TUFTS UNIVERSITY
GRADUATE PROGRAMS IN EXPERIMENTAL PSYCHOLOGY

THE DEPARTMENT

The graduate program in Experimental Psychology at Tufts University provides specializations in the areas of behavioral neuroscience, cognitive neuroscience, cognitive psychology, animal cognition, psychopharmacology, behavioral endocrinology, affective neuroscience, developmental psychology, and social psychology with an emphasis on social cognition. The program has components designed for both breadth of psychological knowledge and special expertise within a particular interest area. Yearly milestones emphasize both research and professional training. Core courses familiarize students with the literature and research methodologies of psychology subfields. Other course work includes a statistics sequence, topical seminars, professional preparation courses and independent readings and research courses tailored to the students’ interests. Arrangements with Tufts Medical School and other select universities in the Boston area allow students to cross-register for some courses. Students may also supervise undergraduate research, gain teaching experience, and participate in departmental policy making by serving on committees.

Research experience is strongly emphasized. Students become involved in faculty research early in the program and are expected to develop their own research as they progress. Students complete a first-year empirical research project. Extensive research facilities are available for conducting both human and animal research. These facilities include computerized cognition laboratories; a fully-computerized set-up for recording human brain waves; laboratories for conducting research on perception, learning, and memory in animals; biochemical and histology laboratories and animal facilities for research in the behavioral neurosciences; a child development laboratory; a psychophysiology lab for research on emotion; and facilities for research in social cognition. In addition, the department has working relationships with area institutions for the purpose of collecting brain scanning data.

ADMISSION

A background in psychology, including some training in research methods and statistics, is highly desirable. Admission is based on the undergraduate record, GRE scores, research experience, letters of recommendation, and fit with faculty research interests. The subject GRE in Psychology is not required, but is recommended.

Application procedures and answers to frequently asked questions can be found at the Graduate Study web-site (http://gradstudy.tufts.edu).

Questions about procedures for applying can be directed to Student Services: gradschool@ase.tufts.edu or 617-627-2000

Application should be submitted by December 15 to receive full consideration.
DEGREE REQUIREMENTS

All students are encouraged to actively participate in research and teaching each term. The program is divided into pre- and post- master’s components. Together, the program is designed to take 5 years. For most students, successful completion of the Master’s degree is followed by admission to the post-master’s portion of the program. The Master’s degree is awarded when a student has completed seven courses carrying graduate credit and an approved Master’s thesis. Courses include statistics, core courses, seminars, and professional preparation courses. The Master’s component of the program normally takes two years to complete. The following three years of the program are devoted to the completion of the doctorate degree, which involves the development of specialized research interests. The doctorate is awarded following the completion of remaining course work and dissertation research.

FINANCIAL AID

Entering students typically receive tuition support and a monthly stipend for serving as a research or teaching assistant. Support is renewed for up to four additional years (3 additional years for students who come to the program with a Master’s degree), pending satisfactory progress in the program. Applicants are encouraged to seek outside sources of support, such as National Science Foundation, Ford Foundation, Danforth Foundation, or Javitz Foundation graduate fellowships or NRSA grants. Supplemental summer support is available to a limited number of students through faculty research grants and competitive department fellowships.

CORE GRADUATE FACULTY

Richard Chechile, Ph.D. (University of Pittsburgh, 1973). Formal models of cognition; human memory processes of storage and retrieval; decision making; pattern recognition; statistics.


Robert Cook, Ph.D. (University of California, Berkley, 1983). Animal cognition, discrimination learning, visual and auditory perception, comparative psychology. Web-sites: [www.pigeon.psy.tufts.edu](http://www.pigeon.psy.tufts.edu) and [www.pigeon.psy.tufts.edu/avc/](http://www.pigeon.psy.tufts.edu/avc/)


Joseph F. DeBold, Ph.D. (University of California, Irvine, 1975). Effects of steroid hormones on the brain and behavior; control of sexual and aggressive behaviors in laboratory rodents. My current research focuses on the neurochemical mechanisms by which ethanol influences aggression. [http://ase.tufts.edu/psychology/peopleDeBold.htm](http://ase.tufts.edu/psychology/peopleDeBold.htm)


Ariel M. Goldberg, Ph.D. (Johns Hopkins University, 2010). The production and comprehension of spoken and written language, in particular the interaction of morphological and phonological information. Methodologies include studies of neurologically intact individuals and individuals with acquired language impairments, computational simulations, and the tools of theoretical linguistics. Web-site: http://ase.tufts.edu/psychology/psycholinglab/


David W. Harder, Ph.D. (University of Michigan, 1975). Shame and guilt-proneness: dimensions of spirituality; outcome in psychopathology; self-esteem and narcissism; children at risk for disorder; personality assessment; life-event stresses; diagnosis.


Robin B. Kanarek, Ph.D. (Rutgers University, 1974). Physiological psychology; psychopharmacology; nutrition and behavior.


Gina R Kuperberg, MD Ph.D (University of London, 1992). Spatiotemporal brain imaging (fMRI, ERP and MEG) of language and real-world comprehension. Focuses on how our brains make sense of words, sentences and discourse (semantics) and how this can break down in neuropsychiatric disorders.


Kuperberg GR, Deckersbach T, Holt D, Goff D, & West WC. (2007) Increased temporal and prefrontal activity to semantic associations in schizophrenia. Archives of General Psychiatry, 64, 138-151

Keith Maddox, Ph.D. (University of California, Santa Barbara, 1998). Social cognition; stereotyping; mental representations of persons and groups; first impression formation. Web-site: http://ase.tufts.edu/psychology/TUSCLAB


Klaus A. Miczek, Ph.D. (University of Chicago, 1972). Psychopharmacology; social stress, aggression; drugs of abuse and alcohol; ethological study of behavior; physiological and neurochemical basis of behavior, immediate early gene expression, monoamines, neuropeptides. [http://ase.tufts.edu/psychology/People/Bio/miczek.htm](http://ase.tufts.edu/psychology/People/Bio/miczek.htm)


Paul Muentener, Ph.D. (Harvard University, 2009). Conceptual development throughout the lifespan, including infants and young children’s representations of agents (and their goal-directed actions) and objects (and their physical interactions); causal reasoning and exploratory play; relation between early language acquisition and conceptual development; individual differences and atypical cognitive development.


Aniruddh D. Patel, Ph.D. (Harvard University, 1996). Cognitive neuroscience of music, including music-language relations, rhythmic processing, and cross-species studies. [http://ase.tufts.edu/psychology/peoplePatel.htm](http://ase.tufts.edu/psychology/peoplePatel.htm)


Lisa Shin, Ph.D. (Harvard University, 1997). Cognitive processing and brain functioning in anxiety disorders, especially posttraumatic stress disorder (PTSD); using PET and fMRI imaging to determine whether brain structures (e.g., hippocampus, anterior cingulate gyrus, and amygdala) function normally in PTSD; using a twin design to determine whether functional brain abnormalities are acquired PTSD characteristics or familial vulnerability factors for developing PTSD; using pre-treatment brain imaging to predict response to PTSD treatment; effects of emotion on memory in healthy individuals and PTSD patients. [http://ase.tufts.edu/psychology/shinlab/](http://ase.tufts.edu/psychology/shinlab/)


Samuel R. Sommers, Ph.D. (University of Michigan, 2002). Social Psychology: intergroup interaction; race and social judgment; diversity and group decision-making; psychology and law. 
http://www.ase.tufts.edu/psychology/sommerslab/


Holly A. Taylor, Ph.D. (Stanford University, 1992) Contextual influences on mental representation, including language, pictures, and multi-media presentations; spatial cognition, temporal cognition, mental misrepresentation, language comprehension and production, and mental representations as applied to education. 
http://ase.tufts.edu/psychology/spacelab/


Ayanna K. Thomas, Ph.D. (University of Washington, 2001). Ayanna Thomas’ research is focused on integrating theory and practice as it applies to human memory. Her research encompasses metacognition, memory distortion, eyewitness memory, and age-related changes in memory and cognition. Professor Thomas's research group uses a variety of methodological techniques (e.g., behavioral, physiological, neurocognitive) to better understand the cognitive and biological mechanisms that result in successful memory and cognition.


Heather L. Urry, Ph.D. (University of Arizona, 2001). Using functional neuroimaging and psychophysiological methods to study emotion and emotion regulation, including their links to bodily health and psychological well-being. Web-site: http://ase.tufts.edu/psychology/ebbl


FACULTY AFFILIATED WITH GRADUATE PROGRAM

Anselm Blumer, Ph.D., Mathematics (University of Illinois, 1982). Machine learning, bioinformatics, data compression.

Daniel Dennett, Ph.D., Philosophy (University of Oxford, 1965) Models of consciousness, human and animal; integrating neuroscience and psychology (and philosophy!); evolution of mind and language; normal and pathological perception.

Calvin L. Gidney, Ph.D., Child Development (Georgetown University, 1995) Educational implications for education; use of dialects in the media; and children’s perception of dialect differences.

Robert Jacob, Ph.D., Computer Science (Johns Hopkins University, 1976) User interface software; new human-computer interaction techniques and devices; eye movements; virtual environments.
Ray Jackendoff, Ph.D. Linguistics (MIT, 1969). Syntax, semantics, and lexicon of natural languages; structure of concepts; relation of language to spatial cognition; music cognition; social cognition.

Jayanthi Mistry, Ph.D., Child Development (Purdue University, 1983) Sociocultural contexts of children’s learning, and implications for classroom for classroom practice.

Sinaia B. Nathanson, Ph.D., Psychology (Tufts University, 1987) Conflict resolution; decision making processes, issue framing, and integrative agreements.

Raymond Nickerson, Ph.D., Psychology (Tufts University, 1965) Reasoning processes and applied cognition.


Barbara Shukitt Hale, Ph.D., Nutrition (Boston University, 1993) Nutritional effects on cognition.

Linda Tickle-Degnen, Ph.D. Social Psychology (Harvard University, 1988). Nonverbal and verbal behavior, affect, social cognition, social and daily-life functioning, practitioner-patient relationship and health quality of life in disability and chronic disease.


JOINT PhD PROGRAM IN COGNITIVE SCIENCE

THE PROGRAM

Cognitive science is an interdisciplinary effort toward understanding the mind. It draws on psychology, computer science, philosophy, linguistics, anthropology, neuroscience, and biology, among others. In recent years, Tufts has built up a world-renowned faculty in Cognitive Science, some of whom have been prominent since the beginnings of the field. The joint Ph.D. program has interdisciplinary strength in human language, including theoretical linguistics, psycho- and neurolinguistics, reading and dyslexia, and computational linguistics, and offers considerable expertise in other subareas of cognitive science including animal cognition, human memory, behavioral/cognitive/affective neuroscience, spatial cognition, cognitive modeling, robotics, and human computer interaction.

DEGREE REQUIREMENTS

All cognitive science Ph.D. students have to demonstrate in four main research methods in cognitive science: (1) formal methods; (2) programming methods; (3) statistical methods; and (4) experimental design. Cognitive science students are also required to attend the cognitive science colloquium series for four semesters. All students enrolled in the cognitive science Ph.D. program are required to teach for one year (e.g., as "Teaching Assistants" or "project supervisors" for the fourth-year projects in the undergraduate cognitive and brain science program). Each Ph.D. student in the cognitive science Ph.D. program must take written and oral qualifying exams in cognitive science, in addition to the examination requirements of the student's department. Also, each cognitive science Ph.D. student will write and defend a dissertation that covers both an area in cognitive science and an area in their home department.
FACULTY AFFILIATED WITH COGNITIVE SCIENCE PROGRAM

Child Development: Calvin Gidney, Maryanne Wolf

Computer Science: Anselm Blumer, Rob Jacob, Matthias Scheutz

Education: Barbara Brizuela, David Hammer, Michelle Wilkerson-Jerde

Mathematics: Christoph Borgers

Occupational Therapy: Linda Tickle-Degnen

Philosophy: Daniel Dennett, Ray Jackendoff

Psychology: Richard Checchile, Robert Cook, Ariel M. Goldberg, Phillip J. Holcomb, Gina Kuperberg, Paul Muentener, Aniruddh Patel, Holly A. Taylor, Ayanna Thomas, Heather Urry

THE UNIVERSITY COMMUNITY

Tufts University, located approximately five miles north of Boston, was chartered as a liberal arts college in 1852. The total enrollment is approximately 8500 students, including more than 2500 graduate and professional students, from all regions of the United States and more than 70 foreign countries. The first doctoral programs were authorized in 1892. By 1900, the college had added a medical school, a dental school, and graduate studies and had, in fact, become a university, although it was not until 1953 that it officially adopted that designation. Today, Tufts University includes the Graduate School of Arts, Sciences, and Technology; School of Engineering; The Fletcher School of Law and Diplomacy; the Boston School of Occupational Therapy on the Medford campus; the Schools of Nutritional Science and Policy, Medicine, Dental Medicine, and Veterinary Medicine; and the Sackler School of Biomedical Sciences on the Boston Campus. Additional facilities for the School of Veterinary Medicine are located on a third campus in Grafton, Massachusetts.

The facilities on the university include various networked systems, as well as PC and Macintosh computer laboratories. Computers are available for general student use both in the department and in various facilities across the campus. Several libraries are available on the Medford campus, including Tisch Library and the Edward Ginn Library at the Fletcher School. Tufts students also have access to libraries at Boston College, Boston University, Brown University, Brandeis University, MIT, the University of Massachusetts, and Wellesley College.

For general questions about applying to Tufts University, please e-mail: gradschool@ase.tufts.edu or 617-627-2000

For additional information or specific questions related to the Experimental Psychology Ph.D. program please look at: http://ase.tufts.edu/psychology/ or e-mail Graduate Director: holly.taylor@tufts.edu

For additional information or specific questions related to the Cognitive Science Ph.D. program please look at: http://cogsci.tufts.edu or e-mail one of Steering Committee members listed on the web-site.