

RECEIVED

MAR 31 2015

OFFICE OF THE
SENATE COUNCIL**1. General Information**

1a. Submitted by the College of: ARTS & SCIENCES

Date Submitted: 12/22/2014

1b. Department/Division: Biology

1c. Contact Person

Name: Ruth E Beattie

Email: rebeat1@uky.edu

Phone: 257-7647

Responsible Faculty ID (if different from Contact)

Name:

Email:

Phone:

1d. Requested Effective Date: Semester following approval

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: BIO 426

2c. Full Title: Neuroscience Seminar: Subtitle Required

2d. Transcript Title: Neuroscience Seminar

2e. Cross-listing:

2f. Meeting Patterns

SEMINAR: 1

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

2h. Number of credit hours: 1

2i. Is this course repeatable for additional credit? Yes

If Yes: Maximum number of credit hours: 2

If Yes: Will this course allow multiple registrations during the same semester? No

2j. Course Description for Bulletin: This seminar course develops effective analysis, presentation and discussion skills required of science majors by exploring one neuroscience topic in detail.

2k. Prerequisites, if any: Determined by Instructor

2. Supplementary Teaching Component:

3. 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?: 13

7. Anticipated Student Demand

Will this course serve students primarily within the degree program?: Yes

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

If Yes, explain: This course may be of interest to Biology and Psychology majors

8. Check the category most applicable to this course: Traditional – Offered in Corresponding Departments at Universities Elsewhere,

If No, explain:

9. Course Relationship to Program(s).

a. Is this course part of a proposed new program?: Yes

If YES, name the proposed new program: Neuroscience - paperwork for program approval has been submitted

b. Will this course be a new requirement for ANY program?: Yes

If YES, list affected programs: BS Neuroscience

10. Information to be Placed on Syllabus.

a. Is the course 400G or 500?: No

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

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|VCASS2|Vincent Cassone|BIO 426 NEW Dept Review|20141222

SIGNATURE|ACSI222|Anna C Harmon|BIO 426 NEW College Review|20150203

SIGNATURE|JMETT2|Joanie Ett-Mims|BIO 426 NEW Undergrad Council Review|20150331

Courses	Request Tracking
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New Course Form

<https://myuk.uky.edu/sap/bc/soap/rfc?services=>

[Open in full window to print or save](#)

Generate R

Attachments:

ID	Attachment
Delete 4225	revised BIO 426 syllabus.doc
Delete 4433	BIO 426 UGC Review Checklist.docx

First 1 Last

Select saved project to retrieve...

Get New

(*denotes required fields)

1. General Information

- a. * Submitted by the College of: Submission Date:
- b. * Department/Division:
- c. * Contact Person Name: Email: Phone:
 * Responsible Faculty ID (if different from Contact): Email: Phone:
- d. * Requested Effective Date: Semester following approval OR Specific Term/Year ¹
- e. Should this course be a UK Core Course? Yes No
 If YES, check the areas that apply:
- Inquiry - Arts & Creativity Composition & Communications - II
 Inquiry - Humanities Quantitative 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 No
- b. * Prefix and Number:
- c. * Full Title:
- d. Transcript Title (if full title is more than 40 characters):
- 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 hours² for each meeting pattern type.
- | | | | |
|---------------------------------------|--|-------------------------------------|-------------------------------------|
| <input type="checkbox"/> Lecture | <input type="checkbox"/> Laboratory ¹ | <input type="checkbox"/> Recitation | <input type="checkbox"/> Discussion |
| <input type="checkbox"/> Indep. Study | <input type="checkbox"/> Clinical | <input type="checkbox"/> Colloquium | <input type="checkbox"/> Practicum |
| <input type="checkbox"/> Research | <input type="checkbox"/> Residency | <input type="checkbox"/> Seminar | <input type="checkbox"/> Studio |
| <input type="checkbox"/> Other | If Other, Please explain: <input type="text"/> | | |
- g. * Identify a grading system:
 Letter (A, B, C, etc.)
 Pass/Fail
 Medicine Numeric Grade (Non-medical students will receive a letter grade)
 Graduate School Grade Scale
- h. * Number of credits:
- i. * Is this course repeatable for additional credit? Yes No
 If YES: Maximum number of credit hours:
 If YES: Will this course allow multiple registrations during the same semester? Yes No

j. * Course Description for Bulletin:

This seminar course develops effective analysis, presentation and discussion skills required of science majors by exploring one neuroscience topic in detail.

k. Prerequisites, if any:

Determined by Instructor

l. Supplementary teaching component, if any: Community-Based Experience Service Learning Both3. * Will this course be taught off campus? Yes No

If YES, enter the off campus address:

4. Frequency of Course Offering.

a. * Course will be offered (check all that apply): Fall Spring Summer Winter

b. * Will the course be offered every year? Yes No

If No, explain:

5. * Are facilities and personnel necessary for the proposed new course available? Yes No

If No, explain:

6. * What enrollment (per section per semester) may reasonably be expected? 13

7. Anticipated Student Demand.

a. * Will this course serve students primarily within the degree program? Yes No

b. * Will it be of interest to a significant number of students outside the degree pgm? Yes No

If YES, explain:

This course may be of interest to Biology and Psychology majors

8. * Check the category most applicable to this course:

Traditional – Offered in Corresponding Departments at Universities Elsewhere

Relatively New – Now Being Widely Established

Not Yet Found in Many (or Any) Other Universities

9. Course Relationship to Program(s).

a. * Is this course part of a proposed new program? Yes No

If YES, name the proposed new program:

Neuroscience - paperwork for program approval has been submitted

b. * Will this course be a new requirement ⁵for ANY program? Yes No

If YES ⁵, list affected programs::

BS Neuroscience

10. Information to be Placed on Syllabus.

a. * Is the course 400G or 500? Yes No

If YES, the *differentiation for undergraduate and graduate students must be included* in the information required in 10.b. You must include: (i) ident additional assignments by the graduate students; and/or (ii) establishment of different grading criteria in the course for graduate students. (See SR

b. * The syllabus, including course description, student learning outcomes, and grading policies (and 400G-/500-level grading differentiation if appl 10.a above) are attached.

¹³ Courses are typically made effective for the semester following approval. No course will be made effective until all approvals are received.

⁵ The chair of the cross-listing department must sign off on the Signature Routing Log.

- In general, undergraduate courses are developed on the principle that one semester hour of credit represents one hour of classroom meeting per week for a semester, exclusive of any laboratory meeting. Laboratory meeting, generally, require two hours per week for a semester for one credit hour. (from SR § 2.1)
- You must also submit the Distance Learning Form in order for the proposed course to be considered for DL delivery.
- In order to change a program, a program change form must also be submitted.

Rev 8/09

Submit as New Proposal Save Current Changes

SYLLABUS

BIO 426-001 Neuroscience Seminar – Subtitle: Brain Repair

Semester XXX

Credit: 1 hour

Instructor: TBA

Office: TBA

Telephone: TBA

E-Mail: TBA

Office Hours: TBA

Class Time and Location: TBA

Course Description: This seminar course develops effective analysis, presentation and discussion skills required of science majors by exploring one neuroscience topic in detail.

Course Outcomes:

By the end of the course the students will be able to:

- 1) Orally communicate information about the nervous system to an audience.
- 2) Demonstrate an understanding of and use effective strategies in communicating with an audience.
- 3) Abstract the essential points from a much longer presentation.
- 4) Demonstrate an understanding of an area of neuroscience in depth.

POLICY ON ACADEMIC ACCOMMODATIONS: If you have a documented disability that requires academic accommodations, please see me as soon as possible during scheduled office hours. In order to receive accommodations in this course, you must provide me 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.

Class Format:

Oral Presentation (60% of grade):

Your major responsibility in this course is to give a classroom presentation. Topics for these presentations are listed in the syllabus along with a reading assignment for the class. You may use the reading assignment as a starting point for researching your presentation **but you must present additional information in your talk that clearly demonstrates the use of other source materials.** Depending on your interests, you may choose to focus your talk on a particular aspect of the reading assignment or may decide to give a broad overview of it. Either approach is acceptable. Presentations should be 40-45 minutes in length and include visual aids. You should be prepared to answer student questions and/or lead a class discussion on issues that you have raised during your presentation..

