# Table of Contents

- **INTERIM DIRECTOR AND ASSOCIATE DIRECTOR'S NOTE** ................................................................. 5
- **APPH 1060 HP: FLOURISHING - STRATEGIES FOR WELLBEING AND RESILIENCE** .......................... 6
- **BIOS 1107 HP: BIOLOGICAL PRINCIPLES I**
  - BIOS 1107L HP11: BIOLOGICAL PRINCIPLES I LAB ................................................................. 7
- **CHEM 1211K HP: CHEMICAL PRINCIPLES I**
  - CHEM 1211K HP4: CHEMICAL PRINCIPLES I LAB .................................................................. 8
- **CHEM 1212K HP: CHEMICAL PRINCIPLES II**
  - CHEM 1212K H26: CHEMICAL PRINCIPLES II LAB
  - CHEM 1212K H27: CHEMICAL PRINCIPLES II LAB ................................................................. 9
- **COE 2001 HP: STATICS .............................................................................................................. 10
- **COS 3801 HP: SPECIAL TOPICS: INTRODUCTION TO MODEL ORGANISMS** ........................ 11
- **CS 1301 HP: INTRODUCTION TO COMPUTING (ONLINE)**
  - CS 1301R HP1: INTRODUCTION TO COMPUTING RECITATION (ONLINE) ............................... 12
- **CS 1371 HP: COMPUTING FOR ENGINEERS**
  - CS 1371R HP1: COMPUTING FOR ENGINEERS RECITATION .................................................. 13
- **CS 2701 HP: STARTUP LAB: INTRODUCTION TO TECHNOLOGY VENTURES** ........................ 14
- **CS 4010 HP: INTRODUCTION TO COMPUTER LAW ............................................................... 15
- **EAS 1600 HP: INTRODUCTION TO ENVIRONMENTAL SCIENCE**
  - EAS 1600 WHP: INTRODUCTION TO ENVIRONMENTAL SCIENCE LAB .................................. 16
- **ECON 2106 HP: PRINCIPLES OF MICROECONOMICS ............................................................... 17
- **ENGL 1101 HP1: ENGLISH COMPOSITION I .............................................................................. 18
- **ENGL 1102 HP1: ENGLISH COMPOSITION II ............................................................................. 19
- **ENGL 1102 HP2: ENGLISH COMPOSITION II ............................................................................. 20
- **ENGL 1102 HP3: ENGLISH COMPOSITION II ............................................................................. 21
ENGL 1102 HP4: ENGLISH COMPOSITION II .................................................................................. 22
ENGL 1102 HP5: ENGLISH COMPOSITION II ........................................................................ 23
ENGL 1102 HP6: ENGLISH COMPOSITION II ........................................................................ 24
FREN 3110 HP: COMICS AND GRAPHIC ARTS ..................................................................... 25
GT 1000 HP1: FIRST YEAR SEMINAR .................................................................................. 26
GT 1000 HP2: FIRST YEAR SEMINAR .................................................................................. 27
GT 1000 HP3: FIRST YEAR SEMINAR .................................................................................. 28
GT 2000 HP1: TRANSFER SEMINAR ................................................................................... 29
HTS 2013 HP: MODERN AMERICA ........................................................................................ 30
HTS 2016 HP: SOCIAL ISSUES AND PUBLIC POLICY ................................................................ 31
HTS 2803 HP: SPECIAL TOPICS: ORGANIZING FOR SOCIAL CHANGE ................................. 32
INTA 3103 HP: CHALLENGE OF TERRORISM ..................................................................... 33
LMC 3102 HP: SCIENCE, TECHNOLOGY, AND THE CLASSICAL TRADITION ........................... 34
LMC 3208 HP: AFRICAN AMERICAN LITERATURE AND CULTURE ........................................... 35
LMC 3308 HP: ENVIRONMENTAL ECOCRITICISM ................................................................. 36
MATH 1551 HP: DIFFERENTIAL CALCULUS
MATH 1551 HP1: DIFFERENTIAL CALCULUS STUDIO ............................................................. 37
MATH 1554 HP: LINEAR ALGEBRA
MATH 1554 HP1: LINEAR ALGEBRA STUDIO ...................................................................... 38
MATH 2552 HP: DIFFERENTIAL EQUATIONS
MATH 2552 HP1: DIFFERENTIAL EQUATIONS STUDIO .......................................................... 39
MATH 4803: SPECIAL TOPICS: NONLINEAR ALGEBRA ........................................................... 40
MUSIC ENSEMBLES (1 CREDIT HOUR) ..................................................................................... 41
Dear HP Students,

I hope everyone is having a great semester! It’s hard to believe, but it’s already time to start thinking about registration for fall 2024 classes. Time tickets for fall were posted on April 11th and Phase I registration is April 15th – May 17th. Phase II registration is August 12th – 23rd and the first day of fall classes is August 19th.

Please check out the HP Class options listed in this guide. You’ll find great HP Classes taught by dedicated faculty on a wide variety of engaging and timely topics. There is also an awesome feature in OSCAR that will allow you to search for Honors Program classes being offered. Select “Honors Program” from the Attribute Type menu and it will bring up the HP classes that are being offered (make sure to select at least one Subject first—selecting all Subjects will bring up every HP class).

**Here are some IMPORTANT NOTES about some fall HP lab science classes:**

1. We are offering HP sections of BIOS 1107, CHEM 1211K, CHEM 1212K, PHYS 2211, and PHYS 2212 with affiliated Honors Program labs. **You must register for both the HP lecture and HP lab.**

   a. The lecture and labs for CHEM and PHYS are linked in OSCAR—you will ONLY be able to sign up for the HP lecture and linked HP lab.

   b. The lecture and lab for BIOS are not linked in OSCAR—you must select the correct HP lecture and lab class. **If you do not take both the HP section of the lecture AND lab for this class, you will not get credit for either of them!**

In addition, please consider your options to earn HP-authorized credit for these non-HP courses:

- Music ensemble courses
- **Research courses** (VIP, PURA, HP-authorized independent research)
- **Study abroad courses** (HP-authorized)
- Graduate courses

As always, please work with your GT Academic Advisor to choose options that bring you the benefits of HP-style learning and that work for your GT major degree.

If you ever have questions or concerns, don’t hesitate to contact me at amy.dunger@gatech.edu. Have a fantastic conclusion to your spring semester and good luck with fall registration.

Regards,

Dr. Amy D’Unger
Interim Director and Associate Director
APPH 1060 HP: Flourishing - Strategies for Wellbeing and Resilience

Dr. Christie Stewart  
2 credit hours  
50 HP seats

Everyone experiences some level of stress and adversity in their daily lives. The pressure to perform academically, complete the necessary tasks in a given day, deal with relationship issues, and/or manage financial challenges can be daunting. Learning to effectively manage life stressors is a lifelong skill. The purpose of this course is to help students improve their health and well-being and flourish in their environment by using the conceptual pillars to develop skills related to coping, resiliency, optimism, gratitude, mindfulness, and emotional intelligence. Students will be challenged to evaluate their current overall health/well-being status and identify strategies for improvement in personal and professional growth to achieve a positive, meaningful and fulfilling life.

Dr. Christie Stewart is a Senior Academic Professional in the School of Biological Sciences and a certified Gallup strengths coach. She received a Bachelor of Science in Movement Science from the University of Pittsburgh, a Master of Education in Clinical Exercise Physiology from the University of Georgia, and her Doctorate in Educational Leadership from Mercer University. She is co-director of the wellness requirement at Georgia Tech and co-developed the course, Flourishing: Strategies for Well-being and Resilience. Christie has a passion for helping others develop skills in self-care and creating a culture of well-being at Georgia Tech. She centers her research and teaching on the development of communities to support well-being.

| Lecture:          | T/TH 12:30 - 1:20 PM  
                  | Curran Street Deck 210 (LLC West Commons Classroom; 8th St.) |
|------------------|--------------------------------------------------------------|
| CRN:             | 88563                                                        |
BIOS 1107 HP: Biological Principles I
BIOS 1107L HP11: Biological Principles I Lab

Dr. Chrissy Spencer (lecture) and Dr. Colin Harrison (lab)  
4 credit hours (lecture + lab)  

Please note: you MUST register for the HP lecture and lab section  
14 HP seats  
H11 to receive Honors Program credit.

In this active-learning course, you will explore the basic principles of modern biology, including biomacromolecules, bioenergetics, cell structure, genetics, evolution, and ecological relationships. You will also develop scientific skills in analyzing and interpreting scientific data to test hypothesis and communicate scientifically. Finally, you will develop and practice skills in metacognition to identify your best learning strategies that you will be able to employ in your future courses and career. By the end of this course, you will be able to:

A. Explain biological principles of modern biology, including biomacromolecules, bioenergetics, cell structure, genetics, evolution, and ecological relationships (Course lecture content).
B. Use scientific skills to test hypotheses, design experiments, analyze and interpret data, and communicate scientifically (Course lecture content)
C. Communicate effectively using appropriate scientific language (Course lecture content and Scientist Spotlights)
D. Appreciate commonalities and differences among people who practice science, and recognize that there are multiple pathways into science as a career (Scientist Spotlights)
E. Reflect on the usefulness of your study strategies and identify new strategies and practices to achieve your best learning strategies (Metacognition Module and Exam wrappers)

Dr. Chrissy Spencer Associate Chair for Undergraduate Affairs and Principal Academic Professional in the School of Biological Sciences at Georgia Tech, teaches throughout the curriculum: Biological Principles, Ecology, Evolution, Genetics Lab, Math Models, Population Dynamics, and the Biology of Sex and Death. Her research group examines the efficacy, usage, and perceptions of Open Education Resources (OER). As part of that work, she has partnered with colleagues to write and curate OER textbooks for the introductory biology sequence at Georgia Tech, as well as for our non-science majors course, called the Biology of Sex and Death. These textbooks provide focused and freely available course readings and video lectures to help students prepare for in class activities on the day’s learning objectives.

Dr. Colin Harrison is a Senior Academic Professional in the School of Biological Sciences. He earned his Ph.D. in Genetics and Molecular Biology at Emory University and B.S. in Genetics at the University of Wisconsin. He studies biology education research with a focus on laboratory learning, instructor language, and science identity. His research interests include STEM education, developmental biology, and genetics.

| Lecture (HP) | M/W/F  
| 11:00 AM  
| Clough 152 |
| Lab (H11) | W  
| 3:30 PM  
| Clough 487 |
| CRN (lecture- HP) | 89838 |
| CRN (lab- HPL) | 89487 |
CHEM 1211K HP: Chemical Principles I
CHEM 1211K HP4: Chemical Principles I Lab

Dr. John Zhang (lecture) and Dr. Deborah Santos (lab) 4 credit hours
Please note: you must register for the lecture and lab section. 12 HP seats

This course is the first of a two-semester sequence that introduces the foundational concepts of chemistry. General topics covered include periodicity, stoichiometry, atomic structure and the quantum mechanical model of the atom, the role of molecular structure and bonding theory in the properties and behaviors of molecules, thermochemistry and thermodynamics, and the behavior of gases. There is heavy emphasis on the application of chemical concepts. The laboratory and lecture components of the course are linked with emphasis on correlation of content between the two.

