Central Baptist College

Course Syllabus

BIO 4310-01
SEMESTER: Spring 2015
COURSE LOCATION: Conway Campus, Cooper Complex LC110
(Class Meeting: Tuesday & Thursday 12:30-1:45 pm)

ALL STUDENTS ARE REQUIRED TO READ AND HAVE A THOROUGH UNDERSTANDING OF THE SYLLABUS. ANY QUESTIONS OR CONCERNS NEED TO BE ADDRESSED TO THE INSTRUCTOR.

SYLLABUS CHANGES
The instructor reserves the right to make changes to the syllabus as needed. If changes are made, students will be notified of the changes in class and by email.
A. COURSE DESCRIPTION
A course designed for biology majors and/or students entering health care programs. The course includes the structural and functional relationship of the human nervous system at the cellular and systemic level, including sensory input and response, transduction of neural signals, and circuits involved in cognition and coordination of movement.

B. PREREQUISITES
BIO 1410 and CHM 1420 or CHM 3402 with a grade of C or higher.

C. REQUIRED TEXTBOOK
Two texts are required for this course.
1. Alternative Neuroscience Textbook [ANT]
   Author: Douglas McBean and Frederike van Wijck [McBean & Wijck]

D. ADDITIONAL MATERIALS FOR LEARNING
1. Computer with basic audio/video output equipment
2. Internet access (broadband recommended)
3. Microsoft Word, Excel and Power Point

E. COURSE OBJECTIVES
The purpose of this course is to provide an overview of the basic principles in neurobiology, neurophysiology and its application in health-related careers. Students will:
1. Have a working knowledge of terminology of basic neuroscience.
2. Be able to identify structures from the Central Nervous system and Peripheral Nervous System.
3. Understand current techniques in applied neuroscience.
4. Have a general knowledge about the early history of neuroscience.
5. Understand the theories and principles of learning and memory.
6. Understand the Neuroscience behind pathological disorders and diseases.

This will be accomplished by:
- Weekly lectures and reading assignments
- Exams and Pop quizzes
- Student presentations

E. COURSE OUTLINE
Week 1 - Welcome and Course Materials:
Print and read syllabus
Mrs. Whittingham, CBC Library Director [Introduction to Alternative Textbooks]
Neuroscience Pre-test
Week 2:
Jan. 20, Tuesday – Section 1
   • Introduction to Neurons and Neural Networks, Chapters 1-4 [ANT]

Jan. 22, Thursday – Section 1
   • Chapters 5-7 [ANT]

Week 3:
Jan. 27, Tuesday – Section 1
   • Chapters 8-11 [ANT]

Jan. 29, Thursday – Section 1
   • Chapters 12-15 [ANT]

Week 4:
Feb. 3, Tuesday – An Introduction to Pharmacology [McBean & Wijck]
Feb. 5, Thursday – An Introduction to Pharmacology [McBean & Wijck]

Week 5:
Feb. 10, Tuesday – Section 2
   • Chapter 1-3 [ANT]

Feb. 12, Thursday – Section 2
   • Chapter 4-8

Week 6:
Feb. 17, Tuesday – Section 2
   • Chapters 9-12 [ANT]

Feb. 19, Thursday – Section 2
   • Chapters 13-15 [ANT]

Week 7:
Feb. 24, Tuesday – Exam 1
Feb. 26, Thursday – Section 3
   • Chapters 1-4 [ANT]
   • Brain-Behavior relationship: An Introduction [McBean & Wijck]

Week 8:
March 3, Tuesday – Section 3
   • Chapters 5-8 [ANT]
   • Brain-Behavior relationship: An Introduction [McBean & Wijck]

March 5, Thursday – Movement and Coordination [McBean & Wijck]
Week 9:
March 10, Tuesday – Perceptuo-motor Control [McBean & Wijck]
March 12, Thursday – Perceptuo-motor Learning [McBean & Wijck]

Week 10:
March 17, Tuesday – Section 4
  • Chapters 1-3 [ANT]
March 19, Thursday – Section 4
  • Chapters 4-7 [ANT]

Week 11:
March 23-27  Spring Break (No Tears Please)

Week 12:
March 31, Tuesday – Section 4
  • Chapters 8-12 [ANT]
April 2, Thursday – Disorders of attention and memory [McBean & Wijck]

Week 13:
April 7, Tuesday – Disorders of sensation and perception [McBean & Wijck]
April 9, Thursday – Communication Disorders [McBean & Wijck]

Week 14:
April 14, Tuesday – Executive Dysfunction [McBean & Wijck]
April 16, Thursday – Problems of emotion and motivation [McBean & Wijck]

Week 15:
April 21, Tuesday – Exam 2
April 23, Thursday - Student Presentations

Week 16:
April 28, Tuesday – Student Presentations
April 30, Thursday – Review for Cumulative Final Exam, Mrs. Whittingham administers Textbook Evaluation, Post-test

Week 17: May 5, Tuesday @ 3:00  Cumulative Final Exam

COURSE EVALUATIONS:

- Pop Quizzes - 25 points each [100 points]
- Exams - 100 points each [200 points]
- Student Presentations- 50 points each [50 points]
- Final Exam – 200 points [200 points]
- Total points 550 points

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*Missed quizzes cannot be made up. Students may contact the instructor to schedule the exams and quizzes in advance if there are exceptional circumstances (as determined by the instructor).

