



Department of Psychology
Psychology 531 (L01) – Nervous System Development
Winter 2011 – Course Outline

Instructor:	Richard Dyck	Lecture Location:	A253
Phone:	403-220-4206	Lecture Days/Time:	TR 11:00-12:15
Email:	rdyck@ucalgary.ca		
Office:	A028		
Office Hours:	By appointment		

Course Description and Goals

The function of the human brain is mediated by billions of cells and trillions of connections. In order to understand human brain function we need to understand how these processes arise and the ways in which they change throughout a lifetime. The goal of this course is to provide a contemporary overview of CNS development from biological, behavioural and clinical perspectives. The following topics will be covered:

Neural Development: Neuronal Birth and Migration, Differentiation, Axon Outgrowth and Guidance, Neuronal Survival, Refinement of Connections

Behaviour: Sensory, Motor and Cognitive Development; Genetic and Epigenetic Influences (Nature vs Nurture)

Developmental Disorders including, but not limited to: Autism, ADHD, Down's Syndrome, Dyslexia, Epilepsy, Fetal Alcohol Syndrome, Fragile X Syndrome, Retts Disorder, Schizophrenia, William's Disorder

Required Text

The required text for the course is: Sanes, D.H., Reh, T.A., and Harris, W.A. (2005) Development of the Nervous System, Academic Press. We will be covering the entire text. Additional reading materials will be drawn from a collection of sources, including classic journal articles in the field, more recent reports and review papers.

Evaluation

The final course grade will be based on:

- 1) Interm examination 1: 25%
 - a. 75 minutes in class on Feb 24
 - b. Short answer and Long answer/essay questions
 - c. Examines information covered by Chapters 1-5 and lecture material and additional readings
- 2) Interm examination 2: 25%
 - a. 75 minutes in class on March 31
 - b. Short answer and Long answer/essay questions

- c. Examines information covered by Chapters 6-10 and lecture material and additional readings covered since Interm examination 1.
- 3) In class presentation: 15%
 - a. Group presentations. Number/group will be determined after final enrollment known.
 - b. Specific topics will be determined in class in discussion with students.
- 4) Term Paper: 35%
 - a. On any topic dealing with normal or abnormal nervous system development.
 - b. Maximum of 20 double-spaced pages, not including references.
 - c. 12 point Times font (about 15 characters/inch).
 - d. The paper topic, in the form of an outline, must be approved by instructor no later than 4:00 pm March 24 (**5%**).
 - e. Paper will be graded on two criteria: **presentation (25%)**, including grammar, organization, clarity of writing, and other skills pertaining to written English, and **content (70%)**, including the accuracy of information presented, etc.
 - f. Paper to be handed in by 4:00pm April 15, 2011.
 - i. Reduction of one letter grade for each 24h interval that the paper is late.

Grading Scale

A+	96-100%	B+	80-84%	C+	67-71%	D+	54-58%
A	90-95%	B	76-79%	C	63-66%	D	50-53%
A-	85-89%	B-	72-75%	C-	59-62%	F	0-49%

As stated in the University Calendar, it is at the instructor's discretion to round off either upward or downward to determine a final grade when the average of term work and final examinations is between two letter grades. To determine final letter grades, final percentage grades will be rounded up or down to the nearest whole percentage (e.g., 89.5% will be rounded up to 90% = A but 89.4% will be rounded down to 89% = A-).

Tentative Lecture Schedule

January

- 11/13 Introduction, Anatomy primer, Chapter 1 – Neural Induction
- 18/20 Chapter 2 – Polarity and Regionalization
- 25/27 Chapter 3 – Birth and Migration

February

- 1/3 Chapter 4 – Determination and Differentiation
- 8/10 Chapter 5 – Axon Growth and Guidance
- 15 Chapter 6 – Target Selection
- 24 Interm examination 1 (Chapters 1-5, lecture notes and readings)
- 22/24 Reading Week

March

- 1 Chapter 6 – Target Selection
- 3/8 Chapter 7 – Survival and Growth
- 10/15 Chapter 8 – Synapse Formation
- 17/22 Chapter 9 – Refinement of Synaptic Connections
- 24/29 Chapter 10 – Behavioral Development
- 31 Interm examination 2 (Chapters 6-10, lecture notes and readings)

April

5/7 Student presentations

12/14 Student presentations

Reappraisal of Grades

A student who feels that a piece of graded term work (e.g., term paper, essay, test) has been unfairly graded, may have the work re-graded as follows. The student shall discuss the work with the instructor within 15 days of being notified about the mark or of the item's return to the class. If not satisfied, the student shall immediately take the matter to the Head of the department offering the course, who will arrange for a reassessment of the work within the next 15 days. The reappraisal of term work may cause the grade to be raised, lowered, or to remain the same. If the student is not satisfied with the decision and wishes to appeal, the student shall address a letter of appeal to the Dean of the faculty offering the course within 15 days of the unfavourable decision. In the letter, the student must clearly and fully state the decision being appealed, the grounds for appeal, and the remedies being sought, along with any special circumstances that warrant an appeal of the reappraisal. The student should include as much written documentation as possible.

