Department of Psychology
Collaborative Research
PSY 3791/3891/4791/4891

Register of Faculty Sponsors
Lab: Mood and Cognition Lab  
PI: Dr. Lauren Alloy  
Office Number: 762 Weiss Hall  
Telephone: (215) 204-7326  
Email: lauren.alloy@temple.edu  
Website: https://sites.temple.edu/moodandcognitionlab/  

Lab Focus:  
Even when confronted with similar stressful life experiences, why do some individuals develop depression or bipolar disorder whereas others are resilient in the face of stress? The Mood and Cognition Lab focuses on cognitive (e.g., thinking styles, rumination, autobiographical memory), emotional (e.g., emotion dysregulation), psychosocial (e.g., life events, stress challenge tasks), developmental (e.g., pubertal development, early childhood adversity, parenting), and neurobiological mechanisms (e.g., neural function and structure, chronobiology, inflammation) involved in the onset and course of depressive and bipolar spectrum disorders. The Lab also attempts to understand the basis of sex and ethnic differences in risk for the mood disorders.

Qualifications students must meet (if any):  
Psychology or Neuroscience major GPA of 3.5 or greater  
Minimum of 10 hour/week commitment to the lab  
Minimum of 1 year (2 semesters) commitment to the lab  
Dependable and reliable

Who Should Apply:  
Students who are interested in clinical psychology and plan to attend graduate school are highly encouraged to apply.

Link to Student Application Form:  
https://goo.gl/forms/JsLGoD3HeoTfA8bv1
Lab: Neuroendocrinology and Behavior Lab
PI: Debra Bangasser, Ph.D.
Website: http://sites.temple.edu/bangasserlab/
Contact Person: Debra Bangasser, Ph.D., debra.bangasser@temple.edu

Lab Focus:
Women are twice as likely as men to suffer from stress-related psychiatric disorders, such as post-traumatic stress disorder and depression. Identifying the neurobiological underpinnings of these sex differences would advance our understanding of disease vulnerability and resilience, but unfortunately few studies have investigated this issue. Thus, a major focus of the Neuroendocrinology and Behavior Lab is to identify sex differences in stress response systems in the brain that underlie female susceptibility to stress.

Student Requirements:
Must be willing to work with rats.
Minimum commitment of 2 consecutive semesters (4 or more preferred)
Must be able to devote at least 9 hours per week to lab work each semester
Must provide the email address of a faculty reference (i.e., Temple professor who can speak to the quality of your work)
Must submit a 1-2 page essay via the lab website addressing the following prompts: Why are you interested in neuroscience research in general? Why are you interested specifically in the Neuroendocrinology and Behavior Laboratory? What do you hope to get out of the experience?

Typical Undergraduate Duties:
Undergraduates in the lab will attend weekly meeting, handle rats, assist with rat behavioral studies, make chemical solutions, assist with histology (e.g., brain sectioning and staining), learn microscopy, and analyze stained brain slices

Who Should Apply:
Assisting in research in our lab is best suited for students who are interested in behavioral neuroscience and/or psychopharmacology. Students from the lab typically go on to graduate school in behavioral neuroscience or neuroscience, research positions, or positions in healthcare-related fields.

Link to Student Application Form:
http://sites.temple.edu/bangasserlab/application/

Headings/Tags/Keywords:
stress, sex difference, attention, depression, post-traumatic stress disorder
Lab: Behavioral Neurophysiology Lab
PI: Lisa Briand
Website: http://sites.temple.edu/briandlab/
Contact Person: Lisa Briand, lbriand@temple.edu

Lab Focus:
Cocaine abuse is a major public health problem worldwide. In the latest national study, the number of people over the age of 12 who are current cocaine users is estimated at 1.6 million, or 0.7% of the total population. However, a safe, efficacious pharmacological treatment for cocaine addiction remains to be discovered. Cocaine dependence is marked by high rates of relapse, which makes it particularly difficult to treat addicts. Research in the Behavioral Neurophysiology lab (BNL) focuses broadly on understanding the neuroadaptations that occur following cocaine addiction and how they contribute to relapse.