Dr. John Zhang’s research focuses on understanding the fundamental relationships between the chemical composition/crystal structure and the properties of novel materials. A multidisciplinary approach including inorganic/physical chemistry and solid-state physics is employed to pursue the synthesis and physical property studies of nanostructured materials. The applications of these materials in advanced technologies and in biomedical science are also actively explored.

Dr. Deborah Santos is a recent addition to the School of Chemistry and Biochemistry and will head up the first-year chemistry labs. She grew up in the Metro Atlanta area and has attended and taught in several schools and universities prior to coming to Tech. She received her Ph.D. in Chemistry Education from Georgia State University this year and an M.S. in Organic Chemistry from the University of Georgia in 2015. She was a high school chemistry teacher prior to earning her Ph.D. and has current research interests in how students learn to “do” science. Her Ph.D. work focused on the psychological aspects of learning chemistry (mindset and motivation) and her M.S. work involved developing chemistries for attaching carbohydrates and proteins to polymer surfaces for biological applications.

<table>
<thead>
<tr>
<th>Lecture</th>
<th>M/W/F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8:25 AM</td>
</tr>
<tr>
<td></td>
<td>East Architecture 123</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lab</th>
<th>TH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>12:30 PM</td>
</tr>
<tr>
<td></td>
<td>Clough 572</td>
</tr>
</tbody>
</table>

| CRN (lecture- HP) | 90848 |
| CRN (lab- HP4)    | 90851 |
CHEM 1212K HP: Chemical Principles II
CHEM 1212K H26: Chemical Principles II Lab
CHEM 1212K H27: Chemical Principles II Lab

Dr. Eric Shen (lecture) and Dr. Deborah Santos (lab)  4 credit hours

Please note: you must register for the lecture and either lab section.  44 HP seats

Prerequisites: CHEM 1211K or CHEM 1310

Welcome to Chemical Principles II, the second course of our two-semester sequence for majors! Through this course, you will learn how to think about chemical reactions in terms of their kinetics and thermodynamics, to apply chemical principles to inorganic and biological systems, and begin to understand the reactivity of elements and molecules through periodic table trends, molecular orbital theory, and acid-base theory. Students will actively participate in discussions and in-class problem solving to deepen their understanding of core chemistry concepts.

Dr. Eric Shen joined the School of Chemistry & Biochemistry in 2012, where he conducts research on electrochromic polymers - materials that rapidly change between a colored and colorless film at the push of a button. He received his undergraduate degree with a BA in Creative Writing from Rice University, followed by a PhD in Organic Chemistry from the University of Florida. Over the previous few semesters, he taught CHEM 1315 Survey of Organic Chemistry, where he discovered a great sense of joy helping students learn and navigate the challenges of college life. When he's not working, Eric enjoys immersing himself in the rich art world, music scene and diverse food culture around Atlanta, as well as playing a wide range of video games.

Dr. Deborah Santos is a recent addition to the School of Chemistry and Biochemistry and will head up the first-year chemistry labs. She grew up in the Metro Atlanta area and has attended and taught in several schools and universities prior to coming to Tech. She received her Ph.D. in Chemistry Education from Georgia State University this year and an M.S. in Organic Chemistry from the University of Georgia in 2015. She was a high school chemistry teacher prior to earning her Ph.D. and has current research interests in how students learn to “do” science. Her Ph.D. work focused on the psychological aspects of learning chemistry (mindset and motivation) and her M.S. work involved developing chemistries for attaching carbohydrates and proteins to polymer surfaces for biological applications.

| Lecture | T/TH  
| 12:30 PM | MSE 3201A  |
| Lab H26 | M  
| 3:30 PM | Clough 573  |
| Lab H27 | T  
| 3:30 PM | Clough 573  |
| CRN (lecture- HP) | 90847 |
| CRN (lab- H26) | 90850 |
| CRN (lab- H27) | 87955 |
COE 2001 HP: Statics

Dr. Jason Wang
Prerequisite: MATH 1552 and PHYS 2211
2 credit hours
25 HP seats

This course is an introduction to engineering, specifically engineering mechanics. It utilizes concepts from physics and applies them in an engineering framework, setting the foundation for future engineering analysis and design courses. The instructor will model various problem-solving approaches to help students learn to work independently and collaboratively as they analyze diverse problems common in engineering mechanics.

Through in-class discussions and problem-solving, students will learn to see the world around them from an engineering mechanics perspective.

Dr. Jason Wang is the Interim Senior Director of Institutional Research and Planning and Director of Data Management. He earned his Ph.D. in Bioengineering and his B.S. and M.S. in Mechanical Engineering from Georgia Tech. Jason’s passion for teaching and learning has taken him from being an undergraduate student to a graduate TA to an instructor to working in the Center for Teaching and Learning. His position in IRP provides new opportunities to work on undergraduate education at a higher level while continuing to engage with Georgia Tech students in the classroom.

Lecture
T/TH
3:30 PM
Curran Street Deck 210 (LLC West Commons Classroom; 8th St.)

CRN
93087
COS 3801 HP: Special Topics: Introduction to Model Organisms

Dr. Eduardo Gigante

This introductory course will provide a general overview of model organism use in human health research. Leveraging my expertise in Developmental Biology and Neuroscience and through exposure to primary research articles, students will learn how model organisms are being used to solve today’s foremost human health problems. Each week, we will focus on a different model organism, ranging from the single-celled, flagellated green algae *Chlamydomonas* all the way to non-human primates. During this course, students will discover topics such as evolutionary biology, experimental genetics, gene editing, and developmental biology. Moreover, we will discuss the importance of research ethics when using model organisms, as well as the pros and cons of alternative models like organoids. Students will be responsible for engaging in classroom discussions and completing in-class assignments that test their critical thinking and problem-solving skills. Students will be given seminal review articles related to each species, for unrequired reading.

**Dr. Eduardo Gigante** is a postdoctoral researcher in the School of Biological Sciences at Georgia Tech. He earned a BS and MS from Binghamton University in New York. He then spent 3 years at the National Institute on Drug Abuse in Baltimore, Maryland studying neural pathways of food and drug addiction in rodents. He did his PhD work at Emory University, using a mouse model of embryonic development to study the intersection of primary cilia and neural tube patterning. His love of all things Evo-Devo compelled him to join the Stolfi lab in June 2021 where he researches neural stem cell populations in the basal chordate *Ciona robusta*.

Dr. Gigante’s teaching experience includes serving as a TA at Binghamton University, Emory University, and Cold Spring Harbor Labs. He has also been the research mentor for eight undergraduate students and rotation mentor for three graduate students.

<table>
<thead>
<tr>
<th>Lecture</th>
<th>T 12:30 PM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>West Architecture 260</td>
</tr>
</tbody>
</table>

| CRN     | 93526      |
CS 1301 HP: Introduction to Computing (ONLINE)
CS 1301R HP1: Introduction to Computing Recitation (ONLINE)

Dr. David Joyner

Please note: you must register for the lecture and recitation separately. Class is online and asynchronous. Recitation is online and synchronous.

The purpose of this online course is to give students an introduction to computer programming. Students will gain experience and practice with logical thinking and debugging. The focus in the course is on developing skills and experience in software development and use of software tools. No prior CS coursework is required. The HP section will be limited to 50 students and will include a recitation session led by a CS teaching assistant. On four occasions, Dr. Joyner will attend the recitation session.

Dr. David Joyner has a passion for leveraging new technologies to improve student learning. He focuses on online learning not through MOOCs, but through large online classrooms. He is interested in the unique opportunities these classes have for personalizing student learning and granting students greater ownership and autonomy over their education. He’s seen incredible things happen with online learning at the graduate level, and is excited to extend those opportunities to undergraduate students.

Dr. Joyner completed his Ph.D. in Human-Centered Computing at Georgia Tech. He now works for the College of Computing as its Associate Director for Student Experience. Dr. Joyner also teaches in the OMSCS program, teaching CS6460: Educational Technology, CS6750: Human-Computer Interaction, and CSE6242: Data & Visual Analytics. He also runs an online research lab: lucylabs.gatech.edu.

<table>
<thead>
<tr>
<th>Recitation</th>
<th>CRN (online lecture – HP)</th>
<th>CRN (online recitation – HP1)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TH</td>
<td>85413</td>
</tr>
<tr>
<td></td>
<td>5:00 online (synchronous)</td>
<td>88368</td>
</tr>
</tbody>
</table>

3 credit hours
50 HP seats
CS 1371 HP: Computing for Engineers  
CS 1371R HP1: Computing for Engineers Recitation

Mr. Kantwon Rogers  
Please note: you must register for the lecture and recitation separately.

3 credit hours  
35 HP seats

Foundations of computing with an introduction to design and analysis of algorithms and an introduction to design and construction of programs for engineering problem-solving.

Kantwon Rogers is a Computer Science Ph.D. student advised by Dr. Ayanna Howard. He also earned a B.S. in Computer Engineering, an M.S. in Electrical and Computer Engineering, and a M.S. in Human-Computer Interaction from Georgia Tech.

Kantwon is a winner of the 2018 Institute-Wide Graduate Student Instructor Award and of the 2015 Institute-Wide Teaching Assistant Award. His research revolves around understanding how humans come to trust and be deceived by robots and artificial intelligent systems.

| Lecture       | M/W/F  
|---------------|-------
|               | 8:25 AM 
|               | Klaus 1443 |
| Recitation    | TH  
|               | 5:00 PM 
|               | Skiles 249 |

| CRN (lecture- HP) | 81194 |
| CRN (recitation- HP1) | 88420 |
This course will further students’ ability to be of value in the world. This will be accomplished by learning to become competent at leading formative innovation processes and developing an understanding of the artificial instincts needed to build and maintain a deliberately innovative culture at both startups and established organizations, whether in business, industry, governmental/non-governmental organizations, academia, or other contexts. Students will learn a theoretical framework and practical methodology for answering their questions about teaming, leadership, negotiation, finance, ideation, customer discovery, prototyping, market analysis, business models, selling, capital raises, and storytelling. Students will apply their learning in team projects. No prior coursework is required; students should be prepared, however, to engage novel theoretical concepts at the intersection of innovation processes and human/social behavior.

Dr. Merrick Furst is a Distinguished Professor in Computing and the Director of the Center for Deliberate Innovation. He founded the Center for Deliberate Innovation (cdi.gatech.edu) at Georgia Tech where the Change Accelerator operates. The principles and methods of Deliberate Innovation were first developed by Dr. Furst during the operation of the Flashpoint@GT program. These principles and methods are now being made more widely available through the CDI, and are being further developed with seven members of GT’s faculty who are fellows of the center. Dr. Furst’s work at Flashpoint@GT is credited with helping hundreds of founders and innovators think more clearly about their work. Since 2011, these individuals have collectively created over $2 billion in economic value, and have attracted more the $400 million in venture capital to projects that now operate in neighborhoods around campus.

