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OCT 27 2015

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

1a. Submitted by the College of: MEDICINE

Date Submitted: 12/13/2013

1b. Department/Division: Anatomy & Neurobiology

1c. Contact Person

Name: Samuel Franklin

Email: sfranklin@uky.edu

Phone: 859-323-3780

Responsible Faculty ID (if different from Contact)

Name: Samuel Franklin

Email: sfranklin@uky.edu

Phone: 859-323-3780

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: ANA 394

2c. Full Title: Independent research in Neurobiology and Neuroscience

2d. Transcript Title: Independent research in Neurobiology and Neuroscience

2e. Cross-listing:

2f. Meeting Patterns

OTHER: 3-4

OTHEREXPLAIN: 3-4 hours per week of independent laboratory work for each credit hour enrolled

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

2h. Number of credit hours: 1-3

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

If Yes: Maximum number of credit hours: 12

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

2j. Course Description for Bulletin: ANA 394 is designed to provide students with an intensive experience in laboratory or field research. Participants should take an active role in the design and execution of experiments and in the analysis and interpretation of data. They should be capable of "independent research" in the sense that they can conduct the experiments with little direct supervision. Students are expected to become familiar with related research in the current literature by regularly reading scientific journals. The student is expected to devote at least 3-4 hours per week for each credit hour enrolled to laboratory work, although often more time is necessary.

2k. Prerequisites, if any:

2l. 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?: No

If No, explain: Students will be mentored in the laboratories of faculty within the Anatomy and Neurobiology department.

6. What enrollment (per section per semester) may reasonably be expected?: 2 - 3

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?: No

If Yes, explain:

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

If No, explain: Students will be mentored in the laboratories of faculty within the Anatomy and Neurobiology department.

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 BS

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

If YES, list affected programs: Neuroscience BS

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|DONGASH|Don M Gash|ANA 394 NEW Dept Review|20140103

SIGNATURE|MRWH224|Melissa R Wilkeson|ANA 394 NEW College Review|20140113

SIGNATURE|DONGASH|Don M Gash|ANA 394 ZCOURSE_NEW Approval Returned to Dept|20140122

SIGNATURE|MRWH224|Melissa R Wilkeson|ANA 394 NEW College Review|20140124

SIGNATURE|DONGASH|Don M Gash|ANA 394 ZCOURSE_NEW Approval Returned to Dept|20150401

SIGNATURE|DONGASH|Don M Gash|ANA 394 NEW Dept Review|20150403

SIGNATURE|DDBEAT1|Dorcas D Beatty|ANA 394 NEW College Review|20150506

SIGNATURE|JMETT2|Joanie Ett-Mims|ANA 394 NEW Undergrad Council Review|20151027

New Course Form

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

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

Generate R

Attachments:

Upload File

	ID	Attachment
Delete	5420	ANA 394 Independent Study in Neurobiology contract
Delete	5649	ANA 394 syllabus (revised 10-27-15).docx

1

(*denotes required fields)

1. General Information

- a. * Submitted by the College of: Submission Date: 12/13/2013
- b. * Department/Division:
- c.
- * Contact Person Name: Samuel Franklin Email: sfranklin@uky.edu Phone: 859-323-3780
- * Responsible Faculty ID (if different from Contact): Samuel Franklin Email: sfranklin@uky.edu Phone: 859-323-3780
- 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 ⁴ No
- b. * Prefix and Number: ANA 394
- c. * Full Title: Independent research in Neurobiology and Neuroscience
- d. Transcript Title (if full title is more than 40 characters): Independent research in Neurobiology and Neuros
- 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.
- | | | | | | | | |
|----------------------|--------------|----------------------|-------------------------|----------------------|------------|----------------------|------------|
| <input type="text"/> | Lecture | <input type="text"/> | Laboratory ¹ | <input type="text"/> | Recitation | <input type="text"/> | Discussion |
| <input type="text"/> | Indep. Study | <input type="text"/> | Clinical | <input type="text"/> | Colloquium | <input type="text"/> | Practicum |
| <input type="text"/> | Research | <input type="text"/> | Residency | <input type="text"/> | Seminar | <input type="text"/> | Studio |
- 3-4 Other If Other, Please explain: 3-4 hours per week of independent laboratory work for each credit hour
- 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: 1-3
- 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:

ANA 394 is designed to provide students with an intensive experience in laboratory or field research. Participants should take an active role in the design and execution of experiments and in the analysis and interpretation of data. They should be capable of "independent research" in the sense that they can conduct the experiments with little direct supervision. Students are expected to become familiar with related research in the current literature by regularly reading scientific journals. The student is expected to devote at least 3-4 hours per week for each credit hour enrolled to laboratory work, although often more time is necessary.

k. Prerequisites, if any:

l. Supplementary teaching component, if any: Community-Based Experience Service Learning Both

3. * 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:

Students will be mentored in the laboratories of faculty within the Anatomy and Neurobiology department.

6. * What enrollment (per section per semester) may reasonably be expected? 2 - 3

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:

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 BS

b. * Will this course be a new requirement⁵ for ANY program? Yes No

If YES⁵, list affected programs::

Neuroscience BS

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) identify 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 applicable 10.a above) are attached.

⁵ Courses are typically made effective for the semester following approval. No course will be made effective until all approvals are received.
⁶ 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 5 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

SYLLABUS – ANA 394

ANA 394 - Independent research in Neurobiology and Neuroscience

Instructor of Record: TBA

Office:

Telephone:

E-Mail:

Office Hours:

Class Time and Location: To be determined with your Research Mentor

Texts: To be determined by the Research Mentor

Course Description: ANA 394 is designed to provide students with an intensive experience in laboratory or field research. Participants should take an active role in the design and execution of experiments and in the analysis and interpretation of data. They should be capable of "independent research" in the sense that they can conduct the experiments with little direct supervision. Students are expected to become familiar with related research in the current literature by regularly reading scientific journals. The student is expected to devote at least 3-4 hours per week for each credit hour enrolled to laboratory work, although often more time is necessary.

Research mentors agree to provide lab space, resources (eg. chemicals), and guidance. Guidance includes safety training as well as training in the scientific method, technique, and presentation.

Course Objectives:

- To design and conduct an original research project
- To develop experience with experimental techniques in the research area
- To develop a working knowledge of relevant research literature
- To be able to discuss the research and topic with other neuroscientists
- To learn the proper keeping of a lab notebook that clearly documents experimental procedure and the thought process leading to it

Student Learning Outcomes: By the end of the course, students will be able to

- develop (with guidance) and conduct a research project.

Attendance and make-up opportunities:

Attendance requirements and make-up opportunities for excused absences will be determined by the research mentor.

Excused Absences and Verification of 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 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.

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.

Grading:

The grade for Anatomy and Neurobiology 394 is assigned by the Research Mentor, in consultation with the Director of Undergraduate Studies for Neuroscience

Grades are based on three aspects of a student's performance:

a) Fulfillment of required hours in the laboratory. Students are expected to spend on average 3-4 hours per week for each credit hour enrolled. Failure to complete the expected number of hours will reduce the grade.

b) Performance in the laboratory context. Research courses are meant to promote student creativity and initiative even in projects that are already well-defined. At a minimum, students should seek to confirm their understanding of the project through discussions and readings, and should learn how to troubleshoot basic problems.

(c) final report. The format of the final report (written or oral) will be determined by the Research Mentor.

The Research Mentor will determine the exact weighting of each of these activities in the determination of your final grade. These weighting will be detailed on your ANA 394 Research Contract

Grading scale:

A = 90 – 100%, B = 80 – 89%, C = 70 – 79%, D = 60 – 69%, E < 60%

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

Completion of ANA 394 Contract

ANA 394 Contracts can be obtained by contacting the Anatomy and Neurobiology Director of Undergraduate Studies in room MN 225 UK Medical Center. This contract must be completed by both student and Research mentor and returned to the Director of Undergraduate Studies in room MN 225. Once the contract has been approved, the student will be informed by e-mail that he/she can now register for the course.