Sign-up for presentation dates will occur the first day of class.

Peer reviews (15% of grade)

Each student will submit a peer-review of all presentations given on the days when they are not presenting. This review will consist of not only assigning a letter grade to the presentation that you have just heard but also a justification of that grade. In addition, you must write down at least one thing that you liked about the presentation and one thing that you thought the speaker could improve upon. You will provide your grades and comments to the instructor in written form immediately following the presentation. The instructor will type up the class comments and provide them to the speaker along with some comments of their own. Grades for presentations will be available to each student on the last day of class.

Instructions on how to conduct peer reviews will be given to you on the first day of class.

Presentation summaries (15% of grade)

You must provide a written summary of each presentation. This summary should be no more than a paragraph in length and must be e-mailed to the instructor during the week following the presentation (and before the next presentation in the class). Make sure that each sentence that you write conveys some meaning. For example, the statement "I learned what SMA is" is a wasted sentence in your summary that does not inform the reader. Change it instead to something like: "SMA is an incurable autosomal recessive disease in which motor neurons die."

Attendance / Participation (10% of grade)

Demonstration of the ability to discuss the material presented is important. In order to learn, it is imperative that you attend class and read the assigned material, and fully participate in all class activities. Active participation means contributing in a meaningful way to the discussion – asking questions, being engaged in the classroom, paying attention, **bringing your copy of the papers to class. 1% point will be deducted from the 10% points possible for each class absence.**

Grading:

Sixty percent of your grade will be determined by your class presentation. The grade for this presentation will be the average of the grade assigned to you by your classmates and the instructor. Thirty percent of your grade for this course will be decided by your written student grading comments (15) and presentation summaries (15). All honest, thoughtful grading and summary efforts will be awarded 1% points each (maximum award 30 %points). The remainder of your grade for this course will be determined by your attendance and participation in the classroom discussions.

Presentation	60 points
Peer Reviews	15 points
Presentation Summaries	15 points
Attendance and Participation	<u>10 points</u>
	100 points possible

Final grades will be based on total points earned and will be assigned as follows:

- A = 90 - 100 points
- B = 80 – 89 points
- C = 70 – 79 points
- D = 60 – 69 points
- E = less than 60 points

Midterm grades will be available no later than the last day to submit midterm grades.

Excused absences from class will be given only for absences as defined by University Senate Rules V, 2.4.2.. Documentation regarding such an absence must be presented to the instructor in advance of the absence or within one week following the absence. Make-up work will consist of written summaries of papers assigned by the Instructor. Per University Policy: Students who missed 20% of the class meetings (excused and unexcused) will be required to withdraw from the course.

Late assignments will only be accepted for excused absences as defined by University Senate Rules V, 2.4.2.. Late assignments MUST be turned in within one week after the student returns to campus after the excused absence otherwise an automatic score of zero will be earned for the assignment.

Course Policy on Classroom Civility and Decorum:

The university, college and department all have a commitment to respect the dignity of all and to value differences among members of our academic community. There exists the role of discussion and debate in academic discovery and the right of all to respectfully disagree from time-to-time. Students clearly 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. Obviously, the accepted level of civility would 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.

*** A Note Concerning Academic Offenses ***

PLAGIARISM and CHEATING are serious academic offenses.

The following is an excerpt taken from the "Students Rights and Responsibilities Handbook, University of Kentucky" regarding cheating.

"Cheating is defined by its general usage. It includes, but is not limited to, the wrongful giving, taking, or presenting any information or material by a student with the intent of aiding himself/herself or another on any academic work which is considered in any way in the determination of the final grade."

The following is an excerpt taken from the "Students Rights and Responsibilities Handbook, University of Kentucky" regarding plagiarism.

"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."

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 acknowledgment of the fact, the students are guilty of plagiarism.

Plagiarism includes reproducing someone else's work..... 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. Making simple changes while leaving the organization, content and phraseology intact is plagiaristic."

Charges of an academic offense will be made against any student that cheats or commits plagiarism. The MINIMUM penalty for such an offense is the assignment of a grade of E for the course in which the offense occurred. More severe penalties include suspension or dismissal from the University. I have a zero-tolerance policy regarding academic offenses.