Student Requirements:
Willingness to work with laboratory animals
1 year commitment to lab
10-12 hours per week commitment
Must provide contact information for 3 references
Must provide a 1-2 page essay describing why you are interested in neuroscience in general and my lab in particular

Typical Undergraduate Duties:
Undergraduates in the lab assist with running rodent behavioral assays, managing our breeding colony, performing molecular assays, and data entry. They also attend and present at our weekly lab meeting.

Who Should Apply:
Assisting in research in our lab is best suited for rising sophomores and juniors who are interested in gaining research experience in behavioral neuroscience.

Headings/Tags/Keywords:
Neuroscience, Research with Animals, Addiction
Lab: Neurocognition Lab
PI: Dr. Jason Chein
Website: http://www.cla.temple.edu/tunl/
Contact Person(s): Jamie Patrianakos, jpatrianakos@gmail.com or Morgan Botdorf, mbotdorf2@gmail.com

Lab Focus:
Our lab focuses on the basic mechanisms of working memory, attention, and cognitive control using behavioral and neuroimaging research methods. Additional work investigates adolescent decision making and risk-taking under various conditions (e.g., peer influence). Current studies in the lab are examining group influences on decision making among males, the interaction between attention and working memory, the differences in decision making when information about risk is described or learned from experience, and the cognitive effects of smartphone usage.

Student Requirements:
Interest in cognitive psychology or cognitive neuroscience
Excellent interpersonal skills and communication skills
Excellent problem-solving skills, organizational skills, and attention to detail
Must commit 8-10 hours per week and 2 semesters to the position

Typical Undergraduate Duties:
Students may be asked to administer behavioral tasks, perform data entry and maintain participant database, assist with recruitment efforts, assist with data quality assurance, and attend weekly lab meetings.

Who Should Apply:
Assisting in research in our lab is best suited for students who are interested in cognitive psychology or cognitive neuroscience. Additionally, students in our lab may plan on attending graduate school to pursue a degree in psychology.

Headings/Tags/Keywords:
cognitive, neuroscience, decision making, working memory, human subjects research
Lab: Temple Eating Disorders  
(TED) PI: Dr. Eunice Chen  
Website: http://sites.temple.edu/tedp  
Contact Person: Susan Murray, smurray1210@gmail.com, or Dr Chen, Eunice.Chen@temple.edu  

Lab Focus:  
Here at TED Lab, we are interested in the neurobiological and psychosocial mechanisms, including brain neurocircuitry and emotional regulation, of eating disorders. We use a variety of methods, including behavioral tasks, psychophysiology and functional magnetic resonance imaging (fMRI).

Student Requirements:  
A minimum of 1 year commitment to the lab 10-20 hours per week  
Provide a resume or CV  
Must provide contact information of 2 references  
Complete our interview form  
Ability to use SPSS and Excel preferred  

Typical Undergraduate Duties:  
Undergraduates in the lab must attend weekly meeting and often with scoring participant data, data entry, and data collection.

Who Should Apply:  
Assisting in research in our lab is best suited for undergraduate students and post-baccalaureate students who demonstrate a keen interest and motivation in gaining clinical research experience. Having a background in neuroscience, computer science, mathematics, or engineering is particularly helpful for the work we are currently doing. Working in our lab will give you a taste of what it is like to do clinical psychology.

Headings/Tags/Keywords:  
Clinical, Neuroscience, Research with Humans
Name: Dr. Lauren Ellman
Office Number: 477 Weiss
Hall Telephone: (215) 204-1571
Email: lauren.ellman@temple.edu

Description of project(s) on which students might work:
I am conducting multiple studies investigating the causes of schizophrenia and related disorders. First, I am conducting multiple studies investigating various risk factors during pregnancy (e.g. maternal stress during pregnancy) that can increase the likelihood of schizophrenia in offspring. Second, I am conducting studies with Temple undergraduate students examining emotional, behavioral, and brain indicators the increase risk of developing schizophrenia and related disorders during late adolescence and early adulthood.