**SCALE:**
A=90-100%
B=80-89%
C=70-79%
D=60-69%
F =59 and below

**F. CLASSROOM REQUIREMENTS**

**Internet and software:** You must have continuous access to a working and dependable Internet provider.

**G. STUDENT EXPECTATIONS**

**Webstudy:**
Students are expected to check the Timeline tab in their WebStudy course each week beginning on the start of the course. Students are expected to check WebStudy e-mail several times per week to ensure timely receipt of messages from the professor.

**WebStudy Assignment Submissions**

WebStudy has three primary purposes in our courses: (1) to provides a means for students to receive timely information about the course in general, assignments, grades, and announcements from the instructor; (2) to promote thoughtful interaction between the instructor and students and among students themselves as they work through course materials; and (3) to enhance the learning process by providing a variety of materials.

If you have technical problems with WebStudy, please contact the IT Department by e-mailing techsupport@cbc.edu.

**Attendance and Participation:** Your attendance and participation are important means for the instructor to assess your skills, quality of thought, and growth as a student. The attendance policy and procedures are described below. When applicable, requirements for your participation in WebStudy discussion are important for both your learning and your instructor’s evaluation of your progress in the course. It is the student’s responsibility to login to WebStudy regularly to check emails and/or assignments posted by the instructor.

**Assignments:** Pay close and timely attention to reading assignments and other assigned work posted in the syllabus and WebStudy. If you have any questions regarding these requirements, please contact your instructor. You are also responsible for preparing for assigned readings carefully by the date listed on the schedule as well as preparing for exams and quizzes and reading assignments by the date listed.

**Technology:** The use of laptops and tablets is permitted in class for classroom purposes only. Students using these devices in any other manner during the class period will be asked to put the device away and will no longer be permitted the use of the device. Texting is permitted only during class breaks. Any student texting during instruction will be asked to leave the class and will receive an absence for that class session. If you are expecting an important phone call during class, please inform your instructor ahead of time.
H. CENTRAL BAPTIST COLLEGE POLICIES AND PROCEDURES

**Attendance:** Regular attendance in the classroom is expected throughout the course. *Students are allowed no more than two absences per course. Any student who misses more than three class meeting will be administratively withdrawn from the course and a grade of “WP” or “WF” will be assigned by the instructor.*

*NOTE: This is CBC policy; please do not ask for an exception.*

**E-MAIL Communications:** Appropriate professional communication is a critical skill set to develop. As a student in this class, all email correspondence regarding this class must be sent from your *WebStudy* email address. Each email must contain an appropriate, descriptive subject line – do not leave it blank – do not send a new email dealing with a new topic using an old email “string”. Instructors are to respond within a 24-48 hour window, if the correspondence is sent on a weekend or holiday, responses may be answered afterwards. Please contact your instructor if you have questions.

**Academic Honor Code:** As our mission statement indicates, Central Baptist College is a community of learners dedicated to the integration of Christian faith and academic excellence. To achieve this aim, we must act with honor and integrity; therefore, we hold ourselves accountable. We will refrain from all academic fraud. We will not misrepresent our work, help others to cheat, or receive unauthorized aid on a test or other assignment. We will endeavor to reflect the excellence of Christ in all we say and do.

**Student Presentations:** All presentations should follow the format provided by the instructor.

**Student Presentation Guidelines**

1. Topic must center on medicinal and traditional herbs and their use in pharmacology.
2. You must include at least 10 peer-reviewed journal articles in your research.
3. All journal articles must be cited in AMA form.
4. Presentations must have an introduction, background, chemical description, pharmacodynamics & pharmacokinetics application, review of clinical studies, and conclusion.
5. Presentations must be neat and without typos or grammar errors.
Arrangements for Students with Disabilities: It is the policy of CBC to accommodate students with disabilities, pursuant to federal and state law. Any student with a disability who needs an accommodation should contact Paula Bender, Disability Support Services Coordinator. Her office is located in the Student Services Office located in the Mabee Building. Mrs. Bender’s email address is pbender@cbc.edu, and her telephone number is (501) 205-8926. *Please contact Mrs. Bender prior to the start of the course if you need any accommodations.

Harassment Policy: It is CBC’s policy that all personnel have the right to work and/or study in an environment free from illegal discrimination including all types of harassment. Please familiarize yourself with Harassment Policy on pages 13-15 of the Student Handbook.

Withdrawing from the Course: Students who wish to withdraw from the course must complete the withdrawal process. This process starts with the CBC website. Ceasing to attend class does not constitute a withdrawal from the course. Students who do not properly withdraw from the course will receive a failing grade.