



University Council

January 10, 2025

UNIVERSITY CURRICULUM COMMITTEE – 2024-2025

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Graduate School – Rodney Mauricio

Ex-Officio – Provost S. Jack Hu

Undergraduate Student Representative – Ella Colker

Graduate Student Representative – William Walker

Dear Colleagues:

The attached proposal from the College of Environment and Design for an Undergraduate Certificate in Construction Management will be an agenda item for the January 17, 2025, Full University Curriculum Committee meeting.

Sincerely,

Susan Sanchez, Chair

cc: Provost S. Jack Hu

Dr. Marisa Pagnattaro

PROPOSAL FOR A CERTIFICATE PROGRAM

Date: 12/11/2024

School/College/Unit: College of Environment and Design

Department/Division: College of Environment and Design

Certificate Title: Construction Management

Effective Term: Fall 2025

Which campus(es) will offer this certificate? Athens

CIP: 52200100

Level (Undergraduate, Graduate, or Post-Baccalaureate): Undergraduate

Program Abstract:

The Undergraduate Certificate in Construction Management will provide students with an understanding of concepts of construction management, including construction law, contract documents, budgeting and estimating, sustainability and environmental compliance, supply chains, market impacts, scheduling, and risk management.

1. Purpose and Educational Objectives

State the purpose and educational objectives of the program. How does this program complement the mission of the institution?

The Undergraduate Certificate in Construction Management will provide students with a comprehensive understanding of construction management with a focus on synergies with the fields of landscape architecture, historic preservation, engineering, business, real estate, law, and similar areas. This certificate will develop students' knowledge of concepts of site construction management: construction law, contract documents, budgeting and estimating, sustainability and environmental compliance, supply chains, market impacts, scheduling, risk management, and more.

This certificate complements the mission of the University by adding an area of specialization that is currently not represented by existing programs and yet is in heavy demand both in the State of Georgia and nationwide. Students earning the certificate will have opportunities to participate in public service and outreach classes where students can construct the design projects created in their design or engineering studio classes. The understanding gained in the

coursework can be applied to dozens of professions, including landscape architecture, civil engineering, environmental engineering, mechanical engineering, land and real estate development, historic preservation and restoration, architecture, and contract administration, and interdisciplinary design firms. This certificate will enhance the breadth and depth of skills acquired in the students' degree programs and prepare them to be more competitive on the job market and more successful in the applied field of construction management.

2. Need for the Program

Explain why this program is necessary.

The field of construction management has grown exponentially and has become more complex. Demand for construction managers is high, and students with allied degrees such as landscape architecture and civil and environmental engineering are often hired for construction management jobs or grow into construction management careers. This certificate complements and enhances existing degree programs to provide a thorough understanding of construction management as an applied practice combining engineering, design, and project management.

In addition, provide the following information:

- a. Semester/Year of Program Initiation: Fall 2025
- b. Semester/Year of Full Implementation of Program: Fall 2025
- c. Semester/Year First Certificates will be awarded: Spring 2026
- d. Annual Number of Graduates expected (once the program is established): 15-20
- e. Projected Future Trends for number of students enrolled in the program: 50-75

3. Student Demand

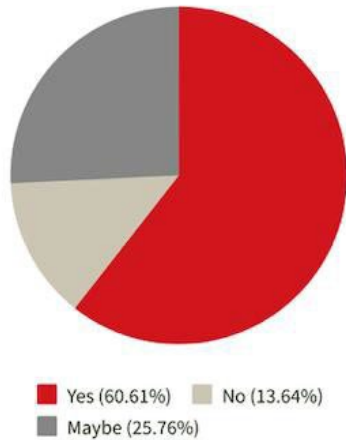
a. Provide documentation of evidence of student demand for this program, including a student survey.

Construction specialists are in increasingly high demand in the United States. The U.S. Bureau of Labor Statistics reported that as of June 2020, there were about 300,000 vacancies in the construction industry. As of January 2024, the vacancies in the construction industry rose further to about 413,000.

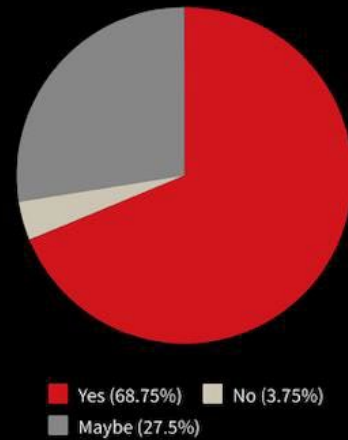
The College of Environment and Design commissioned Hanover Research to conduct Academic Program Assessments for bachelor's and master's degrees in construction management. These assessments were completed in November 2023. According to a Student Demand Analysis included therein, construction management degree completions in the Southeast grew significantly between 2018 to 2022. "Conferrals for construction management bachelor's degree programs grew at an annualized rate of 21.9 percent in Georgia and 7.2 percent in the Southeast region. Conferral growth in the field at all geographic levels outperformed growth of all fields by an impressive margin" (Hanover Research, 2023).