Dr. Furst came to Georgia Tech from Berkeley, where he was the director of the International Computer Science Institute. In his role as associate dean in the College of Computing at Georgia Tech, along with many talented faculty colleagues and administrators including the current dean of the college, Professor Charles Isbell, he led the innovation of the Threads program that has redefined how we think of undergraduate programs. He is known for his seminal research in algorithms, complexity theory, and most famously for a breakthrough in AI Planning. Among other honors, Dr. Furst received the Georgia Tech Award for Outstanding Achievement in Research Innovation, The Freeman Faculty Award, The Inaugural GTRC Impact in Innovation Award, The Freeman Entrepreneurship Award, and the first Presidential Young Investigator Award ever given in computer science.

| Lecture | W 12:30 PM  
Klaus 2448 |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CRN</td>
<td>89956</td>
</tr>
</tbody>
</table>
CS 4010 HP: Introduction to Computer Law

Dr. Olufisayo Omojokun & Ms. Laura Huffman, Esq.  
3 credit hours  
5 HP seats

An understanding of certain aspects of the law can help computer scientists contribute more to their enterprise. We will learn about the various types of law that computer scientists may encounter. Students will be exposed to the US legal system, intellectual property, licensing and contracts, and data privacy. In what we believe to be the first of its kind in a computer law course, students will analyze third-party commercial-grade code as a technical expert (witness) might do to support a litigation. At the end of the course, students should be aware of basic legal issues in the computer field and understand when they need advice from a lawyer. Students from all majors are welcome and the class does not have prerequisites.

Dr. Olufisayo "Fisayo" Omojokun is the chair of the School of Computing Instruction. He received his Ph.D. (2006) in computer science from the University of North Carolina at Chapel Hill and has been teaching a wide range of courses at Georgia Tech since 2009. His interest in computer law was sparked by his consulting work as a technical expert witness.

Ms. Laura Huffman is an associate in the Atlanta office of King & Spalding and a member of the firm’s Intellectual Property Counseling practice. Her practice includes all aspects of intellectual property litigation and counseling with a primary emphasis on patent litigation. She represents Fortune 100 clients in patent infringement lawsuits in federal district courts across the United States and the International Trade Commission, including cases involving optical devices and fabrication, optical systems, telecommunications equipment, and information systems.

| Lecture | T/TH  
|         | 11:00 AM  
|         | College of Computing 101  
| CRN     | 91147  

Understanding Earth’s environment requires understanding how the whole Earth functions as a system. We will begin by considering external influences on Earth’s environment and reviewing the systems approach for studying interrelated phenomena, as well as the basic physics needed for such studies. We will then investigate four components of the Earth system in detail: the atmosphere, the oceans, the solid Earth, and the biosphere. We will explore how each component interacts with the others and how these processes control Earth’s climate. We will finish with a discussion of modern anthropogenic climate change.

The lab portion is designed to enhance foundational concepts associated with the lecture course: How to Build and Maintain a Habitable Planet. Labs are a hybrid of hands-on experiments/activities and online work via the adaptive learning platform ARGOS. The focus will be on understanding the underlying science of the course, application of the scientific process, and improving communicating / evaluating projects motivated by scientific evidence through the final lab project.

What you can expect in the lab:

- **Conduct data measurements and calculations** – being able to conduct simple measurements and calculations to evaluate methods, data, and data implications
- **Utilize experimental and modeling methods** – science and learning are conducted via multiple methods depending on the topic, and in this class, many large-scale system concepts are better adapted to computer models;
- **Final project presentation** – working in groups, you will research and evaluate an exoplanet in order to create a mission proposal to present. This will apply your accumulated knowledge from lecture and labs during the semester and give practice to working collaboratively and communicating science.

**Dr. Samantha Wilson** is a Senior Academic Professional and advisor in the School of Earth and Atmospheric Sciences at Georgia Tech. She received a bachelor’s degree in Geology with a minor in Environmental Studies from the State University of New York at Geneseo and a Ph.D. in Earth and Environmental Sciences from the University of Michigan.

**Dr. Michael Porter’s** studies and career have been shaped by a passion for understanding and explaining the natural and constructed world. Consequently, his credentials and work experiences cover a range of physical and social sciences. He has shown kindergartners how to interpret satellite data, organized/led STEM summer programs for secondary teachers and students, forecasted for and flown on NASA research aircraft, led mission-oriented time-crunch teams in both education and broadcast settings, and helped conceptualize and secure multi-million dollar research projects. Through his diverse subject-expertise and skillset, he has been deconstructing complex systems and making them decipherable to different audiences. His research agenda centers on intentionally harnessing big data sets to offer bias correction of current weather forecasts. NOAA provided him access to SREF (Short Range Ensemble Forecasting) Super Ensemble data for his development of the Retro-Ensemble, a post processing technique that maps onto SREF. Beyond generating new knowledge, he enjoys science communication in both classroom settings and in front of greenscreens. Sustainability drives his worldview as he has been a vegetarian, hybrid-owner, and composter for decades.
ECON 2106 HP: Principles of Microeconomics

Dr. Laura Taylor

Please note: fulfills the Social Science requirement.

3 credit hours 20 HP seats

When most folks think of “economics” they’re typically thinking of macroeconomics (and occasionally, accounting!). In reality, however, most issues and problems in economics would be categorized under microeconomics. Fundamentally, microeconomics is the study of how individuals and firms (and firms are just individuals “at work”) make decisions – of how people respond to incentives, given all relevant benefits, costs, and constraints. Most often, these decisions are reflected in markets (Should I buy the large or small bottle of shampoo?), but sometimes these decisions occur outside of markets (Should I wear a seat belt? Should I compost, recycle, or engage in other behaviors I believe are environmentally friendly?).

Broadly, microeconomics can be thought of as the study of the market behavior of consumers and producers interacting in markets or outside of markets. As you will see in this course, the tools learned in microeconomics can also provide a framework for understanding today’s biggest societal challenges (health care access; inequality; climate change) and their potential solutions.

Dr. Laura Taylor is Chair of the School of Economics and Interim Director of the Energy Policy and Innovation Center at Georgia Tech. Her recent research interests focus on the intersection of energy, environmental exposures and health. She has extensive experience in policy evaluation and the valuation of natural resources and the environment. Recent research applications include evaluating the impact of offshore wind energy in the U.S., identifying the impacts of air pollution exposures on health outcomes, improving benefits estimation for policies designed to reduce human mortality, examining household responses to water conservation policies, and evaluating the benefits of hazardous waste site cleanup. Her research has received funding from a variety of sources including the US EPA, USDA, US Department of Interior and the National Science Foundation. She is a Fellow of the Association of Environmental and Resource Economists and has held numerous advisory board positions. Prior to joining the faculty at Georgia Tech in 2018, Dr. Taylor was Director of the Center for Environmental and Resource Economic Policy at North Carolina State University.

<table>
<thead>
<tr>
<th>Lecture</th>
<th>T/TH 2:00 PM Cherry Emerson 204</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRN</td>
<td>93244</td>
</tr>
</tbody>
</table>
What do you imagine when you hear the term “archives?” Do you think of poring over obscure documents and fragile artifacts in dusty attics or basements? Though stereotypes like this are not without some grain of truth, archives are much more, offering fresh perspectives and connections, as well as opportunities to conduct research in new and interesting ways.

This section of English Composition 1101, which focuses on critical thinking and written composition, introduces students to archival research methods via instruction, student examples, and hands-on practice. Along the way, students will:

- polish college-level reading and writing skills
- engage with critical thinking and new academic genres
- be introduced to WOVEN (written, oral, visual, electronic, and nonverbal) elements of communication
- work with archives, including the Georgia Tech archives and local and national digital archives,
- have an opportunity to seek out other local, in-person archives.

Course projects will address how to perform strong, digital research; mine and interpret metadata for research purposes; and investigate non-linguistic artifacts (images, objects, oral histories) in addition to “the boring stuff” (minutes, organizational files, letters, written speeches, invoices, etc.). Final projects may vary with each student and will be developed with individual archives in mind.

**Dr. Jessica Rose** earned her Ph.D. in Rhetoric and Composition, with a certificate in Women’s, Gender, and Sexuality Studies from Georgia State University in 2021. She is a Georgia Tech Brittain Fellow and served two years as Assistant Director for Georgia Tech’s Communication Center, where she still tutors as a professional consultant. Dr. Rose has taught courses at both the graduate and undergraduate levels, including first-year composition, archival methodologies, visual rhetorics, and professional writing. Outside of the classroom, you will find her baking or playing billiards.

<table>
<thead>
<tr>
<th>Lecture</th>
<th>M/W</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>11:00 AM</td>
</tr>
<tr>
<td></td>
<td>Skiles 314</td>
</tr>
</tbody>
</table>

| CRN           | 90591  |
Sometimes we all need to just go and touch some grass. Do we consider, though, the ways that we talk about that same grass? Whether we realize it or not, we are constant surrounded by pieces of rhetoric which are trying to shape our thinking and our buying habits. Discussions of the environment are filled with just as much rhetoric as commercials trying to sell you products. In this class we are going to use these environmental examples to mature our understanding of academic research and rhetoric in general while enjoying the fun that environmental rhetoric as a field can bring.

This class will focus on effective communication through multiple modalities using the WOVEN approach to communication. This means we will explore Written, Oral, Visual, Electronic, and Nonverbal modes of communication. With an ultimate goal of learning to research effectively, we will be enjoying a diverse range of environmental texts. In this class you can look forward to classic environmental books, cornerstone environmental rhetoric theory, environmental documentaries, and a class field trip to the Georgia Aquarium where we will get to reflect on real-world examples of environmental rhetoric. Assignments for this class will include reflections on rhetoric, classic research documents, and even creating our own environmental documentary. This exploration of environmental rhetoric should be fun and sometimes even relaxing so we can all take a breath, consider the rhetoric, and touch grass.

Dr. Caitlin Anderson is a postdoctoral Marion L. Brittain fellow here at Georgia Tech. She completed a Ph.D. at Auburn University with a focus in long nineteenth century British women writers and environmental rhetoric. She has been published in the journal Women’s Studies and has a chapter in the Routledge Handbook of Crime Fiction and Ecology. In short, she can talk readily about Victorian authors and ecology until you beg her to stop. However, she’s much more likely to spend time discussing video games, the burgeoning field of fan studies, what TV shows you’ve been binging recently, or her dog.
ENGL 1102 HP2: English Composition II

Dr. Cameron Winter  
Prerequisite: ENGL 1101

3 credit hours  
18 HP seats

Based on the idea that communication is a highly situated act, this course encourages learners to consider impact and place within their respective fields. Beginning with an in-depth investigation of communicative place, students will compose an essay analyzing local monuments, making a case for the monument's message. The second project encourages learners to locate outdoor spaces ‘free’ of the traces of human touch or development. Utilizing archival materials and paired readings about anthropogenic impact and the problems with “attention economies,” we would investigate ways to impactfully situate learners’ disciplines. This section would culminate in a multimedia, autoethnographic study, allowing students to compose picture-heavy essays, infographics, or vlogs that personally and academically narrate a story of place. Finally, the class would culminate in an interdisciplinary podcast. Coming together to cover a single topic from a variety of different disciplinary perspectives, students will compose a 15-20 minute podcast episode in the style of a Radiolab, This American Life, or Invisibilia, in which they will analyze a specific subject, problem, or issue related to Atlanta or Georgia from their disciplinary perspective, uniting to offer insight and answers in an informative, entertaining modality.

