UNIVERSITY OF FLORIDA COLLEGE OF MEDICINE SYLLABUS NEUROSCIENCE

Nobel Prizes in Neuroscience (1 credit hours)

Fall/Spring/Summer

Online

Instructor Name: Susan Semple-Rowland and Neil Rowland Email Address: <u>rowland@ufl.edu</u>; <u>nrowland@ufl.edu</u> Office Hours: Arranged by student on Zoom Preferred Course Communications: Email through Canvas

Course Learning Objectives

- Be able to discuss the scientific careers of Nobel Prize winners in this field, including any influence of the research mentor(s)/institutions with whom the recipient trained
- Be able to discuss the awarded scientific discoveries as they relate to current research in Neuroscience
- In the case of multiple awardees in a given year, be able to discuss the relationship of their independent discoveries or collaborative work
- Be able to discuss the role (if any) of serendipity and politics in the discovery or award, *e.g.*, why other contemporary researcher(s) in the same field did not get the award

Instructional Methods:

The course readings are available as pdf links in the Canvas module. Lectures are given using Voice Thread and should load automatically in Canvas.

Description of Course Content:

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 just a few 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 <u>neurotree (Links to an external site.)</u> 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 <u>some detail</u> 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 a 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 <u>will not be released</u> 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.

| Week | Topic(s) |
|------|-----------------------------------|
| 1 | Structure and Function of Neurons |
| 2 | Chemical Neurotransmission |
| 3 | Sensory Systems |
| 4 | Evolution and Behavior |
| 5 | Technological Advances |

Topic Outline/Course Schedule

Course Materials and Technology:

All course readings are available as pdf links in the Canvas module. There is no required textbook for this course.

- Laptop or desktop computer equipped with microphone and video camera. The microphone and video camera can be used to post comments/questions to VoiceThread lectures and will be used to create the VoiceThread project for Module 11. There are VoiceThread apps that are available for free for iOS and Android devices that can be used to view the VT and comment on them. These apps should not be used when creating VoiceThreads. For these, I strongly recommend that you use a laptop or desktop computer.
- **High speed, broad band internet connection such as DSL or cable.** A broadband Internet connection is strongly recommended. Slower connections may affect your ability to interact with materials in the course. It is also recommended that you try to submit course exams and assignments well ahead of the deadline since we have found that network speeds can significantly slow as the deadlines in online courses approach due to increased use.

SPECIAL NOTE: Some users with satellite Internet service may find their online courses do not load quickly or consistently due to satellite network design issues.

- Installation of LockDown Browser on computer that you will use for this course. All tests will be taken using LockDown Browser. The computer you use to take exams should be "hard wired" to the internet. WiFi is not stable enough to support a reliable connection for taking tests. Instructions on how to install LockDown Browser are included in the course introduction module.
- Canvas courses are best viewed using Chrome or Firefox. For specific questions about browser compatibilities and general questions about e-learning at UF please go to https://wiki.helpdesk.ufl.edu/FAQs/E-Learning.

For technical support for this class, please contact the UF Help Desk at:

- <u>Learning-support@ufl.edu</u>
- (352) 392-HELP select option 2
- <u>UF eLearning</u>

Academic Requirements and Grading:

Assignments:

- For <u>each</u> of the awards (typically 4) that constitute the material for a given week and theme, students will complete a short on-line multiple choice quiz to test elements of the learning objectives. (Total of about 20 quizzes and 5 points/quiz 100 points total)
- For each week or theme, students will submit an essay (1,500 words) or an electronic presentation on one of the above objectives, or other suitable organizing structure for that theme. The essay will be graded by rubric (50 points/essay 250 points total).
- Students will be assigned one such paper for peer review, using the same rubric, and will receive up to 10 points for a brief (100-200 word + rubric) review. (50 points total)

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

Total possible points = 750 points.

Grading:

| Percentage total | Letter Grade | Grade Points |
|------------------|--------------|--------------|
| points earned | | |
| 93-100 | А | 4.0 |
| 90-92 | A- | 3.67 |
| 87-89 | B+ | 3.33 |
| 83-86 | В | 3.0 |
| 80-82 | B- | 2.67 |
| 77-79 | C+ | 2.33 |
| 73-76 | С | 2.0 |
| 70-72 | C- | 1.67 |
| 67-69 | D+ | 1.33 |
| 63-66 | D | 1.0 |
| 60-62 | D- | 0.67 |
| Below 60 | E | 0.0 |

Please be aware that a C- is not an acceptable grade for graduate students. The GPA for graduate students must be 3.0 based on 5000 level courses and above to graduate. A grade of C counts toward a graduate degree only if based on credits in courses numbered 5000 or higher that have been earned with a B+ or higher.