Sample
BIO 426-001 Class Schedule
Topic: Brain Repair

<u>WEEK OF:</u>	<u>TOPIC</u>
1	Introduction
2	Brain Injury: Traumatic brain injury <i>Popular Reading:</i> http://www.tbiguide.com/ <i>Scientific Reading:</i> <u>Functional abnormalities in normally appearing athletes following mild traumatic brain injury: a functional MRI study.</u> Slobounov SM, Zhang K, Pennell D, Ray W, Johnson B, Sebastianelli W. Exp Brain Res. 2009 Dec 29. http://www.springerlink.com/content/k235t705531874r5/fulltext.html Presenter:

- 3 **Brain Injury: Disease induced injury**
Popular Reading: http://en.wikipedia.org/wiki/Neurodegenerative_disease
Scientific Reading: Neurobiology of cognitive disorders. Kurz A, Pernecky R. Curr Opin Psychiatry. 2009 Nov;22(6):546-51.
<http://ovidsp.tx.ovid.com/sp-2.3/ovidweb.cgi?WebLinkFrameset=1&S=CJIFPDJLMDDILCNCELKBMJADLCAA00&returnUrl=javascript%3ahistory.back%28%29&directlink=http%3a%2f%2fgraphics.tx.ovid.com%2fovftpdfs%2ffPDDNCMJKBCLJM00%2ffs046%2fovft%2flive%2fgv023%2f00001504%2f00001504-200911000-00007.pdf&filename=Neurobiology+of+cognitive+disorders>.
Presenter:
- 4 **Brain Injury: Drug induced changes**
Popular Reading: <http://www.sciencedaily.com/releases/2009/12/091217115834.htm>
Scientific Reading: Molecular and cellular mechanisms of ecstasy-induced neurotoxicity: an overview. Capela JP, Carmo H, Remião F, Bastos ML, Meisel A, Carvalho F. Mol Neurobiol. 2009 Jun;39(3):210-71
<http://www.springerlink.com/content/w045480036r72n70/fulltext.pdf>
Presenter:
- 5 **Brain Repair: Growth factors**
Popular Reading: <http://en.wikipedia.org/wiki/Neurotrophin>
Scientific Reading: Actions of neurotrophic factors and their signaling pathways in neuronal survival and axonal regeneration. Cui Q. Mol Neurobiol. 2006 Apr;33(2):155-79.
<http://www.springerlink.com/content/3871884272552260/>
Presenter:
- 6 **Brain Repair: Neurogenesis in the adult brain and stem cell strategy**
Popular Reading: <http://hdlighthouse.org/research/brain/updates/0059neurogenesis.php>
Scientific Reading: Stem cell biology in traumatic brain injury: effects of injury and strategies for repair. Richardson RM, Singh A, Sun D, Fillmore HL, Dietrich DW, Bullock MR. J Neurosurg. Posted online 2009 Jun 5.
<http://thejns.org/doi/pdf/10.3171/2009.4.JNS081087>
Presenter:
- 7 **Brain Repair: Stem Cells after brain injury**
Popular Reading: <http://www.sciencedaily.com/releases/2002/05/020503075005.htm>
Scientific Reading: A neurovascular niche for neurogenesis after stroke. Ohab JJ, Fleming S, Blesch A, Carmichael ST. J Neurosci. 2006 Dec 13;26(50):13007-16.
<http://www.jneurosci.org/cgi/content/full/26/50/13007>
Presenter:
- 8 **Brain Repair: Stem Cell Transplantation**
Popular Reading: <http://www.bentham.org/cscrt/samples/cscr1-1/Modo.pdf>
Scientific Reading: Regeneration of the ischemic brain by engineered stem cells: fuelling endogenous repair processes. van Velthoven CT, Kavelaars A, van Bel F, Heijnen CJ. Brain Res Rev. 2009 Jun;61(1):1-13

http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6SYS-4W0WJ2F-2&_user=16764&_rdoc=1&_fmt=&_orig=search&_sort=d&_docanchor=&_view=c&_acct=C000001898&_version=1&_urlVersion=0&_userid=16764&md5=9aa42bb266527b328b2d2d97dd587d9d