Dr. Cameron Winter (he/him) is a 2nd-year postdoctoral Marion L. Brittain Fellow at the Georgia Institute of Technology after earning his Ph.D. in English from the University of Georgia in 2022 (Major Professor: Dr. John Wharton Lowe). His research has been published in the peer-reviewed Mississippi Quarterly and South Atlantic Review on George Washington Cable and Flannery O’Connor respectively, and he chairs the annual South and Science Fiction Panel at SAMLA on behalf of the Society for the Study of Southern Literature. He has recently presented research on the Caribbean imagination of American SF writer Jeff VanderMeer at SAMLA and on the postcolonial short fiction of Trinidadian writer Michael Anthony at the annual British Commonwealth and Postcolonial Studies Conference. He has also earned the Robert West and Alice C. Langdale Awards for outstanding research from the University of Georgia. He is revising his dissertation into a book manuscript on the literary treatments of ruins in the PostBellum US South.

| Lecture | M/W  
| 11:00 AM  
| Skiles 302 | CRN  
| 84638 |
ENGL 1102 HP3: English Composition II

Dr. Andrew Nance 3 credit hours
Prerequisite: ENGL 1101 18 HP seats

From the Y2K scare and other apocalyptic anxieties to declarations of the "end of history" and dramatic transformations across popular and literary texts, in this course we will consider U.S. culture and its reckonings with turn-of-the-millennium crises during (and very near to) the year 1999. Framed by an interdisciplinary (cultural studies-based) approach, in this course we will investigate how such crises appear within a variety of texts from the historical moment (such as poems by Claudia Rankine and Jorie Graham, short stories by George Saunders and Jhumpa Lahiri, movies like The Matrix, and emblematic albums of the moment by such artists as Mos Def, Lauryn Hill, and the Red Hot Chili Peppers). We will begin our investigation by reading excerpts from Joshua Clover's book, 1989: Bob Dylan Didn't Have This to Sing About, in order to both become acquainted with the cultural and economic history leading into the 1990s and to learn how cultural texts provide us with sites for engaging with the interlinked social, political, and economic changes of a particular historical moment.

Through this course theme, students will examine how cultural texts utilize multimodal rhetoric and, in turn, practice implementing what they learn within their own WOVEN communication. The multimodal project assignments for this course will emphasize interdisciplinary rhetorical analysis, research, and creative engagement with the ways in which past cultural texts come to shape us both collectively and more personally in a range of salient and enduring ways.

For the final project in this course, students will develop an autobiographical multimodal essay in which they identify a few cultural texts that were important to their experience of understanding the world in which they grew up. In this project, they will present a personal cultural history via these texts—analyzing them as a lens through which to understand the broader cultural and economic context of their personal histories. Once these autobiographical multimodal cultural (personal) histories are completed, the class will work together to compile and publish them on a single website.

Dr. Andrew Nance is a Marion L. Brittain Postdoctoral Fellow in the School of Literature, Media, and Communication. He holds a Ph.D. in English from the University of Georgia and an M.F.A. in poetry from the Iowa Writers’ Workshop. His creative work has appeared in such journals as Colorado Review, Gulf Coast, The Literary Review, and Los Angeles Review of Books Quarterly Journal, among others. His research focuses on twentieth and twenty-first-century American poetry, aesthetic theory, and digital technologies and their cultural forms.

| Lecture | M/W  
| 2:00 PM  
| Hall 102  |
| CRN | 92656 |
Rhetoricians often conjure ghosts, ghouls, and monsters to influence their audiences through the power of fear. Why is fear such a powerful, controlling, and even addictive emotion? This rhetoric and composition course uses the theme of fear to explore how arguments can be constructed and expressed in a variety of modes. We will study ghosts and other horror creatures as manifestations of the social issues faced by the societies that produce them. We will also see how these spectres have jumped off the page through film, television, and video game reinterpretations of class horror tropes. Major assignments will be multimodal literary and rhetorical investigations of one common fear and its consequences, from its origins to its contemporary remediations. Come prepared to be scared, as selections from horror and horror-adjacent material will be shown in class.

Dr. Kaitlyn Smith is a Brittain Teaching Fellow at the Georgia Institute of Technology. There, she teaches in the writing and communication program. She defended her dissertation, “Race and Technology in Southern Literature, Civil War to Civil Rights” at the University of South Carolina in 2022. Her research interests continue to lie at the intersection of narratives of progress and narratives of race in American literature, specifically southern regional literature. At Georgia Tech, she teaches composition and rhetoric-based courses about horror, technology, regional identity, or whatever else sparks her imagination.

| Lecture | M/W/F 2:00 PM  
| Van Leer E361 |
| CRN | 89834 |
ENGL 1102 HP5: English Composition II

Dr. Emiliano Gutierrez-Popoca 3 credit hours

Prerequisite: ENGL 1101 18 HP seats

In ENGL 1102 you will further develop key communication skills that will contribute to success in your academic and professional career. Throughout the course, we will rely on the power of Written, Oral, Visual, Electronic, and Nonverbal (WOVEN) forms of communication. Through WOVEN communication projects (called artifacts in this course) we will critically engage with content and conduct research on the theme of Shakespeare through data visualization.

What can we learn about Shakespeare’s world by creating a map of the cities, and lands appearing in Shakespeare’s *The Tempest*? What does a pie chart showing the cause of death in all 74 death scenes in Shakespeare say about the kinds of spectacles people wanted to see on stage in Elizabethan times? Whereas traditional approaches to Shakespeare’s drama close-read characters, scenes, and dialogues to reveal themes, we will take a step back, visualizing data patterns and discovering insights into Shakespeare’s literary works. Based on this “distant reading,” we will use data as a starting point to think critically about Shakespeare.

For Artifact 1, you will prepare a class presentation showcasing a graph, chart, diagram, or infographic summarizing your research about a topic of your choice in relation to Shakespeare, his works, or his times. Next, you will write a blog post essay based on your research about a geographical reference found in one of the plays by Shakespeare we will discuss in class – *The Tempest, A Midsummer Night’s Dream,* or *The Merchant of Venice* – and in databases containing other texts of Shakespeare’s time, like traveler’s books. For the last artifact, you will use your findings in Artifact 2 to collaboratively build an ArcGIS Story Map building a narrative about the places that appear in one of Shakespeare’s plays and leading your audience through an argument about their significance.

Dr. Emiliano Gutierrez-Popoca received his bachelor’s and master’s degrees in English from the National Autonomous University of Mexico, where he was also an instructor. He completed his doctorate at Brandeis University with the dissertation *Performing a Servant’s Faithful Parts: Master-Servant Relations in Early Modern Drama.* At Brandeis, he taught first-year writing seminars and was co-director of the Writing Center. His research interests include genre, character, class in early modern theater, religion and poetry, English-Spanish translation, and writing and communication pedagogy for multilingual learners.

<table>
<thead>
<tr>
<th>Lecture</th>
<th>T/TH 2:00 PM Skiles 368</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRN</td>
<td>91873</td>
</tr>
</tbody>
</table>
ENGL 1102 HP6: English Composition II

Dr. Randall Harrell
3 credit hours
Prerequisite: ENGL 1101
18 HP seats

Herman Melville’s *Moby-Dick* is often touted as “The Great American Novel.” While this may be true, *Moby-Dick*’s merits include more than what the whitewashed history of canonization and literary fame might afford it. This whale of a book includes myriad modes of writing, exudes America’s cultural fixation on conquest, power, and empire, and stands as a beacon of beauty, philosophy, and history. The industry of whaling, although far removed from our collective consciousness now, was once the wind in the sails of American commerce and a major conduit espousing the idea of financial stability and upward mobility, concepts that would eventually undergird what would be referred to as “The American Dream.” In this course, students take up many different modes of communication. As we read through *Moby-Dick*, we will loosely participate in the different genres practiced by Melville. Students might engage in personal narratives, travel and adventure writing, philosophy, soliloquy, visual analysis, science, and even religious writing. We will encounter each of Melville’s variations of writing style and pause the reading of the novel to read critical articles discussing those sections, while also composing our own multimodal writing within some of these genres. This writing course offers students the chance to read and communicate with both creative and academic texts while also engaging in Georgia Tech’s WOVEN (Written, Oral, Visual, Electronic, and Non-Verbal) model of communication, an approach that emphasizes rhetoric, process, and multimodality. This course, ENGL 1102: Multimodal *Moby-Dick; or, the Whale* of WOVEN Communication, also has a significant research component.

**Trigger Warning:** You’ve registered for a course that includes Melville’s *Moby-Dick*. Besides WOVENText, *Moby-Dick* is the central text. While Melville’s text has many themes, they are integrated with a story about hunting and processing whales. We will also view other material that deals with the American whaling industry in general. This includes video and imagery.

Dr. Randall W. Harrell is a third-year Brittain Postdoctoral Fellow at the Georgia Institute of Technology where he teaches ENGL 1101 and ENGL 1102. At previous institutions, he’s taught surveys in American Literature and World Literature. His research deals largely with 19th-Century American literature, trauma and temporality, and the pre-Removal print history of the Cherokee Phoenix, the official newspaper of the Cherokee Nation. His other academic and professional interests include multimodality in the composition classroom, Diversity, Equity, and Inclusion initiatives, and efforts to raise student success metrics across college campuses.

<table>
<thead>
<tr>
<th>Lecture</th>
<th>T/TH 9:30 AM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Swann 106</td>
</tr>
<tr>
<td>CRN</td>
<td>85848</td>
</tr>
</tbody>
</table>
FREN 3110 HP: Comics and Graphic Arts

Dr. Brigitte Stepanov

3 credit hours

Please note: fulfills the Humanities requirement. Course is taught in French. Counts toward Award of HP Distinction in Global Engagement Pathway.

Prerequisites: FREN 2002 or AP/IB equivalent

What are comics (or graphic novels – or, even, bandes dessinées) and why do they matter? What stories do they tell – and how? What different forms can they take and what perspectives do they share? This course will explore these questions – and raise many others – by approaching comics old (Astérix) and new (Je me souviens: Beyrouth and L’Odyssée d’Hakim). We will study the literary influences of these works, their historical contexts, and how they speak to contemporary issues. Le tour de Gaule d’Astérix, Je me souviens: Beyrouth, and L’Odyssée d’Hakim each recounts a journey – a tour, a trip down memory lane, an odyssey – from a varied point of view, in a different place, and at a different moment in time. Comics occupy a unique role in visual representation as they are neither static (like a painting) nor fully moving (like a film); the graphic arts demonstrate a unique temporal and spatial narrative. We will join the characters of these comics on their journeys to learn with and from them. Ultimately, this is a course that delves into the importance of comics today, raising a plethora of lines of inquiry relating to culture, language, identity, and belonging, and answering these questions with examples and experiences from the past, present, and even future.