More information on UF grading policy may be found at:

http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#grades

Exam Policy

Late assignments and tests

I recognize that personal circumstances arise that may interfere with your ability to meet a deadline. If you anticipate missing a deadline, please let me know as soon as possible and I will work with you to resolve the issue. Your emails will be responded to within 24 hours (typically sooner). Please see the <u>UF Attendance Policies</u> concerning absences, religious holidays, and illness. In general, late assignments, quizzes, and tests will not be accepted unless you have obtained a deadline extension from the instructor.

If you encounter technical difficulties with assignments (e.g. LockDown browser malfunction), be sure to include a UF helpdesk ticket number (<u>http://helpdesk.ufl.edu/</u>) in your request for a deadline extension if you plan to request one. The extension request MUST be submitted within 24 hours of the technical difficulty.

Class Attendance Policy

This course is entirely online and is asynchronous. Thus there is no formal class attendance policy. Requirements for make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Excused absences that lead to missed assignment deadlines must be consistent with university policies in the Graduate Catalog

http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#attendance.

Additional information can be found here: <u>https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx</u>

Expectations Regarding Course Behavior

WHEN DO I CONTACT THE UF HELPDESK?

In the event that you have <u>technical difficulties with E-learning</u>, please contact the UF helpdesk at learning-support@ufl.edu, or (352) 392-4357 - select option 2. If your technical difficulties will cause you to miss a due date, you MUST report the problem to E-learning. Include the ticket number that you are given in an e-mail to the instructor to explain the late assignment/quiz/test.

Types of questions that should be directed to the Help Desk:

- 1. I can't log into E-learning
- 2. I have clicked on the "submit" button for my quiz and nothing is happening

- 3. I can't upload an assignment (be sure that you have reviewed the tutorial on how to do this BEFORE you contact the Help Desk)
- 4. E-learning has given me an error message and I can't submit my assignment.

<u>NOTE:</u> Late work that involves technical difficulties with E-learning MUST be accompanied by a ticket number from the Help Desk.

ALSO - Be sure to be familiar with the hours of operation for the UF help desk since they are oftentimes not available after 10:30pm on workdays and after 8:00 pm on weekends. There hours are posted at <u>http://helpdesk.ufl.edu/about/business-hours/</u>

WHEN DO I POST QUESTIONS TO THE COURSE QUESTIONS DISCUSSION BOARD?

Questions that deal with the course itself should be submitted to the Course Questions board. Posted questions should NOT be about grades or a private matter. Do not post personal grade questions on the Course Questions discussion board.

Before posting a question, check those already posted to be sure that you are not duplicating a question. These should be things that other students in the class might have trouble with. For example:

- 1. I am unable to post comments to VoiceThread.
- 2. The link to a specific VoiceThread is not working.
- 3. One of the quiz questions did not display properly.

Posting on the Course questions board is the fastest way to get an answer to your question. Be sure to give it a meaningful heading!

Questions of a private nature should be e-mailed to the course instructor (see below on how to e-mail within E-learning). In all cases, please allow 24 hours for a response. Every effort will be made to answer questions posted over the weekend with 24 hours. If not addressed, they will be addressed on the following Monday.

WHEN DO I EMAIL MY INSTRUCTOR?

Questions about the course should be e-mailed to the instructor through the e-mail tool in E-learning.

Examples of e-mail questions for the instructor to get clear, concise responses:

- 1. I think there is an error in my grade for the assignment in module 3 (be sure to explain exactly why you think there is an error and provide documentation)
- 2. I am behind in the course and I would like to know how I may catch up (in such a case, your instructor may ask you to set up a Skype meeting or a time to call on the telephone)

If you have questions about the course itself, please reread the syllabus before asking a question. If the answer is not in the syllabus, check the Course Questions discussion board (this discussion board can be located by clicking on the discussions menu tab on the left of the course home page). If the answer to your question is not there, please post the question on the Course Questions discussion board.

DO NOT e-mail the instructor with general course questions. If your question is of a personal nature, e-mail your instructor from within e-learning system using the instructions below.

Late work that involves technical difficulties with E-learning MUST be accompanied by a ticket number from the Help Desk.

HOW TO EMAIL YOUR INSTRUCTOR

When emailing your instructor, please do so through Canvas.

