

GIDP in Neuroscience Guide to Neuroscience (NRSC) Curriculum

NRSC Student Advisory Committee

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A. Overview.

Year 1

- Complete core curriculum, take some elective and minor courses.
- Complete research rotations
- By the end of the year:
 - Select a mentor
 - Select committee members
 - Schedule first committee meeting

Year 2

- Complete all course work
- Fulfill teaching requirement
- Select comprehensive exam committee members
- By the end of year 2, initiate comprehensive exam to achieve “Advanced Candidacy” (passed both exams) before fall of year 3

Years 3-5

- Meet at least annually with thesis committee
- Complete dissertation proposal in year 3, the latest
- Complete dissertation work in subsequent years 3-5
- Write dissertation and defend thesis no later than by the end of year 5

B. Required credits.

The Graduate College requires at least 72 units of graduate work, including major and minor coursework, rotation research (NRSC 700) and dissertation research (NRSC 920). The combination of major and minor coursework must total a minimum of 36 units; at least half of these units must be taken for letter grades.

- 36 units are required to become eligible for taking the comprehensive exam

9 units	Neuroscience core courses (NRSC 560 and 588)
5-6	Statistics and Communication/Ethics courses
2	Neuroscience Colloquium (NRSC 695F)
4-6	Research rotations (NRSC 700)
3-6	Neuroscience elective courses (see table 2)
9	Minor courses
≥ 36 units	(at least half of the units must be taken for a letter grade)
- another ~36 additional units are typically required to graduate (after reaching Advanced Candidacy). These can be derived from:
 - NRSC 900 Research (additional research rotation)
 - NRSC 920 Dissertation research
 - NRSC 930 Supplemental registration
 - NRSC 599/699 Independent study
- A total of 72 units is required for graduation
- Students must take a minimum of 12 units in each semester to meet minimum enrollment requirements.

NRSC students are expected to maintain an overall grade-point average of at least 3.0 (B) and to have no more than a total of 2 grades of C; failure to achieve such a record can result in conversion to non-degree status and dismissal from the program at any time.

C. Required courses (Table 1).

Every student must carry at least **12 units** of graduate course work in each fall and spring semester in order to remain in good standing in the NRSC Program.

Students must achieve a grade of B or better in each of the core courses; failure to achieve a grade of B or better will result in dismissal from the Program and conversion to non-degree status.

Core curriculum courses are NRSC 560, NRSC 588, two semesters of NRSC 695F, one Statistics course, one Communications & Ethics course, and two research rotations (see below).

At least two research rotations (NRSC 700) must be completed in two different laboratories. *One unit of credit represents three hours of work per week (48 hours/semester per unit)*. A total of 4-6 units is recommended (as full semesters, half semesters, or a combination).

TABLE 1: Core Coursework.

Semester	Course	Units	Faculty coordinator
<i>Fall core</i>	*NRSC 588 Cell & Mol Neurobiology	4	Zinsmaier
	*NRSC 700 Research rotation	2-4	NRSC faculty
	*NRSC 695F Neuroscience Colloquium	2	Zinsmaier
	(NRSC elective or minor course to reach total \geq 12 units per semester)	varies	faculty
<i>Spring core</i>	*NRSC 560 Systems Neurobiology	5	Fuglevand
	*NRSC 695f Neuroscience Colloquium	2	Zinsmaier
	*NRSC 700 Research rotation	2-3	NRSC faculty
	(NRSC elective or minor course to reach total \geq 12 units per semester)	varies	faculty
<i>Ethics –</i> OR OR	NRSC 701 Commun in Neurosci (or equivalent) - and-NRSC 695e Science, Society & Ethics	2 + 1	TBA (<i>check availability</i>) Burd (<i>spring</i>)
	PHCL 595B – Scientific Writing Strategies, Skills & Ethics	2	Stamer (<i>fall</i>)
	PSIO 649 – Survival Skills and Ethics	3	Hoit (<i>spring</i>)
<i>Statistics</i>	See list below for options	3-4	----

* indicates required core courses;

indicates core courses of which ONE must be selected

Statistics courses

At least two units of statistics are required. Students may choose from the list below, or request the NRSC Graduate Advisory Committee to have an equivalent course considered for meeting the requirement.