Dr. Brigitte Stepanov is Assistant Professor of French and Francophone Studies, a war researcher, and an Energy Equity, Environmental Justice, and Community Engagement Faculty Fellow. She is also the founder and director of the Energy Today Lab, an interdisciplinary research hub that reflects creatively and analytically on the energy - broadly defined from labor to thermodynamics - of our contemporary world. Her research interests focus on 20th- and 21st-century French, North African, and Sub-Saharan African literary and visual culture. Trained as a scholar of French and Francophone Studies and as a mathematician, she holds degrees from Queen’s University at Kingston in Canada and a Ph.D. from Brown University. At Brown, she was a Fellow at the Cogut Institute for the Humanities and awarded an Archambault Award for Teaching Excellence.

<table>
<thead>
<tr>
<th>Lecture</th>
<th>M/W 3:30 PM Skiles 254</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRN</td>
<td>92711</td>
</tr>
</tbody>
</table>
GT 1000 HP1: First Year Seminar

Dr. Nakia Melecio

1 credit hour

Please note: Restricted to first-year students.

| Lecture | M  
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8:25 AM</td>
</tr>
</tbody>
</table>

This Honors Program section of GT 1000 will focus on innovation and entrepreneurship. Discussion of topics related to academic, social, and professional success including learning styles, time management, major and career exploration, leadership, and teamwork.

Dr. Nakia Melecio is a Senior Research Faculty member of Georgia Tech. In this role, Nakia helps researchers commercialize their Biotechnology, Energy, Defense, Military Technology, Education, Government Technology, and Aerospace Technology. He also helps them secure investments from a network of federally funded laboratories, universities, and corporations. Nakia also is the Founder/Director of MedTech Center of Excellence, created to support and address the unique needs of early-stage medical device technologies where they provide expertise in product realization, technology, medical device manufacturing, biotechnology, life science, and therapeutic innovations to early-stage entrepreneurs.

Throughout his career, he has worked with industry, academia, and government which has provided him with a unique and deep understanding of the early-stage innovation ecosystem and technology transfer, proven scientific and technical ability, and decades of operational experience in technology-driven, high-growth companies. He has successfully helped startups and develop businesses worldwide in the United States, Australia, the United Kingdom, Canada, Nigeria, and Ghana.

Nakia is an active member and mentor of the technology community and a frequent contributor to many business organizations, including the U.S. Small Business Administration (SBA). He is a longtime technology startup mentor, having served in that role at Advanced Technology Development Center at Georgia Institute of Technology, the National Science Foundation Innovation Corps (NSF I-Corps), the Association of University Technology Managers (AUTM), Georgia Tech Create X mentor, MIT Hack Medicine, DOD lab mentor, NSF I-Corps Adjunct Instructor at Georgia Institute of Technology, Hack for Defense Instructor (H4D), Defense Innovation Accelerator Mentor (DIA), and StartMe at Emory University. He is a board member for several startups and is involved in two Health-tech Medical Device startups.

Nakia received a master’s degree at Ashford University in Education, Teaching, Learning, and Educational Technology where he also received a bachelor’s degree in Psychology, a bachelor’s degree in Cognitive Science. Additionally, Nakia received a Doctor of Psychology Educational Psychology, Educational Leadership from the University of Arizona.

| CRN | 89419 |
GT 1000 HP2: First Year Seminar

Dr. Karen Franklin 1 credit hour
Please note: Restricted to first-year students. 20 HP seats

This seminar course is designed to help you make a successful transition to college by becoming better acquainted with the academic and social opportunities here at Georgia Tech. Through the course, you will acquire strategies that promote academic, social, and professional success. This is a highly interactive class that requires active student participation and working collaboratively in small groups.

Through engaging in discussion, exploration, and reflection, students will be able to build connections with other students, faculty, and staff and develop plans for their time at Tech.

Dr. Karen Franklin is a Faculty Teaching and Learning Specialist working with faculty across Georgia Tech on all things related to teaching. For her, teaching is a passion so having the opportunity to work with faculty from various fields feeds into her own passion for teaching.

Karen also is an adjunct instructor in the Tech to Teaching program as well as at the University of West Georgia. When she works with faculty and students, she also learns from them -- which always evokes wonder in her for her own field of Learning Science.

<table>
<thead>
<tr>
<th>Lecture</th>
<th>W 12:30 PM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>College of Computing 101</td>
</tr>
<tr>
<td>CRN</td>
<td>84978</td>
</tr>
</tbody>
</table>
GT 1000 HP3: First Year Seminar

Dr. Catherine Thomas 1 credit hour

Please note: Restricted to first-year students. 20 HP seats

This seminar course is designed to help you make a successful transition to college by becoming better acquainted with the academic and social opportunities here at Georgia Tech. Through the course, you will acquire strategies that promote academic, social, and professional success. This is a highly interactive class that requires active student participation and working collaboratively in small groups.

Through engaging in discussion, exploration, and reflection, students will be able to build connections with other students, faculty, and staff and develop plans for their time at Tech.

Dr. Catherine Thomas is Associate Director of Undergraduate Transition Seminars and Senior Academic Professional at the Georgia Institute of Technology. She oversees the first-year and transfer seminar program and supports other high-impact learning initiatives within the Office of Undergraduate Education. Prior to joining Tech, she served for seven years as Associate Dean for Student Success Programs at Georgia Gwinnett College. Thomas is a 2023 Georgia Association for Women in Higher Education (GAWHE) Leadership Program Fellow and participant in the 2023 American Council on Education (ACE) Women’s Leadership Mentoring Program. She is passionate about providing equitable and inclusive access for all students to succeed in higher education, as well as supporting faculty and staff development toward that goal. Her co-edited volume with Dr. Roze Hentschell, Transforming Leadership Pathways for Humanities Professionals in Higher Education, is forthcoming from Purdue University Press in 2023. Thomas has additional research interests in Shakespeare and the comic arts and has published articles, book chapters, and a coedited essay collection on early modern gender and violence.

<table>
<thead>
<tr>
<th>Lecture</th>
<th>TH 12:30 PM</th>
<th>Clough 131</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRN</td>
<td>92816</td>
<td></td>
</tr>
</tbody>
</table>
GT 2000 HP1: Transfer Seminar

Dr. Catherine Thomas
1 credit hour
Please note: Restricted to new transfer students.
22 HP seats

This seminar course is designed to help you make a successful transition from your previous institution by becoming acquainted with the academic and social opportunities here at Georgia Tech. Through the course, you will acquire strategies that promote academic, social, and professional success. This is a highly interactive class that requires active student participation and working collaboratively in small groups.

Students will be encouraged through research and reflection to further define their academic, professional, and personal goals and identify effective pathways to achieve them. Emphasis also will be placed on building personal and professional support networks and cultivating holistic well-being.

Dr. Catherine Thomas is Associate Director of Undergraduate Transition Seminars and Senior Academic Professional at the Georgia Institute of Technology. She oversees the first-year and transfer seminar program and supports other high-impact learning initiatives within the Office of Undergraduate Education. Prior to joining Tech, she served for seven years as Associate Dean for Student Success Programs at Georgia Gwinnett College. Thomas is a 2023 Georgia Association for Women in Higher Education (GAWHE) Leadership Program Fellow and participant in the 2023 American Council on Education (ACE) Women’s Leadership Mentoring Program. She is passionate about providing equitable and inclusive access for all students to succeed in higher education, as well as supporting faculty and staff development toward that goal. Her co-edited volume with Dr. Roze Hentschell, Transforming Leadership Pathways for Humanities Professionals in Higher Education, is forthcoming from Purdue University Press in 2023. Thomas has additional research interests in Shakespeare and the comic arts and has published articles, book chapters, and a co-edited essay collection on early modern gender and violence.

<table>
<thead>
<tr>
<th>Lecture</th>
<th>W 11:00 AM Clough 262</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRN</td>
<td>89977</td>
</tr>
</tbody>
</table>
The internationalism the United States pursued following its involvement in the Second World War (1941-1945) ensured that domestic and foreign policy affairs would be more intimately connected than ever before. While leading the struggle against Communism amid decolonization in the so-called Third World, the U.S. became a mass-consumption society, with attendant expectations of upward mobility, popularly known as the “American Dream.” At the same time, economically and politically disenfranchised groups, starting with African Americans, increasingly challenged America to extend freedom and opportunity to all citizens regardless of race, gender, or sexual orientation. Postwar America has been a fractious place, with anxieties relating to the threat of nuclear annihilation, changing gender and sexual norms, and demands for equal rights sparking sociopolitical disagreements – including a conservative backlash by the 1970s against the liberal consensus of the early postwar decades.

Dr. Todd Michney (Ph.D., University of Minnesota, 2004) is an Associate Professor in the School of History and Sociology who focuses on urban history, digital history, African American history, and the history of race and ethnicity. Dr. Michney is the author of *Surrogate Suburbs: Black Upward Mobility and Neighborhood Change in Cleveland, 1900-1980* (2017), as well as articles in the *Journal of American History, Journal of Social History, Journal of Urban History, Journal of Planning History*, and *Reviews in American History*. His current research interests include Black building tradesmen 1865-1965, the work and business of construction, as well as the origins of redlining and other racially discriminatory New Deal housing policies.

At Georgia Tech, Michney was a member of the Center for Urban Innovation’s research team from 2015-17, and was awarded three consecutive DILAC grants from 2016-19 to digitize the Ivan Allen Mayoral Papers and develop a customized search interface for that collection. For this project, Michney in 2019 won an award for Excellence in the Educational Use of Historical Records from the Georgia Historical Records Advisory Council, and in 2020, he along with two colleagues secured a two-year grant from the NEH’s Office of Digital Humanities to continue developing the project’s user interface. Michney has taught a Serve-Learn-Sustain-affiliated course entitled “Semester in the City: Engaging Communities.”

| Lecture | T/TH  
|         | 2:00 PM  
|         | Old Civil Engineering G10  
| CRN     | 92971  

HTS 2016 HP: Social Issues and Public Policy

Dr. Amy D’Unger
Please note: fulfills the Social Science requirement.

3 credit hours
25 HP seats

This course will examine a variety of issues considered to be “social problems.” In order to do so, we must first understand how particular issues come to be considered “problems” in the first place, while other issues do not. We will begin with the constructionist perspective, which centers around one question: why do we recognize some social conditions as “problems” while simultaneously ignoring other conditions? Additionally, why do we recognize some social conditions as problems at one time, while during a later period we do not consider them problems?

After examining how things become social problems, we will be considering a variety of social issues in detail, including criminal justice and mass incarceration, the heroin epidemic in the United States, access to voting and racial redistricting, and involuntary sterilization. To do this, we will be using the latest social science research and “real world” examples from reputable journalistic sources (e.g., the New York Times and the Washington Post).

