

1. General Information

1a. Submitted by the College of: MEDICINE

Date Submitted: 8/20/2013

1b. Department/Division: Anatomy &Neurobiology

1c. Contact Person

Name: James Geddes

Email: jgeddes@uky.edu

Phone: 323-5135

Responsible Faculty ID (if different from Contact)

Name:

Email:

Phone:

1d. Requested Effective Date: Specific Term/Year 1 Spring 2014

1e. Should this course be a UK Core Course? No

2. Designation and Description of Proposed Course

2a. Will this course also be offered through Distance Learning?: No

2b. Prefix and Number: ANA 410G

2c. Full Title: Neurobiology of Brain and Spinal Cord Disorders

2d. Transcript Title: Neurobiology of Brain Disorders

2e. Cross-listing:

2f. Meeting Patterns

LECTURE: 3

2g. Grading System: Letter (A, B, C, etc.)

2h. Number of credit hours: 3

2i. Is this course repeatable for additional credit? No

If Yes: Maximum number of credit hours:

If Yes: Will this course allow multiple registrations during the same semester?

JAN 8 2015

OFFICE OF THE SENATE COUNCIL



New Course Report

- 2j. Course Description for Bulletin: ANA 410G is a multidisciplinary discussion of neurodegenerative diseases and neurologic disorders. The course objective is to provide an in depth understanding of the basic science and clinical symptoms of selected neurologic disorders and neurodegenerative diseases, current treatment strategies and new approaches for treatment and potential cure of these devastating illnesses. Included are such topics as the 1) subcellular and molecular basis of the diseases, 2) the role of genetics in aging and neurodegeneration, 3) mechanisms of cell death, and 4) the cellular/molecular basis of neurodegenerative diseases and neurologic disorders. The format of the course will consist of a series of formal lectures and informal discussion sessions. Reference materials will be recent review articles. Graduate students taking the course will present studies from the primary medical literature in a journal club format and will also prepare a paper examining one disorder in detail. This course will be of interest to advanced students from a variety of disciplines whose interests concern brain and spinal cord disorders.
- 2k. Prerequisites, if any: For undergraduate students: BIO 302 or PSY 312 or consent of course directors. For graduate students: Enrollment in a graduate program in biomedical sciences, gerontological sciences or consent of one of the course directors.
- 21. Supplementary Teaching Component:
- Will this course taught off campus? No If YES, enter the off campus address:
- 4. Frequency of Course Offering: Spring,

Will the course be offered every year?: Yes

If No, explain:

- 5. Are facilities and personnel necessary for the proposed new course available?: Yes If No, explain:
- 6. What enrollment (per section per semester) may reasonably be expected?: 20
- 7. Anticipated Student Demand

Will this course serve students primarily within the degree program?: No

Will it be of interest to a significant number of students outside the degree pgm?: Yes

If Yes, explain: This course will be of interest to Biology and Psychology Majors as well Graduate Students in a variety of disciplines including Chemistry, Biology, Psychology, Physiology, Biochemistry, Neurobiology &Anatomy, and Pharmacology. If and when a Neuroscience Major is approved, it is anticipated that this course represent a non-required course, but qualifying for credit towards the Major.

- 8. Check the category most applicable to this course: Relatively New Now Being Widely Established, If No, explain:
- 9. Course Relationship to Program(s).
 - a. Is this course part of a proposed new program?: Yes



New Course Report

If YES, name the proposed new program: This is anticiapted to be part of a Neuroscience Major, as a non-required but qualifying (Tier II) course

b. Will this course be a new requirement for ANY program?: No

If YES, list affected programs:

- 10. Information to be Placed on Syllabus.
 - a. Is the course 400G or 500?: Yes
- b. The syllabus, including course description, student learning outcomes, and grading policies (and 400G-/500-level grading differentiation if applicable, from **10.a** above) are attached: Yes

Distance Learning Form

Instructor Name:

Instructor Email:

Internet/Web-based: No

Interactive Video: No

Hybrid: No

- 1. How does this course provide for timely and appropriate interaction between students and faculty and among students? Does the course syllabus conform to University Senate Syllabus Guidelines, specifically the Distance Learning Considerations?
- 2. How do you ensure that the experience for a DL student is comparable to that of a classroom-based student's experience? Aspects to explore: textbooks, course goals, assessment of student learning outcomes, etc.
- 3. How is the integrity of student work ensured? Please speak to aspects such as password-protected course portals, proctors for exams at interactive video sites; academic offense policy; etc.
- 4. Will offering this course via DL result in at least 25% or at least 50% (based on total credit hours required for completion) of a degree program being offered via any form of DL, as defined above?