Plagiarism and Other Academic Misconduct

Intellectual honesty is the cornerstone of the development and acquisition of knowledge and requires that the contribution of others be acknowledged. Consequently, plagiarism or cheating on any assignment is regarded as an extremely serious academic offense. Plagiarism involves submitting or presenting work in a course as if it were the student's own work done expressly for that particular course when, in fact, it is not. Students should examine sections of the University Calendar that present a Statement of Intellectual honesty and definitions and penalties associated with Plagiarism/Cheating/Other Academic Misconduct.

Academic Accommodation

It is the student's responsibility to request academic accommodations. If you are a student with a documented disability who may require academic accommodation and have not registered with the Disability Resource Centre, please contact their office at 403-220-8237. Students who have not registered with the Disability Resource Centre are not eligible for formal academic accommodation. You are also required to discuss your needs with your instructor no later than 14 days after the start of this course.

Absence From A Test/Exam

Makeup tests/exams are NOT an option without an official University medical excuse (see the University Calendar). A completed Physician/Counselor Statement will be required to confirm absence from a test/exam for health reasons; the student will be required to pay any cost associated with this Statement. Students who miss a test/exam have 48 hours to contact the instructor and to schedule a makeup test/exam. Students who do not schedule a makeup test/exam with the instructor within this 48-hour period forfeit the right to a makeup test/exam. At the instructor's discretion, a makeup test/exam may differ significantly (in form and/or content) from a regularly scheduled test/exam. Except in extenuating circumstances (documented by an official University medical excuse), a makeup test/exam must be written within 2 weeks of the missed test/exam.

Freedom of Information and Protection of Privacy (FOIP) Act

The FOIP legislation disallows the practice of having student's retrieve tests and assignments from a public place. Therefore, tests and assignments may be returned to students during class/lab, or during office hours, or via the Department Office (Admin 275), or will be made available only for viewing during exam review sessions scheduled by the Department. Tests and assignments will be shredded after one year. Instructors should take care to not link students' names with their grades, UCIDs, or other FOIP-sensitive information.

Course Credits for Research Participation (Max 2% of final grade)

Students in most psychology courses are eligible to participate in Departmentally approved research and earn credits toward their final grades. **A maximum of two credits (2%) per course, including this course, may be applied to the student's final grade. Students earn 0.5% (0.5 credits) for each full 30 minutes of participation.** The demand for timeslots may exceed the supply in a given term. Thus, students are not guaranteed that there will be enough studies available to them to meet their credit requirements. Students should seek studies early in the term and should frequently check for open timeslots. Students can create an account and participate in Departmentally approved research studies at <http://ucalgary.sona-systems.com> The last day to participate in studies and to assign or reassign earned credits to courses is **Apr 14th, 2011**

Evacuation Assembly Point

In case of an emergency evacuation during class, students must gather at the designated assembly point nearest to the classroom. The list of assembly points is found at <http://www.ucalgary.ca/emergencyplan/assemblypoints> Please check this website and note the nearest assembly point for this course.

Student Organizations

Psychology students may wish to join the Psychology Undergraduate Students' Association (PSYCHS). They are located in Administration 170 and may be contacted at 403-220-5567.

Student Union VP Academic: Phone: 403-220-3911 suvpaca@ucalgary.ca

Student Union Faculty Rep.: Phone: 403-220-3913 socialscirep@su.ucalgary.ca

Student Ombudsman's Office

The Office of the Student Ombuds provides independent, impartial and confidential support for students who require assistance and advice in addressing issues and concerns related to their academic careers. The office can be reached at 403-220-6420 or ombuds@ucalgary.ca (<http://www.su.ucalgary.ca/services/student-services/student-rights.html>).

Safewalk

The safewalk program provides volunteers to walk students safely to their destination anywhere on campus. This service is free and available 24 hrs/day, 365 days a year. Call 403-220-5333.

Important Dates

The last day to drop this course with no "W" notation and **still receive a tuition fee refund** is **Jan 21st, 2011**. Last day for registration/change of registration is **Jan 24th, 2011**. The last day to withdraw from this course is **Apr 15th, 2011**.