

NROC61S 1999

NEUROSCIENCE II: Learning and Motivation

Instructor

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Room S557

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Office Hours W 14:00:16:00

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Week of

Jan 4	Regulation of Internal Body States	
Jan 11	Physiological Basis of Drinking	Carlson Chap 12
Jan 18	Physiological Basis of Eating	Carlson Chap 13
Jan 25	Sleep and Wakefulness	Purves Chap 26
Feb 1	Midterm Test Feb 5	
Feb 8	Sex, Sexuality and the Brain	Purves Chap 28
Feb 15	Reading Week - No classes	
Feb 22	Conference - No tutorials	Mini Review
Mar 1	Learning and Memory	Rosenzweig Chap 17
Mar 8	Learning and Memory:	Rosenzweig Chap 18
Mar 15	Neural Correlates of Reward	Carlson Chap 19
Mar 22	Midterm Test Mar 26	
Mar 29	Physiology of Emotions	Purves 27
Apr 5	Schizophrenia and Mental Disorders	Rosenzweig Chap 16

Course Material:

You are responsible for all information covered during the lectures and the assigned readings from the texts. Copies of the required readings will be available for purchase.

Tutorials:

Tues 10:00	Rm R4224
Thur 10:00	Rm S358
Fri 14:00	Rm S208

Grading:

Your grade in this course will be determined as follows

Midterm Test Feb 5	15%
Midterm Test Mar 26	15%
Comprehensive Final Exam	35%
Tutorial	35%

Your tutorial grade will be assigned as follows

Class presentations	10%	
Mini Review	20%	Due Mar 15 in lecture at 13:00
Participation	5 %	

A medical note is required for any missed tests/presentations. Otherwise, a grade of zero will be assigned. All late material will be penalized at 10% per day late, unless a medical note is provided.

Oral Presentation

Your presentation will be based on a current journal article on your assigned topic. The topics will be assigned in the first tutorial. A copy of your selected article should be brought to the second tutorial. The presentation should be 10 to 12 minutes in length with 3 to 5 minutes allowed for class discussion. A detailed outline for your oral presentation is due at the start of the tutorial one week in advance of the presentation date along with a copy of the journal article. Oral presentations will be scheduled between Jan 18 and Mar 29, 1999.

Mini Review

This assignment requires reading 5 - 7 current journal articles on your assigned topic. The articles must include at least three different methodologies and be relevant to the course material. The assignment should provide a review and discussion of the articles with a maximum length of 7 double spaced pages. APA writing format should be followed. The following will be taken into consideration in the grading of the review: 1) understanding of the articles and their importance 2) ability to integrate the articles with each other and with the course material 3) organization and clarity of writing 4) professionalism (grammar, spelling, syntax).

You are required to turn in a list of 15 abstracts from potential papers on your topic. This will familiarize you with the use of the library (and internet) referencing services. This is due the week of Jan 25, at the start of your tutorial.

Tutorial Day**Name****Tutorial Topic List**

On the list below, indicate your preferred topics. Rate your choices from 1 to 7 with 1 being the most preferred and 7 the least preferred. If you wish, you may cross out 3 topics. You will write your mini review and give your oral presentation on your assigned topic.

Volumetric Thirst
Osmotic Thirst
Obesity
Anorexia Nervosa
Bulimia Nervosa
Long Term Potentiation
Long Term Depression
Short Term Synaptic Plasticity
The role of NMDA receptors
Epilepsy
Cortical Plasticity in Adult Animals
Declarative and Nondeclarative Memory
Working Memory
Korsakoff's Syndrome
Spatial Perception and Learning
Panic Disorder
Anxiety Disorder
Depression
Seasonal Affective Disorder
Obsessive Compulsive Disorders
Tourettes Syndrome
Autistic Disorders
Stress Disorders
Drug Addiction: cocaine
 opiates
 morphine
Amygdala and Emotions
Biological Clocks
REM sleep
Non REM sleep
Sleep deprivation
Sleep Apnea
Schizophrenia: Etiology
 Pharmacological Treatment
Parkinson's Disease
Brain Dimorphisms and homosexuality/heterosexuality
Alzheimer's Disease
Other, Be Specific

Helpful Hints for your Mini Review:

APA writing format must be followed for this assignment.

The paper should include a title page, abstract, body and reference page.

The introduction should describe the general and specific questions that the articles deal with. Indicate how they relate, clarify, or add to the general area of inquiry. This should be 2-3 paragraphs.

The next part of the paper should review, compare and critique the articles. Remember the articles must be current (within the last 3 years) and must include at least 3 different methodologies.

The final section should focus on how the specific studies relate to the field as a whole. For example – do they force any dramatic changes in thinking, or do they clarify any important unresolved issues.

HYPOTHETICAL EXAMPLE:

Topic: Neuroanatomical basis of cannibalism in maternal behavior

Introduction:

The studies reviewed looked at the role of various hypothalamic structures in controlling maternal behavior. Although maternal behavior has been studied extensively, little is known about the circuitry controlling cannibalistic behavior. Sophisticated neuroanatomical techniques were utilized in an attempt to delineate the underlying neuroanatomical substrates and the relationship of this circuitry to controlling maternal behavior.

From a more general perspective, these studies help elucidate how motivational systems are organized in the nervous system.

Review, Comparison and Critique:

Researchers A and B used substance R to disrupt estrogen receptor function in the giraffe dentate conglomerata. They found this procedure to disrupt maternal behavior and all the young were eaten. The significance of this finding is difficult to evaluate because the investigators had the giraffes on a food deprivation schedule. Furthermore, Researcher C found that the dentate conglomerata was not involved in cannibalistic behavior. In this study,....

Conclusion:

These studies suggest a novel perspective for understanding maternal behavior. The use of substance R to block estrogen receptors allow more precise control over brain hormonal interactions than is....

We can conclude from these studies

The best way to become familiar with writing review articles is to read review articles.