In addition, in the fall of 2024, the College of Environment and Design polled students in the Bachelor of Landscape Architecture (BLA) program, as well as students in select courses offered by the School of Environmental, Civil, Agricultural, and Mechanical Engineering (ECAM) within the College of Engineering about their interest in the certificate. The results indicated strong interest:

BLA Student Interest in Construction Management



Student Interest in Construction Management (Other Programs)



Sixty-six BLA students and eighty ECAM students responded to the survey. Of respondents, 60.61% BLA students and 68.75% of ECAM students declared interest in pursuing the certificate.

b. Provide evidence that demand will be sufficient to sustain reasonable enrollment.

The Hanover study indicated that significant demand for construction management professionals exists and will continue to grow:

“Labor demand for the construction management occupation is expected to expand strongly over the next decade at all geographic levels. Demand for this occupation is projected to outperform demand for all other occupations. Demand in Georgia and the Southeast region is expected to be particularly impressive at 17.4 and 14.5 percent, respectively. In addition, an analysis of job postings published by employers in the region over the last six months revealed that about 70 percent of 9,000 construction management published jobs seek candidates with a bachelor's degree.” (Hanover, 2023).

c. To what extent will minority student enrollments be greater than, less than, or equivalent to the proportion of minority students in the total student body?

The extent of minority student participation is anticipated to be equivalent to the proportion of minority students in the total student body. The construction industry as a whole is supportive of partnering with and mentoring minority-owned firms and is welcoming towards hiring of underrepresented minorities who can provide evidence of competency in construction management skills. Women are severely underrepresented in the construction management field and the certificate will enhance their prospects of becoming construction managers.¹

4. Program of Study

Provide a detailed program of study for the certificate program, including:

- a. Specific course prefixes, numbers, and titles
- b. Identify any new courses created for this program

Successful completion of this certificate requires 11 credit hours of required core classes and 6 credit hours of elective courses, as identified from the following list.

Required Courses (11 hours)

LAND 4500/6500, Introduction to Construction Project Management (3 hours) **NEW**

LAND 4510/6510, Construction Law and Risk Management (3 hours) **NEW**

Choose one of the following courses:

CVLE 3730, Civil Engineering Project Management (2 hours)

LAND 4710/6710, Professional Practice (2 hours)

Choose one of the following courses:

CVLE 3310, Civil Engineering Materials (3 hours)

LAND 2320, Landscape Construction Processes and Materials (3 hours)

Elective Courses (6 hours)

Choose six hours from the following courses:

CVLE 2210, Surveying and Geomatics (2 hours)

CVLE 3420, Introduction to Soil Mechanics (3 hours)

CVLE 4750, Building Information Modeling (BIM) (3 hours)

CVLE 4780, Advanced Computer-Aided Design (3 hours)

ENGR 4570/6570, International Engineering Project Management (3 hours)

ENGR 4670/6670, Quality Engineering (3 hours)

LAND 3330, Landscape Engineering Processes and Materials (3 hours)

LAND 4350, Soil and Stormwater Management for Landscape Architects (3 hours)

LAND 4370, Applied Landscape Construction (2 hours)

LAND 4420S/6420S, Design Build (3 hours)

LAND 4600/6600, Fundamentals of Land Design and Development (3 hours)

LAND 4730/6730, Issues and Practices in Sustainable Design (3 hours)

MGMT 5220, Project Management (3 hours)

REAL 4000, Real Estate (3 hours)

Total: 17 hours

5. Model Program and Accreditation

- a. Identify any model programs, accepted disciplinary standards, and accepted curricular practices against which the proposed program could be judged. Evaluate the extent to which the proposed curriculum is consistent with these external points of reference and provide a rationale for significant inconsistencies and differences that may exist.**

Kennesaw State University, Georgia Institute of Technology, Auburn University, and Clemson University are examples of degree programs which have curricula and standards after which this proposed certificate has been partially modeled. Of those, only Kennesaw State University and Auburn University have certificate programs; the other two only have degree programs. This proposed program follows the recommendations of the American Council for Construction Education (ACCE). The major difference between UGA's proposed program and those in the schools mentioned above is that UGA's focus is on "horizontal" construction management—that is, construction management of sites and land development projects, as opposed to that of individual buildings, which is the focus of all other cited programs.

- b. If program accreditation is available, provide an analysis of the ability of the program to satisfy the curricular standards of such specialized accreditation.**

Program accreditation is available for associate's, bachelor's, and master's degree programs through the American Council for Construction Education (ACCE). There is no accreditation available for certificate programs.

6. Student Learning Outcomes

Describe the proposed learning outcomes for the certificate program.

Students successfully completing the requirements for this certificate are expected to:

- Understand the fundamentals of construction management methods and processes;
- Understand the fundamental aspects of construction materials and practices;
- Understand the fundamental aspects of the legal and safety aspects of construction;
- Understand the many career paths available within the construction industry;
- Apply the acquired knowledge toward solving construction-management problems;
- Analyze construction-management problems and propose creative solutions.

7. Assessment and Admissions

Describe how the learning outcomes for the program will be assessed. Describe the process and criteria for how students will be admitted to and retained in the program.