If yes, which percentage, and which program(s)?

- 5. How are students taking the course via DL assured of equivalent access to student services, similar to that of a student taking the class in a traditional classroom setting?
- 6. How do course requirements ensure that students make appropriate use of learning resources?
- 7.Please explain specifically how access is provided to laboratories, facilities, and equipment appropriate to the course or program.
- 8. How are students informed of procedures for resolving technical complaints? Does the syllabus list the entities available to offer technical help with the delivery and/or receipt of the course, such as the Information Technology Customer Service Center (http://www.uky.edu/UKIT/)?
- 9. Will the course be delivered via services available through the Distance Learning Program (DLP) and the Academic Technology Group (ATL)? NO



New Course Report

If no, explain how student enrolled in DL courses are able to use the technology employed, as well as how students will be provided with assistance in using said technology.

- 10.Does the syllabus contain all the required components? NO
- 11.I, the instructor of record, have read and understood all of the university-level statements regarding DL.

Instructor Name:

SIGNATURE|DONGASH|Don M Gash|ANA 410G NEW Dept Review|20130826

SIGNATURE|MRWH224|Melissa R Wilkeson|ANA 410G NEW College Review|20131113

SIGNATURE|JDLIND2|Jim D Lindsay|ANA 410G NEW HCCC Review|20140319

SIGNATURE|ZNNIKO0|Roshan Nikou|ANA 410G NEW Graduate Council Review|20140410

SIGNATURE[JMETT2]Joanie Ett-Mims|ANA 410G NEW Undergrad Council Review|20150108

Courses Request Tracking

New Course Form

https://myuk.uky.edu/sap/bc/soap/rfc?services= Generate R Open in full window to print or save Attachments: Upload File Browse... Attachment ID Delete 4235 ANA 410G syllabus (revised 1-8-15) First 1 Last Select saved project to retrieve. New (*denotes required fields) 1. General Information a. * Submitted by the College of: MEDICINE Submission Date: 8/20/2013 b. * Department/Division: Anatomy & Neurobiology ٧ James Geddes Phone: 323-5135 * Contact Person Name: Email: jgeddes@uky.edu * Responsible Faculty ID (if different from Contact) Email: Phone: d. * Requested Effective Date: O Semester following approval OR O Specific Term/Year 1/Spring 2014 If YES, check the areas that apply: Inquiry - Arts & Creativity Composition & Communications - II Inquiry - Humanities Quantilative Foundations Inquiry - Nat/Math/Phys Sci Statistical Inferential Reasoning Inquiry - Social Sciences U.S. Citizenship, Community, Diversity Composition & Communications - I Global Dynamics 2. Designation and Description of Proposed Course. a. * Will this course also be offered through Distance Learning? ◎ Yes ⁴ ⑨ No b. * Prefix and Number: ANA 410G c. *Full Title: Neurobiology of Brain and Spinal Cord Disorders d. Transcript Title (if full title is more than 40 characters): Neurobiology of Brain Disorders e. To be Cross-Listed 2 with (Prefix and Number): f. * Courses must be described by at least one of the meeting patterns below. Include number of actual contact hours3 for each meeting pattern type. Lecture Recitation Discussion Laboratory1 Indep. Study Clinical Colloquium Practicum Studio Research Seminar Residency Other If Other, Please explain: g. * Identify a grading system: Detter (A, B, C, etc.) Pass/Fail O Medicine Numeric Grade (Non-medical students will receive a letter grade) C Graduate School Grade Scale h. * Number of credits: 3 i. * Is this course repeatable for additional credit? If YES: Maximum number of credit hours: If YES: Will this course allow multiple registrations during the same semester? O Yes O No

