Bio379: Developmental Neurobiology, Spring 2015

The City College of New York
Department of Biology

Professor: Mark Emerson
Class Time: Wednesdays and Fridays 9:30-10:45 in MR702
Office Location: MR730 (or in MR522)
Office Hours: Fridays 11:00-12:00 or by appointment
Email: memerson@ccny.cuny.edu

Textbook for the class:
Development of the Nervous System (Third Edition, Dan Sanes, Thomas Reh, and William Harris). The textbook is recommended though not absolutely required. There will be a copy available in both the Biology Resource Center (MR502) and the science library.
Copies will not be available for sale in the CCNY bookstore.

Prerequisite/Co-requisite: Bio229 (Cell and Molecular Biology) – minimum C grade.
Hours/Credits: 3 hours lecture/3 credits

Learning Objectives:
At the end of this course, students should be able to:

- Infer fundamental developmental mechanisms in novel scenarios.

- Generate hypotheses about the underlying cellular and/or molecular mechanisms when challenged with a novel scenario.

- Demonstrate a familiarity with the specific molecules involved in neurodevelopmental processes.

- Be able to appropriately apply experimental techniques to answer neurodevelopmental questions.

- Design successful experiments with appropriate control conditions.

- Describe evolutionarily conserved mechanisms used in the development of nervous systems.

Topics Covered - This course will cover select topics in the field of neurodevelopment spanning the early steps involved in generating neuronal versus non-neuronal tissue to the neurodevelopmental basis of human disease. Emphasis will be placed on understanding
general mechanisms using specific examples and on comprehension of the techniques
that can be used to probe these processes.

**Assessment Tools**

Four exams  70%
Homework/Quizzes  30%

**Exams:** There will be 4 exams (this includes the final). The lowest grade of the four
e exams (including the final) can be dropped. If an exam is missed, you will receive a zero
for that exam. There will be no makeup exams given for this course. There will be no
cell phones allowed out during the exam – violation of this will result in a zero for the
exam and this grade will not be allowed to be dropped in your final grade calculation.
The final exam is scheduled for Wednesday, May 20th, 8:00am-10:15am.

**Class Participation:** You are expected to be active participants in class. All questions,
answers, and comments relevant to our discussion are welcomed. Your participation is
needed for us to have a vibrant learning experience.

**Quizzes:** We will periodically have quizzes, which will be announced ahead of time and
will be on the material from previous lectures. Quizzes will start at 9:30 and end at 9:45.
No exceptions and no makeup quizzes. One quiz grade will be dropped from your final
grade calculation.

**Absence/Lateness Policy**

You are expected to attend all classes and to be punctual – I ask that you please not be
late. Excessive absence/lateness will result in you being dropped from the class and will
result in the registrar entering a WU grade. In addition, if you are absent for more than
two classes, each subsequent absence will result in a 1% deduction in your final grade.
This will apply regardless of the circumstances of your absence, except for religious
holidays, which you will need to have provided advance notice to the instructor. If you
are late (arrive after I have started class) for more than two classes, each subsequent late
arrival will result in a 0.5% deduction from your final grade.

**Classroom Etiquette**

Please no cell phone or computer use during class time unless it is solely related to class
activities. If you have an absolute need to be on your cell phone, please do so outside of
the classroom. Everyone is expected to conduct themselves professionally at all times.

**Academic Integrity**

You should review CUNY’s Academic Integrity Policy, which can be found on the
following webpage: [http://www.ccny.cuny.edu/standards/resources.cfm](http://www.ccny.cuny.edu/standards/resources.cfm)
Everyone is expected to conduct themselves at all times in accordance with the standards
of this policy.

**Disability**
In compliance with CCNY policy and equal access laws, appropriate academic accommodations are offered for students with disabilities. Students must first register with The AccessAbility Center for reasonable academic accommodations. The AccessAbility Center is located in the North Academic Center, Rm. 1/218. Tel: (212) 650-5913. Under The Americans with Disability Act, an individual with a disability is a person who has a physical or mental impairment that substantially limits one or more major life activities. If you have any such issues, I encourage you to visit the AccessAbility Center to determine which services may be appropriate for you.

**INC grade**
If you are unable to take the final because of a schedule conflict with another exam, or a catastrophic event (evidence will need to be provided), an INC grade may be assigned. A passing grade is required on all of the previous exams and an Incomplete Grade Agreement must be signed by the instructor prior to taking of the makeup exam. Payment of a fee at the Bursor’s office may also be required in order to take the exam. Makeup exams must be completed within two weeks from the end of classes.