Dr. Amy D’Unger (Ph.D., Duke University, 1999) is a sociologist with interests in the areas of race, class, and gender; inequality; social policy; social control and eugenics; and crime. Her previous research has looked at the impact of neighborhood social disorganization, peer networks, family structures, and school ties on delinquency and crime over the life course. She is currently researching the role of eugenic (involuntary) sterilization in the South as a tool of informal social control, particularly during the Civil Rights Movement. Dr. D’Unger has published in such journals as the American Journal of Sociology, the Journal of Quantitative Criminology, and the Encyclopedia of Crime and Justice on topics such as criminal careers, gender and offending, and feminist criminological theory.

Dr. D’Unger has been recognized for excellence in academic advising by both Georgia Tech and the National Academic Advising Association, and has won teaching awards from both the Ivan Allen College of Liberal Arts and Georgia Tech. She is the past chair of the Division on Women and Crime of the American Society of Criminology. She currently serves as the Interim Director and Associate Director of the Georgia Tech Honors Program.

| Lecture | M/W 9:30 AM  
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Curran Street Deck 210 (LLC West Commons Classroom; 8th St.)</td>
</tr>
<tr>
<td>CRN</td>
<td>92202</td>
</tr>
</tbody>
</table>
HTS 2803 HP: Special Topics: Organizing for Social Change

Dr. Rebecca Watts Hull  
Please note: counts toward Award of HP Distinction in Service Pathway.  
3 credit hours  
10 HP seats

“If not us, then who? If not now, then when? ~Hillel the Elder

In this course, we analyze how groups of “ordinary people” organize to amplify their voices, build power, and enact change. Collective action enables people to advance solutions to complex social and environmental challenges. In a democratic society, organized groups are better able to develop, articulate, and assert shared interests to advance equity, accountability, effectiveness, and sustainability in society and within organizations, including universities, corporations, and government agencies.

The course content and learning experiences are organized to support a major project applying collective action theory to advance a campus issue that you and your classmates identify as a priority. Throughout the semester, you will work on your campaigns to refine your issue and propose solutions, develop persuasive messaging for different audiences, map power and asset relationships to help you identify allies and targets, and develop a strategic plan for winning the change you seek.

Dr. Rebecca Watts Hull, in her role with Georgia Tech’s Center for Teaching and Learning, supports faculty and co-leads strategic initiatives to incorporate transformative sustainability learning and the U. N. Sustainable Development Goals (SDGs) into courses across all six colleges. She advances initiatives connected to the Institute Strategic Plan that empower students to use their knowledge and skills to address complex social and environmental problems. Rebecca earned an M.S. and Ph.D. in History and Sociology of Technology and Science at Georgia Tech and an M.S. in Natural Resources and Environment from the University of Michigan. Before joining Georgia Tech she worked in the public and nonprofit sectors in environmental education and advocacy.

| Lecture | M/W  
| 11:00 AM | Clough 325 |
| CRN | 89441 |
INTA 3103 HP: Challenge of Terrorism

Dr. Jenna Jordan 3 credit hours

Please note: fulfills the Social Science requirement. Counts 5 HP seats toward Award of HP Distinction in Global Engagement Pathway.

This course will explore the history, causes, and responses to domestic and international terrorism. Students will be introduced to the major theoretical approaches to studying terrorism. The course will be structured around six main topics: (1) Definitional issues (2) Causes/Explanations (3) Suicide terrorism (4) Groups dynamics (5) al Qaeda and ISIS, and (6) Counterterrorism Strategies. Students will participate in an in-class simulation. Students will be assigned to teams and will engage in a path game which is a competitive exercise performed by students organized into teams in which the participants attempt to fashion domestic and international policies while negotiating treaties and agreements.

Dr. Jenna Jordan is an Associate Professor and Associate Chair of the Sam Nunn School of International Affairs at the Georgia Institute of Technology. She received her Ph.D. in Political Science from the University of Chicago, M.A. in Political Science from Stanford University, and B.A. in International Relations from Mills College. She previously held a post-doctoral research fellowship at the Harris School of Public Policy Studies at the University of Chicago. Her book, Leadership Decapitation: Strategic Targeting of Terrorist Organizations, published with Stanford University Press evaluates the efficacy of leadership targeting as a counterterrorism strategy. Her research focuses on terrorism and political violence, international security, cybersecurity, wargaming, organizational theory, leadership, and statecraft. Her work has been published in International Security, Security Studies, Conflict Management and Peace Science, The Journal of Cybersecurity, International Area Studies Review, International Trends, The Washington Quarterly, The New York Times, The Atlantic, The Chicago Tribune, Foreign Policy, the CTC Sentinel, and others. She is on the editorial board of the Dynamics of Asymmetric Conflict. Her research has been supported by grants from the University of Chicago, the Smith Richardson Foundation, Georgia Tech, the Carnegie Corporation of New York, and the U.S. Russia Foundation.

<table>
<thead>
<tr>
<th>Lecture</th>
<th>M/W 9:30 AM Habersham 136</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRN</td>
<td>93102</td>
</tr>
</tbody>
</table>
LMC 3102 HP: Science, Technology, and the Classical Tradition

Dr. Aaron Santesso  
3 credit hours

Please note: fulfills the Humanities requirement. Counts toward 15 HP seats Award of HP Distinction in Global Engagement Pathway.

In one of the earliest surviving works of literature (The Epic of Gilgamesh), the gods punish a character by striking him down with plague; that character (Enkidu) asks why he was given life in the first place if he cannot be happy and healthy. From the beginning, then, writers have asked about the meaning of life, with special attention to questions of health and contentment.

This course will look at the earliest considerations of the nature of life and death in the work of a variety of philosophical and literary authors (Plato, Marcus Aurelius, Homer, Ovid) authors. Greek and Roman society will lie at the heart of the course, but we will also read ancient Hebrew, Sumerian, Indian and Egyptian texts.

Dr. Aaron Santesso is Professor of Literature in the School of Literature, Media, and Communication at Georgia Tech. He is the author of numerous articles and essays on topics ranging from eighteenth-century literature to science fiction; his work has appeared in leading academic journals as well as general-interest publications (including Slate and The Chronicle of Higher Education). He has authored or edited five books, including, with David Rosen of Trinity College, The Watchman in Pieces: Surveillance, Literature, and Liberal Personhood (Yale University Press), which was awarded the James Russell Lowell Prize by the Modern Language Association. His present research revolves around the connections between literature and liberalism.

| Lecture | M/W  
| 12:30 PM | Skiles 311 |

| CRN | 91041 |
LMC 3208 HP: African American Literature and Culture

**Dr. Susana Morris**  
3 credit hours  
**Please note:** fulfills the Humanities requirement.  
15 HP seats

This course focuses on the canon of contemporary Black narrative by exploring how Black women write about what it means to be Black and a woman in the twenty-first century. We will examine contemporary Black literary and cultural movements through an exploration of fiction, film, poetry, and nonfiction, while paying close attention to the various historical and social contexts the works influence and emerge from.

**Dr. Susana Morris** is an Associate Professor of Literature, Media, and Communication. She received her Ph.D. from Emory University. Previously she was an Anschutz Distinguished Fellow at Princeton University and was most recently the Norman Freeling Visiting Professor at the University of Michigan. She is the author of *Close Kin and Distant Relatives: The Paradox of Respectability in Black Women’s Literature* (UVA 2014), co-editor, with Brittney C. Cooper and Robin M. Boylorn, of *The Crunk Feminist Collection* (Feminist Press 2017), and co-author, with Brittney C. Cooper and Chanel Craft Tanner, of the young adult handbook, *Feminist AF: The Guide to Crushing Girlhood* (Norton 2021). Her research and teaching interests explore Black women’s relationships to Afrofuturism, the Anthropocene, and feminism. She is currently at work on a cultural biography of Butler, *Positive Obsession: The Life and Times of Octavia E. Butler.*

| Lecture      | M/W 12:30 PM  
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Skiles 002</td>
</tr>
<tr>
<td>CRN</td>
<td>93031</td>
</tr>
</tbody>
</table>
As parents know well, walking is the first major step an infant takes in that whole complicated process of growing up, yet after those first tentative steps are transformed into a confident stride, most people spend little time reflecting on just how walking functions (or does not function) in our culture: how we mark out and even make the world we live in through our own wayfaring.

This seminar will take walking as its topic, looking at poetry, novels, and film, but also environmental writing, history, archaeology, sociology, biology, geography, cartography and political science—in other words, walking will become our university. We will take a broad range of perspectives including questions of accessibility and mobility, the practices of hiking, and walking in the city. Projects will be drawn from the material studied, personal experiences on the ground (as it were), and will be wildly inventive.

Dr. Hugh Crawford has long been associated with the Honors Program with classes that forged harpoons while reading Moby-Dick, chopped down trees to build Thoreau’s House, or wrote the Wayfinder’s Library based on wandering in Atlanta. He studies environmental philosophy, is a tree enthusiast, and a longtime-distance trekker.

| Lecture | T/TH 12:30 PM Skiles 317 | CRN 93032 |
MATH 1551 HP: Differential Calculus
MATH 1551 HP1: Differential Calculus Studio

Dr. Thomas Tran

2 credit hours

Please note: you must register for the lecture and studio section.

Prerequisites: SAT Math score of 600 or ACT Math score of 26 or MATH 1113

MATH 1551, Differential Calculus for functions of one variable, includes a study of limits, continuity, discontinuity, techniques of differentiation, derivatives of various classes of functions, and an introduction to antiderivatives. Additionally, it covers numerous applications of derivatives such as rates of change, linearization, Newton’s method, maxima and minima, concavity, curve sketching, the Mean Value Theorem, related rates, and optimization problems.

As we collectively work throughout the course, here are some expectations for what students should be able to do with mathematical concepts:

- Master the understanding of expressions and graphs involving functions and their derivatives.
- Apply calculus concepts to solve real-world problems, such as optimization and related rates.
- Tackle quantities using differential calculus and interpret their meanings.
- Hone reasoning and communication skills.

Dr. Thomas Tran is a proud Yellow Jacket math-major alumnus who graduated in 2015 before earning his Ph.D. in Mathematics from Duke University in 2020. Following his doctoral studies, he completed postdoctoral training at the University of Kentucky in June 2023. Dr. Tran joined the School of Mathematics at Georgia Tech in July 2023 as an Academic Professional. In this role, he also serves as the Director of Mentoring, the Grading Coordinator, an academic advisor, and the course coordinator for MATH 1551 since Spring 2024.

| Lecture | M/W  
3:30 PM  
MSE G011 |
|---------|-----|
| Studio  | F  
11:00 AM  
Skiles 156 |
| CRN (lecture- HP) | 90779 |
| CRN (studio- HP1) | 90778 |
MATH 1554 HP: Linear Algebra
MATH 1554 HP1: Linear Algebra Studio

Dr. Sal Barone 4 credit hours
Please note: you must register for the lecture and studio section.
Prerequisites: MATH 1113 or MATH 1551 or MATH 1552 or SAT Math
score of 600 or ACT Math score of 26

We will explore fundamental concepts of linear algebra including vectors, matrices,
and systems of linear equations. Important decompositions and characteristics of
matrices will be studied in depth including invertibility, eigenvalues and eigenvectors,
the singular value decomposition and LU decomposition, Markov chains and the
Google matrix, as well as orthogonal projections and their application to determine
best-fit solutions to over-determined systems of linear equations. Students will also
learn to apply linear algebra concepts to model, solve, and analyze real-world
situations.