Qualifications students must meet (if any):
Students must be either psychology or neuroscience majors and/or premed. Further, students must have at least a 3.5 GPA. No research experience is required, but at least a year time commitment is expected.
Lab: Cognitive Neuropsychology Lab
PI: Tania Giovannetti, Ph.D.
Website: www.temple.edu/cogneurolab/
Contact Person: Emma Rhodes, emma.rhodes@temple.edu

Lab Focus:
Current work in our lab focuses on two topics–everyday functioning and the effect of vascular disease on cognition. The primary goals of our work on everyday function are to understand the breakdown of everyday task performance following brain damage or disease and develop and evaluate rehabilitation strategies to improve everyday functioning in a range of neurological patient populations. A secondary focus of our lab is the impact of chronic vascular disease on cognition. We are interested in understanding the cognitive processes that are most vulnerable to chronic vascular disease, and we have investigated this topic in several clinical populations (e.g., older adults with dementia, older.

Student Requirements:
One year commitment
Able to use Microsoft Excel and Word
Must provide a reference
Institutional Review Board (IRB) training (details will be provided to students who enroll in the lab)

Typical Undergraduate Duties:
All students attend weekly lab meetings and assist with scoring participant data, data entry, and data collection. Students may be asked to schedule research participants and to travel off campus to administer questionnaires and study tasks to research volunteers.

Who Should Apply:
Our lab is best suited for students who are interested in neuropsychology, cognitive psychology, aging, or health-related fields (e.g., medical school, occupational therapy, etc.).

Headings/Tags/Keywords:
Neuropsychology, Cognition, Aging, Research with Humans
Description of project(s) on which students might work:
Generally the work falls into the domain of organizational psychology. The following descriptions are a representative sample of the work that may potentially involve undergraduate students. The best thing to do is contact me if you are interested in organization psychology.

Valuing the future?:
Using a video game, investment tasks and online shopping simulations, we are studying how people make decisions in dynamic (time-sensitive) contexts how they discount events and sequences that may occur in the future, and the factors that seem to entrap people into failing decisions. Our work is based in a combination of theory from psychology, evolutionary biology (foraging theory) and economics (economics of uncertainty) – the current trendy name for this work is “behavioral economics”.

Daily economic decisions: We are studying how people value, evaluate and choose between jobs on a variety of dimensions including starting & future salary, vacation time, and job duties. We also have projects concerning other normal daily decisions such as credit card use, saving for retirement, grocery shopping and choosing a mate.

Qualifications students must meet (if any):
Primary qualifications: be responsible, reliable & dependable, able to work with computers, able to follow sometimes complex directions, work with minimal supervision and solve problems as they arise.
Secondary qualification: Technological skills (programming, web design stats) skills in art/graphic design. We are especially interested in and give preference to students who either have skills in VisualBASIC, JAVA, JAVAScript, or who are willing to acquire these skills quickly.
Lab Name: Adult Anxiety Clinic of Temple (AACT)
PI: Dr. Richard Heimberg
Contact Person: Michaela Swee (michaela.swee@temple.edu)

Lab Focus:
The AACT is a clinic for the study and treatment of adult anxiety disorders. Work at the AACT focuses mostly on the study and treatment of persons with social anxiety disorder, although studies of other anxiety disorders or related problems are also conducted. Several studies are ongoing at the AACT at any point in time, and they may include:

Study of the efficacy of cognitive-behavioral therapy for socially anxious patients.
Study of the efficacy of a treatment for dental anxiety.

Student Requirements:
Minimum of one year commitment to the lab (including summer). Collaborative research credit is contingent on performance in the first of two semesters. Students in the honors program will be given the opportunity to conduct their honors theses in the AACT only if they have previously worked in the clinic as a research assistant for at least one semester. An application form, including a reference from a previous employer (if available) will be requested. Responsible, dependable, motivated, eager to learn. No previous research experience required.