	j.	* Course Description for Bulletin:
		ANA 410G is a multidisciplinary discussion of neurodegenerative diseases and neurologic disorders. The course objective is to provide an in depth understanding of the basic science and clinical symptoms of selected neurologic disorders and neurodegenerative diseases, current treatment strategies and new approaches for treatment and potential cure of these devastating illnesses. Included are such topics as the 1) subcellular and molecular basis of the diseases, 2) the role of genetics in aging and neurodegeneration, 3) mechanisms of cell death, and 4) the cellular/molecular basis of neurodegenerative diseases and neurologic disorders. The format of the course will consist of a series of formal lectures and informal discussion sessions. Reference materials will be recent review articles. Graduate students taking the course will present studies from the primary medical literature in a journal club format and will also prepare a paper examining one disorder in detail. This course will be of interest to advanced students from a variety of disciplines whose interests concern brain and spinal
	k.	Prerequisites, if any:
		For undergraduate students: BIO 302 or PSY 312 or consent of course directors. For graduate students: Enrollment in a graduate program in biomedical sciences, gerontological sciences or consent of one of the course directors.
	I.	Supplementary teaching component, if any: ① Community-Based Experience ② Service Learning ② Both
3.	* Will	this course be taught off campus?
	If YES	, enter the off campus address:
4.	Frequ	ency of Course Offering.
	a.	* Course will be offered (check all that apply): Fall Spring Summer Winter
		* Will the course be offered every year? '® Yes © No If No, explain:
5.		facilities and personnel necessary for the proposed new course available? Yes No
	II NO,	explain:
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	I	
6.	* Wha	t enrollment (per section per semester) may reasonably be expected? 20
7.	Antici	pated Student Demand.
	a.	* Will this course serve students primarily within the degree program? ② Yes ⑨ No
	ħ	* Will it be of interest to a significant number of students outside the degree pgm? ◎ Yes ☉ No
		If YES, explain:
		This course will be of interest to Biology and Psychology Majors as well Graduate Students in a variety of disciplines including Chemistry, Biology, Psychology, Physiology, Biochemistry, Neurobiology & Anatomy, and
8.	* Ched	ck the category most applicable to this course:
	∏Tra	ditional – Offered in Corresponding Departments at Universities Etsewhere
	☑ Rel	atively New – Now Being Widely Established
	□ No	Yet Found in Many (or Any) Other Universities
9.	Cours	e Relationship to Program(s).
	a.	* Is this course part of a proposed new program?
		If YES, name the proposed new program:
		This is anticiapted to be part of a Neuroscience Major, as a non-required but qualifying (Tier II) course
		* Will this course be a new requirement ⁵ for ANY program?
		If YES ⁵ , list affected programs::
10.	Inform	nation to be Placed on Syllabus.
		* is the course 400G or 500? '
		If YES, the differentiation for undergraduate and graduate students must be included in the information required in 10.b. You must include: (i) identi
		additional assignments by the graduate students; and/or (ii) establishment of different grading criteria in the course for graduate students. (See SR
		▼ * The syllabus, including course description, student learning outcomes, and grading policies (and 400G-/500-level grading differentiation if appl **The syllabus, including course description, student learning outcomes, and grading policies (and 400G-/500-level grading differentiation if appl **The syllabus, including course description, student learning outcomes, and grading policies (and 400G-/500-level grading differentiation if appl **The syllabus, including course description, student learning outcomes, and grading policies (and 400G-/500-level grading differentiation if appl **The syllabus, including course description, student learning outcomes, and grading policies (and 400G-/500-level grading differentiation if appl **The syllabus, including course description is appl **
		10.a above) are attached.

⁽III Courses are typically made effective for the semester following approval. No course will be made effective until all approvals are received

13 In general, undergraduate courses are developed on the principle that one semestar hour of credit represents one hour of classroom meeting per week for a semester, exclusive of any laboratory meeting. Laboratory meeting, generally, re two hours per week for a semester for one credit hour, (from SR 52.1)

18 You must also submit the Distance Learning Form in order for the proposed course to be considered for DL delivery.

19 In order to change a program, a program change form must also be submitted.

Submit as New Proposal Save Current Changes

Neurobiology of Brain and Spinal Cord Disorders

Course Schedule and Syllabus

Course Directors

James W. GeddesSCoBIRCB483 BBSRB323-5135jgeddes@uky.eduGreg A. GerhardtAnatomyMN 206323-4531gregg@uky.edu

COURSE DESCRIPTION

ANA 410G is a multidisciplinary discussion of neurodegenerative diseases and neurologic disorders. The course objective is to provide an in depth understanding of the basic science and clinical symptoms of selected neurologic disorders and neurodegenerative diseases, current treatment strategies and new approaches for treatment and potential cure of these devastating illnesses. Included are such topics as the 1) subcellular and molecular basis of the diseases, 2) the role of genetics in aging and neurodegeneration, 3) mechanisms of cell death, and 4) the cellular/molecular basis of neurodegenerative diseases and neurologic disorders. The format of the course will consist of a series of formal lectures and informal discussion sessions. Reference materials will be recent review articles. Graduate students taking the course will present articles from the primary medical literature in a journal club format and will also prepare a paper examining one disorder in detail. This course will be of interest to advanced students from a variety of disciplines whose interests concern brain and spinal cord disorders.

