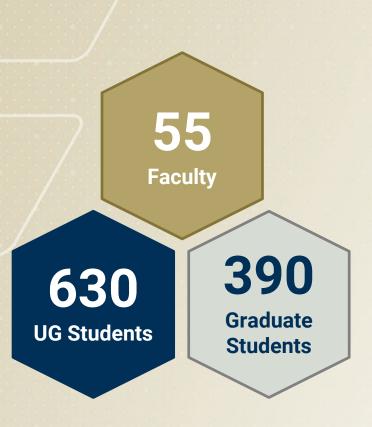
# School of Civil and Environmental Engineering

Spring 2024 Orientation January 5, 2024



# **Welcome to Georgia Tech!**







## **CEE Leadership**



Donald Webster, Ph.D.
Karen and John Huff
School Chair



Susan Burns, Ph.D.
Associate Chair for Finance
and Administration



John Taylor, Ph.D.
Associate Chair for Faculty
Development and
Research Innovation



Lauren Stewart, Ph.D.
Interim Associate Chair for
Graduate Programs



**Kevin Haas**Associate Chair
Undergraduate Programs



Adjo Amekudzi-Kennedy Associate Chair for Global Engineering Leadership and Entrepreneurship



## **Graduate Student Services Office**

Mason Building Suite 1220 <a href="https://gsso.ce.gatech.edu/gradinfo@ce.gatech.edu/gradin

Lauren Stewart, Ph.D.
Interim Associate Chair for
Graduate Programs



New graduate programs, Graduate student concerns/advocacy

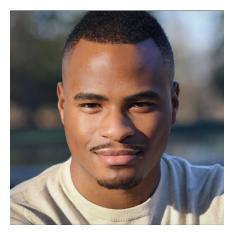
**Danielle Lesperance Ramirez**Graduate Programs Manager



PhD student advising, Policy and Procedures

#### Jerome Pondexter II

Academic Program
Coordinator



Master's student advising, International Student Support



## **Agenda**

10:00am-11:00am Overview of CEE Program

Dr. Lauren Stewart and Danielle Ramirez

11:00am-11:30am Q&A

11:30am-12:30pm GRA Orientation

1:00pm -3:40pm Affinity Group Orientations

CISE-SEB 122

**ENVE**-ES&T 3229

GEO-Mason 1132

**SEMM**-Mason 2119

**TSE**-To be determined

Water-Mason 2228

4:30pm-6:30pm Orientation Reception!

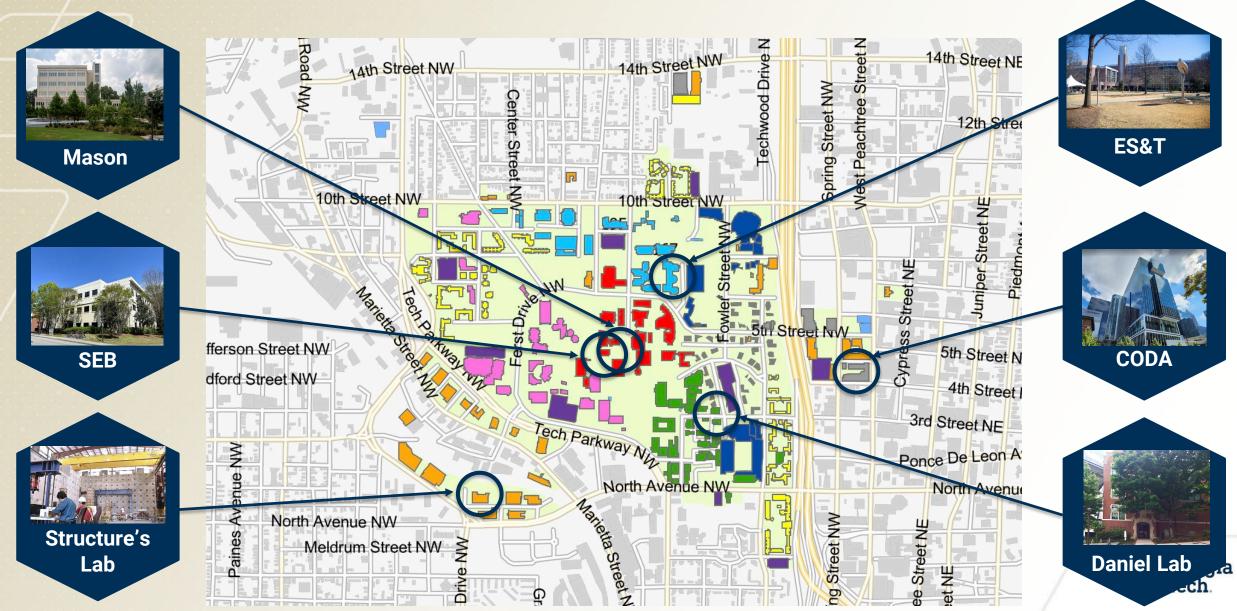
Mason Lobby





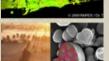


## **CEE Facilities**



## **CEE Affinity Groups**





#### **Water Resources Engineering**

- Circulation and transport in estuaries, rivers, and lakes
- Flood/drought forecasting
- Ocean modeling



Aris Georgakakos

#### **Geosystems Engineering**

- Energy & mining applications
- In-situ testing/characterization
- Shear bands and hydraulic fractures in soils



Sheng Dai



#### **Environmental Engineering**

- Chemistry and transport
- Adaptation of microbial communities; health risk
- Nanotechnology applications; sustainable systems



Xing Xie

## Structural Engineering, Mechanics and Materials

- Blast effects and resistance
- Durability of materials
- Seismic hazard mitigation



Phanish Suryanarayana



#### Transportation Systems Engineering

- Safety in traffic design
- Monitoring and modeling travel behavior
- Intermodal transportation



Adjo Amekudzi-Kennedy

# Construction and Infrastructure Systems Engineering

- Infrastructure sensors
- Data modeling/visualization
- Knowledge management for decision support systems



Yi-Chang James Tsai



## **Research and Research Centers**



- Georgia Transportation Institute
- Georgia Water Resources Institute
- Brook Byers Institute for Sustainable Systems
- Strategic Energy Institute
- Center for Bio-mediated and Bio-inspired Geotechnics
- Southeastern Center for Air Pollution & Epidemiology
- University Transportation Centers
  - Center for Advancing Research in Transportation Emissions, Energy and Health (CAR-TEEH)
  - Inspecting and Preserving Infrastructure through Robotic Exploration
  - National Center for Sustainable Transportation
  - STRIDE: Southeastern Transportation Research, Innovation, Development and Education Center
  - Teaching Old Models New Tricks (TOMNET)



# **Enrollment by Group**









## **CEE Entrepreneurial Impact Competition**

#### School of Civil and Environmental Engineering

College of Engineering

Home | About v | Prospective Students v | Academics v | Student Life v | Research v | People | Engage v | News & Events v

0

#### **Entrepreneurial Impact Competition**

#### About the Competition

The Entrepreneurial Impact Competition provides students with a hands-on opportunity to apply their civil and environmental engineering knowledge outside the classroom by creating innovative concepts to improve the human condition—and potentially win a \$5,000 prize.

Established in 2021, the competition is open to individuals or teams of students at both the undergraduate and graduate level who compete for a chance to win by conceptualizing entrepreneurial ventures that may help fellow students at Georgia Tech, create positive change for the local Atlanta community or impact society more broadly.

After assessing all submissions, a panel of judges will select the finalists to participate in a live competition. During the final competition, each team or individual will present their idea to the panel of judges, who will deliberate and select the top two proposals to win the Higginbotham Entrepreneurship Award and the Zeitlin Innovation Award.

#### About the Prizes

The Zeitlin Innovation Award rewards individuals and teams for their creativity and innovation, emphasizing the potential of their projects and ideas to improve the human condition. The winner of this award will be recognized for the merits of their concept at any stage of development.

The Higginbotham Entrepreneurship Award rewards individuals and teams for innovative ideas and recognizes the relative maturity of their efforts. Winners will have identified and tailored their concept to specific end-users with an emphasis on bringing their concept to market.



Zeitlin Innovation Award \$5,000

Higginbotham
Entrepreneurship
Prize
\$5,000

https://ce.gatech.edu/eic



# **Center for Teaching and Learning**

- Communication courses
- Workshops
- T.A. Orientation
- Tech to Teaching
- Graduate Teaching Scholars Program



#### ctl.gatech.edu

CEE Future Faculty Fellows Program





















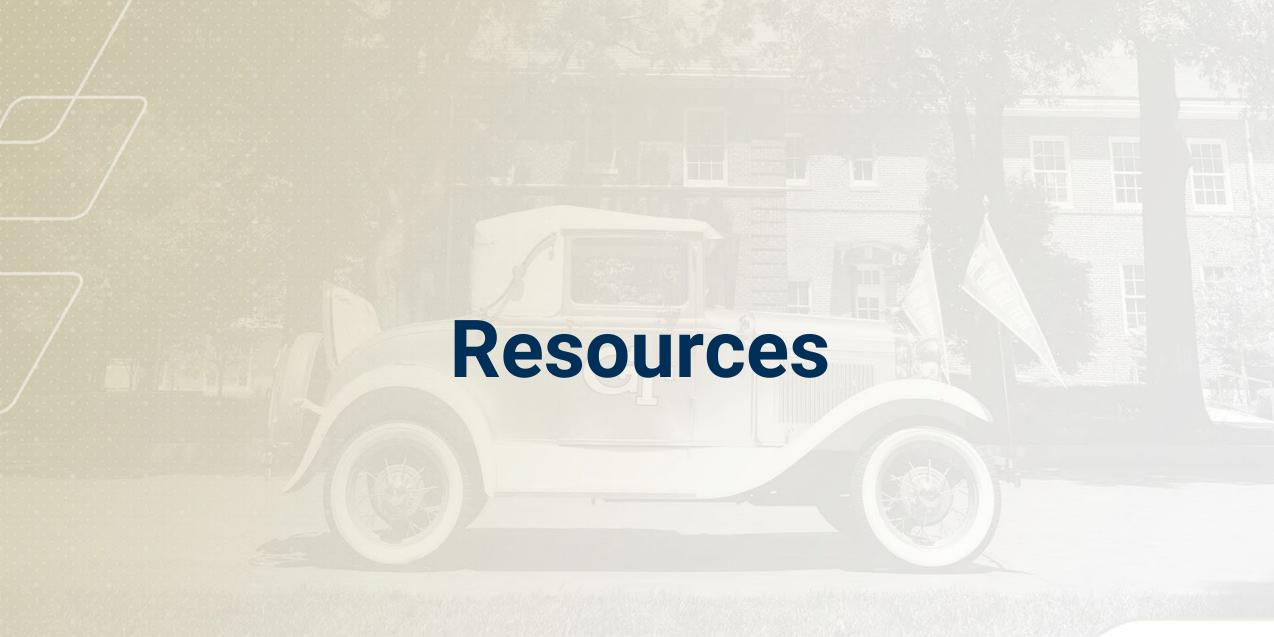
# **Student Organizations**



- American Society of Civil Engineers
- Association of Environmental Engineers & Scientists
- Engineers Without Borders
- Engineers for a Sustainable World
- Earthquake Engineering Research Institute
- Geotechnical Society
- American Society of Highway Engineers
- Institute of Transportation Engineers









### Resources

https://www.sga.gatech.edu/resources/



- Bus Tracking
- GT CARE (Mental Health Support)
- Veteran's Resource Center
- Women's Resource Center
- Room Reservations
- Biking Resources
- LiveSafe
- Emergency Notifications

.... and more



# Requirements and the Path to Graduation...



# **Academic Integrity**

#### **Georgia Tech Honor Challenge**

I commit to uphold the ideals of honor and integrity by refusing to betray the trust bestowed upon me as a member of the Georgia Tech community.

#### **Honor Agreement**

Having read the Georgia Institute of Technology Academic Honor Code, I understand and accept my responsibility as a member of the Georgia Tech Community to uphold the Academic Honor Code at all times. In addition, I understand my options for reporting honor violations as detailed in the code.

#### **Office of Student Integrity (OSI)**

https://osi.gatech.edu/students/honor-code



# Degree Requirements-MS

MSCE Degree Requirements	Non-Thesis Option	Thesis Option
Specialization Requirement	18 credits	12 credits
Approved Electives	12 credits	12 credits
Thesis	0 credits	6 credits
TOTAL REQUIRED CREDITS	30 credits	30 credits

MSENVE Degree Requirements	Non-Thesis Option	Thesis Option
Specialization Requirement	15 credits	15 credits
Approved Electives	15 credits	9 credits
Thesis	0 credits	6 credits
TOTAL REQUIRED CREDITS	30 credits	30 credits

• non-thesis: 2-3 semesters

• thesis: 1.5-2 years



# Degree Requirements-MSCSE

MSCSE Degree Requirements				
CSE Core	12	Four of these five courses: CSE 6140- Algorithms CSE 6730/ECE 6730-Modeling and Simulation CSE/ISYE 6740-Computational Data Analysis CSE 6220-High Performance Computing CSE/MATH 6643-Numerical Methods in CSE		
Home Unit Specialization	12	CEE classes, all within the same specializations. Some specializations have required Home Unit courses. Refer to <a href="https://gsso.ce.gatech.edu/">https://gsso.ce.gatech.edu/</a>		
Approved Electives or Thesis	6	Courses subject to approval by faculty advisor		
TOTAL REQUIRED CREDITS	30			

#### **CEE Faculty Advisor contacts:**

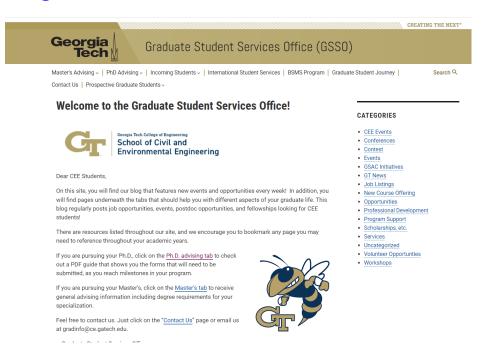
- CISE: Dr. Eric Marks (eric.marks@gatech.edu)
- ENVE: Dr. Ted Russell (<u>ted.russell@ce.gatech.edu</u>)
- GEO: Dr. David Frost (<u>david.frost@ce.gatech.edu</u>) and Jorge Macedo (<u>Jorge.Macedo@ce.gatech.edu</u>)
- SEMM: Dr. Yang Wang (yang.wang@ce.gatech.edu)
- TSE: Dr. Randall Guensler (<u>randall.guensler@ce.gatech.edu</u>)
- WATER: Dr. Jian Luo (jian.luo@ce.gatech.edu)
- CEE Graduate Programs/CSE-CEE Home Unit Coordinator: Dr. Lauren Stewart (lauren.stewart@ce.gatech.edu)
- CEE Graduate Programs General Questions: Danielle Ramirez (danielle.ramirez@ce.gatech.edu)



## Communicating with the GSSO

https://gsso.ce.gatech.edu/

- MS Degree Requirements
- International Student Support
- Policy
- Weekly blog
  - Job Listing
  - Events



Do not unsubscribe or you may miss important news and updates.



## Communicating with the GSSO

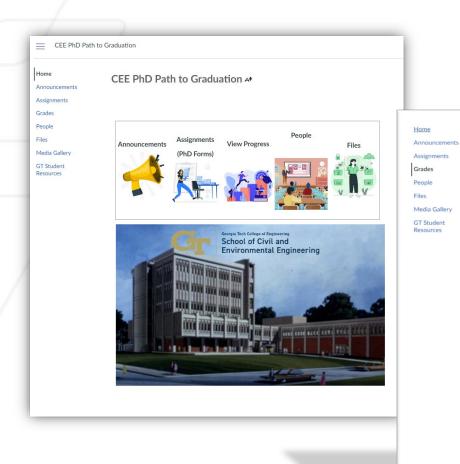
#### **CEE Graduate Students Teams Channel**

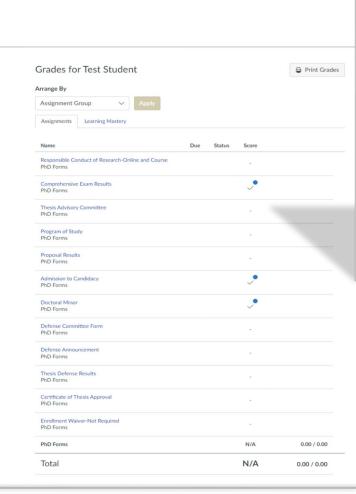


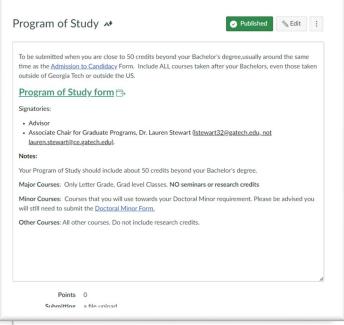
- Fun news and events
- Social posts
- Quick announcements
- Schedule virtual advising meetings
- Please do not use Teams chat for questions and work requests. Instead, email, call or come in person.



## Canvas: CEE PhD Path to Graduation





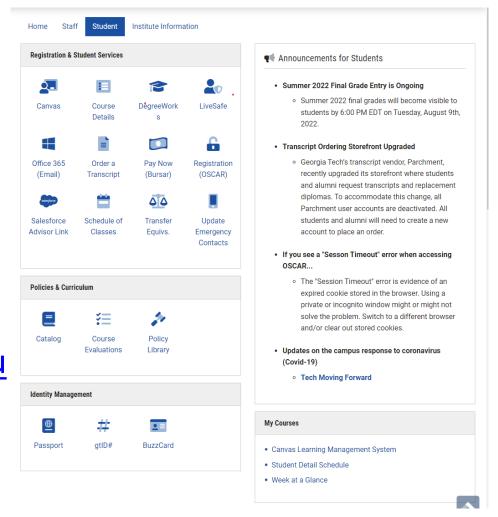




## Buzzport

- View schedule of classes
- Register for classes
- Pay tuition and fees
- Access to essential resources
- Important announcement

www.buzzport.gatech.edu



Registration Guidance can be found here: <a href="https://gsso.ce.gatech.edu/incoming-students/registration/">https://gsso.ce.gatech.edu/incoming-students/registration/</a>



# DegreeWorks-MS

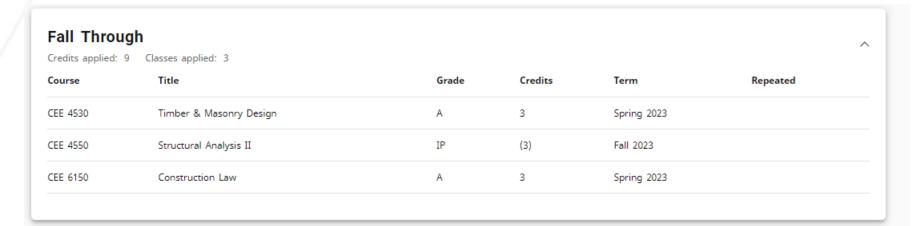
#### MSCE - Major Requirements INCOMPLETE

Catalog year: 2022-2023 GPA: 4.00

met conditions for this set of requirements:	24 hours required to meet Degree Requirements						
	Course	Title	Grade	Credits	Term	Repeate	
MSCE - Non-Thesis Option	•	zation of coursework. Elective requirem oproved by your advisor.	ents can be con	npleted with add	litional specializatio	n course	
O Specialization Requirements	Still needed:	Choose from 1 of the following:					
<ul> <li>Construction and Infrastructure</li> <li>Systems Engineering</li> </ul>		18 credits of Construction and Infrastructure Systems Engineering coursework required.					
Environmental Engineering		You must complete all of the following:					
<ul> <li>Environmental Engineering Required Coursework</li> </ul>		2 Classes in CEE 6310 or 6311 or 6312  12 credits of Environmental Engineering coursework required.					
<ul> <li>Additional Environmental Engineering Coursework</li> </ul>							
Water Resources Engineering	18 credits of Environmental Fluid Mechanics & Water Resources coursework required.					rk required.	
Geosystems Engineering		18 credits of Geosystems Engineering coursework required.					
Structural Engineering, Mechanics & Materials		You must complete the fol	lowing:				
Strength of Materials	CEE 6551	Strength of Materials	IP	(3)	Fall 2023		
Structural Engineering,     Mechanics & Materials Coursework	CEE 6521	Reinfor Concrete Members	Α	3	Fall 2022		
Wednands & Waterials Coursework		12 credits of S required.	tructural Engine	ering, Mechanics	, & Materials cours	ework	
Transportation Systems		<b>18</b> Credits in <b>CEE</b> 6601	r 6602 or 6603	or 8097 or 890	00 or 8956		
Elective Requirements	Still needed:	12 credits of approved Elective required courses. Your advisor				garding your	



# DegreeWorks-MS



Preregistered						^
Credits applied: 6	6 Classes applied: 2					
Course	Title	Grade	Credits	Term	Repeated	
CEE 4550	Structural Analysis II	IP	(3)	Fall 2023		
CEE 6551	Strength of Materials	IP	(3)	Fall 2023		

Description	Created on	Created by
Registrar's Office Audit (SP'21 BSCE): Student is on track for graduation.	03/18/2021	Raines, Lisa L
	•	•



# DegreeWorks-BSMS

lotes			
Status	Description	Created on	Created by
	Please double count CEE 6603 towards the Transportation Specialization. Please double count CEE 6605 towards the Elective requirement. Please move over CEE 4610 and CEE 4620 towards the elective requirement.	02/17/2023	Lesperance, Danielle A
	Please make the following exceptions for elective Move CEE 6603 to technical elective Move CEE 4610 to fallthrough Warm Regards, Tracy Miller	04/18/2022	Lucas, Angela D
	Registrar's Office Audit (SP'22 BSCE): Student is on track for graduation.	03/03/2022	Vaughn, Jacob D
	Registrar's Office Audit (SP'22 BSCE): Student is on track for graduation. Pending grades for minor requirements.	03/01/2022	Lucas, Angela D



# DegreeWorks

MSCE - Thesis Option	the state of the s	Select one specialization of coursework. Elective requirements can be completed with additional specialization course work or courses approved by your advisor.				
Specialization Requirements						
Transportation Systems	CEE 6601	CEE 6601 Statistics in Transport		С	4	Spring 2023
	CEE 6603	CEE 6603 Traffic Engineering		А	3	Spring 2022
	CEE 8097	Intro Transpo Research		S	1	Fall 2021
	CEE 6701	Urban Tı	ans Planning	А	3	Fall 2021
	CEE 8813	ST: Trans	spo System Analysis	С	3	Spring 2022
	Exception by:	Lesperance, Danielle A	On: 04/26/2023	Apply Here:	Apply CE	EE 6601 here.
	Exception by:	Lesperance, Danielle A	On: 06/28/2023	Apply Here:	Apply CE	EE 6603 here.
	Exception by:	Lesperance, Danielle A	On: 04/26/2023	Apply Here:	Apply CE	EE 8097 here.
	Exception by:	Lesperance, Danielle A	On: 04/26/2023	Apply Here:	Apply CE	EE 6701 here.
	Exception by:	Lesperance, Danielle A	On: 06/28/2023	Apply Here:	Apply CE	EE 8813 here.
	Exception by:	Lesperance, Danielle A	On: 06/28/2023	Apply Here:	Apply CE	E 8813 here.
Elective Requirements	CEE 6651	Infrastru	cture Systems	А	3	Fall 2022
	CEE 6632	Simulatio	on in Transport	В	3	Spring 2022
	CEE 8813	ST: Airlin Manager	e Revenue nent	IP	(3)	Fall 2023
	CEE 6623	Survey D	esign and Analy	В	3	Fall 2021



# DegreeWorks-PhD

Degree Requirements

INCOMPLETE

Catalog year: 2020-2021 GPA: 4.00

RCR-Online Training	RCR - Online Training	Y
RCR-Doctoral Course	RCR - DR Course	Υ
Admission to Candidacy	Still needed:	Students must be Admitted to Candidacy prior to applying to graduate. Review with your advisor and submit required forms to the Graduate Studies Office.
Doctoral Minor	Still needed:	The Doctoral Minor is a degree requirement. Review with your advisor and submit the Doctoral Minor form to the Graduate Studies Office.
Full Graduate Standing		
3.0 Overall GPA Requirement Met		
Degree Status Information	Still needed:	Specific course requirements are not available at this time. This audit is intended to provide current degree status only, in addition to any completed coursework. Your application and graduation status appear above under the first section, entitled 'Student View.'
	RCR-Doctoral Course  Admission to Candidacy  Doctoral Minor  Full Graduate Standing  3.0 Overall GPA Requirement Met	RCR-Doctoral Course  Admission to Candidacy  Doctoral Minor  Still needed:  Full Graduate Standing  3.0 Overall GPA Requirement Met

Fall Through					^
Credits applied: 144	Classes applied: 21				
Course	Title	Grade	Credits	Term	Repeated
CEE 6310	Process Principles-EnvE	А	3	Fall 2020	
CEE 6311	Microbial Principles	А	3	Fall 2020	



## Independent Sections

CEE 7000 – MS Thesis. (Pass/fail only.)

**CEE 8900 – Special Problems.** (Letter-grade, audit, or pass/fail.) This is intended for non-research independent study. Examples include replicating course content from a course not currently offered, exploratory topic with a small handful of students, or a project-based independent study. **PERMIT ONLY** 

CEE 8902 – Special Problems. (Pass/fail only.) Reserved for funded non-thesis MS students. Only used as filler credit to reach 21 hours (16 in Summer). PERMIT ONLY. WILL NOT COUNT TOWARDS A DEGREE.

**CEE 8956 – Master's Research Problem.** (Pass/fail only.) Intended for MS-level research which doesn't culminate in a thesis. (Maximum 3cr pass/fail toward the degree.) **PERMIT ONLY** 

**CEE 9000 – Doctoral Thesis.** (Pass/fail only.)

Request a permit at <a href="mailto:permits@ce.gatech.edu">permits@ce.gatech.edu</a>. Include your GTID and the CRN for the course. Copy the instructor on the email. We must have their approval before issuing the permit.

Permits are also required for registering for classes with the same course number such as CEE 8813, or registering for 4000 level classes.



## Funded Students Registration

## "21 Hour Rule"

## **GRA/GTA** - Thesis

12 hours of letter-grade or pass-fail work + thesis hours (CEE 7000 for MS, CEE 9000 for PhD) to reach total of 21 hours (16 hours in the summer)

## **GRA/GTA - Non-Thesis**

12 hours of letter-grade or pass-fail work + Special Problems\* (CEE 8902) to reach total of 21 hours. (16 hour in the summer)

\*Please note there are multiple Special Problems – make sure to select CEE 8902.



## General Academic Resources

GSSO Website (<a href="http://gsso.ce.gatech.edu">http://gsso.ce.gatech.edu</a>)

CEE Website (<a href="http://cee.gatech.edu/">http://cee.gatech.edu/</a>)

CEE Intranet (<a href="https://intranet.ce.gatech.edu/">https://intranet.ce.gatech.edu/</a>)

CARE Center (<a href="https://care.gatech.edu/">https://care.gatech.edu/</a>)

General Catalog (<a href="http://www.catalog.gatech.edu/">http://www.catalog.gatech.edu/</a>)

Graduate Studies (<a href="http://www.grad.gatech.edu">http://www.grad.gatech.edu</a>)

Int'l Student & Scholar Services and Study Abroad

(http://oie.gatech.edu/)

Library (<a href="http://www.library.gatech.edu/">http://www.library.gatech.edu/</a>)

Office for Information Tech (<a href="http://www.oit.gatech.edu/">http://www.oit.gatech.edu/</a>)

Registrar's Office (<a href="http://www.registrar.gatech.edu/">http://www.registrar.gatech.edu/</a>)

#### https://ce.gatech.edu/academics/graduate/phd







#### PhD with a major in Bioengineering

The mission of this program is to educate students and advance research that integrates engineering principles with the life sciences to improve health, the environment and engineering applications.

#### PhD with a major in Computational Science & Engineering

Students in this program will address the body of knowledge, skills, and practices associated with the study of computer-based models of natural phenomena and engineered systems.

#### PhD with a major in Oce Science & Engineering

in is program combines the basic and applied sciences with innovative ocean technologies to advance research at the intersection of the physical, biological, chemical and human dimensions of ocear systems.

#### Additional Resources

#### Thesis and Dissertation Forms

All forms required for current Ph.D. students are available on the <u>Georgia Tech Graduate Studies Office</u> website or in CEE's Graduate Student Services Office, located in Suite 1220 of the Mason Building. Stop by to speak with an advisor or send an email to <u>gradinfo@ce.gatech.edu</u> if you need assistance.

#### Contact the Graduate Student Services Office

Have questions for us? Contact the Graduate Student Services Office to speak with an advisor.

Looking for more information about day-to-day life as a CEE graduate student? Visit the GSSO blog to find out.

raduate Student Handbook

<u>♣ Graduate Student Handbook.pdf</u>

File last updated **Jul 07, 2022** 



## Helpful Tips and Reminders

Institute Academic Calendar: www.registrar.gatech.edu

Adhere to ALL Institute and CEE deadlines. Bookmark this page or use the Subscribe feature.

Registration closes PROMPTLY at 4pm on August 25<sup>th</sup>.

Familiarize yourself with BuzzPort: www.buzzport.gatech.edu

Always keep your emergency contacts updated.

**Check your GT email daily – Institute policy** 

**Sign up for GTENS** (Georgia Tech Emergency Notification System). Sign up at passport.gatech.edu.

Most form are now available through DocuSign, the preferred method: <a href="https://esignature.gatech.edu/cfeis/docusign/">https://esignature.gatech.edu/cfeis/docusign/</a>



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**ENVE**-ES&T 3229

**GEO**-Mason 1132

SEMM-Mason 2119

**TSE-**To be determined

Water-Mason 2228

4:30pm-6:30pm Orientation Reception!

Mason Lobby





# Questions?

