

Spring 2027 Class Guide

John H. Martinson Honors Program

Georgia Institute of Technology

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Georgia Tech

**John H. Martinson
Honors Program**

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Faculty Director's Note

Dear JMHP Students,

Greetings, I hope your fall semester is going well. Hard to believe, but it's time to register for spring 2027. Phase I registration for fall runs from November 2 – December 18, 2026, and Phase II runs from January 4 - 15, 2027. The first day of the spring semester is Monday, January 11, 2027.

Please check out the JMHP class options listed in this guide and on the [JMHP website](#). You'll find great JMHP 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 John H. Martinson Honors Program classes being offered. Select spring 2027 then select "Honors Program" from the "Course Attributes" menu. This will bring up the JMHP classes that are being offered (make sure to select at least one subject first or select all subjects to bring up every JMHP class).

Here are some IMPORTANT NOTES about some spring JMHP lab science classes:

- We are offering HP sections of BIOS 1108, CHEM 1212K, PHYS 2211, and PHYS 2212 with affiliated JMHP labs. **You must register for both the JMHP lecture and JMHP lab.**
- The lecture and labs for CHEM and PHYS are linked in OSCAR—you will ONLY be able to sign up for the JMHP lecture and linked JMHP lab.
- The lecture and lab for BIOS are not linked in OSCAR—you must select the correct JMHP lecture and lab class. **If you do not take both the JMHP section of the lecture AND lab for this class, you will not get credit for either of them!**

As always, please work with your JMHP Academic Advisor Gabriel Alvarado-Gonzalez and your GT Academic Advisor to choose options that bring you the benefits of JMHP-style learning and that work for your GT major degree. Have a fantastic conclusion to your fall semester and good luck with spring registration.

Regards,



Dr. Amy D'Unger

APPH 1050 HP: The Science of Physical Activity and Health

Ms. Sasha McBurse

2 credit hours

50 HP seats (25 in each physical activity section)

About the course

The course content focuses on the interactions of genetics, behavior, and health/wellness outcomes. The primary objectives of this course are to provide students with the knowledge, skills and ability to critically analyze their current status of well-being, set attainable goals for improvement, and develop and implement a program using sound scientific principles for improved conditioning that will result in personal health risk reduction. Students will attend one class session focused on course content and discussion and one activity session at the CRC each week.

About the faculty

Sasha McBurse is a Lecturer in the School of Biological Sciences and teaches APPH 1040 and APPH 1050 in the Institute's wellness requirement. Ms. McBurse joined the Institute in the summer of 2023. Previously, she taught for five years at the University of West Georgia in the Health and Community Wellness degree program. While at UWG, she was selected as a 2022-2023 Governor's Teaching Fellow. Additionally, Ms. McBurse spent three years supporting the Health and Fitness Management degree program at Clayton State University. Prior to her career in higher education, she held positions in cardiac rehabilitation, corporate wellness, and community wellness.



Ms. McBurse holds degrees in exercise science and wellness. She is a certified exercise physiologist, licensed by the American College of Sports Medicine. She also holds a certification in Mental Health First Aid and instructs community CPR classes in her spare time. She enjoys educating others on the importance of managing their health and well-being. Ms. McBurse values the benefits of developing healthy lifestyles and encourages her students to explore these in their own personal wellness journey. She includes real-world applications in her courses, which not only increases student knowledge and interest but also allows students to foster well-being and reach their full potential. Ms. McBurse believes that if you teach and show students how to be well, they will succeed personally, academically, and professionally.

Meeting and registration details

Lecture: M, 9:30 AM

Curran Street Deck 210 (LLC West Commons Classroom, across the street from Eighth Street South apartments—enter under the blue awning)

Physical Activity: W, 8:25 AM

Campus Recreation Center

CRN (lecture- HP): 26796

CRN (Fitness- HPF): 26798

CRN (Weightlifting- HPW): 26797

BIOS 1108 HP: Principles of Biology II

BIOS 1108L HP: Principles of Biology II LAB

Dr. Onur Birol (lecture) and Dr. Colin Harrison (lab)

3 credit hours/1 credit hour

12 HP seats

Note: You MUST register for the HP lecture and lab sections, or you will not get credit for either. They are not linked in OSCAR, so please select the correct sections.

About the course

In this course, you will learn how your biology is similar – and different – to the biology of all life on Earth. We will explore the evolutionary history of all life on Earth through the lenses of development and reproduction, signaling and communication, and physiology and organ systems. As we explore the diversity of life on Earth, you'll be able to identify biological patterns and explain how you both are similar and different to the breadth of diversity of life on Earth. 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:

1. Identify and explain patterns in organismal biology in the context of evolutionary history, growth and development, cell signaling and communication, and organ systems and physiology (Course lecture content)
2. Explain and interpret biological experiments, and analyze and interpret biological data (Research Connections assignments)
3. Communicate effectively using appropriate scientific language in class settings (Research Connections and Scientist Spotlights assignments)
4. Appreciate commonalities and differences among people who practice science, and recognize that there are multiple pathways into science as a career (Scientist Spotlight assignments)

This course will foster your learning by using reflective practice, accentuate your critical thinking skills, and develop your confidence in soliciting guidance when problem-solving.

About the faculty

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.



Meeting and registration details

Lecture: M/W/F 11:00 AM
Clough 144

Lab: M, 12:30 PM
Clough 475

CRN (lecture- HP): 32024
CRN (lab- HP): 30765

CHEM 1212K HP: Chemical Principles II

CHEM 1212K HP4: Chemical Principles II LAB

Dr. Deborah Santos

4 credit hours

12 HP seats

Note: You MUST register for the HP lecture and lab sections or you will not get credit for either.

Prerequisites: CHEM 1211K or CHEM 1310

About the course

Welcome to Chemical Principles II! This course will help you develop facility with fundamental models of chemical reactivity, analysis, and structure. Broadly, the course covers chemical kinetics, chemical equilibrium and applications thereof, electrochemistry, and the chemistry of transition metal complexes. Through video lectures, active problem solving in class, and hands-on exploration in the laboratory, we hope you'll develop the ability to see chemical principles in your future courses and careers.

About the faculty

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 MS work involved developing chemistries for attaching carbohydrates and proteins to polymer surfaces for biological applications.



Meeting and registration details

Lecture: T/TH, 8:00 AM

Clough 144

Lab: TH, 12:30 PM

Clough 572

CRN (lecture- HP): 29801

CRN (lab- HP4): 28247

CHEM 3700 HP: Alternative Energy

Dr. Thomas Orlando & Dr. Micah Ziegler

3 credit hours

10 HP seats

Prerequisites: CHEM 1211K or CHEM 1310 and CHEM 1212K and PHYS 2211 and PHYS 2212

About the course

This course will provide a general overview of popular alternative energy resources, technologies, and strategies that are currently being used or developed to help reduce global dependence on fossil fuels. The basic scientific principles governing the current and future approaches in solar photovoltaics, fuel cells, batteries, wind power, geothermal, biomass conversion, nuclear energy, smart-grids, etc. will be presented. Though the course will focus on the basic principles and fundamental science underpinning the current advancements in energy technologies, we will also emphasize understanding the economic, policy, and general sustainability issues associated with alternative energy options. Due to the multidisciplinary nature of the topic, the course will include guest instructors from across the campus.