Format: Lecture course meeting MWF, 2:00 pm - 2:50 pm in room 202A BBSRB (tentative)

Prerequisites:

For undergraduate students: BIO 302 or PSY 312 or consent of course directors.

For graduate students: Enrollment in a graduate program in biomedical sciences, gerontological sciences or consent of one of the course directors.

Student Learning Outcomes:

After completing this course, the student will be able to:

- 1. Describe various neurologic and neurodegenerative disorders of the brain and spinal cord.
- 2. Appreciate the relationship between the pathology and clinical symptoms of the various disorders.
- 3. Understand the genetics underlying inherited neurologic disorders and, where known, how the mutations influence the cell biology and contribute to the disease pathogenesis.
- 4. Evaluate current treatments for neurologic and neurodegenerative disorders.
- 5. Understand current translational research approaches to preventing or treating neurologic and neurodegenerative disorders

Reading Assignments:

Students are responsible for all material presented in lecture sessions as well as reading assignments assigned by the course directors and course faculty. Reading assignments should be read before the relevant lecture.

Required Materials:

There is not a required textbook. Course material is obtained from recent review of journal articles and from the primary medical literature. Articles will be provided on Blackboard (see https://elearning.uky.edu/).

Description of Course Activities and Assignments:

For undergraduate students, course activities will include three in-class exams, participation in discussion sessions, and one short take-home assignment. The take-home assignment will be to summarize a TED talk or a review article related to a neurologic or neurodegenerative disorder.

For graduate students, course activities will include three in-class exams, participation in discussion sessions, one journal club presentation of a primary research article, and one writing assignment.

Final Grade Weighting:

For undergraduate students:

4 Exams at 100 points each (each 22.5% of final grade)

1 Take home assignment (5% of final grade)

Participation in discussion sessions (5% of final grade)

For graduate students:

4 Exams at 100 points each (each 20% of final grade)

1 paper (10% of final grade)

1 journal club presentation (5% of final grade)

Participation in discussion sessions (5% of final grade)

Course Grading:

Three fifty minute examinations and a non-cumulative final will be given. Exams will be multiple choice and short answer and will cover the material presented by the lecturers and the readings during that third of the course. Each exam will be graded out of 100 points and will contribute 22.5% of the student's final grade for undergraduate students or 20% of the final grade for graduate students.

Additionally, for undergraduate students there will be one short, take-home assignment that will be worth 5% of the final grade. Participation in discussion sessions will also account for 5% of the final grade.

Expectations for graduate students beyond the expectations for undergraduates:

Graduate students will: 1) prepare a paper descripting the clinical symptoms, pathology, epidemiology, genetics, and cell/molecular biology of one neurologic or neurodegenerative disorder not covered in the lectures. They will also 2) present an article from the primary literature to the class in a journal club format.

The paper is up to 10 pages in length, double spaced, excluding references. It will be graded based on content, organization, and references. Points will be deducted for poor spelling and grammar.

Each graduate student will present one oral presentation of a student-selected selected article from the primary scientific/medical literature. Order of presentations will be determined randomly. Requirements for the oral presentation include:

- PowerPoint presentation
- 20-25 minutes in length
- Allow 5-10 minutes for discussion and questions arising during presentation

Grading scale for undergraduate students:

A 100-90.0%

B 89.9-80.0%

C 79.9-70.0%

D 69.9-60.0%

E below 60.0%

Grading scale for graduate students (no D for graduate students):

A 100-90.0%

B 89.9-80.0%

C 79.9-70.0%

E below 70.0%

Extra credit assignments are NOT available.

The course directors reserve the option of curving the final grades.

Final Exam Information (TBD in final syllabus)

Mid-term Grade

Mid-term grades will be posted in *myUK* by the deadline established in the Academic Calendar (http://www.uky.edu/Registrar/AcademicCalendar.htm)

Submission of Assignments:

Written assignments will be due at the start of class on the due date. They should be submitted on Blackboard as a word (.doc or .docx) or portable document format (.pdf) file.

Points will be deducted for late assignments, with a 5% deduction for turning in after the start of class on the due date plus an additional 10% deduction for each additional day that the assignment is late.

Attendance Policy:

A sign-up sheet will be issued at every class session. Students must sign their own name to prove attendance. Attendance will be considered as part of the participation component of the grade.

