

NEW UNDERGRADUATE MINOR / CHANGE UNDERGRADUATE MINOR FORM

Please fill out Section I.

SECTION I: GENERAL INFORMATION

Program: Biology

Minor: Neuroscience

College: Arts and Sciences

Department: Biology

Bulletin PP: N/A

CIP Code: 26.1501

Accrediting Agency (if applicable): N/A

⇒ Fill out Section II if you are proposing a NEW minor.

Section II: New Minor

Minor Prerequisites (list course prefix, number and title): BIO 152 or equivalent

Minor Requirements (list course prefix, number and title): One of the following BIO 302 Introduction to Neuroscience
OR PSY 312 Brain and Behavior

Minor Electives (list course prefix, number and title): 12 credits from the following courses:

BIO 395 - Research in Biology - up to 6 credits can be used in this category.

PSY 459 Drugs and Behavior

CGS 500 - Cognitive Science in Theory and Practice

BIO 507 Biology of Sleep and Circadian Rhythms

BIO 535 Comparative Neurobiology and Behavior

CHE 580 Topics in Chemistry - Subtitle required: Neuroscience themed sections only

Other neuroscience-related courses at the 200-level or above, as approved by DUS in Biology

High achieving students may take advanced level coursework from: (permission of the Dean of the Graduate School is required to register for these courses)

ANA 605 Principles of Neurobiology

ANA 625 Introduction to Functional MRI

BIO 638 Developmental Neurobiology

BIO 650 Animal Physiology Laboratory

ANA 780 Special Topics in Neurobiology

Total Hours Required: 18

Rationale for Proposal: Neuroscience is the study of the nervous system from the structural biology of membrane proteins to cell-cell interactions in development and behavioral to social interactions among animals. It is a field that has successfully discovered the roots and cures for some of the most devastating diseases and one that continues to search for the processes that allow us to think

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about what and who we are. As such it is an enormously interesting field for scientists and the lay public. Indeed, the Society for Neuroscience (SfN) is such a dauntingly large organization that its annual meeting can only be held in just 4 cities in the US with sufficient hotel and convention space, attracting up to 40,000 registrants each year. There are 36 undergraduate degree programs and 160 graduate programs in North America listed by the Association of Neuroscience Departments and Programs (ANDP), an educational branch of the SfN. There are no top 20 Universities and no top 20 public universities without a graduate degree specifically devoted to Neuroscience. The University of Kentucky has an active SfN Chapter that sponsors speakers from across campus and around the world and that sponsors travel awards for students to attend the annual meeting. In addition, there is a Department of Anatomy and Neurobiology within the College of Medicine with 31 faculty, 13 scientists, 8 post-docs and 23 graduate students, and there are many neuroscientists across campus. Within the College of Arts and Sciences, neuroscientists in Biology (6), Chemistry (3) and Psychology (6) are actively teaching and performing research in various aspects of this field. Clearly, this is an area that can grow within the College and in collaboration with other units across campus. The establishment of a minor in Neuroscience will provide many majors across campus academic credit for study in this dynamic field. As such, it would provide for them certification of their research and scholarly activity in this area for the purposes of application to Neuroscience graduate programs and health-related professions. Further, the establishment of this minor will provide the University an indication of interest in this important field as a segue into the development of an interdisciplinary major for our undergraduates and, ultimately, an interdisciplinary graduate degree. Thus, the simple step of establishing a Neuroscience minor will begin an important process in the development of a new academic discipline at the University of Kentucky.

All courses EXCEPT for BIO 302 are currently offered by the University of Kentucky. The paperwork for the new course BIO 302 Introduction to Neurobiology accompanies this paperwork.

The Departments of Anatomy and Neurobiology, Chemistry, and Psychology are all supportive of this new minor.

E-mail 1

Bio 302: Geddes' Participation

Gash, Don M

You replied on 12/4/2010 8:24 AM.

Sent: Friday, December 03, 2010 5:18 PM

To: Beattie, Ruth E

Cc: Geddes, James; Poole, Julie

Ruth,

This is to confirm my approval and support for Jim Geddes' participation in team teaching Bio 302. This effort will be noted on his DOE.

Don

Don M. Gash, Ph.D.

Alumni Endowed Chair

Professor and Chair

Anatomy & Neurobiology

317 Whitney-Hendrickson Bldg. (MRISC)

University of Kentucky

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Lexington, KY 40536-0098

Phone: 859-257-5036

Fax: 859-257-3625

E-mail 2

Psychology support of neuroscience minor

Lorch, Robert

You replied on 12/3/2010 12:53 PM.

Sent: Friday, December 03, 2010 12:51 PM

To: Beattie, Ruth E

Dear Ruth,

The Psychology Department is excited and supportive of the new minor in neuroscience. We pledge to offer PSY 312 every semester and PSY 459 on a regular basis (goal is once per year) and make them available to students in the minor.

Best,

Bob

Robert F. Lorch, Jr.

Professor & Chair

Department of Psychology

University of Kentucky 40506-0044

rlorch@email.uky.edu

phone: (859) 257-6826

fax: (859)323-1979

E-mail 3

Undergraduates in ANA 780

Geddes, James

You replied on 11/5/2010 4:16 PM.

