

 FLORIDA ATLANTIC UNIVERSITY	NEW/CHANGE PROGRAM REQUEST Graduate Programs		UGPC Approval _____ UFS Approval _____ Banner _____ Catalog _____
	Department Civil, Environmental and Geomatics Engineering College Engineering and Computer Science		
Program Name PhD in Transportation and Environmental Engineering		<input type="checkbox"/> New Program* <input checked="" type="checkbox"/> Change Program*	Effective Date <small>(TERM & YEAR)</small> Spring 2024
<p>Please explain the requested change(s) and offer rationale below or on an attachment.</p> <p>The Department of CECE would like to add Advanced Research (CGN 7978) to their Ph.D. program. Students taking the course will focus on research activities that are relevant to the student's course of study. This course requires oversight by the student's advisor who can assess the student's performance at the end of the semester. This course can be taken prior to admission to candidacy for the doctoral degree and may be repeated in multiple semesters.</p>			
<small>*All new programs and changes to existing programs must be accompanied by a catalog entry showing the new or proposed changes.</small>			
Faculty Contact/Email/Phone Dr. Jahandar Lashaki / mjahandarlashaki@fau.edu		Consult and list departments that may be affected by the change(s) and attach documentation Dr. Merlin from DURP supported this change through email communication (see attachment).	
Approved by Department Chair _____ <i>EKaija</i> College Curriculum Chair _____ <i>Masoud Jahandar Lashaki</i> College Dean _____ <i>McArde</i> UGPC Chair _____ UGC Chair _____ Graduate College Dean _____ UFS President _____ Provost _____			Date 9/19/2023 9/19/2023 9/19/2023 _____ _____ _____ _____ _____ _____

Email this form and attachments to UGPC@fau.edu 10 days before the UGPC meeting.

DOCTORAL PROGRAM

TRANSPORTATION AND ENVIRONMENTAL ENGINEERING DOCTOR OF PHILOSOPHY (PH.D.)

(Minimum of 72 credits required)

(For this degree program, the GRE admission requirement is waived through and including fall 2023.)

The Department of Civil, Environmental and Geomatics Engineering offers a Doctor of Philosophy (Ph.D.) degree focused on urban mobility and environmental/water resources sustainability. This degree provides students with a fundamental and applied research-based education suitable for seeking employment in industry, government or academia.

Admission Requirements

Applicants should have a master's degree in Engineering, Science, Urban Planning, Transportation Logistics or Mathematics from an accredited college or university. A student with outstanding scholastic achievement who holds only a baccalaureate degree in Engineering, Science, Urban Planning, Transportation Logistics or Mathematics from an accredited college or university may be admitted directly to this Ph.D. program and be eligible to earn the [*Master's en Passant*](#). Specific requirements for the B.S. to Ph.D. are found [here](#).

Requirements for students with previous degrees in non-engineering disciplines are found [here](#). Additional eligibility requirements are:

1. A cumulative GPA of 3.00;
2. Completion of at least two semesters of college calculus with grades of "B" or better;
3. Satisfaction of departmental minimum GRE score requirements; and
4. A letter of recommendation from their potential graduate advisor.

The Department of Civil, Environmental and Geomatics Engineering requires the following deficiency coursework for students without an engineering bachelor's degree from an accredited program: two fundamental engineering courses in the relevant area, as determined by the dissertation advisor or department graduate committee.

- Applicants must have a 3.0 GPA (on a 4.0 scale) or better in the last 60 credits of work attempted coursework and must have an official transcript forwarded directly to the FAU Graduate College from each college-level institution attended;
- Applicants must submit the Graduate Record Examination (GRE) score. The GRE requirement is waived with proof of passing the Fundamentals of Engineering (FE) or Principles and Practice of Engineering (PE) exam. The GRE requirement is waived for applicants who have a previous degree from FAU's College of Engineering and Computer Science;
- A student from a non-English-speaking country is required to take the Test of English as a Foreign Language (TOEFL) and achieve a score of at least 550 (paper-based) or 213 (computer-based) or

79 (iBT). This requirement may be waived for students who have obtained a prior degree from a U.S. institution;

- Applicants must submit to the Graduate College at least two letters of recommendation attesting to the student's ability to pursue with distinction a curriculum of advanced study and research in a chosen area;
- Applicants must abide by the policies and regulations and the graduate admission requirements of the University as outlined in this University Catalog;
- Conditional admission may be permitted if the above conditions are not met.