Excused Absences:

Students need to notify the professor of absences prior to class when possible. S.R. 5.2.4.2 defines the following as acceptable reasons for excused absences: (a) serious illness, (b) illness or death of family member, (c) University-related trips, (d) major religious holidays, and (e) other circumstances found to fit "reasonable cause for nonattendance" by the professor.

Students anticipating an absence for a major religious holiday are responsible for notifying the instructor(s) in writing of anticipated absences due to their observance of such holidays no later than the last day in the semester to add a class. Information regarding dates of major religious holidays may be obtained through the religious liaison, Mr. Jake Karnes (859-257-2754).

Students are expected to withdraw from the class if more than 20% of the classes scheduled for the semester are missed (excused or unexcused) per university policy.

Verification of Absences:

Students may be asked to verify their absences in order for them to be considered excused. Senate Rule 5.2.4.2 states that faculty have the right to request "appropriate verification" when students claim an excused absence because of illness or death in the family. Appropriate notification of absences due to university-related trips is required prior to the absence.

A missed exam will result in a score of zero, unless an acceptable excuse is presented to the instructor within one week of the missed exam. A valid University excuse is also required for late submission of the writing assignment.

Make up opportunities:

Make-up exams will only be given for excused absences as defined by the University (http://www.uky.edu/StudentAffairs/Code/part2.html). They will consist of discussion, short answer or multiple choice questions and will be administered during the week before the final examination. It is the student's responsibility to contact the instructor to arrange a make-up exam.

If the writing assignment is late due to a valid University excuse, the deadline will be extended by 24h or longer, depending upon the circumstances. The new deadline will be determined by the course directors.

Academic Integrity:

Per university policy, students shall not plagiarize, cheat, falsify or misuse academic records. Students are expected to adhere to University policy on cheating and plagiarism in all courses. The minimum penalty for a first offense is a zero on the assignment on which the offense occurred. If the offense is considered severe or the student has other academic offenses on their record, more serious penalties, up to suspension from the university, may be imposed.

Plagiarism and cheating are serious breaches of academic conduct. Each student is advised to become familiar with the various forms of academic dishonesty as explained in the Code of Student Rights and Responsibilities. Complete information can be found at the following website: http://www.uky.edu/Ombud. A plea of ignorance is not acceptable as a defense against the charge of academic dishonesty. It is important that you review this information as all ideas borrowed from others need to be properly credited.

Part II of Student Rights and Responsibilities (available online) states that all academic work, written or otherwise, submitted by students to their instructors or other academic supervisors, is expected to be the result of their own thought, research, or self-expression. In cases where students feel unsure about the question of plagiarism involving their own work, they are obliged to consult their instructors on the matter before submission.

When students submit work purporting to be their own, but which in any way borrows ideas, organization, wording or anything else from another source without appropriate acknowledgement of the fact, the students are guilty of plagiarism. Plagiarism includes reproducing someone else's work, whether it be a published article, chapter of a book, a paper from a friend or some file, or something similar to this. Plagiarism also includes the practice of employing or allowing another person to alter or revise the work which a student submits as his/her own, whoever that other person may be.

Students may discuss assignments among themselves or with an instructor or tutor, but when the actual work is done, it must be done by the student, and the student alone. When a student's assignment involves research in outside sources of information, the student must carefully acknowledge exactly what, where and how he/she employed them. If the words of someone else are used, the student must put quotation marks around the passage in question and add an appropriate indication of its origin. The process of making simple changes while leaving the organization, content and phraseology intact is plagiaristic. However, nothing in these Rules shall apply to those ideas which are so generally and freely circulated as to be a part of the public domain (Section 6.3.1).

Please note: Any assignment you turn in may be submitted to an electronic database to check for plagiarism.

Accommodations due to disability:

If you have a documented disability that requires academic accommodations, please see the course instructor(s) as soon as possible during scheduled office hours. In order to receive accommodations in this course, you must provide the instructor(s) with a Letter of Accommodation from the Disability Resource Center (Room 2, Alumni Gym, 257-2754, email address: jkarnes@email.uky.edu) for coordination of campus disability services available to students with disabilities. This letter must be presented at least 24 hours in advance of the first exam in the course the students plans to request accommodations for.