Typical Undergraduate Duties:
Undergraduate students participate in our research in a variety of capacities, including but not limited to running subjects through experimental protocols and a number of duties related to the preparation of data for scientific analysis, serving as therapy assistants as needed for socially anxious patients, and answering the clinic phone line.

Who Should Apply:
Assisting in research in our lab is best suited for students who are interested in learning about the nature of clinical research, out of curiosity or in preparation for future endeavors, in a warm and collaborative environment

Tags:
Clinical, anxiety disorders, treatment, therapy, psychotherapy, CBT, cognitive-behavioral therapy; social anxiety disorder, dental anxiety.
Description of project(s) on which students might work:
Characteristics of explanatory language. Attribution theorists have identified a pattern of explanation as the “Fundamental Attribution Error,” and yet they, themselves, pervasively commit that error even when discussing it. Thus, the determinants of directionality in explanatory prose (environment-behavior vs. organism-behavior) bear systematic examination.

The effectiveness of narrative as instructional prose – comparing narrative with more typical expository prose when introducing technical concepts.
Projects in applied behavior analysis. These are especially feasible for students who are already employed in interventions for children with autism.

Qualifications students must meet (if any):
PSY 2103 Learning & Behavior Analysis, or substantial work experience in application of behavioral principles.
A recommendation from the course instructor or relevant employer will be requested.
Collaborating students will be expected to do background reading for discussions at periodic meetings of the research group.
Name:  Dr. Kathy Hirsh-Pasek
For contact information please see the TICL website:  http://www.temple.edu/infantlab/

Description of project(s) on which students might work:
The language learning studies ask how children learn to understand and speak language. Our current work looks at the nature of adult-child interactions and the ways in which we can enrich our conversations to help children learn. We are also working on new assessments that broaden our view of early language development.

The play and learning research focuses on the role that play has in enriching parent-child interaction, the richness of the language used by children and adults and the learning that might result from play. Several studies are underway in the lab to look at these critical issues using common toys such as books, building blocks and paper airplanes.

We are also taking playful learning out into the community through projects we call Learning Landscapes where everyday spaces like bus stops are infused with opportunities in playful learning.

Qualifications students must meet (if any):
PSY 1071 Psych as a Natural Science
PSY 2168 Inferential Methods, and a course in the 3000 series.
Admission only by permission of the instructor.
Lab Name: Child and Adolescent Anxiety Disorders Clinic (CAADC)
PI: Philip C. Kendall, Ph.D., ABPP
Lab Website: http://childanxiety.org/wps/
Contact Person: Jordan Davis, jordan.davis@temple.edu

Lab Focus:
Our lab focuses on researching therapy for children and adolescents with anxiety disorders. We have a clinic providing evidence-based services for youth with anxiety and we are conducting research evaluating the effectiveness of different treatment approaches. We are currently examining which elements of effective treatment are largely responsible for gains, the best way to treat anxiety in youth with autism spectrum disorders, the preferred role of parents, the role of technology (monitoring mood), and several other related topics.

Student Requirements:
2 semester commitment to the lab or more
9 hours a week, volunteer or collaborative research credit
3.25 GPA or higher

Typical Undergraduate Duties:
Data entry, assisting children with questionnaires, providing childcare during sessions, and other administrative and organizational tasks. Undergrads may be asked to briefly assist during therapy sessions, transcribe or code sessions, participate in recruitment, track completion of study forms, and tasks related to the operation of our research clinic.

Who Should Apply:
Assisting in research in the CAADC is suited for students who are interested in learning about the intersection between clinical psychology and clinical research, gaining experience with clinical psychology research, and perhaps contemplating a career in the mental health field.