Presenter:

9 **Brain Repair:** Brain stimulation

Popular Reading: <http://neurology.emory.edu/worldnews.pdf>

Scientific Reading: Deep brain stimulation in obsessive-compulsive disorder. Denys D, Mantione M. *Prog Brain Res.* 2009;175:419-27.

http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B7CV6-4WXGYC13&_user=16764&_rdoc=1&_fmt=&_orig=search&_sort=d&_docanchor=&_view=c&_acct=C000001898&_version=1&_urlVersion=0&_userid=16764&md5=e52ea01b108e61d60c0402eb5917b167

Presenter:

10 **Brain Repair:** Drug administration

Popular Reading: http://www.scienceagogo.com/news/20031012195753data_trunc_sys.shtml

Scientific Reading: Biomaterials for promoting brain protection, repair and regeneration. Orive G, Anitua E, Pedraz JL, Emerich DF. *Nat Rev Neurosci.* 2009 Sep;10(9):682-92. Epub 2009 Aug 5.

<http://www.nature.com/nrn/journal/v10/n9/pdf/nrn2685.pdf>

Presenter:

11 **Brain Protection:** Effects of Environment

Popular Reading: <http://biosingularity.wordpress.com/2007/04/29/memory-restored-in-mice-through-enriched-environment-new-hope-for-alzheimers/>

Scientific Reading: 2006 Curt P. Richter award winner: Social influences on stress responses and health. DeVries AC, Craft TK, Glasper ER, Neigh GN, Alexander JK. *Psychoneuroendocrinology.* 2007 Jul;32(6):587-603. Epub 2007 Jun 21.

http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6TBX-4P18BGW-1&_user=16764&_rdoc=1&_fmt=&_orig=search&_sort=d&_docanchor=&_view=c&_acct=C000001898&_version=1&_urlVersion=0&_userid=16764&md5=52ad1ec0b8ed5d025b52db502497fbb4

Presenter:

12 **Brain Protection:** Nutrition

Popular Reading: <http://www.ars.usda.gov/is/ar/archive/aug07/aging0807.htm>

Scientific Reading: Zinc supplementation: neuroprotective or neurotoxic? Levenson CW. *Nutr Rev.* 2005 Apr;63(4):122-5

<http://www3.interscience.wiley.com/cgi-bin/fulltext/119821054/PDFSTART>

Presenter:

13 **Brain Protection:** Sex

Popular Reading: http://www.lef.org/magazine/mag2009/nov2009_Progesterone-May-Improve-Outcomes-From-Brain-Injury_01.htm

Scientific Reading: Progesterone as a neuroprotective factor in traumatic and ischemic brain injury. Sayeed I, Stein DG. *Prog Brain Res.* 2009;175:219-37

http://www.sciencedirect.com/science?_ob=PublicationURL&_tockey=%23TOC%2318070%232009%23998249999%231384049%23FLA%23&_cdi=18070&_pubType=BS&_auth=y&_acct=C000001898&_version=1&_urlVersion=0&_userid=16764&md5=3f32d4c2e02a21f89384653e768e98f7

Presenter:

14

Brain Repair: Age and Exercise

Popular Reading: <http://www.msnbc.msn.com/id/34644422/ns/health-fitness/>

Scientific Reading: Neuroprotective signaling and the aging brain: take away my food and let me run. Mattson MP. Brain Res. 2000 Dec 15;886(1-2):47-53.

http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6SYR-41WB8KX-

[5&_user=16764&_rdoc=1&_fmt=&_orig=search&_sort=d&_docanchor=&_view=c&_acct=C000001898&_version=1&_urlVersion=0&_userid=16764&md5=f8b4e503f2ff14a5ea56e4ce5b26af00](http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6SYR-41WB8KX-5&_user=16764&_rdoc=1&_fmt=&_orig=search&_sort=d&_docanchor=&_view=c&_acct=C000001898&_version=1&_urlVersion=0&_userid=16764&md5=f8b4e503f2ff14a5ea56e4ce5b26af00)

Presenter: