FLORIDA ATLANTIC UNIVERSITY

Graduate Programs—NEW COURSE PROPOSAL

DEPARTMENT NAME: BASIC SCIENCE

COLLEGE OF: Charles E. Schmidt College of Biomedical Science

RECOMMENDED COURSE IDENTIFICATION:
PREFIX _____BMS _____ COURSE NUMBER __6438_____ LAB CODE (L or C) _____

(TO OBTAIN A COURSE NUMBER, CONTACT ERUDOLPH@FAU.EDU)

COMPLETE COURSE TITLE
MOLECULAR NEUROPSYCHOPHARMACOLOGY

CREDITS: 3


GRADING (SELECT ONLY ONE GRADING OPTION): REGULAR _____ X _____ PASS/FAIL, ______ Satisfactory/Unsatisfactory ______

COURSE DESCRIPTION, NO MORE THAN 3 LINES:
This course is intended to provide the fundamentals of molecular neuropharmacology, as they relate to neurotransmitter signaling in the brain.

PREREQUISITES W/MINIMUM GRADE:*

PSB 6037 Principles of Neuroscience or PSB 6345 Neuroscience I or equivalent Minimum Grades: B-

COREQUISITES:

OTHER REGISTRATION CONTROLS (MAJOR, COLLEGE, LEVEL):
Graduate students only

PREREQUISITES, COREQUISITES & REGISTRATION CONTROLS SHOWN ABOVE WILL BE ENFORCED FOR ALL COURSE SECTIONS:

*MUST ACHIEVE MINIMUM GRADE OF D-

MINIMUM QUALIFICATIONS NEEDED TO TEACH THIS COURSE:
Ph.D.

Other departments, colleges that might be affected by the new course must be consulted. List entities that have been consulted and attach written comments from each. Department of Biology; Department of Complex Systems & Brain Sciences; Department of Psychology.

Ceylan Isgor, Ph.D.; cigsor@fau.edu; tel: 297-0712

Faculty Contact, Email, Complete Phone Number

SIGNATURES

Approved by:
Department Chair: ___________________________ Date: 3-16-10
College Curriculum Chair: ___________________________ 2-16-10
College Dean: ___________________________ 3-16-10
UGPC Chair: ___________________________
Dean of the Graduate College: ___________________________

SUPPORTING MATERIALS

Syllabus—must include all details as shown in the UGPC Guidelines.

Written Consent—required from all departments affected.

Go to: http://graduate.fau.edu/ugpc/ to download this form and guidelines to fill out the form.

FAUnewcourseGrad—Revised January 2010
MOLECULAR NEUROPSYCHOPHARMACOLOGY

**Course number:** BMS 6438  
**Prerequisites:** PSB 6037 or PSB 6345 or equivalent  
**Co-requisites:** None  
**Instructors:** Dr. C. Isgor & Dr. R. Tao  
**Course hour:** TUE 14:00 – 16:50  
**Place:** Room BC 130  
**Office hour & place:** By appointment  
Rm 323 (Isgor) cismor@fau.edu  
Rm 327 (Tao) rtao@fau.edu


**Course Description:** This course is intended to provide graduate students with the fundamentals of molecular neuropharmacology, as they relate to neurotransmitter signaling in the brain.

**Instructional objectives:** The course is designed to give students a review on the major neurotransmitter-receptor pharmacology, with a major emphasis on new and emerging molecular targets for drug development for various diseases of the nervous system including major depression, bipolar disorder, schizophrenia, drug addiction, stroke, epilepsy, Parkinson’s Disease, Alzheimer’s Disease, multiple sclerosis, myasthenia gravis. At the end of the course, students will have a knowledge base for understanding molecular regulators of disease using neurotransmitter synthesis, release, reuptake and receptor binding mechanisms within each major neurotransmission system in the nervous system. Students will also gain competence in major neuropeptide systems and their involvement in disease processes.

<table>
<thead>
<tr>
<th>Date</th>
<th>Instructor</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>January 12</td>
<td>TAO</td>
<td>1. Basic principles of neuropharmacology (Chp 1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Neurons and glia (Chp 2)</td>
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<tr>
<td>January 19</td>
<td>TAO</td>
<td>1. Electrical excitability of neurons (Chp 3)</td>
</tr>
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<td></td>
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<td>2. Synaptic transmission (Chp 4)</td>
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<td>January 26</td>
<td>TAO</td>
<td>1. Signal transduction pathways in the brain (Chp 5)</td>
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<td></td>
<td></td>
<td>2. Signalling to the nucleus (Chp 6)</td>
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<tr>
<td>Date</td>
<td>Instructor</td>
<td>Topic</td>
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<td>------------</td>
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<tr>
<td>February 2</td>
<td>ISGOR</td>
<td>1. Excitatory and inhibitory amino acids (Chp 7)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. Catecholamines (Chp 8)</td>
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<tr>
<td>February 9</td>
<td>ISGOR</td>
<td>Serotonin, acetylcholine, histamine (Chp 9)</td>
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<tr>
<td>February 16</td>
<td>ISGOR</td>
<td>1. Neuropeptides, purines (Chp 10)</td>
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<tr>
<td></td>
<td></td>
<td>2. Neurotrophic factors (Chp 11)</td>
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<tr>
<td>February 23</td>
<td>TAO</td>
<td>Midterm EXAM</td>
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<td></td>
<td></td>
<td>(35% of final grade; multiple choice and short assay format)</td>
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<tr>
<td>March 2</td>
<td>TAO</td>
<td>1. Autonomic nervous system (Chp 12)</td>
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<td></td>
<td></td>
<td>2. Control of movement (Chp 14)</td>
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<tr>
<td>March 9</td>
<td></td>
<td>SPRING BREAK</td>
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<tr>
<td>March 16</td>
<td>ISGOR</td>
<td>1. Neuroendocrine control of the internal milieu (Chp 13)</td>
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<td></td>
<td></td>
<td>2. Mood and emotion (Chp 15)</td>
</tr>
<tr>
<td>March 23</td>
<td>TAO</td>
<td>Reinforcement and addictive disorders (Chp 16)</td>
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<tr>
<td>March 30</td>
<td>ISGOR</td>
<td>1. Higher cortical function (Chp 17)</td>
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<td></td>
<td></td>
<td>2. Memory and dementias (Chp 20)</td>
</tr>
<tr>
<td>April 6</td>
<td>TAO</td>
<td>Pain (Chp 19)</td>
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<tr>
<td>April 13</td>
<td>ISGOR</td>
<td>Seizures and stroke (Chp 21)</td>
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<td>April 20</td>
<td>TAO</td>
<td>Student presentation: Group 1</td>
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<td><strong>Topics will be assigned by Instructor</strong></td>
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<tr>
<td>April 27</td>
<td>ISGOR</td>
<td>Student presentation: Group 2</td>
</tr>
</tbody>
</table>
Topics will be assigned by Instructor

1st week of ISGOR FINAL EXAM
May (TBA) (35% of final grade)

Assessment procedures: EXAM 70 pts
PRESENTATION 20 pts
ATTENDANCE 10 pts

Students will be expected to attend all lectures and participate in in-class discussions, complete 2 in-class exams and give a presentation in order to attain full marks. 
Attendance will be taken every class.

Grading criteria:

<table>
<thead>
<tr>
<th>Score Range</th>
<th>Grade</th>
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<tbody>
<tr>
<td>95-100</td>
<td>A</td>
</tr>
<tr>
<td>90-94</td>
<td>A-</td>
</tr>
<tr>
<td>85-89</td>
<td>B+</td>
</tr>
<tr>
<td>80-84</td>
<td>B</td>
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<tr>
<td>76-80</td>
<td>B-</td>
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<tr>
<td>74-76</td>
<td>C+</td>
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<tr>
<td>65-75</td>
<td>C</td>
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<tr>
<td>60-64</td>
<td>C-</td>
</tr>
<tr>
<td>50-59</td>
<td>D</td>
</tr>
<tr>
<td>0-49</td>
<td>F</td>
</tr>
</tbody>
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Academic Honor Code:
Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards because it interferes with the University mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the University community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility.

The FAU Honor Code requires a faculty member, student, or staff member to notify an instructor when there is reason to believe an academic irregularity is occurring in a course. The instructor must pursue any reasonable allegation, taking action where appropriate. The following constitute academic irregularities:

1. The use of notes, books or assistance from or to other students while taking an examination or working on other assignments, unless specifically authorized by the instructor, are defined as acts of cheating.
2. The presentation of words or ideas from any other source as one's own is an act defined as plagiarism.
3. Other activities that interfere with the educational mission of the University.
For full details of the FAU Honor Code, see University Regulation 4.001 at www.fau.edu/regulations/chapter4/4.001_Honor_Code.pdf.

Students With Disabilities
In compliance with the American Disabilities Act (ADA), students who require special accommodations due to a disability to properly execute coursework must register with the Office for Students with Disabilities (OSD) – in Boca Raton, SU 133 (561-297-3880); in Davie, MOD 1 (954-236-1222); in Jupiter, SR 117 (561-799-8585); or at the Treasure Coast, CO 128 (772-873-3305) – and follow all OSD procedures.
Dear Julie,

I'm quite sure that the Center doesn't have a course close to the topic below. It sound's like a great course - I should take it!!!

Thank's for checking with us.

Janet

***************At 02:35 PM 3/9/2010, you wrote:
>Dear Dr. Blanks,
>
>Biomedical Science has a course, Molecular Neuropsychopharmacology,
>which has been offered by Drs. Isgor and Tao under the special topics
>course number. We would like this course added to the course inventory
>system so we are submitting a New Course Proposal for the March
>Graduate Programs Committee meeting.
>
>Complex Systems and Brain Sciences was identified as a department that
>might be affected by this new course. Could you please review the
>attached syllabus for any potential conflicts? We appreciate your help
>with this matter.
>
>Please contact me if you need any additional information.
>
>Thank you.
>
>Julie A. Sivigny
>Academic Program Specialist
>Charles E. Schmidt College of Biomedical Science Florida Atlantic
>University
>(561) 297-2216
Julie Sivigny

From: David L Wolgin [wolgindl@fau.edu]
Sent: Wednesday, March 17, 2010 9:57 AM
To: Julie Sivigny
Subject: Re: Biomedical Science New Course Proposal - Molecular Neuropsychopharmacology

The content of this course overlaps material covered in some of our graduate courses, but the emphasis on molecular mechanisms and diseases differentiates it enough from our courses that I see no conflict.

David

Dear Dr. Wolgin,

Biomedical Science has a course, Molecular Neuropsychopharmacology, which has been offered by Drs. Isgor and Tao under the special topics course number. We would like this course added to the course inventory system so we are submitting a New Course Proposal for the March Graduate Programs Committee meeting.

Psychology was identified as a department that might be affected by this new course. Could you please review the attached syllabus for any potential conflicts? We appreciate your help with this matter.

Please contact me if you need any additional information.

Thank you.

Julie A. Sivigny

Academic Program Specialist

Charles E. Schmidt College of Biomedical Science

Florida Atlantic University

(561) 297-2216

Attachment converted: Wolgin:molecular neuropsych#2070D6.doc (WDBN/«IC») (002070D6)
David L. Wolgin, Ph.D.
Professor and Chair
Department of Psychology
Florida Atlantic University
Boca Raton, FL 33431
E-mail: WOLGINDL@FAU.EDU
Phone: 561/297-3366
Fax: 561/297-2160

3/17/2010
Good morning,

I circulated the syllabi for the new courses listed in your e-mail (see below) to the faculty who could make comments. I did not receive any responses that raised questions or noted a significant overlap with any of our graduate courses. Please let me know if you have any questions.

I hope this is helpful and good luck with the remainder of the process toward approval of the courses.

Regards,
David

David M. Binninger, Ph.D.
Associate Professor and Associate Chair
Department of Biological Science
and
Center for Molecular Biology and Biotechnology
Florida Atlantic University
777 Glades Road
Boca Raton, FL 33431 USA
Phone: (561) 297-3323
FAX: (561) 297-2749

Begin forwarded message:

From: Julie Sivigny <jsivigny@fau.edu>
Date: March 15, 2010 1:38:27 PM EDT
To: 'David Binninger' <binninge@fau.edu>
Subject: Biomedical Science New Course Proposals

Dear Dr. Binninger,
Thank you for your assistance with this process. We are submitting a total of 10 new course proposals and 2 changes. All syllabi were forwarded to Dr. Murphey but in multiple batches so if you are missing any please let me know and I'll send to you immediately.

Biomedical Science New Course Proposals:
Host Defense & Inflammation – Dr. Yoshimi Shibata
Molecular Neuropsychopharmacology – Drs. Isgor and Tao
Macromolecules and Human Disease – Drs. Brew and Li
Adult Neurogenesis – Dr. Jianning Wei
Molecular Basis of Disease & Therapy – Dr. Caputi

3/17/2010
Tumor Immunology – Dr. Vijaya Iragavarapu
Molecular Genetics of the Cell – Dr. Kantorow
Molecular Basis of Human Cancer – Dr. Lu
Problem-based Immunology – Dr. Nouri-Shirazi
Fundamentals of General Pathology – Dr. Levitt

The integrated morphology courses will be processed as changes. We previously offered two 3-credit courses: Human Gross Anatomy – Trunk and Human Gross Anatomy – Extremities. We are changing these to 4-credit courses with the titles Integrated Morphology I and II taught by Drs. Willis Paull, Rainald Shmidt-Kastner and Deborah Cunningham.

The graduate college submission deadline is Wednesday March 17th at noon. I apologize for the lateness of some of these requests and appreciate your effort to assist us.

Please let me know if I can provide any additional information.
Thank you.
Julie

Julie A. Sivigny
Academic Program Specialist
Charles E. Schmidt College of Biomedical Science
Florida Atlantic University
(561) 297-2216

From: David Binninger [mailto:binninge@fau.edu]
Sent: Monday, March 15, 2010 11:16 AM
To: Julie Sivigny
Cc: Rodney Murphey; Jay Lyons
Subject: Fwd: Biomedical Science New Course Proposal - Macromolecules & Human Disease

Good morning Julie,

I forwarded the syllabi for the new courses to the appropriate faculty last week. It's my opinion that there will not be any issues or conflicts. So far, I have had only one response and that was that there were no concerns. Please confirm the full list of new courses and when you need a statement from me.

I hope this is helpful and please let me know if you have any questions.

Regards,
David

David M. Binninger, Ph.D.
Associate Professor and Associate Chair
Department of Biological Science
and
Center for Molecular Biology and Biotechnology
Florida Atlantic University
777 Glades Road
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3/17/2010