

**ECOL/FISH/WASR 4310/6310:**  
**Freshwater Ecosystems:**  
**Resilience and Responses to Global Change**  
University of Georgia  
Fall 2024

**COURSE OVERVIEW:**

Freshwater resources are essential for Earth's systems, global biodiversity, and humanity. However, in many regions throughout the planet, the quality and quantity of freshwater is declining. This decline compromises native biodiversity, complicates conservation efforts, undermines ecosystem services that benefit human populations, and exacerbates conflicts in river networks. Loss of access to fresh water and mismanagement of water infrastructure creates environmental justice issues at local, national, and international scales. In this course, you will learn about the physical, chemical, and biological environments of freshwater systems. We will apply a systems approach to studying freshwater ecology and conservation. You will increase your understanding of ecosystem ecology and of some of the ways that human activities have modified the structure and function of freshwater ecosystems. We will also consider environmental justice issues and points of conflict related to freshwater resource management.

**MEETING TIMES:**

Lecture: MWF 9:10-10am

[Stats/Computer Services Building Room 306](#)

<https://maps.app.goo.gl/sEkYEKJ4tdMuYKkJA>

**INSTRUCTORS:**

**Dr. Krista Capps (she/her)**

Odum School of Ecology, Room 121

[kcapps@uga.edu](mailto:kcapps@uga.edu)

<http://cappslab.ecology.uga.edu/>



**Dr. Alex Strauss (he/him)**

Odum School of Ecology, Room 194A

[at Strauss@uga.edu](mailto:at Strauss@uga.edu)

<https://strausslab.ecology.uga.edu/>



Drop in hours: By appointment

## CREATING A LEARNING ENVIRONMENT IN OUR CLASS TO SUPPORT EVERYONE'S SUCCESS:

Much of science is subjective and is historically built on a small subset of privileged voices. This course often focuses on historically important studies and ideas which were developed and conducted by a non-representative portion of the population. In particular, the instructors acknowledge that many of the readings for this course were authored by White men. The instructors further acknowledge that there may be both overt and covert biases in the material due to the lens with which it was written, even though the material is primarily of a scientific nature. Integrating a diverse set of experiences is essential to support a more comprehensive understanding of science. With that end in mind, we have attempted to assign readings that were written by a more diverse group of people when possible. Please contact us (in person or electronically) or submit anonymous feedback if you have any suggestions to further improve the quality of the course materials. We hope to create a learning environment for our students that supports a diversity of thoughts, perspectives and experiences, and honors your identities. To help accomplish this goal, we will adhere to university-level policies on non-discrimination and anti-harassment.

In this course, we encourage every student to share their own experiences as they are relevant to the material we cover, but we also stress that no student is ever presumed to speak for anything or anyone more than their own experience or point of view. In this class, you have the right to determine your own identity. You have the right to be called by whatever name you wish, and for that name to be pronounced correctly. You have the right to be referred to by whatever pronoun matches your identify. You have the right to adjust those requests at any point. If there are aspects of the instruction of this course that result in barriers to your inclusion or a sense of alienation from the course content, please contact us privately without fear of reprisal. We promise no retaliation. If you feel uncomfortable contacting us, we encourage you to consider reaching out to the Teaching Assistant, another student or faculty member, or trusted member of the UGA community to contact us so that you can maintain your anonymity.

**UGA Non-Discrimination and Anti-Harassment Policy:** The University of Georgia ("the University") is committed to maintaining a fair and respectful environment for living, work and study. To that end, and in accordance with federal and state law, Board of Regents policy, and University policy, the University prohibits harassment of or discrimination against any person because of race, color, sex (including sexual harassment and pregnancy), sexual orientation, gender identity, ethnicity or national origin, religion, age, genetic information, disability, or veteran status by any member of the University Community (as defined below) on campus, in connection with a University program or activity, or in a manner that creates a hostile environment for members of the University Community. In this course, incidents of harassment and discrimination will be met with appropriate disciplinary action, up to and including dismissal or expulsion from the University. Students initiating and participating in harassment or discrimination in this course will be met with appropriate disciplinary action, up to and including removal from class, and dismissal or expulsion from the University.

### Disclaimers:

- The course syllabus is a general plan for the course; deviation announced to the class by the instructor may be necessary.
- The course format may change due to issues with academic dishonesty or unexpected events including, but not limited to, extreme weather, global or instructor health issues, or other situations that preclude us from meeting in person or online.

## Required Reading and Technology:

You must register for an iClicker account for this class. Please follow directions in eLC.

Following feedback from students there is NO TEXTBOOK. Required readings will be posted on eLC, named with the letter "R" followed by a numeral; e.g., "R1: Properties of Water"

## LEARNING OBJECTIVES:

By the end of this course you will:

- Have a greater understanding of the ecological structure and function of freshwater ecosystems. We will accomplish this goal by studying the basic physics, chemistry, and biology of freshwater ecosystems through a lens of systems ecology.
- Be able to identify and describe current threats to freshwater ecosystems. We will accomplish this goal by using the assigned readings, lectures, activities, and discussions to study the ways in which freshwater ecosystems can become degraded.
- Be able to read, understand, and apply information presented in peer-reviewed literature. When finished with the course, you should be confident in reading primary literature, understanding the information presented therein, and applying scientific findings to answer new questions about freshwater ecosystems.

## CONTACT INFORMATION:

We will be using eLC announcements, not email, to communicate with you. You are responsible for all of the information presented electronically through eLC for this course. **Set your eLC page to send announcements to your email.** All due dates will be posted through eLC. There are a lot of them, so make sure to stay up to date on your calendar!

**Please contact us using email** as we do not frequently check voicemail. Please use the email addresses we provide above; do NOT use the eLC system or other email addresses. *Hence, if you send messages to eLC or other email accounts, they will not be answered.* You should feel free to contact either instructor, but in general, you should direct emails to the professor that is currently lecturing in class; otherwise, responses may be delayed.

We will address questions in chronological order and do our best to respond to your emails in a timely fashion. If you have a question that is complicated or that you think will take an excessive amount of time to answer via email, please reach out to schedule office hours. You may also choose to include a phone number where we can contact you to answer the question. If appropriate and if you provide the number, we may call you to address the question.

Please remember that your emails represent you as a student and a person. Typically, it is the most common method by which we interact with our students. Please consider drafting professional, effective emails when you contact us in order to aid us in supporting you.

## COURSE ASSESSMENT:

Assessment for the lecture portion of the course will be determined by 1) low-stakes quizzes due on eLC BEFORE class that cover material from readings (R's) and previous lectures, 2) class attendance and participation, assessed through iClicker and other methods, 3) paper discussions (PD's), 4) other in-class activities, and 5) in-class Synthesis Writing Assessments. Graduate students also complete 6) a project. We will post more details on eLC about assessments, and you are responsible for knowing that information. The final grade distribution is described to the right and is different for graduate and undergraduate students. Undergraduate students interested in obtaining honors credit MUST BE APPROVED within the first 10 days of the semester. Honors credit will be obtained by using the Graduate Student Grade Distribution and completion of an accompanying Graduate Project.

The plus/minus grading system will be used, according to UGA policy. You may receive up to, but not more than 100% in the class.

Assessment Category	% Assessment	
	4310	6310
1) Quizzes	15	15
2) Participation	23	23
3) Paper Discussions	24	16
4) Activities	18	12
5) Writing Synthesis	20	20
6) Graduate Activity		14

Range	Grade
93-100	A
90-92	A-
87-89.9	B+
83-86.9	B
80-82.9	B-
77-79.9	C+
73-76.9	C
70-72.9	C-
60-69.9	D
<60	F

### EXTRA CREDIT:

There are several opportunities to receive extra credit in this class. Most of them have to do with completing all of the assignments detailed in the syllabus. There may be other opportunities that will be announced in class and/or through announcements. It is your responsibility to obtain this information by reviewing announcements and attending class. If you miss these opportunities, there will be not additional opportunities provided.

## ACADEMIC HONESTY:

**As a University of Georgia student, you have already agreed to abide by the University's academic honesty policy**, "A Culture of Honesty," and the Student Honor Code. All academic work must meet the standards described in "A Culture of Honesty" found at: [www.uga.edu/honesty](http://www.uga.edu/honesty). Lack of knowledge of the academic honesty policy is not a reasonable explanation for a violation. Questions related to course assignments and the academic honesty policy should be directed to the instructor. Students are expected to abide to the UGA Student Honor Code: "I will be academically honest in all of my academic work and will not tolerate academic dishonesty of others." A Culture of Honesty, the University's policy and procedures for handling cases of suspected dishonesty, can be found at [www.uga.edu/ovpi](http://www.uga.edu/ovpi). In this course, any student violating the university academic honesty code, including plagiarizing the work of others, may receive a multitude of penalties towards their grade, including a failing grade for the course. You must attest that you have read and agree to the UGA academic honesty policy and that you understand the academic honesty policy for this course by filling out the form listed in the box below.

**Singing into someone's account and answering questions for them is a violation of this code** (please visit: [https://honesty.uga.edu/Academic-Honesty-Policy/Prohibited\\_Conduct/Lying/Tampering](https://honesty.uga.edu/Academic-Honesty-Policy/Prohibited_Conduct/Lying/Tampering)). If we find evidence to support such a violation, we will be registering the situation with the university. Students in question (student who is answering questions and student who is absent) will also lose participation points for the day in question and the three regular lectures (not days) preceding the event and the three lectures after the day of the recorded incident. This means that the students in question will lose points from a total of seven regular lecture periods. **At minimum, this will almost certainly negatively affect the overall course grade, as participation is a large portion of your overall grade.**

**Using generative AI, such as Chat GPT for any assignment without explicit permission is prohibited. If we find evidence of suggested output from generative AI, this is an academic honesty violation and you will be penalized according to the university academic honesty policy.**

## ABSENCES, ATTENDANCE, & IN-CLASS ACTIVITIES:

We recognize that over the course of the semester, some of you may come down with the flu, COVID, or other illnesses that impact your ability to attend class. We have designed the class so that you can miss several days of regular lecture with no penalty deducted from your participation grade. However, if you do miss class, you will not be able to make up the in-class points even if you are sick. This policy is NOT permission to go on vacation, to schedule appointments during class, or to sleep in, etc. Note this policy does not apply to Activity days (you must attend all), Paper Discussions (you must attend all), or Synthesis Writing Assignments (you must attend all). There are ways to make up Activities, Paper Discussions with EXCUSED absences and additional work. You may NOT make up any of the Synthesis Writing assignments. Please review the course assessment section of the Syllabus for more details.

If you will be missing more than one or two classes because of a personal hardship (e.g., long-term illness, surgery and recovery, etc.), you need to register this situation with Student Care and Outreach (SCO) and/or the DRC. They must contact us with this official information for us to be able to support you and account for your absences in the calculation of your grade. This should be done as soon as possible, so that we have the time to work with you to design ways to make up the participation component of your grade. If it is not done in a timely fashion, we may not be able to support you in addressing the situation. We will not provide additional opportunities to make-up points associated with absences unless: 1) we are working officially with the SCO or DRC, and 2) the process was initiated in a timely (see above) manner. If you have accommodations that require you to miss class, you will need to complete additional assignments to receive full participation credit.

In general, daily attendance will be taken via iClicker during the first 5 minutes of class. If you have persistent technological issues, it is your responsibility to resolve them in the first two weeks of class.

Each year, we receive requests for make-up assignments when students realize that their grade has been very negatively affected by not attending/participating in class. We answer these requests with the text above. If we find evidence of lying about attendance, we will adhere to the policy described above.

### Description of Assessment Activities

**1) Active Participation in Class:** The purpose of lectures, active learning activities through iClicker, and online lecture modules is to reinforce core topics and themes from assigned readings. Lecture slides for active note taking will be posted to eLC prior to class whenever possible. **Please make sure to review the due dates and times of online modules.** Active participation in class and in-class assignments are essential to achieve the learning outcomes associated with this class. We will be using the iClicker geolocator, so you must be physically present in the classroom in order to receive credit for iClicker participation. We may also use worksheets, etc. to assess your participation and learning. **You may not make these points up if you are absent for any reason from class. However, we have designed the course so that you can miss some of the in-class participation points without penalty.** Attendance will be taken every day and you will receive 5 points for attendance per day. The automated attendance will be set to collect attendance for the first five minutes of class. **You will not receive attendance credit for the day if you are more than 5 minute late.** You will also receive 5 points per day on days when iClicker questions are asked in class. To receive full participation credit, you must answer at least 50% of the questions asked during class to receive full credit. If you have DRC accommodations to miss class, you will be provided an additional assignment to complete to address the number of times you miss class. **Your Success and Well-Being Matter:** *You may miss 2 days of in-person attendance and still receive full credit for this component of the grade. In general, we plan to assess iClicker responses based on thoughtful participation, not for correct responses. If you only miss one or zero classes, a full percentage point will be ADDED to your final grade as extra credit.*

## Description of Assessment Activities

**2) Quizzes & Readings (denoted Q's & R's in the course schedule):** The purpose of the readings and quizzes is to build your content knowledge of freshwater ecosystems. Readings will cover core topics and must be completed before class. Quizzes will be embedded in eLC and are typically due Wednesdays before class. Quizzes will test content from both assigned readings and the previous 1-3 lectures. Quizzes will typically be 10 questions, including a mixture of multiple choice, multiple select, and other question types. We will use "right minus wrong" grading for the multiple select. They are open book and open note. We will go over the correct answers at the beginning of class, so you can NOT make up quizzes that you miss. **Your Success and Well-Being Matter:** *We will drop your ONE lowest quiz score. Additionally, you have TWO ATTEMPTS for each quiz, and we will set eLC to inform you which questions you missed on your first attempt. An incomplete quiz counts as a 0, but can count as your lowest score. We aim to open quizzes at least two weeks before their due date. If you complete all of the quizzes the points you earn in the extra quiz will be added to your final quiz grade as extra credit.*

**3) Paper Discussions (denoted PD's in the course schedule):** Discussions of the primary literature and other assigned readings will be assigned throughout the semester (8x total). Make sure to review the dates they are due (typically Fridays). The purpose of these activities is to develop the skills needed to interpret scientific literature and apply scientific information. Guided reading responses for each paper discussion will be due before class to facilitate a more engaged discussion (detailed guidelines on eLC). Post-discussion reflections allow you to reflect on points of interest, confusion, and learning (typically due Saturdays at noon, the day after an in-class Paper Discussion). We will use paper discussions to critically evaluate the methods, results, and implications of the studies as they relate to weekly themes and to enhance your understanding of the subject matter. **Absences during PD:** *You must notify the instructor within the first 10 days of class if you will miss a paper discussion day because of a university approved event. You must notify the instructor before class if you are missing a PD for an illness.* If you have an instructor approved absence prior to the PD, you may receive up to full credit by answering all of the questions for ALL SECTIONS of a PD assignment, due by the due date for the post-discussion assignment. **Your Success and Well-Being Matter:** *We will select discussion papers that students in previous years found particularly interesting.*

**4) Activities (denoted as Activity: XXX in the course schedule):** The purpose of activities is to support you in understanding of the ecological structure and function of freshwater systems and freshwater systems as social-ecological systems. There are six activities, including one as an online activity in lieu of a lecture. You must complete all of these activities in order to receive full credit in the class. There will typically be pre-class tasks that need to be completed as part of these activities that will be due prior to class, but this is not always true. You must review eLC to be prepared. In class, you will need to be actively working with your groups to complete the assignment. Active participation will be assessed in various ways by the instructor and these will be discussed with the class if they will be used to assess your grade. Online modules and corresponding assignments will also be posted on eLC with due dates and times. You should review this information to ensure that you turn things in on time. There are no make-up activities for missed online modules. **Absences during one of the six in-person activities:** *You must notify the faculty within the first 10 days of class if you will miss the activity because of a university approved event. You must notify the faculty prior to class if you are missing an activity in class work day for an illness.* Make-up assignments may be given on a case-by case basis, depending on the activity you miss, **but it may not be possible.** These activities are meant to be instructor-guided, group activities and for some of them, there are no easy ways to make up the learning experience. **Your Success and Well-Being Matter:** *In general, these activities have been designed to support you in understanding some of the more complex ideas in biogeochemistry that we address this semester. They have been designed in response to student feedback in years past. Additionally, the online activities (i.e., Environmental Justice and Documenting Nature) can be completed at ANY TIME until the due date. This is in part to support students who plan to travel home for the holidays.*

## Description of Assessment Activities

**5) Synthesis Writing Assignments:** In lieu of exams, we will be assessing your learning with four synthesis writing assignments. Please see the schedule for details. The final assignment will occur on the day of the final in class. You must be in class on the day of the event, and you may not make up these assignments. You will be asked to write a response to a question during class, drawing on and synthesizing information from the primary documents along with foundational knowledge you have learned from lecture content and other class materials. We will release the documents one week in advance on eLC, but we will not release the prompt (i.e., what you write about) until the in-class writing day. Unless you have DRC accommodations, you will be required to answer these questions by typing directly into eLC in an assignment that will be open during class. We are happy to support students who need access to laptops to complete these activities. We just need to be informed. More details about these assignments will be posted online as the semester progresses. ***Your Success and Well-Being Matter:*** *To support your success, one week prior to each synthesis writing assignment, we will post 2-4 documents (e.g., data, manuscript, policy, etc.) for you to synthesize and consider in light of what you have learned in class. If you complete all of the synthesis writings and it is evident that you read all of the materials, your lowest score of the four scores will be dropped from your grade; however, you must receive at least a 60% on all four synthesis writing assignments to have the lowest score dropped.*

**6) Graduate Student Activity:** There are so many amazing conservation biologists and aquatic ecologists in the world and we wanted to give you an opportunity to learn more about some of their work this semester in your exploration of freshwater ecology. All of the presentations included here were recorded and shared with UGA students with the permission of the author. To receive full credit, you must complete this reflection assignment for four of the modules below. Each module contains a video component and at least one written component. Please review the following modules and read and watch everything included in the module before answering. Please also review any module-specific instructions prior to moving forward. You must complete the Colonial Conservation module and one of two of each of the modules in the other themed headings: 1) Extreme Weather, 2) Emerging Contaminants, and 3) Wastewater. You may complete the four reflections any time between September 14th and November 30th. They are due on December 1st. They will not be graded until after the due date. ***Your Success and Well-Being Matter:*** *All of these activities are online and they can be completed at any time between the first week of September and the 1<sup>st</sup> of December.*

# Schedule 2024

Week		Monday		Wednesday		Friday
<b>Unit 1: Systems Thinking and Ecosystem Ecology</b>						
1			<b>Aug 14</b>	Course Introduction	<b>Aug 16</b>	<b>Activity:</b> ONLINE Environmental Justice
2	<b>Aug 19</b>	Properties of Water <b>R1</b>	<b>Aug 21</b>	Oxygen & Water Chemistry (A) <b>Quiz 1; R2</b>	<b>Aug 23</b>	Oxygen and Water Chemistry (B) <b>R3</b>
3	<b>Aug 26</b>	<b>Activity:</b> Redox	<b>Aug 28</b>	Wetland Ecology <b>Quiz 2; R4</b>	<b>Aug 30</b>	<b>PD1:</b> Ecosystem Services
4	<b>Sep 2</b>	<b>Labor Day</b>	<b>Sep 4</b>	Carbon Cycling <b>Quiz 3; R5</b>	<b>Sep 6</b>	<b>Activity:</b> Systems
5	<b>Sep 9</b>	Nutrient Cycling <b>R6</b>	<b>Sep 11</b>	Fungi, Bacteria, and Producers <b>Quiz 4; R7</b>	<b>Sep 13</b>	<b>Activity:</b> Nutrient Budget
6	<b>Sep 16</b>	Nutrient Limitation & Stoichiometry <b>R8</b>	<b>Sep 18</b>	Stream and River Hydrology <b>Quiz 5; R9</b>	<b>Sep 20</b>	<b>Synthesis Writing Assessment 1</b>
<b>Unit 2: Food Webs and Energy Flow in Freshwater Systems</b>						
7	<b>Sep 23</b>	Lake Basics <b>R10</b>	<b>Sep 25</b>	Stratification and Seasonality <b>Quiz 6; R11</b>	<b>Sep 27</b>	<b>PD2:</b> Lake Colors
8	<b>Sep 30</b>	Grazers & Grazed <b>R12</b>	<b>Oct 2</b>	Invertebrate Predators <b>Quiz 7; R13</b>	<b>Oct 4</b>	<b>PD3:</b> Lake Oglethorpe
9	<b>Oct 7</b>	Fish & Food Webs <b>R14</b>	<b>Oct 9</b>	Carbon in Lake Food Webs <b>Quiz 8; R15</b>	<b>Oct 11</b>	<b>PD4:</b> Trophic Cascades
10	<b>Oct. 14</b>	<b>Synthesis Writing Assessment 2</b>	<b>Oct 16</b>	Parasites in Food Webs <b>R16</b>	<b>Oct 18</b>	<b>PD5:</b> Zooplankton Disease
11	<b>Oct 21</b>	Stream Food Webs <b>R17</b>	<b>Oct 23</b>	Freshwater Community Ecology <b>Quiz 9; R18</b>	<b>Oct 25</b>	<b>PD6:</b> Harmful Algal Blooms
<b>Unit 3 Human Activities and Environmental Change in Freshwaters</b>						
12	<b>Oct 28</b>	Freshwater Biodiversity <b>R19</b>	<b>Oct 30</b>	Eutrophication <b>Quiz 10; R20</b>	<b>Nov 1</b>	<b>Fall Break</b>
13	<b>Nov 4</b>	Climate Change <b>R21</b>	<b>Nov 6</b>	Water and Human Disease <b>Quiz 11; R22</b>	<b>Nov 8</b>	<b>PD7:</b> Invasive Species
14	<b>Nov 11</b>	<b>Synthesis Writing Assessment 3</b>	<b>Nov 13</b>	Urbanization and Stream Ecology <b>R23</b>	<b>Nov 15</b>	<b>PD8:</b> Evolutionary Change in Urban Environments
<b>Unit 4: Conserving Freshwater Systems for the Future</b>						
15	<b>Nov 18</b>	Global Freshwater Conflicts <b>R25</b>	<b>Nov 20</b>	Positive Seeds of the Anthropocene <b>Quiz 12; R26</b>	<b>Nov 22</b>	<b>Activity:</b> Science Communication
16	<b>Nov 25</b>	<b>Activity:</b> ONLINE Documenting Nature	<b>Nov 27</b>	<b>Thanksgiving</b>	<b>Nov 29</b>	<b>Thanksgiving</b>
17	<b>Dec 2</b>	Human-Altered Freshwater Subsidies <b>R24</b>	<b>Dec 3</b>	Course Wrap-Up	<b>MON Dec 9</b>	<b>MONDAY Synthesis Writing Assessment 4 (9-10am)</b>

## Key:

- **Readings (R's)** are posted on eLC and should be completed before class.
- **Quizzes (Q's)** are on eLC, typically due Wednesday morning **BEFORE** class. You have two attempts to obtain full credit. Content may include material from readings or lecture earlier in the week.
- **Activities** and **Paper Discussions (PD's)** are typically on Fridays or Mondays. They usually have an accompanying assignment that is due **BEFORE** class.
- **Synthesis Writing Assessments** take place during class time.
- Class sessions are led by **Dr. Capps, Dr. Strauss, or both.**



## **SENSITIVITY TO RELIGIOUS PRACTICES: (AND CORRESPONDING ABSENCES)**

Many of our faculty, staff, and students commemorate various events of importance to their particular religions. Our practice is to make every reasonable effort to allow members of the University community to observe their religious holidays without academic penalty. Students should address potential conflicts with the faculty member **within the first 10 days of the semester** so that arrangements can be made to accommodate the religious observance if that accommodation does not create an undue hardship. Absence from classes or examinations for religious reasons does not relieve students from responsibility for any part of the coursework required during the period of absence. Students who expect to miss classes, examinations, or other assignments as a consequence of their religious observance should be provided with a reasonable alternative opportunity to complete such academic responsibilities.

## **STUDENTS WITH SPECIAL NEEDS:**

Students with disabilities who require reasonable accommodations in order to participate in course activities or meet course requirements should contact the instructors or designate during regular office hours or by appointment. Accommodations cannot be provided until a student has gone through The Disability Resource Center (DRC) and we have discussed appropriate accommodations for this course. Please remember that it is your responsibility to convey the information about any needed accommodations to us. We expect that you will have any relevant discussions with us about accommodations **within the first 10 days** of the semester. All conversations will be strictly confidential.

## **UGA WELL-BEING RESOURCES**

UGA Well-being Resources promote student success by cultivating a culture that supports a more active, healthy, and engaged student community.

Anyone needing assistance is encouraged to contact Student Care & Outreach (SCO) in the Division of Student Affairs at 706-542-8479 or visit [sco.uga.edu](http://sco.uga.edu). Student Care & Outreach helps students navigate difficult circumstances by connecting them with the most appropriate resources or services. They also administer the Embark@UGA program which supports students experiencing, or who have experienced, homelessness, foster care, or housing insecurity.

UGA provides both clinical and non-clinical options to support student well-being and mental health, any time, any place. Whether on campus, or studying from home or abroad, UGA Well-being Resources are here to help.

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- Well-being Resources: [well-being.uga.edu](http://well-being.uga.edu)
- Student Care and Outreach: [sco.uga.edu](http://sco.uga.edu)
- University Health Center: [[healthcenter.uga.edu](http://healthcenter.uga.edu)][healthcenter.uga.edu](http://healthcenter.uga.edu)
- Counseling and Psychiatric Services: [caps.uga.edu](http://caps.uga.edu) or CAPS 24/7 crisis support at 706-542-2273
- Health Promotion/ Fontaine Center: [[healthpromotion.uga.edu](http://healthpromotion.uga.edu)][healthpromotion.uga.edu](http://healthpromotion.uga.edu)
- Disability Resource Center and Testing Services: [drc.uga.edu](http://drc.uga.edu)

Additional information, including free digital well-being resources, can be accessed through the UGA app or by visiting <https://well-being.uga.edu>.

## **Final Examination Schedule Conflicts**

With the consent of the academic department, the individual faculty instructor has authority to manage students who have conflicts with the final examination schedule. A student with three final examinations scheduled within a twenty-four (24) hour period or two examinations at the same time may petition to reschedule one exam to a different time or day. If one of the conflicting final examinations is a mass exam, then it will be rescheduled for that student. The instructions for rescheduling are located at the following web site: <https://reg.uga.edu/general-information/calendars/final-exam-schedule/>.

## Prior to taking the class: (potentially) helpful quotes from previous students:

In general, students have commented (anonymously and through reflections) that they enjoy this course. However, we also see some common themes regarding what they find most challenging. We have included some of their comments here for you to review. We take critical reflection of the class very seriously, and we constantly adapt when students take the time to provide feedback. For example, this year, we will slightly reduce the reading load at the beginning of the semester. However, the subject matter we discuss at the outset of the course is usually new to most students. Therefore, there will still be a lot of required reading at the outset. We are excited to engage with you!

### Undergraduate comments:

"Being a Water and Soil Resources major in the Warnell School of Forestry and Natural Resources, it was an incredible experience to engage in a course offered by Odum and soak up the knowledge and differing perspectives of the professionals, Dr. Capps and Dr. Strauss, teaching the course. Overall, the activities that we were instructed to participate in very much facilitated my learning of the course material....I would recommend this course to any student at UGA interested in freshwater ecosystems or any aspect of the environment as a whole."

"One of the more challenging aspects of the course was keeping up with the assigned readings throughout each week. Compared to other classes I am currently taking, there were more assigned readings in this course, and they were a little longer than readings assigned by other classes. The readings were very interesting and enjoyable to read, but it was hard to keep up with them throughout each week with all the other work I had for other classes as well. I also tend to be a slow reader, so I spent much more time reading them than an average person normally would."

### Graduate comments:

"I feel as though this class met my expectations, and I was able to learn the concepts that I had implicitly learned through my work in an explicit classroom environment. I appreciate the way that concepts were laid out in a clear format, and that there was a supportive system in place for me to ask further questions....My favorite aspect of the course was that there was not a singular focus on aquatic organisms. At first, I was disappointed that we did not talk about this as much as I had originally anticipated, but upon further reflection I am glad that we didn't do that. The chemical and hydrological course content were among the most valuable, and the content that I was the least familiar with which makes it in some ways more important. I appreciate that we also spent a dedicated portion of the class talking about sociological and economic approaches to freshwater conservation."

"Additionally, I feel like while this is a class that I would have gotten a lot out of as an undergraduate student, I was still able to get a lot out of it as a graduate student. I am sometimes wary of split-level courses, as it can be hard to make the content appropriate for everyone, but I feel as though this class perfectly achieved that...."

"I think that since I chose to take this class myself that I had more inherent initiative and motivation than I would have otherwise had for a required course. It can be easy to go through a class by just going through the motions of completing assignments without processing any of the information. For this class it came more naturally because I was able to draw a lot of parallels between what we were discussing in class and the work that I have done in the past and am currently doing. I often found myself returning to class notes and reflecting further upon the content....The assignments are more indicative of real work, such as critically reading peer reviewed literature and synthesizing it. As a graduate student this emulates a literature review, which is a crucial step of research. This helped to give me additional motivation in the course, because I felt less like I was going through the motions or completing busy work. The most challenging aspect of this course was maintaining an appropriate work schedule and pace to stay on top of assignments. There were many frequent assignments due for this class, however by completing some work early I was able to reduce my personal burn out. I appreciate that the assignments for the entire semester were posted right from the beginning. This gave me the opportunity not only to work ahead, but also the foresight to know what topics and content were coming up soon. This way I was better able to think about how the current content related to future content."