Classroom Behavior, Decorum and Civility:

The course directors seek to create an environment of mutual respect in this class and expect all faculty and students to treat everyone in the class courteously. Questions are encouraged. Students have the right to take reasoned exception and to voice opinions contrary to those offered by the instructor and/or other students (S.R. 6.1.2). Equally, a faculty member has the right – and the responsibility – to ensure that all academic discourse occurs in a context characterized by respect and civility. It is essential that discussions remain civil and do not include attacks of a personal nature or statements denigrating another on the basis of race, sex, religion, sexual orientation, age, national/regional origin or other such irrelevant factors.

Cellphones must be turned off or placed in silent mode during class. Students are expected to be on time for class and to be present and in their seats at the start of the lecture period. Students are expected to remain in their seats for the duration of the lecture, unless otherwise instructed.

Professional Preparation:

Not applicable

Group Work and Student Collaboration:

Not applicable

Office Hours

The course director and faculty will be available for consultation by appointment. Students are encouraged to consult with all participating faculty. Email is the preferred method for contacting faculty and course directors.

Tentative Course Schedule

The course will meet MWF each week for 50 min. The lectures will be grouped into thematic topics focused on specific disorders. Each topic will culminate with a Discussion session, which may include a Journal Club presentation by a graduate student. The number of Journal Clubs will be dependent upon the number of graduate students enrolled in the course.

