Program Information

!!SENIORS!! We will have a MANDATORY informational meeting to cover graduation requirements for the major. Based on your availability, the best dates/times to have this meeting are Friday, October 21st at 6pm, and Sunday November 6th at 6pm (meetings will be 1 hour or less). Please make every effort to make one of the two meetings. Email Dr. Gavin directly if you are unable to attend either.

Upper level elective courses for Spring 2017 for Neuroscience Majors:

- **NBL 433** – Diseases of the Nervous System
- **PY 431** – Dynamics of Pain
- **PY 463** – Cognitive Neuroscience
- **PY 472** – Social Psychophysiology
- **New course** **NBL 454** – The Body Electric: Electronics for Biologists (information included below, please email Cristin Gavin for more information)

Course Description: Some of the most important aspects of biological systems involve electrical phenomena. From the operation of the nervous system, to the control of cardiac or gut motility, the response of bone to stress, and even the most basic membrane physiology of every cell, the body is electric. Additionally, electronic instrumentation and analysis techniques are a major part of biological research. And yet, the typical biology student has very little background in these topics. Formal engineering courses have too many pre-requisites, and require more mathematical sophistication than is truly needed for most biologists. This course is designed to try and fill this gap.

Director & Instructor: Timothy J. Gawne, UAB Dept. Optometry and Vision Science, Worrell 664, email: tgawne@gmail.com

Time and Place: Lectures Monday, Wednesday: 4:40 PM to 5:30 PM (Code “1N”). NOTE: THE SCHEDULED TIME FRIDAY IS A PLACE-HOLDER, THE LABS WILL USUALLY BE ON AN INDIVIDUAL SIGN-UP BASIS THROUGHOUT THE WEEK.

Courses of note (recommended but not required) for all Neuroscience students (major or minor):
- **NBL 225** – No Self Control: Motivation, Reward and Addiction. 3 credits.  
  MWF 10:10 am-11:00 am, Robin Lester  
  Survival of self and species has been evolutionarily wired into the brain. Largely, involving sub-cortical networks, animals are strongly rewarded by beneficial outcomes and driven away from aversive situations. Overseeing these opposing subconscious determinants of motivated behavior is a pre-frontal cortical command center, which along with additional systems that provide for experiential memory and emotional significance, guide the choices we make. This course will provide the participant with an introduction to the neuronal pathways that underlie normal decision making, with a major focus on how this circuitry becomes compromised during addiction. These topics should be relevant to students interested in biomedicine, health professions or counseling.

- **New Course** **NBL 327** – 100 Things You’ve Always Wanted to Know About the Brain.  
  3 credits. W 5-7:30 pm, Robin Lester  
  This course examines intriguing questions in neuroscience as they are presented to the layperson through TED Talks, video presentations, podcasts, Scientific American articles, and newspaper/magazine science op-eds. The aim is to expose students to a wide range of topics about the brain, some fundamental, some controversial, in ways they may not have thought about before; challenging them to discuss the evidence for and against various theories of brain function. There will be no memorization of information, only the willingness to read, post and discuss scientific opinions on articles/videos. Non majors are encouraged!

- **New Section for SciTech Research Approaches** **NBL 240/STH 201** – Introduction to Neuroscience Methods. 3 credits. MW 3:45-5:45. Scott Wilson and Cristin Gavin  
  This course is designed to develop practical, experience-based laboratory skills in undergraduate student researchers with minimal prior laboratory exposure. Any student that completes this course should have the rudimentary skills (and confidence!) to begin supervised research in primary laboratories around campus. Course will cover techniques ranging from the biomolecular to behavioral and everything in between.

- **PY398/BY398** Research Biomethodology for Animal Scientists – Time/Date TBD. Tammie Quinn  
  This hands-on two-credit lab course is designed to instruct students on basic research methodology, animal handling techniques and compound administration. This course will allow students to gain firsthand experience with rodents (rats, mice) while learning the basics of injections, blood collection, breeding and animal care requirements. Each student will complete online animal care and use training as set forth by the UAB Institutional Animal Care and Use Committee (IACUC). Upon completion of this course students will have completed all online and Occupational health and Safety (OH&S) requirements in order to enter research labs utilizing animals and be placed onto a research protocol.  
  This course is designed to prepare students to start in a research lab with the knowledge and training to make them successful animal researchers.  
  Interested students should attend an information session on Wednesday October 12th between 2:00-3:00 in CH157 Monday October 17th between 1:00-3:00 in CH152
- Students that will be registering for NBL 398 Research Credit for Spring 2017 can fill out their research information here to receive an override PRIOR to registration: https://goo.gl/forms/cboQx5ulPpR7UfCs1