Table 2: Statistic courses

Courses in statistics		Units and semester offered
EPID 576A	Biostatistics for Public Health	3 units, fall and spring
EPID 576B	Biostatistics for Research	3 units, spring
PSYC 507A *	Research Design & Analysis of Variance	3 units fall and spring
PSYC 507B *	Statistical Methods in Psychological Research	3 units, spring
PSYC 507C *	Research Design & Analysis of Variance	3 units, spring
ENTO 613/ RNR 613	Applied Biostatistics	4 units, spring
other stats course	by approval of the NRSC Program Graduate Advisor	3-4 units

* request instructor approval for enrollment

Teaching

Because teaching is an important element in academic careers in Neuroscience, supervised experience in university-level teaching is considered essential. Each student is therefore required to serve as a Teaching Assistant for at least one semester during the first 2 years.

Registration information

Schedule of classes: see, UAccess website

On-line course registration: see, UAccess website

D. Neuroscience elective courses.

Elective and required courses (Table 2) must add up to a minimum of 36 units (not including dissertation research and independent study). At least half of the 36 units must be taken for a letter grade (not pass/fail).

Additional courses of interest that are not listed in Table 2 can be accepted after confirmation with the student's Advisory Committee or the Graduate Advisor. The U of A Graduate College now discourages cross-listing of classes, hence some of the courses listed in the table below do not carry the 'NRSC' prefix. Irrespective of the prefix, all these courses will be accepted as Neuroscience electives. Some courses are listed twice as they may cover more than one 'theme' (e.g. Systems and Computational Neuroscience).

Table 3. Coursework for the Neuroscience electives can be taken from any themes. *Specific courses selected to fulfill the core requirements cannot also be counted as electives.*

Theme		Course #	Title	Units	Instructor
Developm.		CBA556	Developmental Biology	3	Antin
Systems	fall	P506	Neural Encoding, Memory & Computation	3	Fellous
Systems	spring	NRSC564	Neurophysiology: Sensorimotor Perspective	3	Fuglevand
Systems		PSIO595M	Assignment in Motor Control	1	Rankin
Systems	fall	PSYC 504	Human Brain-Behavior Relationships	3	Ryan
Systems		PSIO 620	Introduction to Systems Neurophysiology	2	Levine
Systems	fall	PSIO595G	Muscle Biology	2	Rankin
Systems	spring	PSIO 603	Human Physiology	8	Lynch, Gothard, Fregosi et al.
Anatomy	spring	NRSC 502	Principles of Neuroanatomy	4	Ryan
Anatomy	spring	NRSC 597H	Neuroanatomy Lab (optional)	1	Ryan
Mol&Cell	fall	PHCL 620	Principles of Pharmacology	3	Sloviter
Mol&Cell	fall	PSIO 503	Cellular & Molecular Physiol	5	Simon
Mol&Cell	fall	GENE533	Human Genetics	3	Brilliant
Mol&Cell	fall	GENE539	Methods Cell Biol. & Genomics	3	Galbraith/Pala
Mol&Cell	spring	CBA 577	Principles of Cell Biology	4	Gordon
Mol&Cell	fall/spr	NRSC695D	Human Genetic Disease Colloq.	3	Restifo
Behavior	fall/spr	NRSC 596E*	Biopsychology	3	Figueredo Gothard
Behavior	fall	ECOL587R	Animal Behavior	3	Papaj
Behavior	fall	ECOL587L	Animal Behavior Lab	1	Papaj
Behavior		Ecol596V	Topics in Behavior and Cognition	3	Dornhaus
Behavior.	spring	ECE/BME/N RSC 525	Reverse-Engineering the Fly: From Physiol. to Computational Models	3	Higgins
Behavior	spring	Chem 536	Science & Ethics of modifying human behavior	3	Hruby
Medical	fall	PSYC 524	Gerontology: A Multidisciplinary Perspective	3	Barnes
Medical	spring	NRSC502	Principles of Neuroanatomy	4	Ryan
Medical	spring	NRSC597H	Neuroanatomy Lab	1	Ryan
Medical	fall/spr	NRSC695D	Human Genetic Disease Colloq.	3	Restifo
Medical	fall	PSIO595G	Muscle Biology	2	Rankin
Cognitive	fall/spr	PSYC501a	Princip. Psychophysiology	3	Allen
Cognitive	fall/spr	PSYC501b	Psychophysiology Laboratory	3	Allen
Cognitive		PSYC520	Cognit. Neurosci. of Hearing	3	Lotto