Headings/Tags/Keywords:
Research in Clinical Psychology, Research with Humans, Anxiety, Children and Adolescents, Treatment Evaluation
Description of project(s) on which students might work:
Broadly speaking, Dr. Marshall’s interests focus on the relations between brain, behavior, and cognition in early human development. He runs the Developmental Science Laboratory, which is located on the 5th floor of Weiss Hall. Participants in developmental studies are often infants and their families. Ongoing studies with undergraduate student participants are exploring related ideas with adult populations. Opportunities for undergraduates in the laboratory typically include assisting with participant recruitment, helping with experimental protocols when participants visit the laboratory, and assisting with data entry and coding.

Student participation in lab meeting and discussions is encouraged and appreciated. In the past, undergraduate students have been able to present their work in the lab at local or national conferences. Undergraduates are encouraged to apply to work with Dr. Marshall, although whether or not an applicant will be accepted depends on their prior academic performance as well as the current level of enrollment of students in the laboratory.

For more details see the “For Students” section at: http://www.temple.edu/devscilab

Qualifications students must meet (if any):
GPA of 3.5
For students interested in assisting with developmental research studies, experience working with children and families is preferred. Some proficiency with Excel/SPSS/MATLAB is also preferable.
Lab Name: Mechanisms of Affective Dysregulation (MAD) Laboratory  
PI: Dr. Michael McCloskey  
Lab Website: http://sites.temple.edu/madlab/ 
Contact Person: Martha Fahlgren  
martha.fahlgren@temple.edu  

Lab Focus:  
The MAD lab is translational research and treatment unit dedicated to expanding our understanding of the biological, psychological (cognitive-affective) and environmental mechanisms underlying affect dysregulation (difficulties with emotions). This is achieved through integrating self-report, behavioral and neuroimaging methodologies. Though we are interested in all forms of affect dysregulation, our focus is on difficulties with anger and self / other directed aggression, this includes the study of individuals with Intermittent Explosive Disorder (IED) and Borderline Personality Disorder. We are using the information from our research on IED to develop more efficacious treatments for IED and similar disorders.

Student Requirements:  
Must complete MAD lab application and submit with résumé or curriculum vitae to contact person  
Must commit to 2 consecutive semesters, 11 hours per week  
Able to use Microsoft Office  
Must provide references

Typical Undergraduate Duties:  
Students will conduct phone screening with potential subjects, schedule appointments, and make reminder calls. Students will have the opportunity to interact with subjects and assist with running lab visits which includes collecting informed consent and administering neuroscience tasks. Other office work includes maintaining subject records, data entry, and other recruitment and data management tasks.

Who Should Apply:  
Assisting in research in our lab is best suited for students who are interested in learning more about clinical psychology and working with clinical participants with a focus on those with aggression and/or self-harm.

Headings/Tags/Keywords:  
Clinical, Affect Dysregulation, Aggression, Self-Injury, Intermittent Explosive Disorder
Lab Name: Research in Spatial Cognition
PI: Dr. Nora Newcombe (shared with Dr. Thomas Shipley)
Lab Website: sites.temple.edu/risc
Contact person: Mia Velazquez (mvelazquez@temple.edu)

Lab Focus:
Spatial thinking is both a key intellectual issue in cognitive science, and a critically important aspect of problem solving in science, technology, engineering, and mathematics. Spatial intelligence allows us to encode and transform information about objects and their location. Thus, we are able to navigate through the world, and perform technical activities, such as tool making. Beyond its direct applications in navigation and spatial manipulation, it provides a foundation for a wide range of reasoning and communication skills including solving mathematics problems, using spatial metaphor in everyday language, and building design. The overarching goals of the Research in Spatial Cognition Lab are to understand spatial intelligence and how it can be fostered by effective technology and education.

Description of project(s) on which students might work:
Our projects encompass a range of spatial thinking skills, including: navigation, spatial memory, pattern separation and episodic memory, sketching, and 3D visualization and transformations. Our projects work towards a better understanding of spatial intelligence within STEM classrooms and beyond. Students will assist in running experiments, creating stimuli, collecting data, and internet and library research. Many tasks will be hands on and will require critical thinking skills.

