GMS7795 Nobel Prizes in Neuroscience, Fall 2021

PLEASE READ CAREFULLY

This course syllabus describes the reading assignments, self-check quizzes, weekly papers, and weekly paper peer review that you will be completing for each module of this course by their due dates. There is no text book for this course: all of the materials are online. The course is designed in 5 modules, each one week. It is critically important that you keep up with the material and establish your own work schedule so that you can meet the deadlines for the various tasks each week.

The material is in the Canvas shell, but your ability to post comments will be via Voice Thread which resides outside of Canvas, and you will activate access with your Gator link credentials.

The course will begin (i.e., you will be able to access Module1) on Monday 23rd August 2021 and the class will end on September 29th, although the grade will not appear on your transcript until the end of the Fall semester. Each new Module will become available at 12:01 a.m. on Monday of each week,

The format of the course is this: I have collected ALL of the Nobel prizes that are in or directly relevant to neurosciences and clustered them into five broad themes, each of which is a module. Within each theme or module, there are 4-5 Nobel prize years or units (in most cases with co-winners).

Each year or unit has a face page containing a short bio and some links for each of the winners that year. The page is introduced by a short (typically 5 min or less) Voice Thread presentation in which I highlight SOME (but not all) of the main points about the winners. The linked materials fall into two general categories.

The first, for each winner, is a link to the Nobel website on which much of the material in this class has been based. For each winner, the Nobel site has a biographical (or, for more recent winners, autobiographical) sketch with some historical details - minimally when and where they were born, educated, and their scientific collaborations, and in some cases much more. It also has a link to their Nobel lecture - for early winners, this is a written text; for more recent winners it is a video of their lecture; and for the most recent winners, there are interviews conducted either at the time of or subsequent to their award. It is up to you how much or little of this material you examine. Minimally, I think you should read the biosketch. In cases with a video lecture, you should watch enough of it to get an idea of the personality or philosophy involved. In cases with interviews, I have suggested which you watch in full because there are some really interesting insights about (not just scientific) life in them.

Second, and less consistently, there are links to other materials such as publications.

At the end of each theme or module, and **due Saturdays at 11:59 p.m.,** is a 10 question multiple choice test that will ensure that you have actually read the basic material - although <u>just a few</u> of the questions might go a bit beyond the basics (to reward more avid readers!).

There are TWO additional assignments for each module. The first is an essay about the **scientific legacy** of one (your choice) of the Nobel winners in the module. Your essay may be EITHER about a successful student of the Nobel winner -you can look up scientific family trees at neurotree OR about a contemporary "star" in this field of inquiry and WHY this is such important and potentially Nobel-worthy work. It will be difficult to find personal biographical data, so your essay should focus on the academic, including listing scientists' principal mentor(s) and institution(s), a very brief synopsis of their scientific impact to date (e.g., number of publications, prizes or recognition), and the bulk of the paper devoted to describing in some detail what you consider to be their most significant series of contribution(s) giving relevant literature citations (suggestion, about 5). Thus, the suggested flow might be "First they showed .... this (detailed explanation and ref). In a critical follow-up study they found that ....(details and ref). Then, to address the issue of ... they ...(details and ref)". Each module paper is **due (in Canvas) by 11:59 p.m. on Sunday of that module-week**.

The SECOND task is to perform the peer review. On Monday mornings, I will assign each of you the paper of ONE other student to read and review and send it as an email. These reviews (worth 30 points) are **due to me (by email) by Tuesday midnight** (i.e., next evening). I will return the peer comments along with my own to the paper writer later in that week.

The materials for the next module will not be released until you have submitted your self-check quizzes and paper for the previous module, but will not be dependent on the peer review being completed and submitted.

After you have submitted your peer review for the last module, Technological Advances, this one-credit class will be completed. There is no cumulative or final exam.

The maximum total points for the class are as follows:

Self-check quizzes (5 @ 20 points) = 100 points

Module papers (5 @ 100 points) = 500 points

Peer reviews (5 @ 30 points) = 150 points

or a total of 750 points. The approximate grade scale (%) will be 92/84/76/68 with + and - divisions as appropriate.

Be sure to monitor the completion of your work by viewing the Modules or Grades Pages linked in the menu on the left. The following links will take you to help pages on how to view these sections of the course: Modules and Grades. If you have additional questions about the CANVAS platform, please see the Canvas Student Guide.