Evaluation:
1. Mid-term Test 30% (DATE: Feb 13, 3-5pm)
2. Final Exam 35% (DATE: TBA by University)
3. Term Paper 20% (DUE DATE: FRI MARCH 19)
4. Tutorial and Class Participation 15%

Course Information: Available through UTSC intranet

Course Goals:
To understand:
1. the cellular and molecular mechanisms that underlie the development of the nervous system;
2. the developmental basis for some neural diseases;
3. the use of vertebrate and invertebrate model systems, and their strength and limitations;
4. how to access the scientific literature through online databases
5. how to critically evaluate scientific papers and write a critical review

Class Meetings:
The lecture topics will roughly follow the chapters of the textbook (see below). Each two hour lecture will consist of 2, 50 minute traditional lectures

Tutorials:
The first two tutorials will be for the whole class. The first will cover searching literature databases, and the second will be to discuss tutorial presentations and assignments.
The class will then be split into two groups and each group will attend tutorials on a bi-weekly schedule. These tutorials will focus on reading primary literature on topics relevant to the course.
For each tutorial, there will be one paper assigned. 4 students will be assigned to each paper and given the task of presenting the sections of the paper (Introduction, Methods, Results, and Discussuion). In addition, each of these 4 students will hand in a one-page summary of the paper focusing on the major findings and importance of the paper.
Marks will be assigned as follows:
5 marks for discussion
5 marks for one-page written summary
5 marks for general participation during other tutorials

Research Paper:
Each student will complete a written research proposal-style paper on one of the topics covered in class. The focus of the paper is to describe the current state of knowledge of a specific topic, identify outstanding questions in that field and suggest experimental directions to address these questions. As a starting point students will be given a short list of papers, of which they will choose one as their entry into the topic. You will then use the literature databases to research the paper / topic. The paper is limited to 2000 words, excluding the reference list. You may include one or two figures to supplement the text