About the faculty

Dr. Thomas Orlando is a Regent's Professor in the School of Chemistry and Biochemistry at Georgia Tech. He received his Ph.D. from the State University of New York-Stony Brook and had postdoctoral appointments at Associated Western Universities, the Solid State Sciences Division of Sandia National Labs, and the Institut für Physikalische Chemie at Universität Wien. His research focuses on electron- and photon-stimulated interface and surface processes, environmental chemistry and planetary surface science, and biophysical chemistry.



Dr. Micah S. Ziegler is an Assistant Professor in the School of Chemical and Biomolecular Engineering and the Jimmy and Rosalynn Carter School of Public Policy at the Georgia Institute of Technology. He evaluates sustainable energy and chemical technologies, their impact, and their potential. His research helps to shape robust strategies to accelerate the improvement and deployment of technologies that can enable a global transition to sustainable and equitable energy systems. Dr. Ziegler conducted postdoctoral research in energy systems and technological change at the Massachusetts Institute of Technology. He earned a Ph.D. in Chemistry from the University of California, Berkeley and a B.S. in Chemistry from Yale University.



Meeting and registration details

Lecture: T/TH, 9:30 AM

College of Computing 52

CRN: 29774

CHIN 3400 HP: China Cultural Odyssey

Dr. Lu Liu

3 credit hours

15 HP seats

Note: Taught in English. Counts toward the Global Engagement Pathway (old curriculum) and humanities general education requirements.

About the course

China Cultural Odyssey explores Chinese history through its cultural forms and practices, approaching culture as a process of spiritual and aesthetic development; as intellectual and artistic production; and as the way of life of a people, period, or group. Through themes including religion, mythology, literati arts, performative arts, gender, revolution, and urbanization, students examine how cultural forms express social values and tensions in Chinese history, construct and reinvention Chineseness, and shape collective memory and political changes. The course features close study of primary sources, including films, literature, memoirs, music, and visual art. Through class discussions, collaborative presentations, and creative projects, students also develop analytical tools to reflect upon and engage with artificial intelligence.

About the faculty

Dr. Lu Liu is an Assistant Professor of Chinese in the School of Modern Languages. Her teaching connects Chinese literature, cinema, visual art, and foodways with questions of history, identity, and sustainability. She emphasizes critical inquiry, collaborative learning, and creative engagement with cultural materials.

Meeting and registration details

Lecture: M/W, 3:30 PM

Skiles 314

CRN: 35511



COE 2001 HP: Statics

Dr. Jason Wang

2 credit hours

20 HP seats

Prerequisites: MATH 1552 and PHYS 2211

About the course

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.

About the faculty

Dr. Jason Wang is the 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.



Meeting and registration details

Lecture: T/TH, 3:30 PM

MRDC 3403

CRN: 33330

COE 3001 HP: Mechanics of Deformable Bodies

Dr. Mayuresh Patil

3 credit hours

25 HP seats

Prerequisite: COE 2001

About the course

This is the first course in the broad area of solid mechanics and structural analysis. We will focus on answering the following question:

- What are engineering structures?
- Why do structures fail?
- What is stress?
- How to calculate stresses in simple structures?
- How can we transform stress and why is it important?
- What is strain?
- What is material stiffness?
- How can we calculate deformation of simple structures?
- How does change in temperature affect strains, stresses and deformation?
- What is buckling and why is it important?
- How do you calculate the buckling load for simple structures?

About the faculty

Dr. Mayuresh Patil is a Professor of the Practice in the Daniel Guggenheim School of Aerospace Engineering. He earned his Ph.D. at Georgia Tech many years ago and was a Professor of Aerospace and Ocean Engineering at Virginia Tech for a major part of his career. He came back to Georgia Tech five year ago. Prof. Patil teaches in the general area of structural mechanics and dynamics. His research is focused on the development and application of computational methods (including immersed interface methods) and optimization algorithms (including shape sensitivity analysis methods) to multiscale, multiphysics problems in solid mechanics, fluid mechanics, and multifunctional materials.



Meeting and registration details

Lecture: T/TH, 2:00 PM

Clough 125

CRN: 33634

COS 2801 HP1: Special Topics: Introduction to Drug Discovery and Molecular Modeling

Dr. Bruno Di Geronimo Quintero

1 credit hour

10 HP seats

About the course

How are new medicines discovered and developed? This course introduces students to the fascinating world of drug discovery, from identifying biological targets and designing potential drug candidates to preclinical research, clinical trials, and FDA approval. Students will explore the fundamental principles of pharmacology, the different types of modern therapeutics, and how computational tools and artificial intelligence are transforming drug discovery. The course will also explore important classes of therapeutics and their mechanisms of action, including kinase inhibitors, ion channel modulators, G protein-targeting drugs, toxins, peptides, molecular glues, and mRNA vaccines. Through hands-on activities using PyMOL, students will visualize three-dimensional protein structures, investigate drug–target interactions, and gain an introduction to molecular docking and computational drug design. No prior experience in molecular modeling is required. Students will be assessed through an in-class exercise and a presentation in which they will investigate a selected drug or therapeutic molecule, its biological target, mechanism of action, and clinical applications.

About the faculty

Dr. Bruno Di Geronimo is a Postdoctoral Researcher in the School of Chemistry and Biochemistry at Georgia Tech. He received his degree in Pharmacy from Complutense University of Madrid and his Ph.D. in Pharmacy. Before joining Georgia Tech, he conducted research at the Spanish National Cancer Research Centre (CNIO) and the Medical University of Graz in Austria. His research focuses on understanding enzyme mechanisms and developing computational approaches for drug discovery and protein engineering, combining molecular simulations, quantum chemistry, and artificial intelligence. He is also currently teaching Survey of Biochemistry.



Meeting and registration details

Lecture: M, 11:00 AM

Clough 127

CRN: 33733

COS 2801 HP2: Special Topics: “Nanomedicine”: How Tiny Materials Sense, Treat, and Sometimes Harm the Body

Dr. Aceer Nadeem

1 credit hour

10 HP seats

About the course

Nanoparticles are already inside you, in mRNA (COVID) vaccines, sunscreens, imaging dyes, cancer drugs, and, unintentionally, as microplastics. This seminar asks one question from three angles, i.e. what happens when a material smaller than a cell meets the human body? We will explore how engineered nanomaterials are used to sense disease (from glucose monitors to near-infrared imaging and carbon-nanotube biosensors), to treat it (lipid nanoparticles and targeted drug delivery), and how the body responds in return through the protein corona, immune-cell uptake, and the emerging science of nanotoxicology and microplastics. Each week will pair a real clinical or societal case with the underlying chemistry and biology. Over the course, students will hear on current research and technology from leading academic experts from around the US, tour an active nanomaterials lab in the chemistry/biochemistry department, and finish the semester by pitching their own nanomedicine idea. This course is ideal for students curious about research careers or health professions.

About the faculty

Dr. Aceer Nadeem is a Postdoctoral Fellow in the School of Chemistry and Biochemistry at Georgia Tech, working in the lab of Dr. Mijin Kim. He earned his Ph.D. in Chemical Engineering from the University of Rhode Island in 2024, where he pioneered Intracellular Spectral Fingerprinting of individualized DNA-wrapped Single Walled Carbon Nanotubes for bioimaging. He earned his M.S. from the University of Sheffield, UK and his B.S. from the University of Lancaster, UK. His research sits at the interface of nanomaterials, life sciences and engineering, i.e. how nanoparticles interact with blood proteins (the "protein corona"), how immune cells such as macrophages take up and process them, and how light can be used to watch these events inside living cells in real time. He has won numerous awards/honors including being a Deans Fellow, an ACS P2F Fellow, and the ACS leadership in mentoring award. He serves on multiple chairing committees for the American Institute of Chemical Engineers (AIChE) and the Biosensors Research Committee (BRC). His work has been featured in the news as well as leading nanotechnology journals including *ACS Nano*, *Carbon*, and *Nano Letters*.