Student Requirements:
1. Applicants are majors in psychology or related fields
2. Applicants must have proficiency in computer skills
3. Applicants must be reliable and able to commit at least 10 hours a week

Typical Undergraduate Duties:
We are currently looking for rising juniors in psychology and other related majors. Interns in our lab will focus on a given research track while seeing each step of the research process. Duties include recruiting participants, assisting in stimuli design and creation, interacting with participants, and coding and analyzing data. Interns will also take part in a spatial and cognitive sciences reading group that will provide a deeper understanding of our research.

Who Should Apply:
Assisting in research in our lab is best suited for students who are interested in learning more about research in the science of learning or graduate school in cognitive psychology

Headings/Tags/Keywords:
Cognitive, perception, science of learning,
Lab Name: Temple Infant & Child Lab
PI: Dr. Nora Newcombe (shared with Dr. Kathy Hirsh-Pasek)
Lab Website: temple.edu/infantlab
Contact Person: Jelani Medford, jelani.medford@temple.edu

Lab Focus:
The Temple Infant & Child Lab conducts research on a range of topics in developmental psychology. Dr. Newcombe’s work specifically focuses on spatial development and memory development. We typically study children ages 6 months to 10 years in the lab and in schools, using eye-tracking, naturalistic observation, randomized controlled trials and other methodology. Our lab also places a significant focus on reaching out beyond academia and bringing the science of learning into the community.

Student Requirements:
One semester commitment to the lab
Must have taken a developmental psychology course
Must have some experience working with children (even informally as a babysitter, etc.)

Typical Undergraduate Duties:
Undergraduates at the lab are each assigned a graduate student or postdoctoral fellow mentor, and work on their project doing tasks like data entry, coding, or running studies. Interns also spend 1-2 hours each week on general lab tasks, such as recruiting families to come into the lab. Interns also participate in a weekly discussion group on a relevant reading.

Who should apply:
Assisting in research in our lab is best suited for students who are interested in learning more about developmental psychology, who are considering graduate school in developmental psychology, and who want to gain research experience in the field.

Headings/Tags/Keywords:
Developmental, Research with Children, Research with Infants, Community Outreach
Lab Name: Child and Adolescent Development of Emotion, Personality, and Psychopathology
PI: Thomas Olino, PhD
Lab Website: sites.temple.edu/olinolab/
Contact Person: Christina Cerra, christina.cerra@temple.edu

Lab Focus:
The lab studies processes related to the emergence of psychopathology in children and adolescents. We are currently conducting a study examining how the development of reward function into and through adolescence is associated with risk for depression. This study assesses reward function using self-report, behavioral performance, and functional neuroimaging methods.

Student Requirements:
Students will need to make a commitment to work in the lab for a full year and have a minimum 3.35 GPA for consideration to be selected. Students must have flexible availability (i.e., evenings and weekends) to aid in participant recruitment and aid in data collection. Because studies will include child/adolescent participants, students will need to complete several background checks.
Description of project(s) on which students might work: Students will work on cutting-edge research designed to probe decision making, social cognition, or episodic memory. One current project is assessing memory consolidation, a process that occurs offline, while you’re doing other things (such as sleeping). In some instances, you might test people with memory problems (such as older adults) or people whose memory is not fully formed (young children). You’ll work with other undergraduates as well as graduate students to learn how to conduct cognitive neuroscience research. While doing so, you’ll gain valuable laboratory skills and mentorship in preparation for graduate school.

Qualifications students must meet (if any):
(1) Proficient in Microsoft Excel;
(2) One course in statistics; and
(3) GPA above 3.3.
Description of project(s) on which students might work:
Trophic influences on neurodevelopment and aging, synaptic transmission/plasticity, and cognition
Neurochemical substrates of information processing in striatal and prefronto-cortical microcircuits
Exploration of neurochemical mechanisms that underlie cognitive dysfunction in neuropsychiatric disorders.