Sent: Friday, November 05, 2010 2:58 PM

To: Cassone, Vincent; Beattie, Ruth E

Cc: Gerhardt, Greg A

Dear Drs. Cassone and Beattie,

As course directors of ANA 780, Neurobiology of Aging and CNS Disorders, we are writing to confirm that high performing undergraduate students enrolled in the Neuroscience Minor program will be accepted in ANA 780. The new introductory neuroscience course, tentatively BIO 300, will be a prerequisite for the undergraduates enrolling in ANA 780.

Sincerely,

Jim Geddes and Greg Gerhardt

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E-mail 4

Authorization for high performing undergraduates to enroll in ANA Hall, Edward D

You replied on 11/5/2010 4:29 PM.

Sent: Friday, November 05, 2010 2:26 PM

To: Cassone, Vincent; Beattie, Ruth E

Cc: Geddes, James

Dear Drs. Cassone and Beattie,

As course director of ANA 605, Neurobiology of CNS Injury and Repair, I am writing to confirm that high performing undergraduate students enrolled in the Neuroscience Minor program will be able to enroll in ANA 605. In fact, we have previously had advanced undergraduates enroll in this course who have done very well.

Sincerely,

Ed Hall

Edward D. Hall, Ph.D.

Director, Spinal Cord & Brain Injury Research Center (SCoBIRC)

Professor, Anatomy & Neurobiology, Neurosurgery,

Neurology and Physical Medicine & Rehabilitation

University of Kentucky Medical Center

Room B483, Biomedical & Biological Sciences Research Building

741 S. Limestone Street

Lexington, KY 40536-0509

Telephone: 859-323-4678

Fax: 859-257-5737

E mail: edhall@uky.edu

Website: www.mc.uky.edu/scobi

E-mail 5

Elements of Neurochemistry

Butterfield, D A

You replied on 3/19/2011 7:31 AM.

Sent: Friday, March 18, 2011 9:41 PM

To: Beattie, Ruth E

Cc: Meier, Mark

Dear Ruth,

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The Chemistry Department is excited and supportive of this new minor in Neuroscience and confirms that we will offer this course, presently CHE 580 but likely to eventually have a non-topics permanent course number, on a regular basis and it will be available to students in the minor.

Best wishes,

Allan

D. Allan Butterfield, Ph.D.

The Alumni Association Endowed Professor of Biological Chemistry;

Director, Center of Membrane Sciences; Faculty Associate,

Spinal Cord and Brain Injury Research Center; and

Faculty Associate, Sanders-Brown Center on Aging

121 Chemistry-Physics Building

University of Kentucky

Lexington, KY 40506-0055

Neuroscience Minor

Kraemer, Philipp

You replied on 3/29/2011 8:47 AM.

Sent: Tuesday, March 29, 2011 8:38 AM

To: Beattie, Ruth E

Cc: Geddes, James

Ruth:

As Interim Program Coordinator, I am pleased to add the support of my colleagues in the Cognitive Science Program for your proposed Neuroscience Minor. We see many fruitful connections between the two interdisciplinary programs. Minimally, we would be pleased to invite students enrolled in the Neuroscience Minor to take CGS 500, which serves as an introduction to the field for both graduate students seeking a certificate in Cognitive Science and for undergraduates pursuing a minor in Cognitive Science. The course is offered annually, usually in the spring. Please let me know if we can be of any further assistance. Personally, a minor in Neuroscience has been long overdue, and I hope it is a harbinger of even more ambitious educational alternatives in the future.

Phil

Philipp J. Kraemer

Chellgren Chair for Undergraduate Excellence

Professor of Psychology

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University of Kentucky
Phone: 859 257-1958

⇒ Fill out Section III if you are CHANGING requirements for an existing minor.

Section III: Change in Minor Requirements

Current

Proposed

Current Total Hours: _____

Proposed Total Hours: _____

Rationale for Proposal:

_____.

Will this program be printed in the Bulletin?

Yes

No

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Signature Routing Log

General Information:

Proposal Name: Neuroscience Minor (new)

Proposal Contact Person Name: Ruth E. Beattie Phone: 257-7647 Email: rebeat12uky.edu

INSTRUCTIONS:

Identify the groups or individuals reviewing the proposal; note the date of approval; offer a contact person for each entry; and obtain signature of person authorized to report approval.

Internal College Approvals and Course Cross-listing Approvals:

Reviewing Group	Date Approved	Contact Person (name/phone/email)	Signature
Biology Faculty	March 25, 2011	Dr. Vincent Cassone / 257-6766 / vincent.cassone@uky.edu	
DUS Biology	March 25, 2011	Dr. Ruth E Beattie / 257-7647 / rebeat1@uky.edu	
College of A&S	10/25/11	Anna Bosch, Associate Dean / 7-6689 / bosch@uky.edu	
		/ /	
		/ /	

External-to-College Approvals:

Council	Date Approved	Signature	Approval of Revision¹
Undergraduate Council	11/19/2012	Sharon Gill	
Graduate Council			
Health Care Colleges Council			
Senate Council Approval		University Senate Approval	

Comments:

¹ Councils use this space to indicate approval of revisions made subsequent to that council's approval, if deemed necessary by the revising council.