Introduction/The Aging Brain Introduction Introduction The Aging Brain The Aging Brain The Aging Brain Martin Lufher King Birday-Academic Holiday Martin Lufher Stroke—Clinical aspects and therapeutics Martin Lufher Stroke—Current Research Martin Lufher Stroke—Clinical aspects and Epidemiology Martin Lufher Stroke—Clinical Aspects and Epidemi	Day	Date	Lecture Topics
Fri 16-Jan The Aging Brain Mon 19-Jan Martin Lutrier King BirdayAcademic Holiday Wed 21-Jan Aging Brain-Presentation and Discussion of Journal Article Stroke Fri 23-Jan Stroke—Clincal aspects and therapeutics Mon 26-Jan Stroke—Current Research Wed 28-Jan Stroke—Presentation and Discussion of Journal Article Alzheimer's Disease Fri 30-Jan Alzheimer's Disease Fri 30-Jan Alzheimer's Disease—Glinical aspects ande Epidemiology Mon 2-Feb Alzheimer's Disease—Genetics and Risk Factors Wed 4-Feb Alzheimer's Disease—ResearchEarly Detection Fri 6-Feb EXAM 1 Mon 9-Feb Alzheimer's Disease—ResearchCellular and Molecular Mechanisms Wed 11-Feb Alzheimer's Disease—ResearchAnimal Models Fri 13-Feb Alzheimer's Disease—Presentation and Discussion of Journal Article CNS Pain Mon 16-Feb CNS PainClinical and Research Overview Wed 18-Feb Derkinson's Disease Fri 20-Feb Parkinson's Disease—Clinical Aspects and Epidemiology Mon 23-Feb Parkinson's Disease—Genetics Wed 25-Feb Parkinson's Disease—Clentical Aspects and Epidemiology Mon 2-Mar Parkinson's Disease—Clentical Aspects and Molecular Mechanisms Mon 2-Mar Parkinson's Disease—Clellular and Molecular Mechanisms Parkinson's Disease—Clellular and Molecular Mechanisms Parkinson's Disease—Animal models Wed 4-Mar Parkinson's Disease—Presentation and Discussion of Journal Article Fri 27-Feb Parkinson's Disease—Presentation and Discussion of Journal Article Fri 27-Feb Parkinson's Disease—Presentation and Discussion of Journal Article			Introduction/The Aging Brain
Mon. 19-Jan Martin Luther King Birday- Academic Holiday Wed 21-Jan Aging Brain-Presentation and Discussion of Journal Article Stroke Fri 23-Jan StrokeClincal aspects and therapeutics Mon 26-Jan StrokeCurrent Research Wed 28-Jan StrokePresentation and Discussion of Journal Article Alzheimer's Disease Fri 30-Jan Alzheimer's DiseaseClinical aspects ande Epidemiology Mon 2-Feb Alzheimer's DiseaseGenetics and Risk Factors Wed 4-Feb Alzheimer's DiseaseResearchCellular and Molecular Mechanisms Wed 11-Feb Alzheimer's DiseaseResearchCellular and Molecular Mechanisms Wed 11-Feb Alzheimer's DiseasePresentation and Discussion of Journal Article CNS Pain Mon 16-Feb CNS PainClinical and Research Overview Wed 18-Feb CNS PainPresentation and Discussion of Journal Article Parkinson's Disease Fri 20-Feb Parkinson's DiseaseClinical Aspects and Epidemiology Mon 23-Feb Parkinson's DiseaseGenetics Wed 25-Feb Parkinson's DiseaseGenetics Wed 25-Feb Parkinson's DiseaseClinical Aspects and Epidemiology	Wed.	14-Jan	Introduction
Wed 21-Jan Aging Brain-Presentation and Discussion of Journal Article Stroke Fri 23-Jan StrokeClincal aspects and therapeutics Mon 26-Jan StrokeCurrent Research Wed 28-Jan StrokePresentation and Discussion of Journal Article Alzheimer's Disease Fri 30-Jan Alzheimer's DiseaseClinical aspects and Epidemiology Mon 2-Feb Alzheimer's DiseaseGenetics and Risk Factors Wed 4-Feb Alzheimer's DiseaseResearchEarly Detection Fri 6-Feb EXAM 1 Mon 9-Feb Alzheimer's DiseaseResearchCellular and Molecular Mechanisms Wed 11-Feb Alzheimer's DiseasePresentation and Discussion of Journal Article CNS Pain Mon 16-Feb CNS PainClinical and Research Overview Wed 18-Feb CNS PainClinical and Research Overview Wed 18-Feb Parkinson's DiseaseClinical Aspects and Epidemiology Mon 23-Feb Parkinson's DiseaseClinical Aspects and Epidemiology Wed 25-Feb Parkinson's DiseaseClinical Aspects and Epidemiology Wed <	Fri	16-Jan	The Aging Brain
Stroke Fri 23-Jan Stroke—Clincal aspects and therapeutics Mon 26-Jan Stroke—Current Research Wed 28-Jan Stroke—Presentation and Discussion of Journal Article Alzheimer's Disease Fri 30-Jan Alzheimer's Disease—Clinical aspects ande Epidemiology Mon 2-Feb Alzheimer's Disease—Genetics and Risk Factors Wed 4-Feb Alzheimer's Disease—Research—Early Detection Fri 6-Feb EXAM 1 Mon 9-Feb Alzheimer's Disease—Research—Cellular and Molecular Mechanisms Wed 11-Feb Alzheimer's Disease—Research—Animal Models Fri 13-Feb Alzheimer's Disease—Presentation and Discussion of Journal Article CNS Pain Mon 16-Feb CNS Pain—Clinical and Research Overview Wed 18-Feb CNS Pain—Presentation and Discussion of Journal Article Parkinson's Disease Fri 20-Feb Parkinson's Disease—Clinical Aspects and Epidemiology Mon 23-Feb Parkinson's Disease—Clinical Aspects and Epidemiology Wed 25-Feb Parkinson's Disease—Cenetics Wed 25-Feb Parkinson's Disease—Cellular and Molecular Mechanisms Mon 2-Mar Parkinson's Disease—Cellular and Molecular Mechanisms Mon 2-Mar Parkinson's Disease—Presentation and Discussion of Journal Article Fri 6-Mar EXAM 2	Mon	19-Jan	Martin Luther King BirdayAcademic Holiday
Fri 23-Jan Stroke—Clincal aspects and therapeutics Mon 26-Jan Stroke—Current Research Wed 28-Jan Stroke—Presentation and Discussion of Journal Article **Alzheimer's Disease** Fri 30-Jan Alzheimer's Disease—Clinical aspects ande Epidemiology Mon 2-Feb Alzheimer's Disease—Genetics and Risk Factors Wed 4-Feb Alzheimer's Disease—Research—Early Detection Fri 6-Feb Alzheimer's Disease—Research—Cellular and Molecular Mechanisms Wed 11-Feb Alzheimer's Disease—Research—Animal Models Fri 13-Feb Alzheimer's Disease—Presentation and Discussion of Journal Article **CNS Pain** Mon 16-Feb CNS Pain—Clinical and Research Overview Wed 18-Feb CNS Pain—Presentation and Discussion of Journal Article **Parkinson's Disease** Fri 20-Feb Parkinson's Disease—Clinical Aspects and Epidemiology Mon 23-Feb Parkinson's Disease—Genetics Wed 25-Feb Parkinson's Disease—Therapeutics/Deep Brain Stimulation Fri 27-Feb Parkinson's Disease—Cellular and Molecular Mechanisms Mon 2-Mar Parkinson's Disease—Cellular and Molecular Mechanisms Mon 2-Mar Parkinson's Disease—Presentation and Discussion of Journal Article Fri 6-Mar Parkinson's Disease—Presentation and Discussion of Journal Article Fri 6-Mar Parkinson's Disease—Presentation and Discussion of Journal Article Fri 6-Mar EXAM 2	Wed	21-Jan	Aging Brain-Presentation and Discussion of Journal Article
Mon 26-Jan StrokeCurrent Research Wed 28-Jan StrokePresentation and Discussion of Journal Article **Alzheimer's Disease** Fri 30-Jan Alzheimer's DiseaseClinical aspects ande Epidemiology Mon 2-Feb Alzheimer's DiseaseGenetics and Risk Factors Wed 4-Feb Alzheimer's DiseaseResearchEarly Detection Fri 6-Feb EXAM 1 Mon 9-Feb Alzheimer's DiseaseResearchCellular and Molecular Mechanisms Wed 11-Feb Alzheimer's DiseaseResearchAnimal Models Fri 13-Feb Alzheimer's DiseasePresentation and Discussion of Journal Article **CNS Pain** Mon 16-Feb CNS PainClinical and Research Overview Wed 18-Feb CNS PainPresentation and Discussion of Journal Article **Parkinson's Disease** Fri 20-Feb Parkinson's DiseaseClinical Aspects and Epidemiology Mon 23-Feb Parkinson's DiseaseGenetics Wed 25-Feb Parkinson's DiseaseTherapeutics/Deep Brain Stimulation Fri 27-Feb Parkinson's DiseaseCellular and Molecular Mechanisms Mon 2-Mar Parkinson's DiseasePresentation and Discussion of Journal Article Fri 27-Feb Parkinson's DiseaseCellular and Molecular Mechanisms Mon 2-Mar Parkinson's DiseasePresentation and Discussion of Journal Article Fri 6-Mar EXAM 2			Stroke
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Wed 4-Mar Parkinson's DiseasePresentation and Discussion of Journal Article Fri 6-Mar EXAM 2	Fri	27-Feb	
Fri 6-Mar EXAM 2	Mon	2-Mar	Parkinson's DiseaseAnimal models
	Wed	4-Mar	Parkinson's DiseasePresentation and Discussion of Journal Article
Huntington's Disease	Fri	6-Mar	
			Huntington's Disease

