

Graduate Council Meeting
Wednesday, November 8, 2023
3:30 p.m., 327 Brooks Hall
(The Bylaws prohibit representation by proxy.)

AGENDA

I. Reading, Correction, and Approval of Minutes
(October 11, 2023)

II. Graduate Council Committee Reports

A. Appeals Committee
Committee Report (Don Nelson)

B. Program Committee
Committee Report (Kristen Navara)

- Action Item: From the College of Veterinary Medicine Department of Infectious Diseases, a proposal to add an area of emphasis in Infectious Diseases in the Comparative Biomedical Sciences MS degree program.
- Action Item: From the Odum School of Ecology, a proposal to deactivate the MS in Integrative Conservation and Sustainability.
- Action Item: From the Odum School of Ecology, a proposal to create an area of emphasis in Integrative Conservation and Sustainability in the Ecology MS degree program.
- Action Item: From the Mary Francis Early College of Education Department of Kinesiology, a proposal to add an area of emphasis in Adapted Physical Education in the Kinesiology MS degree program (Athens campus only).
- Action Item: From the College of Family and Consumer Sciences Department of Nutritional Sciences, a proposal to revise the MS in Nutritional Sciences, Community Nutrition Emphasis program (online).
- Action Item: From the College of Engineering School of Environmental, Civil, Agricultural and Mechanical Engineering, a proposal for a fully online version of the non-thesis-based Civil and Environmental Engineering (MS) with an area of emphasis in Civil Engineering.

C. Policy and Planning Committee
Committee Report (Yoo-Kyoung Seock)

The PPC Committee met on Thursday, 11/2/2023, to continue discussion on two topics: (1) Graduate Coordinator name change and (2) PhD time-to-degree policy. They are bringing these two topics to Graduate Council for a full group discussion.

- Graduate Coordinator name change
- PhD time-to-degree policy

III. Information Items

- A. Curriculum Report: The Graduate School has approved 13 new courses, 39 course revisions, and 0 deletions.
- B. Non-thesis option in the Ecology MS program was administratively approved.
- C. Termination of the Graduate Certificate in Atmospheric Sciences submitted by Curriculum Systems was administratively approved.
- D. Next meeting: Wednesday, January 17, 3:30pm, 327 Brooks Hall.

IV. Adjourn

PROPOSAL FOR AN AREA OF EMPHASIS

Date: 8/28/23

School/College: College of Veterinary Medicine

Department/Division: Department of Infectious Diseases

Program (Major and Degree): Comparative Biomedical Science

Which campus(es) will offer this program? Athens

Proposed Effective Date: Fall 2024

If major has more than one area of emphasis, submit all areas of emphasis under one major together. A course may appear in more than one area of emphasis, but each area of emphasis should have a distinct focus.

1. Area of Emphasis Title: Infectious Diseases

2. Area of Emphasis Description:

The MS degree program in Comparative Biomedical Sciences trains students in biomedical research and emphasizes interdisciplinary approaches in the scholarship of animal and human health. The Area of Emphasis in Infectious Diseases will allow students to focus their education and research on the causes of and prevention of bacterial, fungal, viral, and parasitic diseases, and methods of identifying and protecting humans and animals. Research topics within this area include development of advanced technologies to protect the human population from emerging diseases; new technologies to assure the safety and welfare of our food production and companion animals; And finally basic research on microbial pathogenesis, the molecular biology of microbial and parasitic pathogens, and the mechanisms of immunity.

Strengths of the diverse departmental graduate faculty include molecular virology, pathogenic bacteriology, classical and molecular parasitology, vaccinology, vector biology, ecology, disease modeling, and immunology. Students with BS or MS degrees, and those with a DVM degree, are accepted for graduate training in this program.

Instruction is coordinated with course offerings from the Department of Infectious Diseases, and with departments of the College of Arts and Sciences and the Odum School of Ecology. The statistics and computer science departments are involved in the epidemiology program of study. Suitable courses in these departments are included in students' programs of study. Relevant instruction in infectious diseases is coordinated with other departments within the College of Veterinary Medicine.

3. Major Requirements:

Required courses:

GRSC 7001, GradFIRST seminar (1 credit)

VETM 8001 or IDIS 8170, Research Communications or Research in Progress Seminar (1 credit)

GRSC 8550, Responsible Conduct of Research (1 credit)
VETM 7000 (min 6 credits) and VETM 7300 (min 3 credits)
CBIO(MIBO)(IDIS) 6100: Immunology (3 cr.)
IDIS 8010: Advanced Studies in Infectious Diseases (4 cr.)
IDIS 8160: Seminar in Infectious Diseases (1 cr.) (must enroll for 4 semesters)

Students must enroll in two of the following department Journal Club courses:

IDIS 8050: Special Topics in Ecology and Evolution of Infectious Diseases (1 cr.)
IDIS 8250: Special Topics in Parasitology (1 cr.)
IDIS 8540: Special Topics in Bacterial Pathogenesis (1 cr.)
IDIS 8550: Special Topics in Immunology (1 cr.)
IDIS 8590: Special Topics in Disease Intervention (1 cr.)
IDIS 8530: Special Topics in Structural Immunology (1 cr.) (fall)

Students must enroll in one Biostatistics course chosen from the following:

BIOS 7010: Introductory Biostatistics I (3 cr.)
BIOS 7010E: Introductory Biostatistics I (3 cr.)
POPH 8310L: Population Health Statistics (3 cr.)

If needed an elective course can be chosen in consultation with the students graduate advisory committee:

POPH(MIBO)(IDIS) 6450/6450L: Microbial Genetics and Genomics (4 cr.)
POPH(MIBO)(IDIS) 6650: Introduction to Virology (3 cr.)
IDIS 7200-7200L: Veterinary Parasitology (3.7 cr.)
IDIS 7215-7215L: Large Animal Parasitology (1.3 cr.)
IDIS 8020: Vaccines: From Design to Development (3 cr.)
IDIS 8030: Parasites and Parasitic Diseases (3 cr.)
CBIO 8080: Biomedical Grant Writing (3 cr.)
IDIS 8080L: Advanced Molecular Techniques (3 cr.)
CBIO(IDIS) 8100: Advanced Immunology (4 cr.)
BCMB(CBIO)(GENE) 8112: Advanced Genetics, Cell, Biochemistry, and Molecular Biology I (4 cr.)
POPH(IDIS)(MIBO) 8200: Molecular Virology and Experimental Design (5 cr.)
BCMB(CBIO)(GENE) 8212: Advanced Genetics, Cell, Biochemistry, and Molecular Biology II (4 cr.)
MIBO(PBHL)(IDIS)(BHSI) 8260: Global Perspectives on Tropical and Emerging Infectious Diseases (1 cr.)
IDIS 8300: Advanced Immunology: Innate Immunology (3 cr.)
IDIS 8350: Principles and Research Applications of Flow Cytometry (3 cr.)
CBIO 8500: Biology of Parasitism (4 cr.)
EPID(ECOL)(IDIS) 8515: Modeling Infectious Diseases (4 cr.)
IDIS 8591: Advanced Concepts of Virology (3 cr.)

4. Approvals:



Department Head



Dean of School/College

Dean of Graduate School



ODUM SCHOOL OF ECOLOGY

TO: Dr. Ron Walcott, Dean of the Graduate School

FR: Mark Hunter, Dean; Craig Osenberg, Graduate Coordinator

DATE: 27 September 2023

Re: Proposed changes to our MS program

Please find attached, three related proposals from the Odum School of Ecology to:

- 1) Deactivate our MS in *Integrative Conservation and Sustainability*
- 2) Create an area of emphasis within our MS Ecology program, called *Integrative Conservation and Sustainability*
- 3) Create a non-thesis option in our MS Ecology program

This collection of proposals is intended to: a) retain the purpose and novelty of the ICAS program, but as an area of emphasis will be more appealing to students because the resulting degree name now shows expertise in ecology as well as conservation and sustainability; b) ensure that our MS program does not underperform (in prior years, our two MS programs each had 1-6 graduates and thus were chronically below the mandated minimum of 5 graduates per year); and c) create a non-thesis option that will be appealing to non-research focused professionals, including our Double Dawg AB Ecology students (who typically go on to other non-thesis MS programs in environmental sciences). Because these proposals are all interrelated, we have included them in a single submission.

The OSE faculty approved these proposals on August 25, 2023.

Appended:

- 1) Form AAPSN04 (for Deactivation of the MS-ICAS degree)
- 2) Form AAPSN05 (for establishing the ICAS area of emphasis within Ecology)
- 3) A request to create the non-thesis option

PROPOSAL FOR DEACTIVATION OR TERMINATION OF AN ACADEMIC PROGRAM

Date: 08 September 2023

School/College: Odum School of Ecology

Department/Division: Odum School of Ecology

Program (Major and Degree): MS in Integrative Conservation and Sustainability

Which campus(es) offer this program? Athens

Deactivation or Termination? Deactivation

Proposed Effective Date: Spring 2024

Last date students will be admitted to this program: Fall 2023

Last date students will graduate from this program: December 2025

Program Abstract:

The MS in Integrative Conservation and Sustainability (ICAS) aims to train the next generation of conservation professionals. The ICAS curriculum has been re-envisioned with key innovations to build students' capabilities for addressing complex environmental challenges in real-world collaborative contexts. The ICAS program's core courses adopt an interdisciplinary, knowledge-to-action approach to conservation and sustainability. ICAS students conduct applied research projects that are developed and carried out in collaboration with non-academic partners, while gaining essential knowledge and practical skills through classroom-based and experiential coursework. By integrating scientific training into real-world, multi-stakeholder contexts, the program prepares graduates for influential positions in conservation organizations, international non-profits, governmental agencies, and the private sector, or for pursuing PhDs in ecology, conservation, and sustainability-related fields.

The need for this solutions-oriented MS training program arises from the complexity of major environmental challenges we face today, including the loss of biodiversity, degradation of ecosystems and their life-sustaining benefits, intensifying impacts of climate change, and consequences for environmental justice and equity. Ecological research is essential for understanding such problems and identifying potential solutions. Yet all too often, research-generated knowledge is not successfully translated or implemented into practice and policy. Today, a key strategy for bridging this implementation gap is for scientists to engage directly with practitioners and decision-makers to identify research needs and share findings. To do so effectively, ecologists need to build holistic understandings of the social and economic contexts surrounding ecological problems, as well as skills for communicating and collaborating with diverse stakeholders. This holistic, engaged approach to conservation and sustainability problem-solving provides the foundation for the ICAS program.

For Deactivated or Terminated Programs:

1. State the reasons for deactivating or terminating the program, and provide copies of any relevant documents.

This is part of a larger proposal to shift from our two master's programs (MS-Ecology and MS-ICAS) to a single program (MS-Ecology) with the option to have an ICAS area of emphasis. Both current programs operate near the OVPI threshold of 5 graduates/degree program/year and thus face a chronic threat of

elimination. By going to single degree program and creating the area of emphasis, we can effectively continue to train students in ICAS, but without the ongoing concern about ‘underperformance’. Furthermore, the new option (ICAS area of emphasis in the MS Ecology degree program) may be more appealing to students because it brings recognition to training in both Ecology as well as Integrative Conservation and Sustainability – the current ICAS degree does not include the term “ecology”. In a recent survey, a majority of our current ICAS students indicated they would prefer a MS Ecology degree with an area of emphasis in ICAS.

2. What will be done to minimize the impact of the deactivation or termination of the program upon the personal and professional lives of the faculty and staff involved? Include specific information on: a) how faculty and staff will be notified of the deactivation or termination, and b) how faculty and staff will be reallocated.

Current MS ICAS students will be able to finish out their degrees. All relevant courses will continue to be taught by Ecology faculty. Because the degree program will continue as an area of emphasis there will be no impact on faculty or staff.

- a) Ecology faculty voted 28-0-1 (yes-no-abstain) on the proposal at their annual faculty retreat on August 25, 2023. Faculty, staff, and students have already been notified through our school-wide listserv of our proposal. They will be notified again as soon as our proposal is approved. Our website also will be updated.
- b) Reallocation will not be necessary.

3. What will be done to insure that deactivation or termination of the program does not weaken other programs (graduate, undergraduate, or professional) for which the department may be responsible?

The deactivation of the MS ICAS degree, along with the creation of an ICAS area of emphasis for MS Ecology, will ensure that there will be a sufficient number of MS students graduating each year to meet OVPI’s requirement and sustain a robust MS program. Because we will be creating an ICAS area of emphasis in the MS Ecology program, in parallel, with deactivation, we do not anticipate any negative effects on other programs.

For Deactivated Programs:

4. State the plans for allowing students currently enrolled in the program to complete degree requirements, including specific information on: a) how students will be notified of the program deactivation, and b) how students will be advised on completing the program.

- a) Students currently enrolled in the program have been advised of our proposal. We also surveyed current MS ICAS students and we anticipate that some will opt to move to the MS Ecology degree program (with the ICAS area of emphasis). All students will be informed when deactivation is approved and the associated timeframe.
- b) Current students will continue to be advised by their faculty mentors. Required courses will still be available, ensuring that students complete their degrees in a timely manner. We do not anticipate any problems with current ICAS students graduating by the time deactivation occurs. The final cohort matriculated in Fall 2023 – no new students will be accepted into the program.

5. What plans, if any, are there for subsequent reactivation of the deactivated program?

There are no plans to reactivate the program.

Approvals:



Department Head



Dean of School/College

Dean of Graduate School

PROPOSAL FOR AN AREA OF EMPHASIS

Date: September 21, 2023

School/College: Odum School of Ecology

Department/Division: Odum School of Ecology

Program (Major and Degree): MS Ecology

Which campus(es) will offer this program? Athens

Proposed Effective Date: Spring 2024

1. Area of Emphasis Title: Integrative Conservation and Sustainability (ICAS)

2. Area of Emphasis Description: The ICAS program's core courses adopt an interdisciplinary, knowledge-to-action approach to conservation and sustainability. ICAS students conduct applied research projects that are developed and carried out in collaboration with non-academic partners, while gaining essential knowledge and practical skills through classroom-based and experiential coursework. By integrating scientific training into real-world, multi-stakeholder contexts, the program prepares graduates for influential positions in conservation organizations, international non-profits, governmental agencies, and the private sector, or for pursuing PhDs in ecology, conservation, and sustainability-related fields.

In addition to the major requirements, ICAS students must also take:

- ECOL 6080 (4 hrs)
- ECOL 8400 (1 or 2 hrs)
- A practicum course (either ECOL 8710 or ECOL 8750) (4 hrs)
- Thesis must include a deliverable product created for a non-academic partner.

This area of emphasis is intended to replace the current MS-ICAS degree, which is often underperforming (<5 graduates per year). By combining the ICAS program into the MS-Ecology degree, the programs will avoid underperformance.

3. Major Requirements:

≥ 30 credit hours, which includes:

- ≥ 12 semester hours of course work open only to graduate students (exclusive of 7000 and 7300)
- ECOL 7000 (6 hrs)
- ECOL 7300 (3 hrs)
- GRSC 7001 (1 hr)
- ≥ 18 credit hours of electives decided upon by the student and advisory committee, based upon student's background and professional aspirations.

4. Approvals:



Department Head



Dean of School/College

Dean of Graduate School

PROPOSAL FOR AREA OF EMPHASIS

1. **School/College:** Mary Frances Early College of Education
2. **Department/Division:** Department of Kinesiology
3. **Major:** Kinesiology (M.S.) – Athens campus ONLY
4. **Area of Emphasis Title:** Adapted Physical Education
5. **Proposed starting date:** Fall 2024
6. **Major Requirements:**
Attach a list of requirements for the major. Graduate programs may provide a list of general requirements for the major.

Area of emphasis is open only to individuals who have a current Georgia T-4 or other state certification in Health & Physical Education and Special Education.

7. Area of Emphasis Description:

Candidates pursuing this degree would take the following: Core Courses (12 credit hours); Teaching Field Courses (15 credit hours); Research and Leadership (6 credit hours); Content Elective (3 credit hour)

Core Courses (4 courses)

- KINS 7620-7620L Pediatric Adapted Physical Education (3)
- KINS 7680 Adapted Sport and Physical Activity (3)
- EDSE 6010/E Instructing Children with Autism Spectrum Disorders (3)
- EDSE 7050E Positive Behavior Supports (3)

Teaching Field Courses (5 courses)

- KINS 6360 Curriculum and Assessment in Physical Education (3)
- KINS 6750S Service Learning in Kinesiology (3)
- KINS 7040 Approaches to Sport Pedagogy (3)
- KINS 7800 Practicum in Kinesiology (6)

Research and Leadership (2 courses)

- KINS 7150 Research Methods in Kinesiology (3)
- KINS 7605 Motivation in Physical Activity, Exercise, and Sport (3)

Elective (1 course in consultation with Advisor)

- KINS 6000 Directed Study in Kinesiology (1-3)
- KINS 6305 Physical Education in the Elementary School (4)
- KINS 6330 Physical Education for the Middle/Secondary School (3)
- KINS 6340 Basic Curriculum and Teaching Procedures in School Health Education (3)
- KINS 6760 Motor Skill Behavior (3)
- EDSE 6020/E Inclusion of Students with Special Needs: PreK-Grade 5 (3)
- EDSE 6030/E Inclusion of Students with Special Needs: Grades 6-12 (3)
- EDSE 6050 Managing Severe Aggressive Behavior in the Classroom and Community (3)
- EDSE 7100/E Foundations and Assessment in Early Childhood Special Education (3)
- EDSE 7130/E Behavioral Disorders (3)
- EDSE 7160 Communication and Language Development in Young Children (3)

Approvals:

Jani Cooper

Department Head

Denise A. Spangler

Dean of School/College

Dean of Graduate School



**UNIVERSITY OF
GEORGIA**

Nutritional Sciences

*College of Family and
Consumer Sciences*

Room 280 Dawson Hall
305 Sanford Drive
Athens, Georgia 30602
TEL 706-542-4869 | FAX 706-542-5059
www.fcs.uga.edu/fdn/

October 3, 2023

Anne Shaffer, PhD
UGA Graduate School Associate Dean
The Graduate School
Brooks Hall
310 Herty Drive
Athens, GA 30602

Re: Revisions to MS, Nutritional Sciences, Community Nutrition Emphasis (online)

Dear Dr. Shaffer,

The Department of Nutritional Sciences wishes to make revisions to the above referenced graduate program. Over the past several years, the number of online graduate level courses offered in the department has grown significantly. These revisions will provide students in the online MS program more flexibility in course selection and allow them to focus on courses that are most relevant to their degree and better align with their career paths. These revisions were presented and approved by the department's faculty at the September 22, 2023 faculty meeting. We request that the revised curriculum go into effect beginning summer 2024 matriculation.

NUTR Core Courses (12 Credits)

- NUTR 6050E (3) Optimal Nutrition for the Life Span
- NUTR 6670E (3) Nutrition Intervention
- NUTR 6270E (3) Community Nutrition
- NUTR 6680E Macronutrient and Micronutrient Metabolism (3) ready for FALL 2024

Research Methods (3 Credits)

- HPRB 7510E (3) Health Promotion Research Methods (preferred)
or
- ERSH 6200E Methods of Research in Education (3)

Electives (15-16 Credits)

- NUTR 6210E Cultural Approaches to Health and Nutrition (3)
- NUTR 6220E Nutrition in Physical Activity, Exercise, and Sport (3)
- NUTR 6240E Nutrition and Obesity Across the Lifespan (3)
- NUTR 6250E Diet and Disease for Nutrition Educators (3)
- NUTR 6280E Global Health and Food Systems (3)
- NUTR 6290E Trending Topics in Nutrition (1)
- NUTR 6560E Nutrition Health and Aging (3)
- NUTR 6640E Food Sanitation and Safety (3)
- NUTR 6620E Management of Food Service Organizations (2)
- NUTR 6600E Food Policy (2)
- NUTR 6665E Childhood and Adolescent Nutrition (3)
- NUTR 6700E Weight Management Coaching (3)

- NUTR 6800E Pharmacotherapy for Disease Management (3)
- ALDR (AGED) (AGCM) 6800E Grant Seeking (3)
- FDST 7150E Food Ingredients and Function (3)
- HPAM 7050E Health Policy and Obesity

Additional electives for extension agents, FACS Ed teachers, etc. only:

- WFED 9020E Leadership Development in Workforce Education (3)
- ALDR 7350E Team and Organization Development in Ag. Organization (3)

Students in School Nutrition Director's certification program only may take:

- NUTR 7650E (1) Field Experience I
- NUTR 7670E (1) Field Experience II
- NUTR 6770E Managing School Nutrition Programs (4)

Sample program of study- 1-year full time

Fall Year 1	
NUTR 6050E Optimal Nutrition for the Life Span	3
NUTR 6680E Macronutrient and Micronutrient Metabolism	3
NUTR electives	6
Total Credits	12
Spring Year 1	
HPRB 7510E (3) Health Promotion Research Methods	3
NUTR 6670E Nutrition Intervention	3
NUTR electives	6
Total Credits	12
Summer year 1	
NUTR Elective	3
NUTR 6270E Community Nutrition	3
Total Credits	6

Sample Program of Study 2 years part time

Fall Year 1	
NUTR 6680E Macronutrient and Micronutrient Metabolism	3
NUTR electives	3
Total Credits	6
Spring Year 1	
HPRB 7510E (3) Health Promotion Research Methods	3
NUTR electives	9
Total Credits	6
Summer year 1	
NUTR 6270E Community Nutrition	3
Total Credits	3
Fall Year 2	

NUTR 6050E Optimal Nutrition for the Life Span	3
NUTR electives	3
Total Credits	6
Spring Year 1	
NUTR 6670E Nutrition Intervention	3
NUTR electives	3
Total Credits	6
Summer year 2	
NUTR Elective	3
Total Credits	3

Thank you for your consideration in this matter.

Connie J. Rogers

Connie J. Rogers, PhD, MPH
 Professor and Head
 Department of Nutritional Sciences
crogers.nutrition@uga.edu



October 10, 2023

Re: Proposal for an Online Masters in Civil and Environmental Engineering with an Area of Emphasis in Civil Engineering

Dear Graduate School Program Review Committee and Office of Curriculum Systems,

We are pleased to submit the following proposal for an online Masters in Civil and Environment Program with an Area of Emphasis in Civil Engineering. The proposal was reviewed and approved by the School of School of Environmental, Civil, Agricultural and Mechanical Engineering (ECAM) Curriculum Committee, the School Chair, the College of Engineering Curriculum Committee, the College of Engineering Senior Associate Dean, and myself. The program content incorporates the latest feedback from the Office of Curriculum Systems and the Office of Online Learning. We believe this online version of our MS program will enhance the College's ability to train more graduate students, increase the number of trained engineers, and increase the overall student enrollment at UGA. We are happy to discuss any questions or concerns you may have.

Donald J. Leo, College of Engineering Dean

10/10/2023

Date

Ramaraja Ramasamy, College of Engineering Senior Associate Dean

10/10/2023

Date

PROPOSAL FOR AN ONLINE PROGRAM

Date: October 10, 2023

College/School: College of Engineering

Department/Division: School of Environmental, Civil, Agricultural and Mechanical Engineering (ECAM)

Program (Major and Degree): Civil and Environmental Engineering (M.S.) with an Area of Emphasis in Civil Engineering

Will any approved areas of emphasis be offered under this major? Civil Engineering

Proposed Effective Date: Fall 2024

This document presents a proposal for a fully online version of the extant non-thesis-based Master of Science in Civil and Environmental Engineering with an Area of Emphasis in Civil Engineering, which is an existing emphasis in the on-campus program.

1. Assessment

A needs assessment demonstrating a sufficient pool of qualified applicants.

The major in Civil and Environmental Engineering (M.S.) with an Area of Emphasis in Civil Engineering is viable for online launch. Student demand is stable nationally and increasing in Georgia, the labor market is strong and increasing faster than average, and only one Georgia institution, Kennesaw State, offers an online Civil Engineering program. Civil engineering professionals most commonly hold a bachelor's, while around 25 to 30 percent hold a master's degree. In this environment, a master's degree is valuable for career advancement and promotion.

Student Demand Assessment

Student demand for civil engineering master's degrees has increased at the state and national levels.

Civil engineering master's completions grew at an annualized rate of 1.5 percent nationally and 7.5 percent in Georgia. By contrast, regional completions declined at a rate of -3.3 percent during the same period. Overall, civil engineering grew about as fast as average nationally, slower than average regionally, and faster than average in the state. These trends suggest student demand for civil engineering is stable nationally and stronger in Georgia.

IT Career Finder ranks civil engineers fourth on its "Best Engineering Careers for the Future" list. Similarly, US News (2023) evaluates civil engineering as the fourth-best engineering career and also notes that master's degrees typically improve career opportunities/wages (<https://money.usnews.com/careers/best-jobs/rankings/best-engineering-jobs>).

Labor Market Assessment

The market for civil engineering programs is established, but there is room for an additional program, especially online.

Employment projections combined with educational attainment in relevant occupations indicate a moderately positive outlook for individuals holding a master's degree in civil engineering (refer to Figures 1 and 2 below; data sourced from Projections Central).

In aggregate, relevant occupations are expected to grow about as fast or faster than average at each geographic level (see Table 1) in the near term.

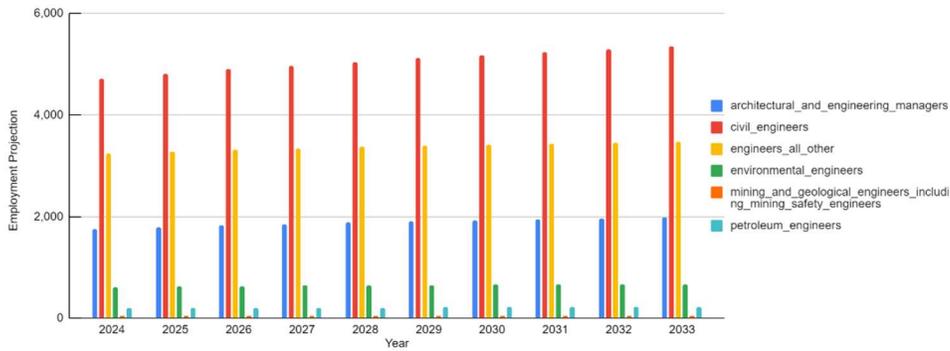
Table 1 - Aggregate civil engineering-related job availability by geographic level.

	Georgia	Southeast	National
2016	13,610	103,360	483,600
2026	15,870	118,870	525,700
Growth Rate	16.6%	15.0%	8.7%
Total Annual Openings	1,260	9,360	39,500

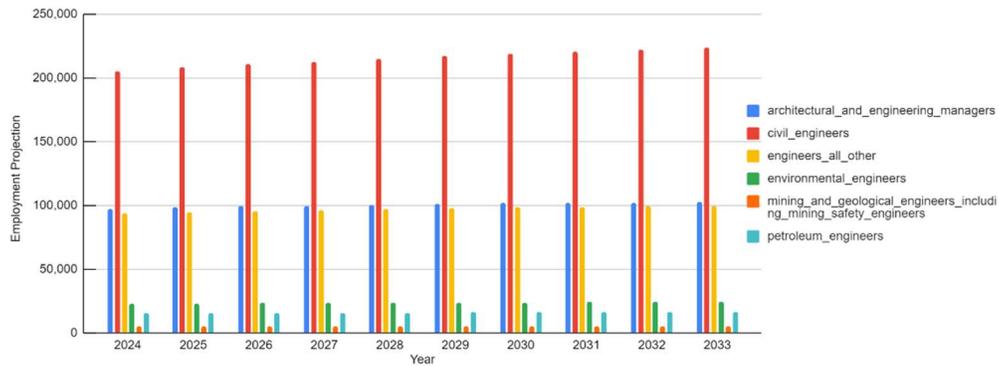
Source: [Projections Central](#)

Note: Total employment is projected to grow by 7.4 percent nationally, 11.1 percent regionally, and 11.7 percent in Georgia between 2016 and 2026.

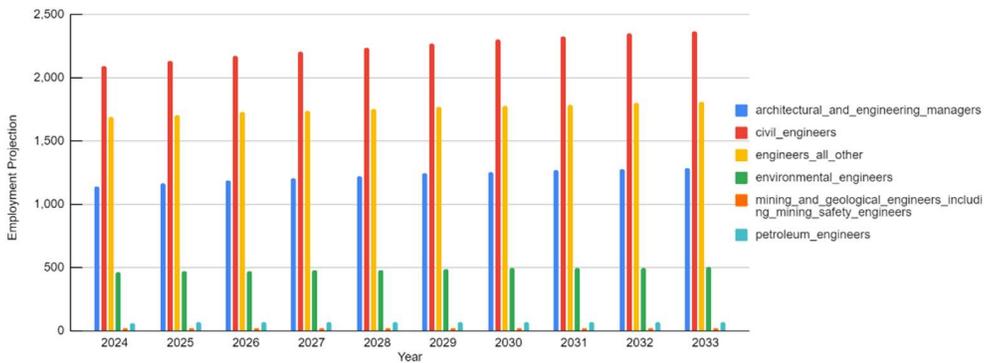
In the long term, Civil Engineers will see more rapid growth than architectural and engineering managers (see Figures 1 and 2). Master's degrees will be fairly common in related occupations; bachelor's degrees appear to be the standard credential. This breakdown suggests that a master's degree could help civil engineering professionals advance their careers.



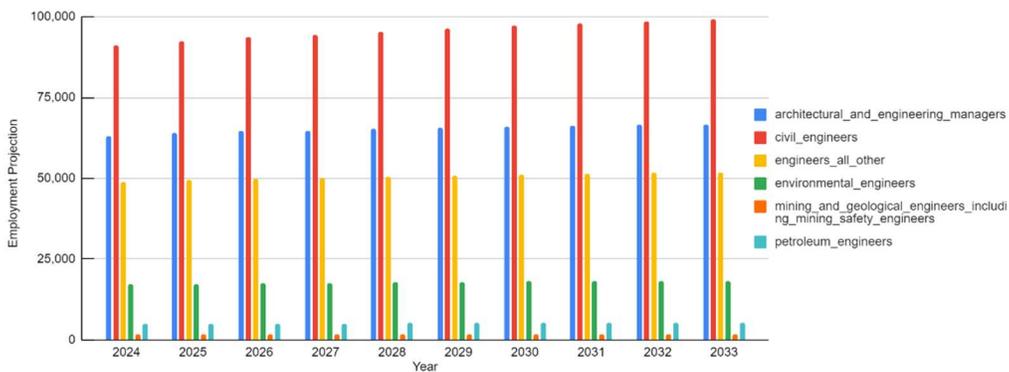
(a) Employment Projection (Count) for Workers with Bachelor's Degree in Georgia.



(b) Employment Projection (Count) for Workers with Bachelor's Degree in the U.S.
Figure 1 - Employment Projection for Workers with Bachelor's degree.



(a) Employment Projection (Count) for Workers with Master's Degree in Georgia.



(b) Employment Projection (Count) for Workers with Master's Degree in the U.S.
Figure 2 - Employment Projection for Workers with Master's Degree.

Competitive Assessment

The market for civil engineering master’s degree programs can support an additional online degree.

Distance programs accounted for 18.9 percent of selected master’s programs in the United States and 30.6 percent in the region, as shown in the graphics below. In Georgia, only two institutions report master’s degree programs under *Civil Engineering* – Georgia Institute of Technology and Kennesaw State University and only Kennesaw State reports an online program. GaTech only offers an on-campus program, which makes pursuing an advanced degree more challenging for working individuals. Kennesaw’s program (<https://engineering.kennesaw.edu/civil-environmental/degrees/ms-civil-requirements.php>) provides general Civil Engineering training but does not provide training in specialized areas such as “Structural and Geotechnical engineering” - skills demanded by the job market.

Within the United States, Figure 3 shows that competitive conditions support an additional civil engineering program.



Figure 3 - National Competitive Saturation.

There were at least 45 institutions with online civil engineering master’s degrees in the United States. Table 2 below shows some of the closest institutions.

Table 2 - Regional Online Programs.

Institution	Program	Delivery Format
Auburn University	Master of Civil Engineering	Online
Clemson University	Master of Engineering (Risk Engineering and System Analytics)	Online
Johns Hopkins University	Master of Civil Engineering	Online or hybrid
Kennesaw State University	M.S. in Civil Engineering	Online
University of Central Florida	M.S. in Civil Engineering	Online
University of Florida	M.E. or M.S. in Civil Engineering	Online
Mississippi State University	M.S. in Civil Engineering	Online
Florida State University	Master of Engineering in Civil Engineering	Online
North Carolina State University	Master of Civil Engineering	Online
University of Tennessee -Knoxville	M.S. in Civil Engineering	Online
University of Louisville	M.S. in Civil Engineering	Online
University of South Carolina	M.S. or M.E. in Civil Engineering	Online

In Atlanta, the only peer university offering an online MS in Civil Engineering option is Kennesaw. For career advancement, UGA undergraduate alums with a B.S. in Civil Engineering degree often consider Kennesaw the online MS in Civil Engineering, GaTech's on-campus MS in Civil Engineering, or GaTech Data Science online MS options. Therefore, there is a demand from UGA alumni to have an online program and enough demand to justify creation of an online program.

2. Admission Requirements

All requirements for admission to an Online Academic Degree Program will be the same as those for the same degree at an authorized unit.

Students holding a B.S. degree or M.S. in engineering from an ABET accredited program or a B.S. or M.S. in a related field from an accredited institution are invited to apply for admission. Students with degrees in non-engineering disciplines may be asked to take additional selected course work to adequately prepare them for their studies. **No GRE will be required, although it is encouraged.**

The existing requirements for consideration for admission to the College of Engineering's Graduate Programs are listed below:

▶ Completion of a B.S. and M.S. (for Ph.D. applicants) with minimum GPA of 3.00 (out of 4.00) from an ABET accredited program or program in a related field. The average undergraduate GPA and graduate GPA of recent accepted students is 3.4 and 3.6, respectively.

▶ UGA will accept satisfactory scores on either the TOEFL or IELTS language proficiency examinations. Scores must be reported to UGA electronically by the testing agency.

- The minimum TOEFL score requirement: overall score of 80 with at least 20 on speaking and writing
- The minimum IELTS score requirement: overall band-width of 6.5, with no single band (score) below 6.0

Applicants whose primary language is not English must submit official TOEFL or IELTS scores that are not more than two years old. Applicants who have received degrees from accredited institutions in the U.S. or from institutions in countries where English is the primary language (see list here) are usually not required to submit scores. If such an applicant received the degree more than two years prior to application to the Graduate School and has been residing/working in a country where the primary language is not English, he or she must submit current scores.

3. Program Content

The academic standards for the proposed online MS in Civil and Environmental Engineering are the same as those for the existing MS in Civil and Environmental Engineering.

The program requirements for the online Area of Emphasis in Civil Engineering under the major in Civil and Environmental Engineering (M.S.) mirror those of the on-campus program (<https://engineering.uga.edu/ms-civil-environmental-engineering>), with the following course substitutions shown below:

On-Campus MS Requirements	Online MS Requirements
ENGR 7030 (3 hrs): Proj.-Focused Research	ENGR 7030E (3 hrs): Project-Focused Learning
ENGR 8950 (1 hr): Grad. Seminar	CVLE (3 hrs) Engineering Studio*: - CVLE 6930E (3 hrs) Structural Eng. Studio
Core Coursework (9 hrs): see below	Core Coursework (9 hrs): see below
Elective Coursework (20 hrs): see below	Elective Coursework (18 hrs**): see below

Note: ** reduced to 18 credit hours due to the graduate seminar* substitution.

1. Core [C] Coursework Options:

The college of engineering offers ‘ENGR’ courses for engineering students. However, substitutions are proposed to reflect course designations and names tailored to the proposed Civil Engineering (CVLE) program:

a. Structural and Geotechnical Engineering

On-Campus Courses	Online Courses
ENGR 6350 Intro to FEA	CVLE 6910E Computational Modeling
ENGR 8350 Continuum Mechanics	CVLE 6870E Solid Mechanics
CVLE 6340 Design of Bridges	CVLE 6940E Bridge Engineering Studio

b. Transportation and Pavement Engineering

On-Campus Courses	Online Courses
CVLE 6210 Transportation Engineering	CVLE 6210E Transportation Engineering Studio
CVLE 6220 Highway Design & Traffic Safety	CVLE 6220E Highway Design & Traffic Safety
CVLE 6470 Pavement Design	CVLE 6470E Pavement Engineering Studio

2. Elective [E] Coursework Options:

The following elective courses are identified based on the latest in-demand job skills’ analysis and will be created:

On-Campus Courses	Online Courses
CVLE 6820 (3 hrs) Construction Management and Technologies	CVLE 6820E (3 hrs) Construction Management and Technologies
CVLE 6810 (3 hrs) Project Management Principles	CVLE 6810E (3 hrs) Project Management Principles
CVLE 6860 (3 hrs) A.I. and Informatics in Civil Engineering	CVLE 6860E (3 hrs) A.I. and Informatics in Civil Engineering
CVLE 6960 (3 hrs) Foundation Engineering Studio	CVLE 6960E (3 hrs) Foundation Engineering Studio
CVLE 6880 (3 hrs) Forensics of Civil Engineering Materials	CVLE 6880E (3 hrs) Forensics of Civil Engineering Materials
CVLE 6840 (3 hrs) GIS in Civil Engineering Applications	CVLE 6840E (3 hrs) GIS in Civil Engineering Applications

The program of study **requires 33 credit hours**. The online curriculum will consist of 10 selected ‘E’ classes offered in 8-week blocks over two years and 1 Project-Focused Learning. The 1-credit hour graduate seminar course (ENGR 8950) will be substituted with a 3-credit hour Engineering Studio course. As a result, 18 credit hours of elective

coursework will be required. The course name, “Studio”, is proposed to create opportunities for group work and bring senior civil engineers’ work experience and case studies to the studios so that remote learners can network with them, as well as learn from them and the peers.

Table 3 shows a sample curriculum. The proposed online program will initially start with the Structural & Geotechnical Engineering track and will be able to offer an increased number of elective courses when the ‘Transportation and Pavement’ track becomes available.

Table 3 - Sample Curriculum (Structural and Geotechnical Engineering Track).

Year 1	Block #1 (Fall)	[E] CVLE 6820E (3 hrs) Construction Management and Technologies
	Block #2 (Fall)	[E] CVLE 6840E (3 hrs) GIS in Civil Engineering Applications
	Block #3 (Spring)	[C] CVLE 6940E (3 hrs) Bridge Engineering Studio
	Block #4 (Spring)	[C] CVLE 6870E (3 hrs) Solid Mechanics
	Block #5(Summer)	[C] CVLE 6910E (3 hrs) Computational Modeling Studio
Year 2	Block #6 (Fall)	[E] CVLE 6810E (3 hrs) Project Management Principles
	Block #7 (Fall)	[E] CVLE 6860E (3 hrs) A.I. and Informatics in Civil Engineering
	Block #8 (Spring)	[E] CVLE 6960E (3 hrs) Foundation Engineering Studio
	Block #9 (Spring)	[E] CVLE 6880E (3 hrs) Forensics of Civil Engineering Materials
	Block #10 (Summer)	[O] CVLE 6930E (3 hrs) Structural Engineering Design Studio [O] ENGR7030E (3 hrs) Project-Focused Masters Learning

Note: C – Core coursework; E – Elective coursework; O – Other required coursework.

Technological resources such as Zoom, Slack, and eLC will be leveraged. A combination of live classes and self-paced learning will be used. Students will be admitted in a pilot cohort of 35 students in fall 2024. The overall target number of online cohorts will be determined over time based on ongoing evaluation related to capacity, resources, and continuous curricular assessment.

4. Student Support Services

Students enrolled in the online program will work with a program advisor. The advisor will be responsible for the following: advising students about the program of study and courses to be taken each semester; responding to students' needs regarding courses, how to register via Athena, and how to work in eLC; and addressing any registration flags.

The College of Engineering will provide resources to assist students with career development. Similar to all students at the university, students will have access to college-wide resources such as the Office of Financial Aid and the Office of Student Care and Outreach. Students with disabilities can register and be assigned a counselor within the Disability Resource Center. All students will be required to have functioning computers with the latest version of a compatible web browser, a web cam, a microphone, and a high-speed internet connection. These requirements are essential because all of the academic content and a majority of the advising will occur in a virtual format.

5. Resident Requirements

Residence requirements are identical to those established for the authorized degree program.

6. Program Management

A faculty member will serve as the Online M.S. in Civil and Environmental Engineering [Faculty] Program Director will serve to maintain program processes and procedures, with the support of the full-time staff member who will provide administrative support to the faculty director. They will work closely with the School of ECAM graduate program coordinator(s) for graduate matters.

Additionally, Civil Engineering faculty serving as academic faculty mentors to students in the online program will provide support for program maintenance. Civil Engineering faculty who are serving as instructors of online course offerings will maintain curricular and instructional quality. Monthly program meetings will allow faculty to collaborate and continuously evaluate program needs. Annual review of program Student Learning Objectives will allow faculty to further assess student success and program effectiveness.

The deadline for applying to the Online M.S. in Civil and Environment Engineering with an Area of Emphasis in Civil Engineering is April 1st, and students will generally matriculate in the fall semester. The duration of the 33-credit hour program is 2 years (or 6 semesters), and the anticipated start semester is Fall 2024.

7. Library and Laboratory Resources

There are no laboratory requirements for the program. In terms of library access, students will have access to Galileo and GIL. Students will be required to meet the basic technology necessary to use eLC as the program is designed to be online.

8. Budget

This program is proposing a total program tuition of \$28,314 per student. See Items 9 and 10. The budget below was developed assuming a cohort model with once per year enrollment in the fall. The enrollment target will be 35 students initially. The budget assumes that online learners complete the program in 2 years.

A total of 11 courses will be taught each year. The recurring budget includes the cost of faculty instruction (approximately \$10k per course for 9 courses taught by the Civil Engineering faculty) and part-time instructors' salary at \$10k per course for 2 courses in YR 2 (note 2 cohorts). The CVLE faculty may use the budget to pay an extra compensation or buyout a course per discussion with the school chair. The cost of TAs (i.e., Ph.D. students) for student engagement is budgeted at \$30k per TA.

Table 4 presents the proposed budget. The program will have a net positive revenue by FY2027, assuming steady enrollment at 35. Funds from the Office of Instruction and the College of Engineering will be used to cover initial program deficits in the first three years.

The School of ECAM will use the e-rate return to pay for the operational cost of the proposed online program. Any net surplus generated from the program will be redirected towards faculty support and development and student services within the College of Engineering. Any future [e-rate] revenue generated from the program will be reinvested into curriculum development, faculty support, and student services within the School of ECAM.

Table 4 – Proposed Budget.

Expense	FY24 (prep yr)	FY25 (operating yr 1)	FY26 (operating year 2)	FY27 (operating year 3)	FY28 (operating year 4)	FY29 (operating year 5)
Start Up						
Equipment/Technology	\$9,000					
Advertising thru March	\$35,000					
Travel (e.g., conf/expo) for recruitment	\$5,000					
Faculty salary/benefits for course dev. (\$10k/course) x 3 & 6 courses, FY24 & 25	\$30,000	\$60,000				
Part-time faculty salary for course dev. (\$10k/course) x 1 & 1 course, FY24 & 25	\$10,000	\$10,000				
Start Up Subtotal	\$89,000	\$70,000				
Recurring [note: 2% inflation]						
Administration/Faculty Director Salary (\$8.5k/yr)	\$4,000	\$8,500	\$8,670	\$12,381	\$12,628	\$12,881
CVLE Faculty Compensation for Providing Feedback on Online Applications (\$3k/yr)	\$3,000	\$3,060	\$3,121	\$4,457	\$4,546	\$4,637
Program Advisor/Staff (\$41k/yr)	\$20,000	\$41,000	\$41,820	\$63,131	\$64,394	\$65,682
CVLE Faculty Instruction (\$10k/course) x 9 courses		\$40,000	\$91,800	\$131,090	\$133,712	\$136,386
Part-time Faculty Instr. (\$10k/course) x 2 courses		\$10,000	\$20,400	\$20,808	\$21,224	\$25,469
Travel (conf/expo/local visits) for Recruitment		\$5,000	\$5,100	\$5,202	\$5,306	\$2,165
TAs for Student Engagement - 2 cohorts in YR26		\$30,600	\$62,424	\$68,130	\$69,492	\$70,882
Marketing (annual contract)		\$35,700	\$36,414	\$37,142	\$37,885	\$38,643
Student Social/Recruitment Events		\$2,000	\$4,080	\$4,162	\$4,245	\$4,330
Technology (e.g., Eng. software, Slack)		\$9,180	\$9,364	\$9,551	\$9,742	\$9,937
Recurring Subtotal	\$27,000	\$185,040	\$283,193	\$356,054	\$363,175	\$371,012
Grand Total	\$116,000	\$255,040	\$283,193	\$356,054	\$363,175	\$371,012
Revenue						
<i>eRate Return</i>	\$0	\$0	\$204,960	\$461,160	\$563,640	\$563,640
Tuition	\$0	\$0	\$63,000	\$220,500	\$346,500	\$346,500
Total	\$0	\$0	\$267,960	\$681,660	\$910,140	\$910,140
<i>eRate Revenue/Loss</i>	<i>-\$116,000</i>	<i>-\$255,040</i>	<i>-\$78,233</i>	<i>\$105,106</i>	<i>\$200,465</i>	<i>\$192,628</i>
Net Revenue/Loss	-\$116,000	-\$255,040	-\$15,233	\$325,606	\$546,965	\$539,128

9. Program Costs Assessed to Students

Costs for students taking the online M.S. in Civil and Environmental Engineering with an Area of Emphasis in Civil Engineering will be consistent with the established e-rate fee structure at the University of Georgia.

The UGA graduate base rate for the in-person M.S. is \$370/credit. With the \$488 e-rate differential, the total cost per credit hour will be \$858/credit (or the total cost of \$28,314 for 33 credit hours), effective fall 2024.

Table 5 compares the proposed tuition rate with tuition rates at other online programs.

Table 5 – Online Programs and Tuition Rates.

Institution	Online Program	Tuition /Credit	Credit Required	Total Tuition
Proposed	M.S. in Civil and Environmental Engineering (w/ Civil Emphasis)	\$858	33	\$28,314
University of Illinois Urbana-Champaign	Master of Civil Engineering	\$1,137	30	\$34,110
Michigan State University	M.S. in Civil Engineering	\$995	30	\$29,850
University of Missouri-Columbia	M.S. in Civil Engineering	\$1,200	30	\$36,000
Auburn University	Master of Civil Engineering	\$949	30	\$28,470
Clemson University	Master of Engineering	\$1,115	30	\$33,450
Johns Hopkins University	Master of Civil Engineering	\$1,696	30	\$50,880
Kennesaw State University	M.S. in Civil Engineering	\$438	30	\$13,140
University of Central Florida	M.S. in Civil Engineering	\$1,152	30	\$34,560
University of Florida	M.E. or M.S. in Civil Engineering	\$690	30	\$20,700
Mississippi State University	M.S. in Civil Engineering	\$562	30	\$16,860
Florida State University	Master of Engineering in Civil Engineering	\$1,005	30	\$30,150
North Carolina State University	Master of Civil Engineering	\$1,746	30	\$52,380
University of Tennessee -Knoxville	M.S. in Civil Engineering	\$890	30	\$26,700
University of Louisville	M.S. in Civil Engineering	\$791	30	\$23,730
University of South Carolina - Columbia	M.S. or M.E. in Civil Engineering	\$797	30	\$23,910

10. E-Rate

The e-rate for the online MS in Civil and Environmental Engineering will be \$488/credit.