Dr. Sal Barone has been teaching at Georgia Tech for 10
years and has been the course coordinator for Math 1554
since 2020. Dr. Barone has taught all the first-year courses
including Calculus I & II and Linear Algebra and is known for
being approachable, holding engaging lectures, and being
readily available to answer student questions.

<table>
<thead>
<tr>
<th>Lecture</th>
<th>M/W/F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2:00 PM</td>
</tr>
<tr>
<td></td>
<td>College of Computing 16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Studio</th>
<th>T/TH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3:30 PM</td>
</tr>
<tr>
<td></td>
<td>Skiles 368</td>
</tr>
</tbody>
</table>

| CRN (lecture- HP) | 90812   |
| CRN (studio- HP1) | 90814   |
MATH 2552 HP: Differential Equations
MATH 2552 HP1: Differential Equations Studio

Dr. Xu-Yan Chen

Please note: you must register for the lecture and studio section.

Prerequisites: MATH 1551, MATH 1552, MATH 1553 or MATH 1554, and SAT Math score of 600 or ACT Math score of 26 or MATH 1113

In this course, we will introduce various analytic solution methods of ordinary differential equations, using a lot of math you learned in calculus and linear algebra.

We will also analyze qualitative properties emphasizing stability/instability and discuss how to obtain numerical approximate solutions. Many real-world problems will be modeled by differential equations throughout the course.

Dr. Xu-Yan Chen earned his Ph.D. at Hiroshima University, writing a dissertation on the dynamics of interfaces in reaction diffusion systems. He has been at Georgia Tech since 1990 and is currently an Associate Professor. He specializes in differential equations and dynamical Systems. His teaching has been recognized with the Hesburgh Teaching Fellowship and the Fulmer Prize, which is given to faculty who exhibit genuine regard for undergraduate students during the first few years of their Engineering studies at Georgia Tech

<table>
<thead>
<tr>
<th>Lecture</th>
<th>T/TH 5:00 PM</th>
<th>College of Computing 16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Studio</td>
<td>M/W 5:00 PM</td>
<td>Skiles 271</td>
</tr>
<tr>
<td>CRN (lecture- HP)</td>
<td>90816</td>
<td></td>
</tr>
<tr>
<td>CRN (studio- HP1)</td>
<td>90818</td>
<td></td>
</tr>
</tbody>
</table>
MATH 4803: Special Topics: Nonlinear Algebra

Dr. Anton Leykin

Prerequisites: MATH 2106 or MATH 3406 or approval of the instructor. Visit here for more information.

This is a course that introduces a few tools of Nonlinear Algebra with the view toward solving systems of polynomial equations. Apart from regular components (such as HW and exams), applied problems from various areas (automatic theorem proving, robotics, computer vision, systems biology/chemistry, etc.) will be assigned as group projects.

1. Systems of polynomial equations
2. Numerical homotopy continuation
3. Rings, ideals, and Gr¨obner bases
4. Algebra-geometry correspondence
5. Numerical algebraic geometry
6. Applications

Dr. Anton Leykin joined Georgia Tech in 2009. Since then, he has taught a variety of courses including special courses as the one being offered in the Honors Program. Anton’s research interests cover several areas of mathematics and computer science adjacent to the broad topic of nonlinear algebraic computation.

| Lecture | M/W 2:00 PM  
| Instructional Center 109 |
| CRN | 92610 |
Music Ensembles (1 credit hour)

MUSI 3018, 3019, 3121, 3131, 3231, 3241, 3251, 3261, 3311, 3321, 3411, 3511, 3531, 3541, 3551, 3611

The HP is expanding its partnership with the School of Music and will now grant up to 3 HP credit hours for ensemble classes.

Why take an ensemble class for HP credit?

- Music ensembles are active-learning classes—“hands-on” and “voice-on”—a great fit for our curious, creative, and highly motivated HP students.
- Making music is a universal and uplifting human experience—a great fit for our times and all times.
- Non-music majors/minors earn humanities credits for ensemble classes, and each class may be repeated for humanities credit. Here is additional information.
PHIL 3115 HP: Philosophy of Science

Dr. Andrew Buskell  3 credit hours
Please note: fulfills the Humanities requirement.  10 HP seats

Science, whatever else it may be, is a human enterprise. While scientists all pursue the production of significant knowledge — they do so by using various methods, relying on different kinds of evidence, organizing themselves into groups, and pursuing distinct sets of concerns. These social elements of science have important implications for how knowledge is produced and how it should be evaluated. In this course, we explore central issues in philosophy of science with a focus on the “big picture” — science as it is practiced by the many and varied scientists in the world. These issues include the role of values in science, the nature of objectivity, and even the production of ignorance.

Dr. Andrew Buskell is a Visiting Assistant Professor in Georgia Tech’s School of Public Policy. Previously he was a Leverhulme Early Career Researcher at the Department of History and Philosophy of Science, University of Cambridge, and earlier, a post-doctoral researcher at the London School of Economics and Political Science. He has held fellowships or visiting positions at the Australian National University, the University of Stockholm, LMU Munich, and the University of Pittsburgh.

His research analyses how scientists and policymakers use the concept of culture. One strand of this work interrogates the role of culture in human cognitive evolution. This research has most recently focused on capacities for “cumulative culture”—and argues that breaking this capacity down into constituent elements underscores the continuity of human cognition with non-human animals, as well as the distinctive evolutionary roles of such elements in human evolution.

A second strand looks at how the varied understandings of the culture concept can generate risk in scientific and policy work. Though philosophers have long highlighted the importance of epistemic, and particularly, inductive risk in science and policy—this developing work points to the importance of ontological decision-making, the distinctive harms it can engender, and the nature of the risk involved.

<table>
<thead>
<tr>
<th>Lecture</th>
<th>M/W</th>
<th>3:30 PM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Swann 325</td>
<td></td>
</tr>
</tbody>
</table>

| CRN           | 89942        |           |
PHIL 4176 HP: Environmental Ethics

Dr. Abigail Mills

Please note: fulfills the Humanities requirement and the Ethics requirement.

The course will consider a variety of environmental issues from a philosophical perspective. Among other philosophical questions, we will explore the nature of the relationship of humans to the natural world, the scope and source of our moral obligations to nature; the conservation movement and the justifiability of human intervention in ecological systems; the role of technology, politics, and activism in addressing climate crisis; the ethics of sustainability; the environmental justice movement and the impact of the climate crisis on marginalized groups. The course aims to equip students with critical thinking, reading, and argumentative skills that will allow them to approach and evaluate complex and globally pressing issues surrounding environmentalism, sustainability, and climate crisis deeply, critically, and responsibly.

Dr. Abigail Mills is a Postdoctoral Fellow in the School of Public Policy. She earned her PhD in History and Philosophy of Science at the University of Notre Dame in 2024 with a dissertation on the development of cosmic distance and expansion measurement. She has a BS in Astronomy from the University of Illinois, Urbana-Champaign. Her research focuses on the philosophy of modern astronomy and cosmology, as well as science policy.

<table>
<thead>
<tr>
<th>Lecture</th>
<th>M/W 2:00 PM Cherry Emerson 322</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRN</td>
<td>90438</td>
</tr>
</tbody>
</table>
The M&I version of PHYS 2211 emphasizes the atomic nature of matter and integrates traditional mechanics with thermal physics. There is a strong emphasis on the Momentum Principle, the Energy Principle (the first law of thermodynamics), and the Angular Momentum Principle. The main goal of this course is to have students engage in a process central to science: the attempt to model a broad range of physical phenomena using a small set of powerful fundamental principles.

To aid in this goal students will develop computational models that predict the motion of interacting objects. These models will be made using the Visual Python programming language. The course also emphasizes the atomic structure of matter, especially the ball and spring model of solids, and photon emission and absorption in quantized systems.

Topics include:
- The different types of matter and interactions found in nature
- Using the momentum principle to predict future motion
- An atomic model of solids
- The momentum principle in moving reference frames
- Energy conservation including relativistic energy
- Energy in macroscopic systems including thermal energy
- Multi-particle systems and the center of mass
- Collisions including relativistic particle collisions
- Angular momentum and quantized angular momentum
- Energy quantization and photon emission and absorption

Dr. Emily Alicea-Muñoz is a native of Puerto Rico. She has a BS in Physics from the University of Puerto Rico at Mayagüez, an M.S. in Astronomy & Astrophysics from Penn State, and a Ph.D. in Physics with a doctoral minor in Higher Education from Georgia Tech. Before coming to Georgia Tech, she worked at NASA Goddard Space Flight Center where she studied cosmological black hole mergers. Dr. Alicea’s research focuses on the professional development of physics graduate teaching assistants (GTAs). She is also interested in holistic assessments of teaching effectiveness, the development of expert-like problem-solving skills in introductory physics students, introductory astronomy education, and methods of informal education/outreach.
PHYS 2212 HP: Introduction to Physics II  
PHYS 2211 HP1: Introduction to Physics II Lab  
Dr. James Gumbart (lecture) and Dr. Ed Greco (lab)  
4 credit hours

**Please note:** you must register for the lecture and lab section.  
30 HP seats

**Prerequisite:** PHYS 2211

The M&I version of 2212 deals with electric and magnetic interactions, which are central to the structure of matter, to chemical and biological phenomena, and to the design and operation of most modern technology. The main goal of this course is to have you engage in a process central to science: the attempt to model a broad range of physical phenomena using a small set of powerful fundamental principles.

The specific focus is an introduction to field theory, in terms of the classical theory of electricity and magnetism. To aid in this goal you will develop computational models to visualize these fields and the interaction of charged particles. These models will be made using the Visual Python programming language (run in your browser at [www.glowscript.org](http://www.glowscript.org)). The course also emphasizes the atomic structure of matter, especially the role of electrons and protons in matter.