Computat.	spring	PSYC596L	Intro. Neural Data Analysis	3	Fellous
Computat.	fall	PSYC503C	Introd. Computational Neurosci.	3	Fellous
Computat.	spring	ECE/BME/N RSC 525	Reverse-Engineering the Fly: From Physiology to Computat. Models	3	Higgins
Computat.	fall	PSIO572	Quant. Modeling of Biol. Systems	3	Secomb/Bergevin
General	fall/spr	CBA579	Art of Scientific Discovery	3	Gordon
General	fall	CBA565A	Fundamentals of Light Microsc. and Electronic Imaging	3	Elliot

Students and faculty are welcome to consult with the Graduate Student Advisor to determine whether neuroscience-related courses that are not listed might be acceptable as electives.

E. Minor coursework for Neuroscience students (at least 9 units are required).

Predocutorial students can pursue a minor in any established program, as determined by the guidelines of the respective program. Alternatively, the student may choose the “Distributed Minor in Neuroscience” option that offers a flexible curriculum tailored to the student’s interests.

The minor should be selected in consultation with the dissertation advisor and must be approved by the NRSC Graduate Advisory Committee. Contact the NRSC Program Coordinator for a “Statement of Minor” form to submit for review and approval.

Examples of established programs for consideration include: Cell Biology & Anatomy, Biochemistry, Cognitive Science, Entomology, Genetics, Molecular & Cellular Biology, Medical Pharmacology, Physiological Sciences, Psychology, Speech & Hearing Sciences, and others.

F. Minor in Neuroscience for graduate students in other programs (at least 9 units are required)

The minor in Neuroscience requires:

- passing one of the core course NRSC 560 **OR** 588 (4 or 5 units)
- and 4-5 additional units in courses that are cross-listed in NRSC. The NRSC Colloquium course NRSC 695f is valid for the minor.

Contact the NRSC Program Coordinator for a Neuroscience Minor application form or visit the Neuroscience website at www.neuroscience.arizona.edu/students/minor.html

The provided information may be subject to change with reasonable advance notice, as deemed appropriate by the Executive Committee of the Neuroscience GIDP.

List of Neuroscience (NRSC) Graduate Courses

Please note: The UA is moving way from cross-listed courses. If you can't find an NRSC course to enroll, please try the course under the home departments prefix.

NRSC 502 --Principles of Neuroanatomy (4 units) Description: Cellular elements and recognized subsystems of the mammalian nervous system, with emphasis on general principles of neuroanatomical organization and their functional significance. Prerequisite(s): 8 units of biological laboratory science, CBA 401; PSYC 302, PSIO 480 desirable. Consent of instructor. Identical to: PSYC 502; PSYC is home department. Usually offered: Spring.

NRSC 505 --Basic Neurochemistry (3 units) Description: This course will cover the basic aspects of brain biochemistry that are peculiar to function of neurons and glia. It will begin with an overview of the basic biochemical mechanisms underlying neuronal function and then discuss their role in disease and brain function. Then it will conclude with short presentations on related topics by the enrolled students. Prerequisite(s): Graduate students only; basic understanding of biology and chemistry. Identical to: PSYC 505; PSYC is home department. Usually offered: Fall, Spring, Summer.

NRSC 506 --Neural Encoding: Memory and Comprehension of Mammals (3 units) Description: Theoretical principles and biological mechanisms by which information is represented, categorized, stored, and recalled in specific central nervous system (CNS) circuits in the course of adaptive behavior. Graduate-level requirements include an in-depth research paper on a single aspect of neural encoding. Prerequisite(s): PSYC 507B. Identical to: PSYC 506; PSYC is home department. Usually offered: Fall

NRSC 560 --Systems Neuroscience (5 units). Description: This course will provide a comprehensive overview of neural systems, including those associated with sensory, motor, autonomic, and cognitive processes. Relevant aspects of neuroanatomy will be presented and diseases affecting different systems will be discussed. Prerequisite(s): NRSC 588 or permission of course coordinator. Usually offered: Spring.

NRSC 524 --Gerontology: A Multidisciplinary Perspective (3 units) Description: Biological, psychological, and social issues in aging, including brain changes with age, cognitive change with age, and the social impact of increasingly older population demographics. Graduate-level requirements include an in-depth research paper on a single aspect of gerontology. Identical to: PSYC 524; PSYC is home department. Usually offered: Fall.

NRSC 530 --Neural Basis of Language (3 units) Description: The neural basis of language comprehension and production, with reference to its relationship to other perceptual, cognitive and motor skills. Prerequisite(s): graduate status. Identical to: PSYC 530; PSYC is home department. Usually offered: Fall.

NRSC 564 --Neurophysiology: Sensorimotor Perspective (3 units) Description: Focuses on mammalian sensorimotor system as a model system to understand principles of neural communication, sensory functions, information processing, and production of behavioral responses. Graduate-level requirements include a research paper. Identical to: PSIO 564; PSIO is home department. May be convened with: NRSC 464. Usually offered: Spring.

NRSC 581 --Neural Mechanisms of Behavior (2 units) Description: Focuses on arthropods as model systems for understanding the control of behavior by the nervous system. Introduces sense organs and sensory processing, control of movement by motor neurons and central motor circuits, and integrative mechanisms and neuronal plasticity that give rise to complex behavior such as learning and memory. Prerequisite(s): NRSC 282 Usually offered: Fall.

NRSC 582 --Topics in Neural Development (2 units) Description: An in-depth analysis of the cellular and molecular basis of neural development. Students will read and discuss journal articles dealing with the development of neurons and their synaptic connections. Prerequisite(s): consult program office before enrolling. Identical to: CBA 582, MCB 582, PSIO 582. Usually offered: Fall.

NRSC 588 --Principles of Cellular and Molecular Neurobiology (3 units) Description: Detailed introduction to the biology of nerve cells, emphasizing cellular neurophysiology, synaptic mechanisms, and analysis of neural development. Prerequisite(s): consult program office before enrolling. Identical to: CBA 588, MCB 588, BIOC 588, INSC 588, PSIO 588. Usually offered: Fall.

NRSC 594 --Practicum (1-6 units) Description: The practical application, on an individual basis, of previously studied theory and the collection of data for future theoretical interpretation. May be repeated: an unlimited number of times, consult your department for details and possible restrictions. Usually offered: Fall, Spring.

NRSC 597H---Human Neuroanatomy (1 unit) Description: This course provides an overview of the gross and sectional anatomy of the human brain and is designed to complement Psychology 502, Principles of

department. Usually offered: Fall, Spring.

NRSC 599 --Independent Study (1-6 units) Description: Qualified students working on an individual basis with professors who have agreed to supervise such work. Graduate students doing independent work which cannot be classified as actual research will register for credit under course number 599, 699, or 799. May be repeated: an unlimited number of times, consult your department for details and possible restrictions. Usually offered: Fall, Spring, Summer.

NRSC 653 --Neuropharmacology/Drugs of Abuse (3 units) Description: Role of various neurochemicals in the peripheral and central nervous systems and the effects of drugs on the nervous system, including their actions at receptors and their influence on synthesis, storage, and release of neurotransmitters. Identical to: PCOL 653; PCOL is home department. Usually offered: Spring.

NRSC 695A --Motor Control (2 units) Description: contact department. May be repeated: for credit 3 times (maximum 4 enrollments). Identical to: PSIO 695A; PSIO is home department. Usually offered: Spring.

NRSC 695f/g --Neuroscience Colloquium (2 units/1 unit) Description: Development and exchange of scholarly information through discussion of published and on-going research. Topics of the colloquium will have novel, significant, controversial, and/or far-reaching implications that are of general interest and cover the breath of neuroscience including molecular, cellular, systems and cognitive neuroscience. Grading: Regular or alternative grades can be awarded for this course: A B C D E or S P C D E. Usually offered: Fall, Spring. course director: K. Zinsmaier

NRSC 695D --Human Genetic Disease Colloquium (3 units) Description: The course will cover a few medical genetic disorders in depth, with different topics each year. Clinical presentation, pathophysiology, genetic mechanisms and biochemical features will be considered. Readings will come mainly from the primary biomedical literature. Grading: Regular or alternative grades can be awarded for this course: A B C D E or S P C D E. May be repeated: for credit 3 times (maximum 4 enrollments). Identical to: CBA 695D; CBA is home department. Usually offered: Fall.

NRSC 695E --Science, Society, and Ethics (1 unit) Description: contact department. Identical to: MCB 695E; MCB is home department. Usually offered: Spring.

NRSC 699 -- Independent Study (1-6 units) Description: Qualified students working on an individual basis with professors who have agreed to supervise such work. Graduate students doing independent work which cannot be classified as actual research will register for credit under course number 599, 699, or 799. May be repeated: an unlimited number of times, consult your department for details and possible restrictions. Usually offered: Fall, Spring, Summer.

NRSC 700 --Methods in Neuroscience (1-4 units) Description: Research rotations in the laboratories of faculty members within the neuroscience program. Prerequisite(s): consult neuroscience program office before enrolling. May be repeated: for a total of 12 units of credit. Usually offered: Fall, Spring, Summer.

NRSC 701 --Communication in Neuroscience (2 units) Description: Preparation of an essay, and instruction in scientific writing. Prerequisite(s): contact neuroscience program office before enrolling. Open to majors only. Usually offered: Spring, if course is available

NRSC 900 --Research (1-8 units) Description: Individual research, not related to thesis or dissertation preparation, by graduate students. May be repeated: an unlimited number of times, consult your department for details and possible restrictions. Usually offered: Fall, Spring, Summer.

NRSC 910 --Thesis (1-8 units) Description: Research for the master's thesis (whether library research, laboratory or field observation or research, artistic creation, or thesis writing). Maximum total credit permitted varies with the major department. May be repeated: an unlimited number of times, consult your department for details and possible restrictions. Usually offered: Fall, Spring, Summer.

NRSC 920 --Dissertation (1-9 units) Description: Research for the doctoral dissertation (whether library research, laboratory or field observation or research, artistic creation, or dissertation writing). May be repeated: an unlimited number of times, consult your department for details and possible restrictions. Usually offered: Fall, Spring, Summer.

NRSC 930 --Supplementary Registration (1-9 units) Description: For students who have completed all course requirements for their advanced degree programs. May be used concurrently with other enrollments to bring to total number of units to the required minimum. May be repeated: an unlimited number of times, consult your department for details and possible restrictions. Usually offered: Fall, Spring, Summer.

Elective, non-cross listed Courses offered by other Programs

CBA 577 --Principles of Cell Biology (4 units) Description: Intensive, graduate-level introduction to principles and mechanisms of cell biology, including current research strategies in the field. Grading: Regular grades are awarded for this course: A B C D E. Prerequisite(s): consent of course coordinator. Identical to: MCB 577. Usually offered: Spring.

CSG 696i (PSYC 696i)--Computational Intelligence (3 units) Temporary course: offered during Spring 2005 only. Description: This graduate seminar course will address a variety of topics in computational approaches to the creation of "intelligent" systems. The four instructors are all active researchers in this area and, with the assistance of a number of guest lecturers, will present their differing views and approaches. This highly interdisciplinary course is designed to encourage discussion. offered: Spring. Instructors: Barnard/ Higgins

ENTO 613 --Applied Biostatistics (4 units) Description: Introductory and advanced statistical methods and their applications in ecology. Focuses on how research design dictates choice of statistical models; explores principles and pitfalls of hypothesis testing. Grading: Regular grades are awarded for this course: A B C D E. Typical structure: 3 hours lecture, 3 hours laboratory. Identical to: RNR 613; RNR is home department. Usually offered: Spring

EPID 576A --Biostatistics in Public Health (3 units) Description: This course introduces biostatistical methods and applications, and will cover descriptive statistics, probability theory, and a wide variety of inferential statistical techniques that can be used to make practical conclusions about empirical data. Students will also be learning to use a statistical software package (STATA). Grading: Regular grades are awarded for this course: A B C D E. Prerequisite(s): one year of college-level mathematics. Identical to: CPH 576A. Usually offered: Fall, Spring.

EPID 576B --Biostatistics for Research (3 units) Description: Descriptive statistics and statistical inference relevant to biomedical research, including data analysis, regression and correlation analysis, analysis of variance, survival analysis, biological assay, statistical methods for epidemiology and statistical evaluation of clinical literature. Grading: Regular grades are awarded for this course: A B C D E. Prerequisite(s): EPID 576A, EPID 573A. Identical to: CPH 576B. Usually offered: Spring.

PHCL 595B --Scientific Writing Strategies, Skills and Ethics (2 units) Description: Provide students with skills to write/communicate effectively for a variety of scientific audiences; including scientific journals, funding institutions, potential employers as well as administration in academia and industry. Identical to: BME 595B, CBIO 595B, PS 595B, PCOL 595B. Usually offered: Fall. Instructor: W. Daniel Stamer

PSIO 503 --Cellular and Molecular Physiology (5 units) Description: Through examination of fundamental cellular processes, the integrated function of diverse cell types is discussed. Topics include: mechanisms involved in protein expression, intracellular protein targeting, and regulation of protein function; membrane transport phenomena; cell signaling mechanisms-excitability, ion channels, synaptic function; muscle and vascular function. Prerequisite(s): CHEM 103B, CHEM 104B, CHEM 241B, CHEM 243B, PHYS 103, MATH 125, MATH 129, BIOC 460. Identical to: PS 503. Usually offered: Fall.

PSIO 530 --Physiological Basis of Psychoneuroimmunology (3 units) Description: Function of the immune system and how this is modulated by the nervous and hormonal systems; effects of genetics and stress on psychoneuroimmunology. Graduate-level requirements include a paper (min. 10 pages and 5 scientific sources) reviewing an approved topic of their choice in the field of psychoneuroimmunology. May be convened with: PSIO 430. Usually offered: Fall. Instructor: Ann Baldwin

PSIO 649 --Survival Skills and Ethics (3 units) Description: This course is designed for graduate students and postdoctoral fellows. It provides information and experiences that will aid in successful "survival" during the graduate-student years and those following graduation. Topics include effective speaking and writing, grantsmanship, mentoring, teaching, career options, among others. Discussion of ethical issues and resources is integrated across topics. Grading: Regular grades are awarded for this course: A B C D E. Identical to: SP H 649; SP H is home department. Usually offered: Spring. Instructor: Jenny Hoit

PSYC 503C --Introduction to Computational Neuroscience (3 units) Description: This course covers the basic simulation techniques for biophysical modeling. Topics include: single and multi compartmental models, intrinsic neuron properties and dendritic integration and large networks of biophysical neurons with realistic stochastic synaptic transmission. Graduate-level requirements include a term project, including hands on simulation and research-level literature searches. Projects will include the analyses of real data. Grading: Regular grades are awarded for this course: A B C D E. Identical to: INSC 503C. May be convened with: PSYC 403C. Usually offered: Fall, Spring.

PSYC 507A --Statistical Methods in Psychological Research (3 units) Description: Statistical research design

methods and metascience. Variants and extensions of the general linear model including bivariate and multiple regression, analysis of variance and covariance, planned orthogonal contrasts and multiple comparisons, simultaneous and sequential canonical correlation analysis, discriminant function analysis and multivariate analysis of variance. Grading: Regular grades are awarded for this course: A B C D E. Usually offered: Fall.

PSYC 507B --Statistical Methods in Psychological Research (3 units) Description: Statistical research design, methods and metascience. Application of the structural equations modeling to manifest variable (path analysis) and latent variable (multivariate) causal analysis, confirmatory and exploratory factor analysis, and hierarchical (variance component) linear models, including generalizability theory, meta-analytic, and growth curve parameter models. Grading: Regular grades are awarded for this course: A B C D E. Prerequisite(s): PSYC 507A. Usually offered: Spring.

PSYC 507C --Research Design & Analysis of Variance (3 units) Description: This course provides an overview of research design and statistical analysis with a special focus on Analysis of Variance. Various designs including between subjects, repeated measures, mixed, hierarchical and Latin Square designs are covered. Other topics addressed are contrasts among means and trends analysis. Grading: Regular grades are awarded for this course: A B C D E. Prerequisite(s): PSYC 507A. Usually offered: Fall, Spring.

PSYC 512 --Animal Learning (3 units) Description: Animal learning with emphasis on interspecies comparisons. Graduate-level requirements include an in-depth research paper on an aspect of animal learning. May be convened with: PSYC 412. Usually offered: Spring. Instructor: James King

PSYC 596L --Introduction to Neural Data Analyses (3 units) Description: This course will cover the basic methods available for the analyses of single unit and multi units spike data. Several measures of neural activity will be discussed, and illustrated on the basis of actual and simulated neural data. Knowledge of Matlab is required, knowledge of basic neurobiology is recommended. Graduate-level requirements include an additional paper. Grading: Regular or alternative grades can be awarded for this course: A B C D E or S P C D E. May be convened with: PSYC 496L. Usually offered: starting in Spring 2007. Instructor: Jean-Marc Fellous

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