Meeting and registration details

Lecture: W, 9:30 AM

Clough 127

CRN: 33734

COS 2803 HP: Special Topics: Progress and Service Forum

Dr. Christopher Stanzione

3 credit hours

5 HP seats

Note: Counts toward the Service Pathway (old curriculum) and as a Leaders in Progress and Service foundational course (new curriculum). *Science and Math/Math & Computing majors preferred.*

About the course

This course is designed to help students explore and reflect on their emerging professional identity in STEM while fostering essential leadership and teamwork skills. Throughout the semester, students will be encouraged to think critically about the societal impacts of STEM work and to examine their own professional goals and leadership potential. By engaging with interdisciplinary approaches and real-world challenges, students will learn to analyze complex societal problems using STEM frameworks and collaborate across disciplines to develop actionable solutions. A key focus of the course will be participating in research lab rotations with the College of Sciences, in hopes to learn about different research areas within a specific major, and strengthening your network within your home School. This course satisfies a requirement for Georgia Tech's Leaders in Progress & Service Program: <https://distinguishyourself.gatech.edu>.

About the faculty

Dr. Christopher Stanzione is a Principal Academic Professional, serves as the Faculty Director of the Explore LLC, and has a faculty appointment in the School of Psychological & Brain Sciences. Dr. Stanzione is a trained Educational Psychologist with over 10 years of experience in higher education. He is a well-respected teacher having received several teaching awards during his tenure (Undergraduate Educator Award, 2018; Eric R. Immel Award, 2018; Geoffrey G. Eichholz Teaching Excellence Award, 2024). Further, Dr. Stanzione has led efforts to reduce the financial burden of textbooks by implementing a grant funded pilot program using Open Educational Resources in General Psychology. As an administrator, Dr. Stanzione has led a team of likeminded faculty to identify new degree opportunities for students. For example, he received the GT-AMP grant to begin a new internal internship program, implemented two new minor programs in Mental Health & Well-Being and Computation & Cognition, and created a 5-year BSMS program.



Meeting and registration details

Lecture: M/W, 2:00 PM

Curran Street Deck 210 (LLC West Commons Classroom, across the street from Eighth Street South apartments—enter under the blue awning)

CRN: 33665

CS 1301 HP: Introduction to Computing

CS 1301R HPR: Introduction to Computing Recitation

Dr. David Joyner

3 credit hours

24 HP seats

Note: You must register for the lecture and recitation separately. Lecture is online and asynchronous. Recitation is online and synchronous.

About the course

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 TA. On four occasions, Dr. Joyner will attend the recitation session. ***It is STRONGLY RECOMMENDED that you register for the recitation section.***

About the faculty

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 Dean for Off-Campus and Special Initiatives and Executive Director of Online Education & OMSCS. Dr. Joyner also teaches in the OMSCS program, teaching CS6460: Educational Technology, CS6750: Human-Computer Interaction, and CSE6242: Data and Visual Analytics. He also runs an online research lab: lucylabs.gatech.edu. Finally, he was just appointed as the Interim Vice Provost of AI in Education.



Meeting and registration details

Lecture: online, asynchronous

Recitation: TH, 5:00 PM
online, synchronous

CRN (online lecture- HP): 25189

CRN (online recitation- HPR): 26633

EAS 2600 HP: Earth Processes

EAS 1601 HPL: Earth Processes LAB

Dr. Karl Lang (lecture) and Dr. Liana Boop (lab)

4 credit hours

24 HP seats

Note: You MUST register for the HP lecture and lab sections, or you will not get credit for either.

About the course

EAS 2600 will familiarize students with fundamental principles of Earth sciences and will show how these principles apply to practical and societal issues that impact our lives. Topics covered will illustrate fundamental relationships between plate tectonics and surface processes, geologic structures, natural resources and natural hazards.

The laboratory portion of EAS 2600 is broken into three major topics: (1) mineral identification, (2) rock identification, and (3) a study of how the surface of the Earth is modified by wind, water, and ice. You will begin the semester by investigating beautiful minerals. Then, you will use this knowledge to understand how minerals build rocks. Finally, we will review topographic and geologic maps to learn about landforms, geologic structures, mass wasting, and rivers.

About the faculty

Dr. Lang is a field-based geologist leading the TECHtonics Group in the School of Earth and Atmospheric Sciences. His research spans areas of tectonics, geomorphology and sedimentology; and he has worked extensively in the eastern Himalaya, Southern Alps of New Zealand and across the American West. In addition to EAS 2600 he teaches EAS 4490 Geophysical Field Methods and EAS 4205/6325 Geomorphology.



Dr. Liana Boop is passionate about sustainability and seeks to empower people to live more harmoniously with the environment. She is a trained geologist, holding a Ph.D. in Geology and a Professional Geologist licensure. Before joining Georgia Tech in 2024, she taught at a community college in Houston, Texas for nine years. Before joining academia, she worked in environmental and geological consulting, completing environmental and geophysical assessments. Her hobbies include exercising, hiking, kayaking, caving, knitting, attending live theatre performances, and cooking delicious plant-based foods.



Meeting and registration details

Lecture: T/TH, 12:30 PM

Clough 152

Lab: T, 3:30 PM

Kendeda 298

CRN (lecture- HP): 33666

CRN (lab- HPL): 35165

ECON 4370 HP: Law and Economics

Dr. Whitney Buser

3 credit hours

10 HP seats

Prerequisite: ECON 2100 or ECON 2101 or ECON 2016

About the course

How do laws shape our choices, and how do our choices shape the law? This course uses economics to explore crime and deterrence; forensic economics, where economists estimate damages such as lost earnings after an injury; how families have changed over time and how marriage, divorce, and parenting laws have influenced those changes; property rights; and the rules governing accidents and injuries, including who should pay when one person harms another. You'll also complete a team project investigating a real legal question, gaining research experience in framing questions, analyzing evidence, and presenting findings.

About the faculty

Dr. Whitney Buser is an Academic Professional and Associate Director of Academic Programs in the School of Economics at Georgia Tech. Dr. Buser has published and presented research on gender differences in financial literacy, performance evaluation, confidence in mathematical abilities, and participation in academic discussions. Dr. Buser's work has appeared in *Sex Roles*, *Public Choice*, and *The Journal of Family and Economic Issues*, as well as other peer-reviewed publications. Further research interests include behavioral economics as well as formal and informal institutional impacts on policy and economic wellbeing. Prior to joining the faculty at Georgia Tech in 2020, Dr. Buser was the Chair of the Business and Public Policy Department at Young Harris College and as well as an Associate Professor of Economics.



Meeting and registration details

Lecture: T/TH, 12:30 PM

Van Leer C240

CRN: 35421

ENGL 1102 HP1: English Composition II

Dr. Jessica Van Gilder

3 credit hours

18 HP seats

About the course

ENGL 1102 is a composition course that develops writing skills beyond the levels of proficiency required by ENGL 1101, that emphasizes interpretation and evaluation, and that incorporates a variety of more advanced research methods. We will develop communication skills in networked electronic environments, emphasize interpretation and evaluation of cultural texts, and incorporate research methods in print and on the Internet.

In this community-based learning section of the course, we are partnering with [Atlanta's historic Oakland Cemetery](#). We will focus closely on modes of gothic storytelling as we conduct research to collaboratively create and publish a new K-12 podcast about their residents. As we work towards this final project, we will explore America's Gothic roots from the 19th century to the contemporary moment and attend in particular to the genre of the Southern Gothic. Along the way, we will develop strategic processes for engaging with various media and will create artifacts in multiple WOVEN modes (written, oral, visual, electronic, and nonverbal), challenging ourselves to become more adept consumers and producers of the gothic stories that surround us every day. In particular, we will emphasize the modality of sound (and how sound interacts with other WOVEN elements) through assignments like soundscapes and podcasts.

About the faculty

Jessica Van Gilder's research explores the relationship between fantasy and reality, and how that relationship impacts our understanding of the world. Her current research project, "Trust and the Desire to Know in Nineteenth-Century America," examines the intersection between trust, epistemology and fictionality in 19th century America. She argues that trust is a cognitive and cultural issue with political, cultural, and affective dimensions that fictional genres actively exploit and interrogate through their promotion and portrayals of metacognitive activity. Thus, the project analyzes how different acts of trust — trusting our own sensory experiences and judgment, the sources of our knowledge about the world, and especially, one another — are represented, cultivated, and challenged. In other words, she explores how genres of fiction in 19th century America, such as the historical romance and satire, function as dynamic social contracts that amplify or undermine the reader's trust in larger sociopolitical systems by exploiting their fundamental desire to know. The interdisciplinary framework of this early American studies project integrates insights from affect studies, cognitive psychology, and fictionality studies.



Beyond early America, Dr. Van Gilder's scholarly and teaching interests include cognitive literary and cultural studies, the American Gothic, and the study of graphic novels and speculative fiction. She also leverages her background as a researcher, storyteller, and educator to advance public humanities projects and engage in collaborative and community-facing work. As part of her commitment to transdisciplinary and publicly engaged work, she is currently serving as co-chair for the [C19 Podcast](#), for which she has also co-produced multiple episodes.

Meeting and registration details

Lecture: T/TH, 9:30 AM

Hall 103

CRN: 30680

ENGL 1102 HP2: English Composition II

Dr. Mary Taylor Mann

3 credit hours

18 HP seats

About the course

In this section of ENGL 1102, you'll become a more effective writer and communicator as you investigate the way poetry has shaped thinking about the lived experience of health and illness. You will write in different modes and genres as you explore the relationship between poetry and medicine over time, from the Renaissance to the present. Through readings, in-class discussions, and collaborative and individual projects, students will understand poetry as a technology of communicating and making sense of the illness experience, including cancer, chronic disease, disability, mental illness, trauma, and death as well as the experience of medical intervention. Through our readings, we will explore different (and often unexpected) rhetorical purposes of poetry in health communication and human expression. (Note: This is not a creative writing course.)

About the faculty

Dr. Mary Taylor Mann is a Marion L. Brittain Fellow at Georgia Tech. She received her PhD in English literature from Emory University and her MA in bioethics from Wake Forest University. She is a scholar of nineteenth-century British literature and culture, and her research explores the intersecting histories of poetry and medicine in the period. In the classroom, she integrates methods from bioethics and the health humanities to explore historical and contemporary representations of health, medicine, and embodiment.

Meeting and registration details

Lecture: T/TH, 12:30 PM

Kendeda 210

CRN: 30734

ENGL 1102 HP3: English Composition II

Dr. Jenessa Kenway

3 credit hours

18 HP seats

About the course

"The [film] screen is the retina of the mind's eye," Brian O'Blivion explains ominously in Michael Cronenberg's 1983 sci-fi body horror film, *Videodrome*. But while film happens on the screen, meaning happens in the mind. We will explore how we make meaning in language and images through the ancient Greek rhetorical tool of ekphrasis (description so intense that it becomes visual); from the Greek *ek-* [out] + *phrazein* [to explain, to show, to tell]) to explain our experiences with the visual medium of film, to point out the details we observe in written analyses, and to tell our multimodal stories. Ekphrasis asks a simple question: how do you make an image *speak*? We will look at reels of images and write descriptions so vivid that our readers are transformed into spectators, remembering that to describe is to decide what matters. From flickering frames to vivid sentences, this course teaches us how to describe what's important so others can literally see what we mean.

We will view experimental films to create ekphrastic responses; select, paint/distress, and edit existing 16mm. film footage into bespoke experimental films that render unique interpretations of Gertrude Stein's poems in *Tender Buttons*; and plan movie press kits to showcase and review peers' films. The six sections of this course (taught by Dr. Kari and Dr. Kenway) will interact for peer review and critiquing activities, culminating in a multi-section, end-of-semester film festival. Together, we will work across genres (and classes!) to build critical thinking, adaptation, and visual literacy skills.

About the faculty

Dr. Jenessa Kenway is a Marion L. Brittain Postdoctoral Fellow at Georgia Tech, with a Ph.D. in Literature from UNLV and an MFA in Art. Her teaching focuses on embodied and visual pedagogy using art, literature, and popular culture. Her scholarship examines embodiment aesthetics in women's writing, particularly Modernism. Her article on Virginia Woolf was published in *Feminist Modernist Studies* (2024). This past fall she taught English 1101 and 1102 at the Georgia Tech Europe Campus in Metz, France.



Meeting and registration details

Lecture: M/W, 2:00 PM

D.M. Smith 19

CRN: 27941

GT 2030 HP1: Progress and Service Forum

Dr. Christie Stewart

3 credit hours

30 HP seats

Note: Counts toward the Service Pathway (old curriculum) and as a Leaders in Progress and Service foundational course (new curriculum).

About the course

Georgia Tech's motto, "Progress and Service," captures the institution's mission to prepare leaders (you!) who advance technology and improve the human condition. In this course, you will explore the nature of complex problems that impact humanity while investigating your own unique potential to impact these problems. Through interactions with faculty, peers, and community leaders, you will analyze these big issues from multiple perspectives, equipping you with greater insight into the roles and actions that enable leaders to make change.

About the faculty

Dr. Christie Stewart is a Senior Academic Professional in the School of Biological Sciences at Georgia Tech and a certified Gallup Strengths Coach. She earned a B.S. in Movement Science from the University of Pittsburgh, an M.Ed. in Clinical Exercise Physiology from the University of Georgia, and a Doctorate in Educational Leadership from Mercer University.



Dr. Stewart serves as Director of Health and Wellness Education in Biological Sciences and co-developed the course *Flourishing: Strategies for Well-being and Resilience*. Her work centers on advancing student well-being through evidence-based practices that strengthen self-awareness, resilience, and sustainable behavior change. She is committed to advancing a culture of well-being at Georgia Tech and designing engaging learning environments that equip students with practical tools to support both academic success and lifelong flourishing.

Meeting and registration details

Lecture: T/TH, 9:30 AM

Skiles 314

CRN: 35397

GT 2030 HP4: Progress and Service Forum

Dr. Edwin Greco

3 credit hours

30 HP seats

Note: Counts toward the Service Pathway (old curriculum) and as a Leaders in Progress and Service foundational course (new curriculum).

About the course

Georgia Tech's motto, "Progress and Service", captures the institution's mission to prepare leaders (you!) who advance technology and improve the human condition. In this course, you will explore the nature of complex problems that impact humanity while investigating your own unique potential to impact these problems. Through interactions with faculty, peers, and community leaders, you will analyze these big issues from multiple perspectives, equipping you with greater insight into the roles and actions that enable leaders to make change.

About the faculty

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 times with his loving family.



Meeting and registration details

Lecture: T/TH, 2:00 PM

Skiles 311

CRN: 35400

GT 2030 HP5: Progress and Service Forum

Dr. Jason Wang

3 credit hours

30 HP seats

Note: Counts toward the Service Pathway (old curriculum) and as a Leaders in Progress and Service foundational course (new curriculum).

About the course

Georgia Tech's motto, "Progress and Service", captures the institution's mission to prepare leaders (you!) who advance technology and improve the human condition. In this course, you will explore the nature of complex problems that impact humanity while investigating your own unique potential to impact these problems. Through interactions with faculty, peers, and community leaders, you will analyze these big issues from multiple perspectives, equipping you with greater insight into the roles and actions that enable leaders to make change.

About the faculty

Dr. Jason Wang is the 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.



Meeting and registration details

Lecture: M/W, 11:00 AM

Clough 272

CRN: 35401

GT 2030 HP6: Progress and Service Forum

Dr. Ebenezer Fanijo

3 credit hours

30 HP seats

Note: Counts toward the Service Pathway (old curriculum) and as a Leaders in Progress and Service foundational course (new curriculum).

About the course

Georgia Tech's motto, "Progress and Service", captures the institution's mission to prepare leaders (you!) who advance technology and improve the human condition. In this course, you will explore the nature of complex problems that impact humanity while investigating your own unique potential to impact these problems. Through interactions with faculty, peers, and community leaders, you will analyze these big issues from multiple perspectives, equipping you with greater insight into the roles and actions that enable leaders to make change.

About the faculty

Dr. Ebenezer Fanijo is an Assistant Professor in the School of Building Construction at Georgia Tech. Dr. Fanijo has led and contributed to multiple funded research projects and has published extensively in peer-reviewed journals and conference proceedings. Dr. Fanijo has received several national and international awards for research excellence, including the prestigious NSBE Golden Torch Award. Dr. Fanijo is also a BBISS Fellow and a licensed Professional Engineer (P.E.). Dr. Fanijo's multidisciplinary research spans cementitious and concrete composites, concrete durability, green concrete technologies using recycled and by-product materials, geopolymer concrete, 3D-printed cementitious systems, highway pavements, advanced sensing technologies, and non-destructive evaluation. He joined the School of Building Construction in Spring 2023.



Meeting and registration details

Lecture: F, 11:00 AM

Skiles 314

CRN: 35402

GT 2030 HP7: Progress and Service Forum

Dr. Jonathan Gaines

3 credit hours

30 HP seats

Note: Counts toward the Service Pathway (old curriculum) and as a Leaders in Progress and Service foundational course (new curriculum).

About the course

Georgia Tech's motto, "Progress and Service", captures the institution's mission to prepare leaders (you!) who advance technology and improve the human condition. In this course, you will explore the nature of complex problems that impact humanity while investigating your own unique potential to impact these problems. Through interactions with faculty, peers, and community leaders, you will analyze these big issues from multiple perspectives, equipping you with greater insight into the roles and actions that enable leaders to make change.

About the faculty

Dr. Jonathan E. Gaines is the inaugural Associate Chair for Outreach and Engagement at the G. W. Woodruff School of Mechanical Engineering. He leads efforts to empower and advocate for others, considering the Woodruff School's strategic plan and vision for inclusive excellence. With over 15 years in higher education, he has expertise in asset-based approaches, leadership, and engineering identity development that is used to improve the Woodruff School community and culture. He actualizes initiatives with special attention to the local Atlanta community, undergraduate students, graduate students, and alumni.



Meeting and registration details

Lecture: M/W, 2:00 PM

Skiles 308

CRN: 35403

GT 2030 HP8: Progress and Service Forum

Dr. Sarah Brackmann

3 credit hours

30 HP seats

Note: Counts toward the Service Pathway (old curriculum) and as a Leaders in Progress and Service foundational course (new curriculum).

About the course

Class Description: GT2030- What is “Progress and Service” and how does Georgia Tech prepare leaders who advance technology and improve the human condition? In this course, you will explore the nature of complex problems that impact humanity while investigating your own unique potential to impact these problems. Through interactions with faculty, peers, and community leaders, you will learn to tackle complex problems from multiple perspectives, equipping you with greater insight into the roles and actions that enable leaders to make change. You’ll also use tools of reflection to begin developing your own unique identity as a professional, and begin to make connections between you, your role as a professional, and the impact you have on society.

About the faculty

Dr. Sarah Brackmann is the Director of Community-Based Learning in OU ESS and Experiential and Engaged Learning. She supports community partners, faculty, and Georgia Tech departments to co-design curricular and co-curricular partnerships that strengthen local, regional, and statewide communities and enhance student learning through experiential learning. Sarah holds an undergraduate degree in Political Science from Xavier University, a masters in Higher Education and Student Affairs from The Ohio State University, and a Ph.D. in Higher Education from the University of Georgia.



Meeting and registration details

Lecture: F, 8:00 AM

Skiles 311

CRN: 35404

HTS 3010 HP: Organizing for Social Change

Dr. Kimya Loder

3 credit hours

10 HP seats

Note: Counts toward the Service Pathway (old curriculum).

About the course

Social change emerges when everyday people mobilize and use their collective power to enact social, cultural, and political transformations. In this course, we analyze how groups organize to amplify their voices, build power, and enact change. Collective action enables people to advance solutions to complex social challenges, but working with others to change systems and organizations is hard. It requires research and analysis, strategic planning, conflict resolution, adaptation, and careful consideration of the ethical implications of individual and group decisions. We will draw on social theory and practitioner frameworks, historical and contemporary case studies, and community perspectives to identify and apply strategies and skills essential to change-making. You will cultivate skills in storytelling, power and asset analysis, and “strategizing” and explore the ethical implications of alternative approaches. You will experience the joys and challenges of collective action as you apply your learning by advancing a desired change on campus that you and your peers identify as a priority.

About the faculty

Dr. Kimya Loder is a sociologist whose multi-year immersive investigations examine how marginalized communities resist inequality and state-inflicted violence. Her current research combines theoretical analysis with robust ethnographic data to explore the political behaviors of those most vulnerable to political violence and neglect. This agenda anchors her book manuscript, which advances the sociological study of social movements and gender and sexuality by foregrounding the mobilization efforts of Black transgender women in the U.S. South. Her scholarship has appeared in leading academic journals such as *Urban Studies* and *Qualitative Sociology* and has been recognized by the Social Science Research Council, the Stanford Center for the Comparative Study of Race & Ethnicity, and the Campaign for Southern Equality. She joined the School of History and Sociology at the Georgia Institute of Technology in Fall 2024 as an Assistant Professor after earning her PhD in Sociology from Stanford University.



Meeting and registration details

Lecture: T/TH, 12:30 PM

Clough 131

CRN: 35457

HTS 3017 HP: Sociology of Crime

Dr. Amy D'Unger

3 credit hours

25 HP seats

Note: Counts toward social sciences general education requirements.

About the course

This course is an introduction to the sociological study of gender. Our focus is on gender as a social construction that is negotiated through interaction and affects our social relationships and personal experiences. We examine the changes and maintenance of gender roles and identity and the ways in which gender and power are interconnected. We will begin the class with an examination of biological and socialization theories and investigate cultural and structural explanations for gender differences. We then analyze how gender impacts/is impacted by such social institutions as the family, work, education, medicine, and law. Throughout the course we will explore the intersections of gender with class, race, and sexual orientation. The assignments are designed to help you learn to think critically about the social construction of gender, to give you an introduction to sociological research, and to develop your skills in communicating clearly and convincingly during class discussions and in written work.

About the faculty

Dr. Amy D'Unger (PhD, Duke University) 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* and the *Journal of Quantitative Criminology* 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. Dr. D'Unger currently serves as the Faculty Director of the John H. Martinson Honors Program. She is also the Immediate Past President of the Georgia Collegiate Honors Council and Treasurer of the Southern Regional Honors Council.

Meeting and registration details

Lecture: T/TH, 9:30 AM

Curran Street Deck 210 (LLC West Commons Classroom, across the street from Eighth Street South apartments—enter under the blue awning)

CRN: 35405

IAC 2002 HP: Science, Engineering, and Religion

Dr. John Cressler

3 credit hours

7 HP seats

Note: BY PERMIT ONLY. Class open only to students who previously submitted their applications for a permit to Dr. Cressler. If selected, you will hear from Dr. Cressler with further instructions.

About the course

Dividing lines exist within the rigorous, truth-seeking, intellectually demanding academic setting that defines Georgia Tech. I invite you to consider two examples. 1) Walls often separate science and engineering, on the one side, from religion and spirituality, on the other side. It is commonly assumed, for instance, that serious scientists and engineers cannot, by definition, be people of faith; and vice versa. Such matters are rarely, if ever, topics of conversation in classes. 2) Walls often separate the various religious traditions and world views that are represented in Georgia Tech's exceptionally diverse student body. For example, Christians often know very little about the beliefs and practices of Muslims, Jews about Buddhists, Taoists about Sikhs, Hindus about secular humanists. Meaningful dialogue between different religious traditions and worldviews on campus is uncommon, or perhaps only comes in response to some tragic event. Again, such matters are rarely, if ever, topics of conversation in classes. With Georgia Tech's strategic goal of graduating outstanding global citizens, it is my view that the educational experience Georgia Tech provides could be further enhanced by ensuring religious literacy and engaging meaningful dialogue across the boundaries of science, engineering, and religion, particularly within the context of interfaith diversity. After all, we live in an ever-flattening global community. This course is intended to help break down these barriers to meaningful dialogue in a creative way. The course will gather together a diverse set of students who are serious about their spiritual lives, and yet who are also studying hard to be Georgia Tech's next cadre of world-class graduates. Together, we will explore a variety of topics related to the intersection of science, engineering, and religion. No prior background is assumed. We will break open these topics by engaging in open and constructive dialogue.

About the faculty

Dr. John D. Cressler is Regents Professor, Schlumberger Chair Professor in the School of Electrical and Computer Engineering, and the Ken Byers Teaching Fellow in Science and Religion. The basic thrust of Cressler's research is to develop novel micro/nanoelectronic devices, circuits and systems for next-generation applications within the global electronics infrastructure. In addition to his academic duties, Cressler writes historical fiction, love stories set in medieval Muslim Spain that celebrate the era of convivencia (coexistence), a unique period when Muslims, Jews, and Christians lived together in harmony. He is deeply interested in the on-going dialogue between science and religion, and teaches the popular IAC 2002, "Science, Engineering and Religion: An Interfaith Dialogue," each spring, open to all GT students. Cressler was awarded the 2010 Class of 1940 W. Howard Ector Outstanding Teacher Award (Georgia Tech's top teaching award), and the 2013 Class of 1934 Distinguished Professor Award (the highest honor Georgia Tech bestows on its faculty). Visit him at: <http://users.ece.gatech.edu/~cressler> (research) and <http://johndcressler.com> (books).



Meeting and registration details

Lecture: T/TH, 5:00 PM

Clough 123

CRN: 28849

LMC 3228 HP: Shakespeare

Dr. Perry Guevara

3 credit hours

10 HP seats

Please note: Counts toward humanities general education requirements.

About the course

What can Shakespeare teach us about attention in a world full of distractions? In this course, we'll read his plays and poems alongside ideas from psychology and neuroscience to explore how language, emotion, and the environment shape what we notice as well as what we miss. Through close reading, creative writing, and lively discussion, we'll consider how engaging with Shakespeare can sharpen our attention not only to text but also to the world around us.

Texts may include *A Midsummer Night's Dream*, *The Tempest*, *Titus Andronicus*, *Othello*, *Venus and Adonis*, *The Phoenix and the Turtle*, and selections from the sonnets.

About the faculty

Dr. Perry Guevara is Assistant Professor of Early Modern Literature in the School of Literature, Media, and Communication and affiliated faculty with the Institute for Neuroscience, Neurotechnology, and Society at Georgia Tech. He specializes in cognitive literary studies, and his research brings together literature from the sixteenth and seventeenth centuries with neuroscience, ecology, and the history of medicine. His writing has appeared in *Public Books*, *Shakespeare Studies*, *Configurations*, *Early Modern Culture*, *Renaissance Quarterly*, and several edited collections.



Before coming to Georgia Tech, Dr. Guevara taught at Dominican University of California, where he co-founded the Health Humanities program and directed Performing Arts & Social Change, an undergraduate minor featuring a partnership with Marin Shakespeare Company's prison-theater program. He has also been a Visiting Scholar at the University of California, Berkeley's Center for Science, Technology, Medicine, and Society. He holds a Ph.D. from Emory University, an M.A. from Georgetown University, and a B.A. from the University of Alabama.

Meeting and registration details

Lecture: T/TH, 2:00 PM

Skiles 002

CRN: 35565

LMC 3310 HP: Rhetoric of Scientific Inquiry

Dr. Yeqing Kong

3 credit hours

10 HP seats

Note: Counts toward humanities general education requirements.

About the course

How do scientists use writing to develop ideas and share discoveries? This course explores communication within scientific communities, emphasizing how writing shapes knowledge throughout the research process. You'll examine genres such as research reports and conference presentations to understand how scientists build arguments and make their findings meaningful to peers. As you investigate a scientific question and communicate what you learn, you'll practice using evidence to support your claims and adapting your writing for specialized audiences.

About the faculty

Dr. Yeqing Kong is an assistant professor of technical communication in the School of Literature, Media, and Communication at the Georgia Institute of Technology. Her research focuses on the communication of scientific, technological, health, and environmental risks in global contexts. She teaches undergraduate and graduate courses in science communication, technical communication, and responsible AI in communication.



Meeting and registration details

Lecture: T/TH, 12:30 PM

Skiles (TBD)

CRN: 35564

MATH 1552 HP: Integral Calculus

MATH 1552 HP1: Integral Calculus STUDIO

Ms. Klara Grodzinsky

4 credit hours

20 HP seats

Note: You MUST register for the HP lecture and studio sections or you will not get credit for either.

Prerequisites: MATH 1550 or MATH 1551

About the course

Math 1552, Integral Calculus, covers definite and indefinite integrals, techniques of integration, improper integrals, infinite series, and applications. Students will learn to understand integration both geometrically and computationally, using various techniques of integration. The idea of convergence will be applied to improper integrals and infinite series. Students will apply various convergence tests to analyze a given infinite series and will learn to build and apply Taylor series for various functions. In relation to the above topics, students will apply the proper usage of mathematical notation.

About the faculty

Ms. Klara J. Grodzinsky is a Senior Academic Professional in the School of Mathematics at Georgia Tech. She received her M.S. degree in Applied Mathematics from Georgia Tech in 1996 and worked as a statistician for one year before joining the School of Mathematics faculty in 1997. In 2000, she co-created the Institute's first training program for graduate and undergraduate teaching assistants, recognized with a University System of Georgia Board of Regents Teaching Excellence Award and used as a model for TA development programs in other academic units on campus. Serving as the School's Director of Teaching Assistants since 2008, Ms. Grodzinsky oversees the training and support of teaching and lecture assistants for lower and upper-division mathematics courses. Ms. Grodzinsky has served as the primary course coordinator for Integral Calculus (Math 1552) since its creation in Fall 2015. Her teaching and instructional leadership have been recognized with multiple institute-wide Course Survey Teaching Excellence honors, the Center for Teaching and Learning Undergraduate Educator Award, and the Herman K. Fulmer Teaching Prize.

Meeting and registration details

Lecture: M/W/F, 11:00 AM

D.M Smith 115

Studio: T/TH, 11:00 AM

Skiles 170

CRN (lecture- HP): 30557

CRN (studio- HP1): 30558

MATH 1553 HP: Introduction to Linear Algebra

MATH 1553 HP1: Introduction to Linear Algebra STUDIO

Dr. Christopher Jankowski

2 credit hours

25 HP seats

Note: You MUST register for the HP lecture and studio sections or you will not get credit for either.

Prerequisites: SAT Math score of 600 or ACT Math score of 26 or MATH 1113 or MATH 1551

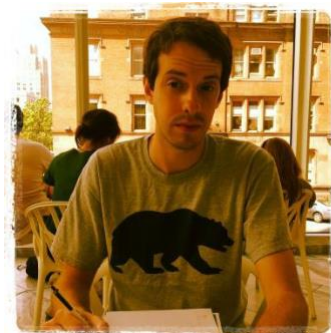
About the course

Linear Algebra is very conceptual compared to most mathematics courses that students have previously taken. By the end of this course, it is expected that students will be able to do the following.

- Solve systems of linear questions.
- Solve eigenvalue problems.
- Analyze mathematical statements and expressions (for example, to assess whether a particular statement is accurate, or to describe solutions of systems in terms of existence and uniqueness).
- Write logical progressions of precise mathematical statements to justify and communicate your reasoning.
- Apply linear algebra concepts to model, solve, and analyze real-world situations.
- Solve systems of linear questions.
- Solve eigenvalue problems.
- Analyze mathematical statements and expressions (for example, to assess whether a particular statement is accurate, or to describe solutions of systems in terms of existence and uniqueness).
- Write logical progressions of precise mathematical statements to justify and communicate your reasoning.
- Apply linear algebra concepts to model, solve, and analyze real-world situations.

About the faculty

Dr. Christopher Jankowski is a Senior Academic Professional in the School of Mathematics, where he serves as the Director of Graduate Advising and Assessment (DGAA) and Director of Postdoctoral Teaching Effectiveness. He earned his Ph.D. in Mathematics from the University of Pennsylvania. His main research interest lies in constructing and classifying $E0$ -semigroups (up to cocycle conjugacy) using the theory of CP-flows and boundary weight maps.



Meeting and registration details

Lecture: M/W, 8:25 AM

Kendeda 152

Studio: F, 8:25 AM

College of Computing 53

CRN (lecture- HP): 29758

CRN (studio- HP1): 29759

MATH 2551 HP: Multivariable Calculus

MATH 2551 HP1: Multivariable Calculus STUDIO

Dr. Alexander Dunn

4 credit hours

22 HP seats

Note: You MUST register for the HP lecture and studio sections or you will not get credit for either.

Prerequisites: MATH 1552 and MATH 1553, 1554, or 1564

About the course

Math 2551 is an introduction to multivariable calculus which includes vector calculus, gradients, linear approximation, tangent planes, differentials, optimization, Lagrange multipliers, double and triple integrals, and applications. Upon successful completion of the course, students will be able to: describe vectors, surfaces, and multivariable functions geometrically; use derivatives and gradients to analyze and estimate how such functions change; solve optimization problems; evaluate scalar and vector integrals over curves and surfaces using Green's, Gauss's, and Stokes's theorems; and interpret multivariable quantities in geometric or real-world contexts.

About the faculty

Dr. Alexander Dunn is a tenure track Richard A. Duke Assistant Professor in the School of Mathematics at Georgia Tech. He is interested in number theory and analysis. Previously, he was a postdoc at the California Institute of Technology for three years.

Dunn received his doctorate degree in 2020 from the University of Illinois Urbana-Champaign under the supervision of Scott Ahlgren and Alexandru Zaharescu. In 2024, he won the SASTRA Ramanujan Prize in mathematics, citing his "several breakthroughs in the study of modular forms, half-integral weight forms, metaplectic forms and their connections to prime numbers and integer partitions."



Meeting and registration details

Lecture: T/TH, 2:00 PM

Howey L2

Studio: M/W, 3:00 PM

Skiles 256

CRN (lecture- HP): 29760

CRN (studio- HP1): 29764

MGT 4185 HP: Leadership Development

Dr. Ilya Gokhman

3 credit hours

10 HP seats

Note: Counts toward the Service Pathway (old curriculum).

About the course

The ability to lead effectively is critical to both professional and personal success. At its core, leadership involves the ability to influence others to obtain positive results. It requires strong skills in communication, decision-making, and stakeholder engagement to mobilize people toward a common goal. The purpose of the Leadership Development (LD) course is to enable students to become effective and ethical leaders of teams and organizations, to meaningfully exercise both formal and informal leadership, and to embark on paths of lifelong personal leadership growth. The class invites and requires personal, intellectual, and global curiosity.

The foundational premise of this course is that leaders who know themselves well and consciously develop their leadership abilities throughout their lifetimes will be more effective, more successful, and lead more fulfilling lives. To do so, leaders must take responsibility for their own development, rather than relying solely on their organizations. The course is grounded in the concept of Authentic Leadership, developed by Bill George, a Georgia Tech graduate, former CEO of Medtronic, and current Clinical Professor at Harvard Business School.

About the faculty

Dr. Ilya Gokhman is a Lecturer in the Institute for Leadership and Social Impact, where he teaches a variety of courses related to leadership, teamwork, and collaboration. Prior to this role, he served as the Co-Director of Georgia Tech's Grand Challenges program, launched the Grand Challenges Global Experience (GCGX) study abroad program in South Africa, and taught courses on innovation, sustainability, and organization in the Jimmy and Rosalynn Carter School of Public Policy. His research and teaching live at the intersection of collaboration, innovation, and social impact. Dr. Gokhman earned a Ph.D. in Media, Technology, and Society with a focus in Leadership and Teamwork from Northwestern University, an M.S. in Organizational Psychology from Georgia Tech, an MBA from University of Iowa, and degrees in Economics and Accounting from University of Georgia. Before academia, he worked in consulting, non-profits, and education in Atlanta, Chicago, Italy, and South Africa.



Meeting and registration details

Lecture: T/TH, 2:00 PM

Scheller 223

CRN: 35505

ML 2500 HP: Introduction to Cross-Cultural Studies

Dr. Dina Khapaeva

3 credit hours

5 HP seats

Please note: Counts toward the Global Engagement Pathway (old curriculum) and humanities general education requirements.

About the course

This introductory course explores the role of literature and film in Russian imperial politics. We will examine Russian history's key figures and crucial moments, focusing on how Soviet and post-Soviet fiction and film have shaped their representations. We will discuss how great works of Russian literature and art were appropriated by Stalinist and Putin's state propaganda and how Russian writers and creators resisted those appropriations. Specifically, we will consider the place of Ukraine and Crimea in the Russian imperial imagination and ambitions. Analyzing the current political landscape and historical context will enhance our understanding of fiction and film. NO PREVIOUS KNOWLEDGE OF RUSSIAN HISTORY OR LANGUAGE ARE REQUIRED FOR THIS COURSE.

About the faculty

Dr. Dina Khapaeva is a Professor at the School of Modern Languages and Director of the Russian Program at the Georgia Institute of Technology. Her research comprises memory studies, cultural studies, and death studies. Among her recent books are *Putin's Dark Ages: Political Neomedievalism and Re-Stalinization in Russia* (Routledge, 2023), *Crimes sans châtime: Aux sources du poutinisme* (Éditions de l'Aube, 2023, trans. by Nina Kehayan), *The Celebration of Death in Contemporary Culture* (The University of Michigan Press, 2017), the solo-edited collective volume *Man-eating Monsters: Anthropocentrism and Popular Culture* (Emerald Publishing, 2020) and *Theft of the Future: Anthology of Russian Political Neomedievalism* (forthcoming in 2027 with Brill). Dr. Khapaeva's research was supported by Fellowships at the Strasbourg Institute for Advanced Studies and the Helsinki Collegium and an Invited Professorship at the Écoles des Hautes Études en Sciences Sociales.



Meeting and registration details

Lecture: M/W, 2:00 PM

Swann 320

CRN: 34360

PHIL 3115 HP: Philosophy of Science

Dr. Abigail Mills

3 credit hours

10 HP seats

Note: Counts toward humanities general education requirements.

About the course

In this course, we will examine major philosophical questions concerning scientific knowledge and methodology. These include:

- i. What is science, and what separates it from other supposed sources of truth and knowledge?
- ii. Should science be value-free, or should it be guided by values like justice, feminism, or egalitarianism?
- iii. What role should scientific expertise play in a democracy?

We will examine a range of philosophical approaches to these questions, as well as work in the sociology and science of science. We will also connect philosophical arguments with contemporary, relevant issues in public life, wherever possible. Students will be able to select some course topics and activities together.

To encourage student learning and collaboration, all graded work in this course will be completed offline and in person.

About the faculty

Dr. Abigail Mills is a Postdoctoral Fellow in the School of Public Policy. She earned her Ph.D. 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.



Meeting and registration details

Lecture: T/TH, 3:30 PM

Cherry Emerson 322

CRN: 33660

PHYS 2211 HP: Introduction to Physics I

PHYS 2211 HPL: Introduction to Physics I LAB

Dr. Emily Alicea-Muñoz

4 credit hours

30 HP seats

Note: You MUST register for the HP lecture and lab sections, or you will not get credit for either.

Prerequisite: MATH 1552

About the course

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

About the faculty

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 MS in Astronomy & Astrophysics from Penn State, and a PhD 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.



Meeting and registration details

Lecture: M/W, 9:30 AM

Howey L1

Lab: M, 3:30 PM

Clough 362

CRN (lecture- HP): 29665

CRN (lab- HPL): 29669

PHYS 2212 HP: Introduction to Physics II

PHYS 2212 HPL: Introduction to Physics II LAB

Dr. Daniel Goldman (lecture) & Dr. Edwin Greco (lab)

4 credit hours

30 HP seats

Note: You MUST register for the HP lecture and lab sections, or you will not get credit for either.

Prerequisite: PHYS 2211

About the course

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). 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

About the faculty

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 times with his loving family.



Meeting and registration details

Lecture: T/TH, 9:30 AM

Howey L4

Lab: T, 3:30 PM

Clough 383

CRN (lecture- HP): 30740

CRN (lab- HPL): 30741

PUBP 3016 HP: Judicial Processes

Judge Chong Kim and Ms. Jennifer Weizenecker, Esq.

3 credit hours

9 HP seats

Note: Counts toward social sciences general education requirements.

About the course

This course covers the functions, structures and procedures of state and federal court systems. The course addresses civil and criminal procedures in addition to judicial concepts that apply to both civil and criminal cases such as jury selection, statutory interpretation, rules of evidence and appeals. Students will study different types of law that impact judicial decisions: statutes, case law and rules of evidence and procedure.

About the faculty

Judge Chong Kim (Washington and Lee University, J.D. 1992) is a Chief Judge in the Municipal Court of the City of Doraville. She was in private practice, exclusively, in criminal defense law for 27 years including 18 years in her own practice. She was appointed as a municipal court Judge in 2020. Judge Kim is the first Korean American appointed to the Judiciary in Georgia. She was named as a “Super Lawyer” by Atlanta Magazine in 2005. She has been a member of the Georgia Asian Pacific American Bar Association (GAPABA) since its founding in 1993. She was Chair of the GAPABA Law Foundation (charitable arm of GAPABA) for 12 years.



Ms. Jennifer Weizenecker (Vanderbilt University, J.D. 2011) is a partner in the Civil Business/Tort Litigation Division of JonesDay and has been a team member in more than 25 high stakes cases tried to verdict. She has tried cases across the country in state and federal courts. She also has trial experience in representing immigrants seeking asylum. She provides pro bono services to asylum seekers. She is a 2020 Recipient of Justice Rober Benham Award for Community Service Award by the Chief Justice’s Commission on Professionalism.



Meeting and registration details

Lecture: W, 5:00 PM

Skiles 269

CRN: 33607

SPAN 4150 HP: Spanish Service Learning

Dr. Kelly Comfort

3 credit hours

10 HP seats

Note: Course is taught in Spanish. Counts toward the Global Engagement or Service Pathway (old curriculum).

Prerequisites: SPAN 2002 or AB/IB equivalent

About the course

This class combines classroom discussion with Latino community service projects to allow students to practice Spanish with native speakers and improve their intercultural competence. The course is conducted in Spanish. Students must enroll in this course during Phase 1 in order to be placed in a service-learning position. This class will become permit restricted during Phase 2.

SPAN 4150 requires 3 hours of service-learning per week in Atlanta's Latino community for a total of 45 hours. Service-learning project options will be at the Latin American Association, La Amistad, or the Good Samaritan Health Center. You will be able to rank your service-project preferences by weekly schedule and by outreach area. The service-learning placements will be in person in or near Atlanta. Students are responsible for the cost inherent in traveling to and from the service-learning site.

About the faculty

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.



Meeting and registration details

Lecture: W, 11:00 AM

D.M. Smith 21

CRN: 33305