To send an e-mail from the course:

- 1. Click on the mail icon that is located the left side of your screen.
- 2. Click the "Compose Message" button.
- 3. "To: window" will display.
- 4. Locate your instructor's name.
- 5. Always include a description in your subject line
- 6. Type your message and add any necessary attachments. Be sure that your subject line is meaningful.
- 7. Click "send."

ACADEMIC INTEGRITY

Students are expected to act in accordance with the University of Florida policy on academic integrity. As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge:

"We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity."

You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied:

"On my honor, I have neither given nor received unauthorized aid in doing this assignment."

It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For additional information regarding Academic Integrity, please see Student Conduct and Honor Code or the Graduate Student Website for additional details:

https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/

http://gradschool.ufl.edu/students/introduction.html

Please remember cheating, lying, misrepresentation, or plagiarism in any form is unacceptable and inexcusable behavior.

PLAGIARISM

Students must understand what plagiarism is and must not engage in this behavior when completing assignments and tests in this course. The University of Florida Student Honor Code states that plagiarism includes but is not limited to:

- Quoting oral or written materials including but not limited to those found on the internet, whether published or unpublished, without proper attribution.
- Submitting a document or assignment that in whole or in part is identical or substantially identical to a document or assignment not authored by the student.

Student whose assignments/tests exhibit evidence of plagiarism will receive zeros for those assignments and tests for the first offense and will receive a warning. Students who continue to engage in this behavior after the warning will be reported to the UF Dean of Students Office.

PROHIBITED COLLABORATION OR CONSULTATION

Student found to be involved in sharing answers and/or collaborating on exams or assignments will receive zeros for those exams and assignments. Students who continue to engage in this behavior after the warning will be reported to the UF Dean of Students Office.

Online Faculty Course Evaluation Process

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/ . Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

Support Services

Accommodations for Students with Disabilities:

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center by visiting https://disability.ufl.edu/students/get-started/ . It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester. The College is committed to providing reasonable accommodations to assist students in their coursework.

Counseling and Student Health

Students sometimes experience stress from academic expectations and/or personal and interpersonal issues that may interfere with their academic performance. If you find yourself facing issues that have the potential to or are already negatively affecting your coursework, you are encouraged to talk with an instructor and/or seek help through University resources available to you.

• The Counseling and Wellness Center 352-392-1575 offers a variety of support services such as psychological assessment and intervention and assistance for math and test anxiety. Visit their web site for more information: <u>http://www.counseling.ufl.edu</u>. On line and in person assistance is available.

- You Matter We Care website: <u>http://www.umatter.ufl.edu/</u>. If you are feeling overwhelmed or stressed, you can reach out for help through the You Matter We Care website, which is staffed by Dean of Students and Counseling Center personnel.
- If you live in Gainesville or the immediate surrounding areas, the Student Health Care Center at UF Health is a satellite clinic of the main Student Health Care Center that is located on Fletcher Drive on campus is available to you. Student Health at UF Health offers a variety of clinical services. The clinic is located on the second floor of the Dental Tower in the Health Science Center. For more information, contact the clinic at 392-0627 or check out the web site at: <u>https://shcc.ufl.edu/</u>
- If you live in Gainesville or the immediate surrounding areas, the UF Health Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32698, <u>ufhealth.org/emergency-room-trauma-center</u>.
- University Police Department: Visit police.ufl.edu/ or call 352-392-1111 (or 9-1-1 for emergencies).
- Crisis intervention is always available 24/7 from:

Alachua County Crisis Center:

(352) 264-6789

http://www.alachuacounty.us/DEPTS/CSS/CRISISCENTER/Pages/CrisisCenter.aspx

Do not wait until you reach a crisis to come in and talk with us. We have helped many students through stressful situations impacting their academic performance. You are not alone so do not be afraid to ask for assistance.

Academic Resources

E-learning technical support: Contact the UF Computing Help Desk at 352-392-4357 or via email at helpdesk@ufl.edu.

Career Connections Center: Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services <u>career.ufl.edu/</u>.

Library Support: <u>cms.uflib.ufl.edu/</u> ask various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center: Broward Hall 352-392-2010 or to make an appointment 352 392-6420. General study skills and tutoring. <u>teachingcenter.ufl.edu/</u>

Writing Studio: 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers. <u>writing.ufl.edu/writing-studio/</u>

Student Complaints On-Campus: <u>sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/</u>

On-Line Students Complaints: <u>distance.ufl.edu/student-complaint-process</u>