Want a chance to flex your creativity? Wish you had better inside resources as a fledgling student? We are excited to announce the creation of a UNP student blog to allow current Neuroscience students a platform to talk about the things that matter most to them! Email uabneuroblog@gmail.com if you are interested in writing for the blog, or to suggest ideas and topics that you would like to see covered. First post coming soon!

**Have a friend or classmate that wants to know more about the Undergraduate Neuroscience Program?** We encourage all students to attend an open interest meeting about Neuroscience on October 10th at 6pm in Campbell Hall 237. UNP Director Scott Wilson and Neuroscience Advisor Whitney Woodard will be on hand to talk to students about joining the program. Event flyer attached.

**ALL UNP Freshmen are required** to attend the Office of Undergraduate Research’s [Fall 2016 Undergraduate Research Workshop Series “A Map for Success”](#). Space is limited so RSVP to Gareth Jones ASAP. The next workshop is **Wednesday October 12th at 12pm in EB room 133**. The topics is How to Create the Perfect Poster. Lunch provided with RSVP.

**Inquiro**

Are you looking to get published? *Inquiro*, UAB’s undergraduate research journal is accepting submissions for this year’s edition until **October 17th**! Don’t think you are qualified? **Wrong**! If you have enough data to present a poster you have enough data to be published! *Inquiro* accepts many different submission formats, from research manuscripts to short reports and even senior theses. For more information on the submission formats and other FAQs see the attached flyer, email us at inquiro@uab.edu, or check out our website.

**Student Groups**

Want to give back to the community and build your resume simultaneously? **Building Bridges** is looking for more volunteers! The organization was founded with the purpose of tackling social isolation and loneliness, which the elderly are particularly vulnerable to. They have implemented two programs at Highland Manor, a Section 8 Assisted living facility at Five Points: The Buddy System and the Technology Tutors program. If you are interested in volunteering with Building Bridges, fill out this interest form. Also, check out the official website and Facebook page to learn more!

**Student Opportunities**

The Comprehensive Neuroscience Center (CNC) Annual Retreat will be held this Friday, October 7th at The Club. The undergraduate poster session will begin at 5:30 p.m. – come and support your fellow students!
Winning posters will be awarded $100, $50, and $25 dollars for 1st, 2nd, and 3rd place, respectively. Go here to view the schedule!

**Babysitters wanted!** Please email Dr. Gavin your name, phone number, and regular availability to be included in a local child care providers list for young professionals in the Birmingham area. Students should be responsible, reliable, and have their own transportation. Pay from $12 to $25 dollars an hour.

**Interested in Graduate education?** Join the UAB Graduate School for the 2016 Graduate Program Recruitment Fair on Friday, October 21st at the UAB Campus Rec Center. You will have the chance to network with faculty and staff from programs across the UAB campus. Still trying to figure out if Graduate School is right for you? The representatives will be there to answer all of your questions and determine the program that is perfect for you and will propel you to the next level in your career. Email the Graduate School with questions, or email Thomas Harris to RSVP. Register by TOMORROW October 7th.

**New Frontiers of Pain Research in the 21st Century – October 14-15th.** Attend a two-day conference in the new Hill Student Center to discuss new frontiers in pain research and treatment. The agenda is online. Registration is open and abstracts are being accepted. All pain researchers, clinicians and students are welcome.

**Research Opportunities**

**Dr. Karen Cropsey, Psy.D, Department of Psychiatry,** is seeking an undergraduate research assistant for credit. Go here to view her faculty information, and here to view recent coverage of the lab’s exciting work! Her research lab focuses on substance abuse projects working with criminal justice and other disenfranchised clients. Ongoing NIH and other projects include studies using combination pharmacotherapy and behavioral therapy for the treatment of tobacco use in a criminal justice population, as well as training on recognizing the signs of opioid overdose to administer naloxone. They have a new project that will use computerized brief interventions and an algorithm as a decision aid for providers to treat alcohol use disorders among person living with HIV engaged in treatment for their HIV. The student volunteer would spend their time recruiting for studies, conducting consent and assessments, and data entry. Interested students should email a copy of their CV, completed courses, fall schedule, and a few sentences about why the research interests them to Dr. Cropsey.

