

Department of Psychology

Loeb Bldg. B552

The Department

Chair of the Department:

W.D. Jones

Departmental Supervisor of Graduate Studies:

R.F. Hoffmann

The Department of Psychology offers programs of study and research on a full-time and part-time basis, leading to the degrees of Master of Arts and Doctor of Philosophy. Financial support is available, but is limited to full-time students.

There is a very close link in the Department of Psychology between graduate studies and research. Research in the department is distributed across the life sciences areas of bio-psychology, animal learning, perception, and cognition, and across the social sciences areas of social and developmental psychology. Its research and graduate program in biopsychology is one of the strongest in Canada, with current research focusing on problems of the neurochemistry of stress and learning; developmental psychopharmacology; experimental models of epilepsy; neuroanatomy; brain lateralization; neural mechanisms of audition; drug dependence; and the effects in animals and humans of prenatal alcohol and drug exposure on postnatal behavior.

The department has related human neuropsychological research activities dealing with alterations to visual and auditory psychophysical functions associated with neuropathological conditions; determinants, correlates, and treatment of hyperactivity in children; and the relation of behavioral, psychological, and electrophysiological variables to sleep and dreaming states. Within the social sciences realm, a unique laboratory has been developed for the study of hypnosis, approached experimentally from social psychological, perceptual, and cognitive perspectives provided, in part, by other on-going research programs in the department. In recent years, there has been a growth of activity in aspects of applied psychology, including evaluation research; corrections; education; impact of computer and telecommunications technology; behavioral medicine; and psychological assessment. This has fostered close collaborative contacts between the department and public service and applied setting in Ottawa, such as the Children's Hospital of Eastern Ontario, the Royal Ottawa Hospital, the National Research Council, Department of Communications (Canada), Ontario Ministry of Correctional Services, and the Ottawa Board of Education. Practica

and internships are available in many of these settings to students at the doctoral level.

Because of the breadth of interests in the department, there is an emphasis in graduate courses on methodological and conceptual issues that are applicable across research specializations. Consequently, most substantive courses, regardless of title, are relevant to most students' programs. Students typically work very closely with their advisers who, through informal tutorials and directed studies and independent research courses, provide much of the opportunity for specialized study. Applicants are strongly encouraged to write directly to faculty members for more specific details on research interests and programs currently underway.

As part of its general experimental program, the department provides the opportunity to pursue a concentration at the doctoral level in behavioral neuroscience (a collaborative endeavor with the University of Ottawa), human neuropsychology, or human information systems. Applicants should consult with the supervisor of graduate studies for information on structuring a doctoral program of studies within a concentration.

Through a quantitative methods requirement, completion of a demanding empirical thesis presented and defended orally, participation in small seminars, and a close relationship with faculty advisers and students, the M.A. program provides the opportunity for a refinement of critical, logical, and analytical skills; skills of written and oral expression; understanding of the strengths and limitations of the scientific method as a means of problem solving, demonstrated through psychology but applicable to issues in society at large; an understanding of quantification and scaling, the use of statistical methods and inference, and the use of evidence to support argument. For some students this is a satisfactory and satisfying end in itself. For others, it provides a solid preparation for the doctoral program in which original independent study and research is stressed. The department does not distinguish between an applied and an experimental program; instead, the basic orientation is experimental and theoretical, but with opportunities, where appropriate, to provide complementary experience necessary to work successfully as a psychologist in applied research/service settings.

Augmenting the well-equipped laboratories expected in an active research environment, the Department of Psychology receives excellent technical support from the Carleton University Science Technology Center, where design and manufacture of special-purpose apparatus is carried out. In addition, the workshops provide technical support for the more than twenty-five computer systems currently in use in laboratories throughout the department.

Graduate students have access to the Honeywell Level 66 computer system, supported by the Computing Services division of the university.

These systems support a variety of computer languages, including FORTRAN, APL, PASCAL, and BASIC, several microcomputer emulatory programs, a variety of statistical and mathematical packages, such as the BMDP and SPSS systems, and many other programs.

In fulfilling degree credit requirements, all graduate students are required to demonstrate competence in statistical and quantitative methods through successful completion of Psychology 49.540 (with a grade of B- or better) or a qualifying examination. This is ordinarily scheduled during the first part of September, just prior to the registration period, and it encompasses the material covered in Psychology 49.540. In the event of successful completion of the examination, another course is substituted for Psychology 49.540. In the case of M.A. students, the department may recommend that a grade of C+ in Psychology 49.540 be accepted for credit (see General Regulations, page 22) only after successful completion of the qualifying examination. This option is limited to those who pass the examination within two successive offerings of it, and who maintain continuous registration as graduate students between the first registration in Psychology 49.540 and the taking of the examination.

In addition to fulfilling the remaining credit requirements as described in subsequent sections, all graduate students in psychology are expected to conduct research of interest to them during each year graduate study. This requirement may be satisfied by independent research, serving as a research assistant, or by doing pilot or thesis research.

Each year, the candidate's adviser submits a written critique of research progress, and this becomes part of the candidate's permanent record. Qualifying-year students are evaluated at the end of the first twelve months.

Depending on his/her field of concentration, a candidate may be required to demonstrate an ability to read with understanding relevant technical material in a foreign language and/or to give satisfactory evidence of competence in such areas as computer techniques, electronic instrumentation, psychometrics, sampling procedures, or surgical techniques.

The department may recommend that a graduate

student be asked to withdraw from the program at any time if his or her progress in course work, research, or comprehensive examinations proves unsatisfactory.

Within the department exist subgroups of faculty members with common interests and subgroups of courses associated with particular areas of psychology. Below are listed three formally identified fields of concentration with the work which would be expected from any student who decided to pursue interests in one of these fields.

Concentration in Neuropsychology

Concentration in the area of neuropsychology occurs at the Ph.D. level. It is designed to provide students with background and skills relating to the diagnosis and evaluation of psychological disorders that arise from neurological problems and associated brain dysfunction syndromes. Students interested in this area are encouraged to take all four Ph.D. seminars; 49.661, 49.662, 49.663 and 49.664. Also, it is expected that students in this field generate theses in neuropsychology.

Concentration in Cognitive Psychology

The concentration in cognition is intended to provide the graduate student with an advanced knowledge of methodological and theoretical issues in the domain of cognitive psychology. Research interests of regular and adjunct faculty in cognition include perception and psychophysics, attention, pattern recognition, reading and language processing, cognitive development, learning and memory, problem solving, neuropsychology, and human-computer interactions. Students interested in this area are encouraged to take courses such as 49.570, 49.573, 49.574 and 49.670 and generate theses in the area of cognition.

Concentration in Basic and Applied Social Psychology

The concentration in social psychology is designed to provide students with a fundamental knowledge in the traditional fields of social psychology such as social psychological research methods, attitudes and personality, as well as the application of social psychology to current social issues such as family violence, health promotion, assessment and program evaluation, crime and delinquency, computers, the psychology of women, and sports. Faculty interests span a broad spectrum of perspectives in social, personality, community and applied social psychology. Current research in the department includes historical and critical social psychology, laboratory investigations of social processes in decision making, attitudes, and hypnosis, through the applied studies in areas such as family violence, women and

the work force, the psychology of women, delinquency, criminal justice and corrections, health promotion, and performance enhancement.

Students interested in this area are encouraged to take courses such as 49.510, 49.511, 49.519 and 49.546 as well as the production of theses in this area.

Qualifying-Year Program

Occasionally, candidates with exceptional promise who offer less than honors B.A. status may be admitted to a qualifying-year program, approved by the graduate studies committee, and designed to prepare them for master's study. A minimum grade of B- must be obtained in each qualifying-year course, and candidates may be required to complete satisfactorily the equivalent of an honors B.A. thesis.

Master of Arts

Admission Requirements

The normal requirement for admission into the master's program is an Ontario honors B.A. (or its equivalent) with high honors standing and with credit in the following areas: statistics and design of experiments; experimental psychology; learning or motivation; physiology and/or comparative psychology; and history and/or systems.

Candidates with particular course deficiencies may be required to register in additional courses at Carleton.

The deadline for submitting applications for graduate study in psychology are as follows: February 1 for students requesting financial assistance; July 1 for students not requesting financial assistance but who are seeking admission in September; and November 1 for students who are seeking admission in January.

Program Requirements

The master's program usually consists of three full courses (or the equivalent), of which at least two must be at the graduate level (numbered 500 or higher), and a thesis (equivalent to two full courses) which must be defended at an oral examination. Psychology 49.540, or the successful completion of the opting-out examination in quantitative methods, is required of all graduate students. Course credit will not be given for successful completion of the opting-out examination.

Master of Science

In conjunction with the Ottawa-Carleton Specialization in Neuroscience, the Department of Psychology offers the M.Sc. degree. The candidate must fulfill the normal program requirements listed above together with the requirements of the specialization (see page 242).

Academic Standing

A grade of B- or better is normally required in each of the courses counted for credit towards the M.A. degree. The department is prepared on occasion to recommend to the dean of the Faculty of Graduate Studies and Research that a candidate be allowed a grade of C+ in one full course or each of two half courses. In the case of Psychology 49.540, such a recommendation will be based on successful completion of the qualifying examination. This option is limited to those who pass the examination within two successive offerings of it, and who maintain continuous registration as graduate students between the first registration in Psychology 49.540 and the taking of the examination.

Doctor of Philosophy

Admission Requirements

The requirements for admission to the Ph.D. program are outlined in the general section of this calendar. Scores on the Graduate Record Examination are also optional.

The Ph.D. program in psychology normally will be undertaken on a full-time basis; however, in cases of exceptional merit, the department will accept a few candidates for the degree on a part-time basis. A Ph.D. candidate who enters the part-time program will normally be required to be registered as a full-time student for a minimum of three terms, at least two of which are consecutive. The time limit for completion of Ph.D. degree requirements for those who enter the program on a part-time basis will be the same as for those who enter on a full-time basis and subsequently register for part-time study: that is, eight calendar years. (See Time Limits, page 24).

Applicants should note that of the B.A., M.A., and Ph.D. degrees in Psychology, only two may ordinarily be taken at Carleton University.

Program Requirements

The minimum program requirements for the Ph.D. degree in Psychology are as follows:

- Ten full-course credits, with a minimum grade of B- or better in each course
- Psychology 49.540, its equivalent, or the successful completion of the opting-out examination in quantitative methods, and two of Psychology 49.541, 49.542, 49.543, 49.546 are required of all graduate students. In the case of success in the opting-out examination in quantitative methods, another course is substituted for 49.540
- A thesis equivalent to five of the required ten full-course credits and which must be defended at an oral examination

All Ph.D. candidates are required to submit a thesis prospectus. The prospectus examination must be successfully completed within seven calendar terms of the student's initial registration in the Ph.D. program.

Comprehensive Examination

All Ph.D. candidates in psychology are required to pass a written and an oral examination on a topic distinct from the topic of the thesis. The topic of the comprehensive examination shall be approved by the Graduate Studies Committee of the Department of Psychology. There are two optional forms for the written and the oral examination: either a major essay or a research grant proposal. The submission of the written portion of the examination will be followed within one to three weeks by a comprehensive oral examination, which is not restricted to issues raised by the written portion.

Ordinarily the comprehensive examination must be completed successfully before the Ph.D. prospectus meeting is scheduled. The oral defense must occur within four calendar terms of the student's initial registration in the Ph.D. program.

Graduate Courses*

The following courses are offered in the graduate program but not all are offered every year. Students should consult the university and departmental timetables for a list of courses offered in 1992-93 and their scheduling.

- Psychology 49.510F1
Research Methods in Social Psychology
This course focuses on essential methodological issues in social psychology. These include experimental, quasi-experimental, correlational, survey and field research methods, as well as factors affecting the validity of findings and ethics.

- Psychology 49.511W1
Seminar in Social Psychology
This seminar deals with classic and current theoretical issues and research findings in the areas of social psychology, personality, community, social-developmental and applied social psychology.

- Psychology 49.512F1, W1
Group Processes
The interface between the person and the group has been alleged to be the uniquely defining feature of social psychology. This course examines the evidence for this assertion historically, and across cultures, in an attempt to place current publications in group processes in broader temporal and cultural contexts than research reports normally permit.

- Psychology 49.513F1, W1
Attitudes
This seminar will survey classic and contemporary theories and research examining the nature of attitudes, the attitude-behavior relation, and factors affecting attitudes.

- Psychology 49.514F1, W1
Psychology of Women
This seminar will consider and evaluate research concerning the psychology of women, including research methods, gender roles and gender differences.

- Psychology 49.515F1
Fundamentals of Computing for Psychologists
A survey of computer and communication hardware and software. The purpose of the course is to make psychologists aware of the concepts and terminology used by engineers and programmers in planning computer applications; it is not designed to train students to be programmers or to build equipment. The course will have a weekly laboratory.

Prerequisite: One course in computer programming.

- Psychology 49.516F1
Applications of Computers to Thinking, Problem Solving, and Decision Making
A survey of literature in such fields as artificial intelligence, database management, computer-aided instruction, simulation and forecasting, and computer-mediated communication.

*F,W,S indicates term of offering. Courses offered in the fall and winter will be followed by T.

The number following the letter indicates the credit weight of the course: 1 denotes a half-course credit, 2 denotes a full-course credit, etc.

Psychological principles in the design, use, and evaluation of these cognitive aids will be stressed.

Prerequisite: Psychology 49.515.

- Psychology 49.517F1, W1

Psychology of Family Violence

This seminar takes an eclectic approach to the study of child abuse, wife-assault, and other forms of family violence. In an effort to understand the psychological processes associated with family violence, theoretical and empirical work from social, developmental, and community psychology will be considered. In addition, the extent to which early experience of abuse affects the development and functioning of neuroanatomical structures will be examined.

- Psychology 49.518F1

Social Psychological Issues in Human Assessment

A detailed critique of orthodox assessment methodologies and exposure to recent developments in the appraisal of human competencies, personality, and social interaction.

- Psychology 49.519F1, W1.

Historical and Social Foundations of Social Psychology

This course surveys the development of social psychology from the 1850's to the present in both Europe and North America. Emphasis is placed on the development of social psychology as an experimental science within psychology. Part of the course will examine current trends in the sociology of knowledge and the social studies as they apply to social psychology.

- Psychology 49.520T2 (PSY6201)

Basics of Neuroscience

A comprehensive neuroscience course from the membrane and the cellular levels through to the behavioral aspects of invertebrates and vertebrates. Lectures and tutorials will cover such aspects of neuroscience as neuroanatomy, neuro-physiology, behavioral neuroscience and neuro-pharmacology. (Also offered as Biology 61.534)

- Psychology 49.521F1, W1

Environmental Psychology and Social Ecology

Using a combination of lectures and seminar presentations, this course considers theory, methods, research and applications in the fields of environmental psychology and social ecology. Topics include spatial behavior, cognitive mapping, territoriality, behavior setting analysis, personal space, crowding, environmental dispositions, psychological assessment of environments, social ecological models of stress and health promotion, and psychological aspects of architectural and environmental design. The course is designed for

psychology students but may be of interest to advanced students in the fields of geography, sociology and architecture. For those who are not graduate students in psychology, permission to register in the course is required from the instructor.

- Psychology 49.522F1, W1

Psychology and Criminal Justice

A critical review of the contributions of psychological concepts, technology and research methodology to the analysis of selected issues in law and criminal justice. Topics may include victim studies, forensic psychology, police studies, expert testimony, eyewitness and bystander behavior, judicial decision making, the psychologist as advocate and apologist, and the social psychological status and functioning of criminal justice and correctional practitioners. The ethics of psychological intervention in criminal justice are reviewed, along with critiques of criminal justice policy.

- Psychology 49.523F1, W1

Psychology in the Human Services

This seminar will review and evaluate non-clinical roles for psychologists in the human services. The major roles reviewed include those of consultant, researcher, evaluator, trainer, and policy analyst. Illustrative efforts in a variety of settings will be reviewed with particular attention to conditions which facilitate and inhibit organizational change and the adoption, implementation and maintenance of innovative programming.

- Psychology 49.524F1, W1

Principles and Methods in Behavioral Toxicology

A half-credit course (one term) examining the basic concepts of behavioral toxicology starting with a general discussion of behavior testing methodology and then focusing on procedures used in screening chemicals for behavioral effects, and more advanced tests. Controversial examples from current research are used to illustrate the practical problems of assessing both animal and human behavioral toxicity.

- Psychology 49.525F1

Principles of Toxicology

The basic theorems of toxicology with examples of current research problems. The concepts of exposure, hazard and risk assessment will be defined and illustrated with experimental material from some of the more dynamic areas of modern research.

(Also offered as Biology 61.642 and Chemistry 65.578)

- Psychology 49.526W1
Seminar in Toxicology
A two-term course in seminar format, highlighting current topics in toxicology. The course will feature student, faculty and invited seminar speaker.
(Also offered as Biology 61.645 and Chemistry 65.585)

- Psychology 49.530W1
Perceptual Processes
Theoretical and empirical issues of the area of perception. The topics may include: psycho- physics, constancies, depth perception, pattern recognition, iconic memory, attention, hemispheric specialization.

- Psychology 49.531F1,W1
Psychophysics
A study of classic and contemporary psychophysical methods. Applications to cognition will be included.

- Psychology 49.540F1
Quantitative Psychology I: Univariate Techniques
Applications of the general linear model including analysis of variance and multiple regression: prediction and estimation. Extensive use is made of computer statistical packages.

- Psychology 49.541W1, S1
Quantitative Psychology II: Multivariate Techniques
Applications of multivariate statistical techniques with psychological data including multivariate analysis of variance, canonical correlation, discriminant function analysis, and factor analysis. Extensive use is made of computer statistical packages.
Prerequisite: Psychology 49.540.

- Psychology 49.542W1, S1
Descriptive and Nonparametric Statistics
An overview of methods for assisting in the detection and explanation of patterns in data that do not satisfy parametric test assumptions. Topics may include exploratory data analysis, information analysis, prediction analysis, ordinal pattern analysis, and conceptual issues in statistics.
Prerequisite: Psychology 49.540.

- Psychology 49.543W1, S1
Measurement and Scaling: Theory Methods and Applications
An examination of the various fundamental

measurement and derived measurement and scaling systems encountered in the social and behavioral sciences. Theoretical foundations and applications of extensive, conjoint, difference, utility and subjective probability, similarity and preference systems are studied. Multidimensional scaling of similarities and preference data is emphasized as is use of the available computer based routines.

Prerequisite: Psychology 49.540.

- Psychology 49.546W1, S1
Quasi-experimental Design and Evaluation Research
Coverage of methodological and statistical problems occurring in the field settings and program evaluations.
Prerequisites: Psychology 49.540, and one of 49.541, 49.542, 49.543.

- Psychology 49.547F1
Tests and Measurements I – Intellectual/Cognitive
This course is designed to assist students learn basic cognitive/intellectual assessment procedures. Students will be required to administer and interpret a variety of tests such as the WAIS-R, Wechsler Memory Scale, Rey Auditory Verbal Learning Test and Buschke's Cued Recall Test.
Prerequisite: Undergraduate course in testing or psychometrics.

- Psychology 49.548W1
Tests and Measurements II – Personality
This course is designed to assist students learn basic projective and non-projective personality tests. Students will be required to administer and interpret a variety of personality tests such as MMPI, Rorschach, 16-PF, and STAI.
Applied experience will be stressed.
Prerequisite: Psychology 49.547.

- Psychology 49.551F1
Developmental Psychology I
A detailed examination of selected issues in developmental psychology.

- Psychology 49.552W1
Developmental Psychology II
A continuation of 49.551.

- Psychology 49.561W1
Contemporary Research in Personality
Current controversial issues in personality research, and selected theoretical and research studies in personality.

- Psychology 49.570F1
Advanced Topics in Cognition I
An in-depth study of specific topic in the area of basic cognitive processes. Topics will vary from year to year and may include judgemental processes, object identification, selective attention and spatial cognition.
- Psychology 49.573W1
Cognition I
A survey of issues and research methodologies in basic cognitive processes. Topics may include detection and processing of sensory signals, pattern recognition, attention, mental imagery and automaticity.
- Psychology 49.574W1
Cognition II
A survey of issues and research methodologies in higher-level cognitive processes. Topics may include memory, representation of knowledge, decision processes, and the procedural/declarative controversy. The course may be focused on a particular area (e.g. reading, transfer in problem solving).
- Psychology 49.575F1
Behavior Modification I
The basic principles of learning as they apply to the modification of behavior, with emphasis on application, ethics, research, and methodology.
- Psychology 49.576W1
Behavior Modification II
Special problems, topics, and projects related to behavior modification.
Prerequisite: Psychology 49.575.
- Psychology 49.580F1, W1, S1
Special Topics in Psychology
The topics of this course will vary from year to year, and will be announced in advance of the registration period.
- Psychology 49.590F1, W1, S1
Directed Studies
An investigation in depth of selected problems in psychology by means of directed library research. Registration is restricted, permission to register being granted only by the graduate committee. A final report must be filed in the departmental office prior to submission of course grade.
- Psychology 49.591F1, W1, S1
Independent Research
Permission to register and approval of research plan must be obtained from the graduate committee. A final research report must be filed in the departmental office prior to submission of course grade. The course may be repeated for credit.
- Psychology 49.593F1, W1
Practicum in Psychology
The practicum offers graduate students experience in a range of applied psychology setting (for example, hospitals, schools, and correctional centers). Students participate in training sessions and work experience, facilitating the integration of academic and practical aspects of psychology. It is designed to supplement the course material offered at Carleton and should not be viewed as constituting a clinical internship. This course is only available to master's students and cannot be repeated for credit. Students will receive a grade of satisfactory or unsatisfactory. Details of the current practicum placements are available from the department.
- Psychology 49.599F4, W4, S4
M.A. Thesis
- Psychology 49.600F1
Systems of Psychology
Historical research methods on the study of psychological movements and problems of the late nineteenth and early twentieth centuries; may be repeated for credit. (Open with permission to advanced undergraduates.)
- Psychology 49.601W1
Problems in the History of Psychology
A study of one or more selected topics in this history of man's attempt to understand his own nature; may be repeated for credit. (Open with permission to advanced undergraduates.)
- Psychology 49.603F1
Observation, Description, and Explanation in Psychology
Problems of communication, concept formation, and exploration in the biosocial sciences are discussed. The interplay of facts, methods, models, theories, and the human values which these serve are also explored.
- Psychology 49.612F1
Experimental Hypnosis
Selected issues in the study of experimental hypnosis will be critically reviewed. The problem of hypnotic susceptibility and its correlates will be given particular attention. Relationships among hypnotic phenomena, meditation, and behavior therapy will be evaluated.
- Psychology 49.613
Sleeping and Dreaming
Modern research in sleeping and dreaming will be examined from different perspectives. Major emphasis will be placed on recent theory, method and measurement in sleep and dream research

from the points of view of developmental neuro-cognition, psychophysiology and chronobiology. Disorders of sleeping behavior and experience in children and adults will be considered as will cross-species comparative approaches. The course will focus on the functions of sleeping and dreaming and examine the effects of these behaviors on waking behavior and experience.

- **Psychology 49.615F1**
Psychological Aspects of Computer Use
An investigation of human factors related to the effective design of computer hardware and software. Topics may include the design and evaluation of information search procedures, graphic displays, and operation manuals on the assessment of useability. A research project will be required.
- **Psychology 49.616W1**
Social Aspects of Computer Use
An investigation of the social psychological and political factors affecting the adoption and use of computers. Topics may include the design and evaluation of training programs, the assessment of attitudes towards computers, threats to privacy and jobs, and computer crime. Emphasis will be placed upon the organizational and interpersonal changes resulting from the introduction of computers into work settings. A research project will be required.
- **Psychology 49.620T2**
Advanced Seminar in Neuroscience
An advanced seminar course integrating various aspects of neuroscience.
Prerequisite: Psychology 49.520 or 49.623
(Also offered as Biology 61.633)
- **Psychology 49.623T2 (ANA5470,PHS5470)**
Neuroanatomy and Neurophysiology
An integrated course on the central nervous system given by the departments of Anatomy and Physiology of the University of Ottawa and their invited lecturers.
- **Psychology 49.624F1 (ANA7400 FallTerm)**
Neuroscience Techniques I
Completion of a research project carried out under the supervision of a neuroscience faculty member from a department other than the student's enrolling department.
(Also offered as Biology 61.623)
- **Psychology 49.625W1 (ANA7400 Winter Term)**
Neuroscience Techniques II
Completion of a research project carried out under the supervision of a neuroscience faculty member from a department other than the student's enrolling

department. The supervisor must be different from that of 49.624.

(Also offered as Biology 61.624)

- **Psychology 49.626F1**
Comparative Psychology
Varied and acquired adaptive mechanisms and their phylogenesis. Topics will include attachment behavior, social organization, learning abilities, communication, and motivation.
- **Psychology 49.650F1**
Research Seminar in Developmental Psychology I
- **Psychology 49.651W1**
Research Seminar in Developmental Psychology II
- **Psychology 49.661F1**
Seminar in Human Neuropsychology I
A broad and intensive consideration of selected topics in human neuropsychology, integrating findings from psychology with related medical literature.
- **Psychology 49.662W1**
Neuropsychological Assessment
Review of the rationale and practice of diagnosis and treatment based on neuropsychological test results. The reliability and validity of test batteries such as the Halstead-Reitan and the Luria-Nebraska are studied. A variety of methods of test interpretation are utilized in clinical analysis of patient protocols, including degenerative diseases, psychiatric disorders, seizures, head injury, and brain tumors.
Prerequisite: Psychology 49.661.
- **Psychology 49.663F1**
Seminar in Human Neuropsychology II
(Same description as 49.661)
- **Psychology 49.664W1**
Theories of Brain Dysfunction in Psychopathology
A review of neuropsychological theoretical explanations and empirical findings regarding brain functioning in a variety of organic and psychiatric disorders, such as autism, schizophrenia, minimal brain dysfunction, anorexia nervosa, aphasia, and memory disorders. These disorders are examined from neurological, psychological, biochemical, and neuropsychological points of view.
Prerequisite: Psychology 49.661.
- **Psychology 49.665F1**
Comparative Neuropsychology
An examination, from a comparative perspective, of research and logic associated with the study of

brain-behavior relations. The objective of the course is to provide a background and orientation for evaluating infra-human research of brain-behavior relations, and for relating such research to problems of human neuropsychology.

- Psychology 49.666W1
Human Communication Disorders
The course provides an overview of normal and abnormal functions of the auditory systems, particularly as it relates to the perception of human speech sounds. Diagnosis of clinical syndromes will be covered.

- Psychology 49.667W1
Developmental Psychopharmacology
The synthesis and metabolism of various neurotransmitters are detailed with respect to their role in behavior modulation. The ontogeny of these systems is considered, as are behavioral changes which occur as a consequence of aberrant neuro-chemical activity. (Open with permission to advanced undergraduates)

- Psychology 49.670F1, W1
Advanced Topics in Cognition II
An in-depth study of a specific topic in higher-level cognitive processes. Topics will vary from year to year and may include mathematical knowledge and processes, problem solving, or models of reading.

- Psychology 49.680F1, W1
Special Topics in Psychology
(Same description as 49.580)

- Psychology 49.690F1, W1, S1
Directed Studies
(Same description as 49.580)

- Psychology 49.691F1, W1, S1
Independent Research
(Same description as 49.591)

- Psychology 49.693F1, 49.694W1
Practicum in Psychology
The practicum offers graduate students experience in a range of applied psychology settings (for example, hospitals, schools, and correctional centers). Students participate in training sessions and work experience, facilitating the integration of academic and practical aspects of psychology. They are designed to supplement the course material offered at Carleton and should not be viewed as constituting a clinical internship. These courses are only available to Ph.D. students and cannot be repeated for credit. Students will receive a grade of satisfactory or unsatisfactory. Details of the current practicum placements are available from the department.

- Psychology 49.699F, W, S
Ph.D. Thesis

Through inter-university cooperation in graduate instruction, full-time graduate students registered in the Department of Psychology may enroll in one course at the University of Ottawa.