Learning outcomes will be assessed through the successful completion of course requirements in fulfillment of the 11 core and 6 elective credit hours. All courses must be completed with a grade of "C" (2.0) or higher. Additional assessment will be provided through alumni surveys and employment placement surveys.

Admission is open to any undergraduate student.

ⁱ Please see https://www.redandblack.com/uganews/athens-area-women-in-construction-partners-with-uga-to-introduce-female-high-schoolers-to-construction/article_c9ed0bde-49c9-11ef-999f-4b91b105f9df.html



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November 16, 2024

Dr. S. Jack Hu
Senior Vice President for Academic Affairs and Provost
Administration Building. 203
CAMPUS

Dear Provost Hu,

On behalf of the College of Engineering, I am sharing my unconditional support for the proposal from the College of Environment and Design (CED) for an Undergraduate Certificate in Construction Management. The certificate includes several courses in engineering (civil, environmental, and mechanical). As evidenced by the survey we recently conducted among engineering students, the certificate will be of interest to many. We are also happy to collaborate with the Terry College of Business and the School of Law on this innovative program.

The certificate program will provide undergraduate students with an understanding of concepts of construction management, including: construction law, contract documents, budgeting and estimating, sustainability and environmental compliance, supply chains, market impacts, scheduling, and risk management.

I hope this certificate program receives approval and am looking forward to its start on the UGA campus!

Cordially,

Stephan A. Durham, Ph.D., P.E., F.ASCE
Interim Dean & Juneau Construction Company Professor in Civil Engineering
0130B Paul D. Coverdell Center
500 D.W. Brooks Drive
Athens, GA 30602

Cc: Ms. Fiona Liken
Associate Vice President for Instruction and Registrar
Office of Curriculum Systems
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Peter B. "Bo" Rutledge
Dean and Talmadge Chair of Law

September 15, 2024

Dr. S. Jack Hu
Senior Vice President for Academic Affairs and Provost
Administration Building, 203
CAMPUS

Dear Provost Hu,

This letter is to convey the full support of the School of Law for the proposal from the College of Environment and Design (CED) for an Undergraduate Certificate in Construction Management. CED's Professor Alfie Vick, Dr. Daniel Sniff (CED's alum and former University Architect), Ms. Melanie Ford (CED's alum and Senior Director of Construction in the office of the current University Architect), and the Dean of the College of Environment and Design, Dr. Sonia Hirt, have worked in collaboration with faculty from the College of Engineering and the Terry College of Business to develop a strong proposal. The proposal has also been informed by the work of Dr. Jack Crowley, Dean Emeritus of the CED. The certificate program will provide undergraduate students with an understanding of concepts of construction management, including: construction law, contract documents, budgeting and estimating, sustainability and environmental compliance, supply chains, market impacts, scheduling, and risk management.

I look forward to the approval of this certificate program and the admission of the first cohort of students.

Sincerely,

Peter B. "Bo" Rutledge
Dean & Talmadge Chair of Law
School of Law
University of Georgia

Cc: Ms. Fiona Liken
Associate Vice President for Instruction and Registrar
Office of Curriculum Systems
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Benjamin C. Ayers, Dean
Earl Davis Chair in Taxation

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September 16, 2024

Dr. S. Jack Hu
Senior Vice President for Academic Affairs and Provost
Administration Building, 203
CAMPUS

Dear Provost Hu,

On behalf of the Terry College of Business, I am writing to express support for the proposal from the College of Environment and Design (CED) for an Undergraduate Certificate in Construction Management. CED's Professor Alfie Vick, Dr. Daniel Sniff (CED's alum and former University Architect), Ms. Melanie Ford (CED's alum and Senior Director of Construction in the office of the current University Architect), and the Dean of the College of Environment and Design, Dr. Sonia Hirt, have worked with our faculty and those from the College of Engineering and the School of Law to develop a compelling program.

The certificate program will provide undergraduate students with an understanding of concepts of construction management, including: construction law, contract documents, budgeting and estimating, sustainability and environmental compliance, supply chains, market impacts, scheduling, and risk management.

I hope this certificate program receives approval and am looking forward to its start on the UGA campus!

Sincerely,

Benjamin C. Ayers
Dean and Earl Davis Chair in Taxation
Professor, JM Tull School of Accounting
417A Correll Hall, CAMPUS

Cc: Ms. Fiona Liken
Associate Vice President for Instruction and Registrar
Office of Curriculum Systems
CAMPUS

Documentation of Approval and Notification

Proposal: Undergraduate Certificate in Construction Management

College: College of Environment and Design

Departments: College of Environment and Design

Proposed Effective Term: Fall 2025

School/College:

- College of Environment and Design Dean, Dr. Sonia Hirt, 12/11/2024

Use of Course:

- College of Engineering Interim Dean, Dr. Stephan Durham, 11/16/2024
- Terry College of Business Dean, Dr. Benjamin Ayers, 9/16/2024

Letters of Support:

- College of Engineering Interim Dean, Dr. Stephan Durham, 11/16/2024
- School of Law Dean, Dr. Bo Rutledge, 9/15/2024
- Terry College of Business Dean, Dr. Benjamin Ayers, 9/16/2024