Mon	9-Mar	Huntington's Disease-Clinical Aspects and Genetics
Wed	11-Mar	Huntington's DiseaseResearch and Experimental Therapeutics
Fri	13-Mar	Huntington's DiseasePresentation and Discussion of Journal Article
Mon	16-Mar	Spring Break
Wed	18-Mar	Spring Break
Fri	20-Mar	Spring Break
		Epilepsy
Mon	23-Mar	EpilepsyClinicalTypes of Epilepsy
Wed	25-Mar	EpilepsyUnderlying Mechanisms
Fri	27-Mar	Epilepsy-Presentation and Discussion of Journal Article
		Multiple Sclerosis
Mon	30-Mar	Multiple SclerosisClinical/Therapeutics
Wed	1-Apr	Multiple SclerosisPresentation and Discussion of Journal Article
Wed	1-Apr	Assignment DueUndergraduate Students
Wed	1-Apr	Paper DueGraduate Students
Fri	3-Apr	Tramatic Brain and Spinal Cord InjuryClinical Aspects
Mon	6-Apr	Traumatic Brain and Spinal Cord InjurySecondary Mechansims
Wed	8-Apr	Traumatic Brain and Spinal Cord InjuryDiscussion of Journal Article
Fri	10-Apr	EXAM 3
		Amyotrophic Lateral Sclerosis
Mon	13-Apr	Amyotrophic Lateral SclerosisClincal Aspects and Genetics
Wed	15-Apr	Amyotrophic Lateral SclerosisUnderlying Mechanisms/Therapeutics
Fri	17-Apr	Amyotrophic Lateral SclerosisPresentation and Discussion of Journal Article
		Schizophrenia and Effective Disorders
Mon	20-Apr	SchizophreniaClinical Aspects and Genetics
Wed	22-Apr	SchizophreniaTherapeutics and Research
Fri	24-Apr	SchizophreniaPresentation and Discussion of Journal Article
		Down Syndrome and Related Disorders
Mon	27-Apr	Down SyndromeClinical Aspects and Genetics
Wed	29-Apr	Down SyndromeRelationship to Alzheimer's disease
Fri	1-May	Down SyndromePresentation and Discussion of Journal Article
		FINAL EXAM (TBD)