Disabilities/ Medical Conditions: 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 (DRC). The DRC coordinates campus disability services available to students with disabilities. It is located on the corner of Rose Street and Huguelet Drive in the Multidisciplinary Science Building, Suite 407. You can reach them via phone at (859) 257-2754 and via email at drc@uky.edu. Their web address is <http://www.uky.edu/StudentAffairs/DisabilityResourceCenter/>.

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 (READ THIS INFORMATION CAREFULLY)**

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. Penalties for such an offense will be assessed according to University Regulations regarding Academic Offenses. The most severe penalties include suspension or dismissal from the University. **I have a zero-tolerance policy regarding academic offenses.**

ANA 394 Independant Research Contract in Neurobiology and Neuroscience

Student Name: _____	Semester & Academic Year: _____
Student Major: _____	Faculty (Mentor) Name: _____
Year (i.e. "Junior"): _____	COURSE PREFIX & NUMBER: ANA 394
Email: _____	# of CREDITS: _____

Before beginning, the student must show evidence of completion:

1. Register with UK Office of Undergraduate Research https://uky.qualtrics.com/SE/?SID=SV_5cd8Fa9vFk28JsU
2. Successfully complete research ethics education (human subjects, animal care and use, or lab safety - *as directed by the mentor*) www.citiprogram.org
3. Complete the following Web Based Trainings (WBT), *as recommended by faculty mentor*:
 - Bio-Safety
 - Bloodborne Pathogen
 - Chemical Hygiene
 - Hazardous Waste

GENERAL EXPECTATIONS: (Note: stated expectations for the time spent in the lab/on research is exclusive of additional assignments or activities beyond the time actually engaged in the lab)

Fall or Spring Semester

For a one credit hour experience

- 2 – 3 hours per week, for 9-12 weeks, in the research experience

For a 2 credit hour experience

- 3 - 5 hours per week, for 9-12 weeks, in the research experience

For a 3 credit hour experience

- 6 - 8 hours per week, for 9-12 weeks, in the research experience

Eight –Week Summer Session

For a one credit hour experience

- 4 - 6 hours per week, for 8 weeks, in the research experience

For a 2 credit hour experience

- 4 - 8 hours per week, for 8 weeks, in the research experience

For a 3 credit hour experience

- 6 - 12 hours per week, for 8 weeks, in the research experience

(You may attach the following on an extra separate page if necessary)

Description of experience (goals, objectives, hypothesis):

Tasks for Completing Objectives (with timelines as needed):

Criteria, with Percentages, for Assessment (the University grading system will be used):

Faculty Mentor Signature: _____	Date: _____
Student Signature: _____	Date: _____
Director of Undergraduate Research Signature: _____	Date: _____

After approval, copies of the contract will be distributed to:

1. Student
2. Anatomy and Neurobiology Dept.
3. Faculty Mentor

ANA 394 Independent research in Neurobiology and Neuroscience

Research Contract

In order to receive credit for ANA 394, students and their research mentors must complete a research contract. If the contract is not completed each semester by the add/drop date, we may drop you from the class. If the contract is NOT approved, we will contact you and/or your research mentor for revisions.

Research mentors may be any active faculty member in the Department of Anatomy and Neurobiology at the University of Kentucky. A list of faculty and their research interests may be found on the Department of Anatomy and Neurobiology web site.

Research mentors agree to provide lab space, resources (eg chemicals), and guidance. Guidance includes safety training as well as training in the scientific method, technique, and presentation. Mentors will be asked to evaluate student work for a grade.

Please provide the following information:

Your name: _____

Student number _____

Email _____

Phone: _____

Please provide the following information about your mentor:

Faculty (Mentor) name: _____

Email _____

Phone: _____

Complete page 2 in consultation with your research mentor.