1.0. BASIC COURSE INFORMATION

1.1 Course Number:
Psychology 3222G

1.2 Course Name:
Introduction to Neuroimaging Research

1.3 Scheduled class times:
Tuesdays and Thursdays 9:30 am - 12:30 pm

1.4 Pre/Anti-requisite information:
Prerequisite(s): Psychology 2221A/B or Psychology 2220A/B, AND registration in the third or fourth year of Honors Specialization, Major in Psychology, or permission of the Department. Extra Information: 0.5 course.

1.5 Instructor Name:
Dr. Derek Quinlan

1.6 Instructor contact information:
Email: dquinla4@uwo.ca

1.7 Office hours:
Immediately following lecture and by appointment (via Zoom meeting).

2.0. CALENDAR DESCRIPTION
A research-oriented course that focuses on the experiments and methodological techniques in neuroimaging that lead to our current understandings of the structure and function of the mammalian brain.

3 lecture/seminar hours held twice per week; 0.5 course
Note 1: Unless you have either the prerequisites for this course or written special permission to enroll, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

3.0 COURSE OBJECTIVES

By the end of this course, students should have:
- a broader understanding of concepts in neuroimaging research
- a working knowledge of the research paradigms and methodology used in neuroimaging research

4.0 DESCRIPTION OF CLASS METHODS

This course will be predominately lecture-based, but will also include “in-lecture” demonstrations and experiments that will investigate various methods employed in neuroimaging research (E.g. EEG, fMRI, fNIRS, etc.). There will be three ‘lecture’ hours each Tuesday and Thursday to which there is an assigned lecture (See 7.0 Tentative Schedule). ‘Lecture’ hours will be used for both lectures and experiments/demos/tutorials. Exams will assess students’ basic conceptual and functional knowledge of both lecture and reading materials, as well as the methodological paradigms and findings resulting from the experiments/demos. Writing assignments will also be utilized to assess students’ understanding of the materials/methods explored.

5.0 REQUIRED TEXTS

Introduction to Human Neuroimaging
by Hans Op de Beeck and Chie Nakatani
Cambridge University Press (May 16, 2019)

Assigned readings from the required text and provided research literature will be assigned on a week-to-week basis. Additional readings will be made available on the course website as needed. All readings, along with lecture materials (including experiments/demos/tutorials) will be covered in the exams. Please note that most of the material for this course will come from lectures, therefore either regular lecture attendance, or viewing of the recorded lectures, is highly recommended.
6.0 EVALUATION

1. Exams: There will be two online exams, a midterm worth 30% and a second exam worth 40% of the final course grade. The first exam will cover all materials related to the first five lectures (July 6th – 20th), while the second exam will be non-cumulative, covering only the material from the last 6 lectures (July 22nd – August 12th). These exams will be a combination of multiple-choice questions, short-answer questions, and 1-page essay-style questions.

2. Paper: There will be one review paper (in APA format) worth 30% of the final grade and will be due August 10th. This paper will review the most recent research findings in areas of study within Psychology that utilized neuroimaging techniques. Topics for this review paper will be provided.

6.2. Exams

There are two online exams, which when combined, determine 70% of the final grade in the course. The first exam will be written online during the 72-hour period spanning July 26th – 28th and students will have 2 hours to complete the exam once begun. Similarly, the second exam will be written online during a 72-hour period spanning August 15th – 17th and students will have 2 hours to complete the exam once begun.

Exams are non-cumulative and each exam covers approximately one half of the course material.

Exams will be composed of multiple-choice questions, short-answer questions, and 1-page essay-style questions based on the assigned readings and lectures/demonstrations/experiments.

Following the failure of a student to write the midterm exam, and acting on advice from the Academic Counseling Office to provide relief (based on medical and/or non-medical grounds), we will calculate the student’s final grade based on their performance on the final exam and the written assignment. Students that do not write the midterm exam and do not receive accommodation from the Academic Counseling office will receive a midterm exam grade of zero. In the event that a student fails to write the final exam during the final exam period, and again acting on advice from the Academic Counseling Office to provide relief (based on medical and/or non-medical grounds), we will permit that student to write a make-up for the final exam only. Failure to attain academic accommodation will lead to the grade being recorded as zero. The make-up final exam will follow a similar format to that of the regularly scheduled final exam and will be written on a day and time mutually agreed upon by the student and professor. Documentation for missed exams/assignments must be submitted to the Academic Counseling Office in a timely manner.
The midterm exam grade will be posted in the gradebook of the OWL website. Students may review their exam via a Zoom meeting with their instructor during a scheduled office hour. The Psychology department will retain all tests.

Statement Regarding Grades in Psychology at Huron University College

Students at Huron University College should consider a grade in the range from 75-79 to be evidence of satisfactory performance in a 3000-level Psychology course. Grades in the A (80-90%) range will only be awarded for performance that is demonstrably superior to the third or fourth-year standard associated with the Major or Minor modules. A grade of A+ (90-100%) will only be awarded rarely and only for work that is exceptional.

7.0 Psychology 3222G – Tentative Schedule – Summer Day 2021

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