Techniques used in the lab: Stereotaxic animal surgeries, intracranial infusions, in vivo extracellular electrochemical/ electrophysiological recordings in rodents; Operant conditioning paradigms to train rodents (rats and mice) in attention, working memory and cognitive flexibility tasks; immunohistochemistry, western-blotting, cell imaging and quantitative densitometry, ELISAs, cell culture, PCR, vector-based RNA interference and transgenic approaches.

Qualifications students must meet (if any):
Highly motivated, self-driven students interested in Behavioral Neuroscience.
Familiarity with SPSS, Sigma Plot/Prism, MATLAB, Medstate Notation and Photoshop would be a plus.
Lab Focus:
Spatial thinking is both a key intellectual issue in cognitive science, and a critically important aspect of problem solving in science, technology, engineering, and mathematics. Spatial intelligence allows us to encode and transform information about objects and their location. Thus, we are able to navigate through the world, and perform technical activities, such as tool making. Beyond its direct applications in navigation and spatial manipulation, spatial intelligence provides a foundation for a wide range of reasoning and communication skills including solving mathematics problems, using spatial metaphor in everyday language, and building design. The overarching goals of the Research in Spatial Cognition Lab are to understand spatial intelligence and how it can be fostered by effective technology and education.

Description of project(s) on which students might work:
Our projects study how humans perceive, visualize and reason about complex events. We are trying to understand how spatial thinking influences students in science courses, with a particular emphasis on geology. Students will assist in running experiments, creating stimuli, collecting data, and internet and library research. Many tasks will be hands on and will require critical thinking skills.

Student Requirements:
(1) Applicants are majors in psychology or related fields (2) Applicants must have proficiency in computer skills (3) Applicants must be reliable and able to commit at least 10 hours a week

Typical Undergraduate Duties:
We are currently looking for rising juniors in psychology and other related majors. Interns in our lab will focus on a given research track while seeing each step of the research process. Duties include recruiting participants, assisting in stimuli design and creation, interacting with participants, and coding and analyzing data. Interns will also take part in a spatial and cognitive sciences reading group that will provide a deeper understanding of our research.

Who Should Apply:
Assisting in research in our lab is best suited for students who are interested in learning more about research in the science of learning or graduate school in cognitive psychology

Headings/Tags/Keywords:
Cognitive, perception, science of learning,
Lab Focus: Our lab focuses on how humans make social and economic decisions. To study these processes, we integrate perspectives from psychology, economics, and neuroscience. Our ongoing projects focus on three questions. First, how are interactions between prefrontal cortex and striatum altered in older adults during social interactions (e.g., decisions to trust others)? Second, how do individual differences in reward sensitivity impact interactions between prefrontal cortex and striatum? Third, how can noninvasive brain stimulation be used to selectively alter brain and behavioral responses to reward?

Student Requirements: Students should have some coursework in psychology and/or neuroscience, including research methods and statistics. Students should also be comfortable working with basic computer programs (e.g., Word/Excel/R). In addition, students should also be comfortable with (or willing to learn) computer programming (e.g., Python/Matlab). No prior research experience is required, but we require a minimum of 10 hrs/week and at least a 1-year commitment.

Headings/Tags/Keywords: decision making; incentives; brain connectivity; aging; functional magnetic resonance imaging (fMRI); noninvasive brain stimulation.
Lab: Juvenile Justice – Crossroads Study
PI: Laurence Steinberg, Ph.D.
Website: http://crossroads.soceco.uci.edu/home.asp
Contact Person: Michelle Harmon, Project Coordinator, mlharmon@temple.edu

Lab Focus:
Research in this lab involves the assessment of mental health and psychosocial maturity among first
time male juvenile offenders, and the study of psychopathy as it develops during the course of
adolescence. We examine the developmental trajectories of delinquency, develop diagnostics to
improve the identification of treatment needs among youthful offenders, and explore the practical as
well as legal implications of this research. Data collection methods include in person interviewing with
the participants and administrative data retrieval.

Student Requirements:
A GPA of 3.0 or higher
Must have own car for local transportation to on-site interviews
Fluency in Spanish (reading and speaking) a plus, but not required
1 year commitment to lab, including summer
Must provide reference

Typical Undergraduate Duties:
Interviewers are responsible for: closely following all procedural guidelines in contacting and
interviewing research participants at juvenile detention facilities and in subject’s homes; maintaining a
written record of contacts with the study subjects; travelling to and from the interview site; collecting
parent/legal guardian consent/youth assent; administer and tracking petty cash for participant
payment; attending weekly staff meetings.

In office support includes assisting the Project Coordinator with tracking study participants, data entry,
and data management.

Who Should Apply:
Assisting in research in our lab is best suited for students who are interested in developmental
psychology, adolescent research, and criminal justice.

Link to Student Application Form:
Request application form from mlharmon@temple.edu

Headings/Tags/Keywords:
Developmental Psychology, Adolescence, Criminal Justice
Name:   Dr. Marsha Weinraub  
Lab Title: Family and Child Policy Studies  
Office Number:  868 Weiss Hall  
Email: marsha.weinraub@temple.edu

Description of project(s) on which students might work:

Literature reviews of the effects of single parenthood on children, the development of sleep in infants and young children, and the effects of maternal employment and early attachment on children’s development. Students will not collect data, but use existing data sets from the NICHD study of Early Child Care and Youth Development.

Qualifications students must meet (if any):

Must be self-motivating, reliable, and eager to work hard
Advanced undergraduate with 3.3 GPA
Sincere desire to do research and some time to do it
Lab: Memory Epigenetics and Addiction Laboratory
PI: Mathieu Wimmer, Ph.D.
Contact Person: Mathieu Wimmer
Email: mathieu.wimmer@temple.edu

Lab Focus:
Drug addiction is a massive public health concern that inflicts extensive burdens on our economy and society. The negative consequences of drug abuse extend far beyond the addicts. Recent studies in rodents indicate that children of fathers who consumed drugs around the time of conception show altered brain function and behavioral abnormalities. Epigenetic inheritance refers to traits transmitted from parents to progeny via mechanisms unrelated to changes in the DNA sequence. Epigenetic marks in the germline of parents can respond to environmental insults, such as exposure to opioids, and affect the brain development of future generations. My lab has two major lines of research. I am interested in the mechanisms underlying the epigenetic inheritance of phenotypes associated with paternal drug exposure. The second research project aims to elucidate the neurobiology of opioid addiction, drug craving and drug relapse.

Student Requirements:
Must be willing to work with rats.
Minimum commitment of 2 consecutive semesters (4 or more preferred)
Minimum of 9 hours/week/semester
Willing to work some weekends
Submit a short (1-2 page) essay addressing the following questions: Why are you interested specifically in the Memory Epigenetics and Addiction Laboratory? What are your career goals? What are you hoping to get out of this work experience? How did you become interested in Neuroscience?

Typical Undergraduate Duties:
Undergraduates in the lab will attend weekly meeting, handle rats, assist with rat behavioral studies, assist with drug self-administration in rats, make chemical solutions, assist with genotyping and other molecular biological assessments.

Who Should Apply:
Students interested in Neuroscience who plan to attend graduate school or pursue a career in medicine or health-related fields.

Headings/Tags/Keywords:
Epigenetics, Memory, Addiction, Relapse, Craving, Opioids, Rodents, Molecular Biology
Name: Dr. Hongling Xie  
Office Number: 519 Weiss Hall  
Telephone: (215) 204-1554  
Email: hxie@temple.edu

**Description of project(s) on which students might work:**
We are conducting a longitudinal study to examine youth’s peer social experience during the transition to middle school. We are interested in adolescents’ friendships, peer group, popularity in the social networks, and aggressive interactions among students. Aggressive interactions may take various forms: physical fights, verbal teasing, and social exclusion or gossiping. We are also interested in gender differences in aggressive behaviors and the relation between aggression and peer social status during the transition to middle school.

**Qualifications students must meet (if any):**
Students must have a GPA of 3.0 or above and be dependable and motivated.