**Topics include:**
- Matter and electric field, polarization of atomic matter
- Electric fields of distributed charges, setting up physical integrals, numerical integration
- Electric potential and energy for fields
- Magnetic field, atomic model of ferromagnetism
- A microscopic view of electric circuits, surface charge model
- Capacitors, Inductors, Resistors, and Batteries
- Magnetic force, including motional emf
- Patterns of field in space (Gauss's and Ampere's laws)
- Faraday's law and non-coulomb electric field
- Electromagnetic radiation, including its production by accelerated charges and re-radiation (classical interaction of light and matter)

**Dr. Ed Greco** is a native Floridian who moved to Atlanta in 2000 with his high school sweetheart and earned his Ph.D. in physics from Georgia Tech on low Reynolds number flow in 2008. Since joining the faculty at Tech, Ed has been active in the development of new curriculum for undergraduate students. When not in the classroom, he coordinates the outreach activities for the School of Physics and serves as radio show co-host “Fat Daddy Sorghum” on WREK's Inside the Black Box where he enjoys sharing his passion for science with the Atlanta community. Photography, Chess, Conchology, foraging for wild edibles, winemaking, and exploring Appalachia on a motorcycle are just a few of his varied pastimes. Mostly, however, he enjoys spending quality time with his loving family.

| Lecture | M/W 12:30 PM  
Howey Physics L4 |
|---------|----------------|
| Lab     | M 3:30 PM  
Clough 375 |
| CRN (lecture- HP) | 91136  
CRN (lab- HPL) | 81943 |
PHYS 2213 HP: Introduction to Modern Physics

Dr. Ed Greco 3 credit hours

Please note: you must register for the lecture and lab section. 17 HP seats

Prerequisite: PHYS 2212 or PHYS 2232

A survey of twentieth century physics covering the developments of quantum mechanics, optics, statistical mechanics, and relativity up to their present frontiers. Along the way, we will including historical and philosophical perspectives and discuss the key experiments that led to certain theoretical breakthroughs to illustrate the process behind scientific advances and give you a historical perspective. This course will prepare you with a solid foundation in quantum theory and other advanced courses.

Dr. Ed Greco is a native Floridian who moved to Atlanta in 2000 with his high school sweetheart and earned his Ph.D. in physics from Georgia Tech on low Reynolds number flow in 2008. Since joining the faculty at Tech, Ed has been active in the development of new curriculum for undergraduate students. When not in the classroom, he coordinates the outreach activities for the School of Physics and serves as radio show co-host "Fat Daddy Sorghum" on WREK’s Inside the Black Box where he enjoys sharing his passion for science with the Atlanta community. Photography, Chess, Conchology, foraging for wild edibles, winemaking, and exploring Appalachia on a motorcycle are just a few of his varied pastimes. Mostly, however, he enjoys spending quality time with his loving family.

| Lecture | T/TH  
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2:00 PM</td>
</tr>
<tr>
<td></td>
<td>Howey Physics L5</td>
</tr>
<tr>
<td>CRN (lecture- HP)</td>
<td>93001</td>
</tr>
</tbody>
</table>
PSYC 1101 HP: General Psychology

Dr. Paul Verhaeghen 3 credit hours
Please note: fulfills the Social Science requirement and the Ethics requirement. 10 HP seats

This course provides a survey of concepts, theories and research in psychology – the science that studies human behavior. We will cover a broad range of topics: How you can study mind and brain, how the brain works, what consciousness is good for, how we learn and remember things, what personality is, and how the social environment shapes your behavior.

Dr. Paul Verhaeghen is a Professor in the School of Psychology, studying attention and memory and how these change as people age; and now increasingly, mindfulness. He enjoys cooking, walking the dog, and sitting really still; he hates writing autobiographical blurbs.

<table>
<thead>
<tr>
<th>Lecture</th>
<th>M/W/F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9:30 AM</td>
</tr>
<tr>
<td></td>
<td>Coon 161</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CRN</th>
</tr>
</thead>
<tbody>
<tr>
<td>85855</td>
</tr>
</tbody>
</table>
Multicultural competence is a key factor of success in a global and international society. An essential element in gaining multicultural competence is the awareness and knowledge of various cultural identities and how one’s own multicultural identities impact and shape interpersonal relationships, decision-making, and leadership. “Multicultural identities” refers to the various aspects of the self that serve to establish an individual’s overall identity. Multicultural identities include (but are not limited to) aspects of racial and ethnic identity, gender role identity, sexual orientation, and others. This course is designed to provide students with the knowledge of multicultural identities, an exploration on the nature of oppression and prejudice, and to allow students to gain an awareness of aspects of multicultural identity as it relates to themselves and others. The course also explores areas of multicultural identity development and awareness and its influence in establishing relationships and its role in aspects of leadership.

Dr. Tiffiny Hughes-Troutman is a Professor of the Practice in the School of Psychology and a licensed psychologist. She received her Ph.D. in Counseling Psychology from the University of Illinois at Urbana-Champaign. Dr. Hughes-Troutman has over 20 years of experience as a clinician, educator, training consultant, and lecturer on student and staff health and well-being, mental health outreach, and diversity for professional organizations, university groups, faculty, staff, and students in higher education. Prior to her current role, she served in several progressive roles in the Counseling Center, as Director of Health Behavior in the Wellness Empowerment Center, and as the inaugural Director of GT CARE. Committed to her scientist-practitioner training, Dr. Hughes-Troutman is dedicated to utilizing evidence-based and relevant strategies and tools in the classroom that cultivate curiosity, promote psychological safety, engage meaningfully, and challenge appropriately. Dr. Hughes-Troutman is a member of the American Psychological Association, the American College Health Association, NASPA Student Affairs Professionals, and the Georgia Psychological Association. She is a Fellow of the Georgia Psychological Association and served as a Diversity Delegate for the American Psychological Association’s State Leadership Coalition.

| Lecture   | M/W  
|-----------|------
|           | 9:30 AM
|           | Coon 248
| CRN       | 91000
PUBP 3000 HP: American Constitutional Issues

Judge Leigh Martin May

Please note: fulfills the Social Science requirement and the US and GA Constitution Georgia Legislative Requirement (GLR).

3 credit hours
10 HP seats

This course will examine the American social and political system through the prism of Constitutional issues decided by the U.S. Supreme Court. We will read and analyze pivotal Supreme Court cases as we trace the evolution of the law on important Constitutional concepts. You will also be provided the opportunity to view court proceedings and discuss some of the real-life applications of these concepts in the lower courts.

Leigh Martin May is a judge for the United States District Court for the Northern District of Georgia. She earned a Bachelor of Science degree from the Georgia Institute of Technology and her law degree from the University of Georgia School of Law. While in law school, she served as editor-in-chief of the Georgia Law Review. Following law school, she served as a law clerk to the Honorable Dudley H. Bowen, Jr. of the United States District Court for the Southern District of Georgia. She then practiced with the Atlanta office of Butler, Wooten & Fryhofer LLP, where she later became a partner. Her practice focused on complex civil litigation in both state and federal courts. On December 19, 2013, President Obama nominated Judge May to serve as a United States District Judge. On November 13, 2014, the Senate voted 99-0 in favor of her final confirmation.

| Lecture | F 11:00 AM
Location TBD |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CRN</td>
<td>90440</td>
</tr>
</tbody>
</table>
RUSS 3222 HP: Russian 20th Century Literature & Film

Dr. Dina Khapaeva 3 credit hours

Please note: fulfills the Humanities requirement. Course is taught in English. Counts toward Award of HP Distinction in Global Engagement Pathway.

This course examines representations of the end of the world in literature and film to reveal the differences in values and attitudes to human life and humanity in Russian, European, and American cultures. We will discuss various apocalypse images, starting from the most ancient literary and religious representations up to the most recent movies and novels. We will pay special attention to the change in writers’ and creators’ attitudes toward human protagonists and humanity. The course will emphasize how writers and film directors imagine modifications and extinction of humans and compare their ideas to the programs of several social movements, including animal rights. Changes in the images of the future from ancient to contemporary literature will be central to our discussions.


<table>
<thead>
<tr>
<th>Lecture:</th>
<th>M/W 3:30 PM Swann 115</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRN:</td>
<td>92757</td>
</tr>
</tbody>
</table>
SPAN 3260 HP: Identity in Hispanic Literature

Dr. Kelly Comfort

Prerequisites: SPAN 2002 or AP/IB equivalent

Please note: fulfills the Humanities requirement. Course is taught in Spanish. Counts toward Award of HP Distinction in Global Engagement Pathway.

In this course, we will read a selection of poetry, short stories, plays, essays, and novels and view one film from the past century of Latin American literature and explore the concept of identity formation in a variety of forms. Unit one treats identity in terms of race, ethnicity, gender, and class. Unit two explores existential(ist) identity. Unit three examines temporal and spatial identity. Unit four delves into the relationship between political and sexual identity. The goals of this class are threefold: to expose students to an important selection of twentieth-century Latin American literature and to introduce key concepts of Latin American culture and history; to hone reading and interpretive abilities specifically and critical thinking skills generally; and to improve written and oral communication through essay assignments and class presentations. Class taught in Spanish.

Dr. Kelly Comfort received her Ph.D. in Comparative Literature with a designated emphasis in Critical Theory from the University of California, Davis. She joined the Georgia Tech faculty in 2005. A specialist in Latin American literature and transatlantic modernisms, Dr. Comfort’s research agenda focuses primarily on the intersections between Latin American modernismo and contemporaneous turn-of-the-century literary movements in Europe such as aestheticism and decadence. She is the author of Cien años de identidad: Introducción a la literatura latinoamericana del siglo XX, a textbook and anthology on which this HP course is based.

<table>
<thead>
<tr>
<th>Lecture:</th>
<th>T/TH</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>12:30 PM</td>
</tr>
<tr>
<td></td>
<td>Swann 115</td>
</tr>
</tbody>
</table>

| CRN: | 89334 |
Award of HP Distinction in a Pathway

**HP Pathways**

HP students may choose to concentrate their HP studies in one or more of three HP Pathways: Research, Service, or Global Engagement. These three Pathways:

1. Transcend traditional disciplinary boundaries,
2. Cannot be pursued in an existing major, minor, or certificate program,
3. Capture fields of passionate interest by many HP students, and
4. Advance the Georgia Tech motto, “Progress and Service,” and the Goals and Objectives of Georgia Tech’s Strategic Plan.

**Award of HP Distinction in a Pathway**

HP students who complete the Requirements for Award of HP Distinction in a Pathway will receive recognition of the award at graduation, on their HP Certificate and on their HP Stole, and may note this recognition on their resumé as follows:

1. Honors Program Award of Distinction in [Global Engagement](#)
2. Honors Program Award of Distinction in [Research](#)
3. Honors Program Award of Distinction in [Service](#)

For complete information on the HP Distinction in a Pathway options, visit [https://honorsprogram.gatech.edu/academics/hp-pathways](https://honorsprogram.gatech.edu/academics/hp-pathways).
Contact Information

Dr. Amy D'Unger, HP Interim Director & Associate Director
amy.dunger@gatech.edu
404.385.7533
Eighth Street West 007

- Curriculum and classes
- Transfer credit or study abroad approval
- Academic advising
- Degree audits
- HP website or Canvas

TBD, HP Program & Operations Manager
Eighth Street West 008

- HP programming
- HP equipment and supplies
- Honors Leadership Council (HLC)
- HP Student Assistants (Guides for the HP Annual Retreat for Entering Students, or HP Communications Assistant)

Ms. Amara Anderson, HP Coordinator
aanderson75@gatech.edu
404.894.5709
Eighth Street West 009

- HP events
- HP finances (e.g., reimbursements)