**Dr. Edward Taub, PhD, Department of Psychology** is seeking an undergraduate research assistant for credit. Go here to view his faculty information. He has an opening on a project working with a patient with Tetraplegia. Trainees will learn EMG biofeedback and shaping procedures using Constraint Induced Movement Therapy. Dr. Taub is only looking for highly motivated students that can make a significant contribution to the lab. Interested students should email a copy of their CV, completed courses, fall schedule, and a few sentences about why the research interests them to Dr. Taub.

**Dr. Bulent Turan, Department of Psychology** is seeking an undergraduate research assistant for credit. Dr. Turan is a social psychologist (and formidable tennis player) who researches the effects of negative social
evaluations on biological markers of health and stress. Go here to view his faculty information. The research involves music performance anxiety and includes the collection of saliva for cortisol and other hormone assays. Interested students should email a copy of their CV, completed courses, fall schedule, and a few sentences about why the research interests them to Dr. Turan.

**EXTERNAL OPPORTUNITIES**

Check out an updated list of summer research opportunities at Washington University in St. Louis. The BP-ENDURE program is specific for Neuroscience, and is designed to engage exceptional individuals interested in science careers in the lab and the classroom at one of the top research institutions in the nation. Participants will engage in an independent research project under the mentorship of faculty at Washington University in St. Louis while also working with outstanding faculty mentors at their home institutions. The goal is for the participant to pursue a Ph.D. or M.D./Ph.D. in the neurosciences or a related field.

**UPCOMING EVENTS**

TODAY! The English Department’s fall Alumni Lecture Series guest, Dale Bauer will be speaking this afternoon on campus. Her talk, “Brain Aneurysm, Coma, Stroke: An English Professor Speaks about Losing Her Language” will be on October 6th at 3:30 p.m. in the Hill Student Center room 318. Flyer attached for more details.

Research - MD, DO, PhD, or MD/PhD? - MD - Interested in pursuing research but not sure about the path to higher education? This professional development series aims to answer that question! Dr. Chen, MD, is the Chairman of UAB's Department of Surgery and is an internationally-acclaimed physician-scientist. Dr. Chen’s clinical interests include endocrine and neuroendocrine disease with a focus on minimally invasive endocrine surgery. He has one of the largest experiences with radioguided parathyroidectomy (MIRP), and performs high volume thyroid and adrenal surgery. Dr. Chen’s laboratory focuses on the role of cellular signaling pathways in the differentiation and growth of neuroendocrine (NE) tumors including carcinoid, pancreatic islet cell, pheochromocytoma, and medullary thyroid cancer. RSVP HERE!

The UAB Research Civitan Club will be holding their annual charity art auction, The Art of Giving, on October 20th, 2016 from 6-9 PM at the Civitan International Research Center (CIRC) here on campus. All proceeds from the event will go to benefit local charity Mitchell's Place. There will be heavy hors d’oeuvres, live music, and great art up for auction! Tickets are $10 dollars for students and $15 for everyone else and includes 2 drink tickets. Go here to purchase your ticket! We also need many student volunteers in order for the event to succeed. Please go here to sign up to volunteer. Support our local neuroscience initiative to give back to the community! Official event flyer attached.

UAB to host inaugural Physician Scientist Symposium Nov. 5-6. Register by Oct. 15 to attend the UAB Physician Scientist Symposium to be held in the Hill Student Center. Students, residents, fellows and junior faculty should submit abstracts by Sept. 15. Registration includes meeting attendance, dinner Saturday and breakfast/lunch Sunday. The agenda and speakers are online. Flyer attached.
**Acknowledgements**

Like and follow the UNP on Facebook for more information, events, and neuroscience-related content!

**Students, faculty and staff - want to place information in the digest?** Email your content to Dr. Cristin Gavin by Tuesday night the week of. The digest is finalized on Wednesday mornings, so any submissions received on Wednesday will be included in the digest the following week.