Graduation Requirements

The degree will be conferred on candidates who have fulfilled the following requirements:

1. Completed the curriculum for the Ph.D. in Transportation and Environmental Engineering, which entails:
 - Successful completion of 72 credits of course and dissertation work beyond the baccalaureate degree with a minimum grade of "B" in each course. Up to 30 credits of coursework from an approved master's degree program may be applied;
 - Maintenance of a minimum 3.0 GPA in all coursework attempted for the degree. Failure to maintain a minimum GPA of 3.0 may result in creating an Academic Progression Plan (APP) for the student.

Core Courses - two courses for 6 credits		
Sustainability and Pollution Prevention	ENV 6932	3
Transportation System Analysis	TTE 6501	3
Technical Electives - three courses for 9 credits		
<i>Select three courses at the 5000 or 6000 level from the Department of Civil, Environmental and Geomatics Engineering. The courses must be approved by the dissertation advisor.</i>		
Other Electives - two courses for 6 credits		
<i>Select two courses at the 5000, <u>6000</u>, or <u>76000</u> level from the College of Engineering and Computer Science or other FAU colleges. No more than 3 credits of Directed Independent Study (DIS) <u>or</u> <u>Advanced Research (CGN 7978)</u>. The courses must be approved by the dissertation advisor.</i>		
Dissertation (CGN 7980) - 21 credits (minimum) for students entering with a master's degree		
<i>Up to 3 credits of graduate internship (EGN 5940) may be used to satisfy the 21-credit dissertation minimum requirement, with approval of the dissertation advisor.</i>		
Graduate Seminar (CGN 5937) - two semesters		

2. Successful completion of a qualifying exam is required upon completion of 15 credits of core and technical elective courses;
3. Successful completion of a dissertation proposal defense is typically required within two semesters after passing the qualifying exam;
4. Prior to the dissertation defense, the student is required to have published or have accepted for publication a refereed research paper in a field of study deemed acceptable by the dissertation committee. A journal article is preferred, but a peer-reviewed conference paper is also acceptable;
5. Successful completion of an oral defense of the written doctoral dissertation based on original research in the student's area of specialization. The Dissertation/Supervisory Committee, the Department Chair and the Graduate College must have approved the dissertation and oral defense;
6. Complied with the University's Graduate Policies and Regulations and satisfied the University's Graduate Degree Requirements.

Dissertation/Supervisory Committee

Upon acceptance into the Ph.D. Program, a student will select an advisor from the department faculty members to serve as chair of the Dissertation/Supervisory Committee. The student's Ph.D. Dissertation/Supervisory Committee will have a minimum of four members with at least two of them having expertise in the research area. At least two committee members must be from the Department of Civil, Environmental and Geomatics Engineering. One member and/or co-chair of the committee can be from outside the department. Also, the committee may include a member from another institution or industry. The Dissertation/Supervisory Committee shall approve the dissertation proposal, monitor academic progress every semester, evaluate the dissertation defense and approve the final doctoral dissertation document.

Qualifying Exam

Upon successful completion of core and technical elective courses, the student will be required to complete a qualifying examination. The examination is scheduled after the last day of the final examination period and before the end of the fall semester and the spring semester each year. The examination will be in two parts: One covering the core courses and one covering the technical elective subjects. An overall grade of 70 percent on each part of the written examination is passing. Students who score below 70 percent on certain parts of the written examination are given the option of retaking exams on areas in which they scored less than 70 percent. The student must score at least 70 percent in each subject that is retaken. Normally, two failures will result in the student's dismissal from the Ph.D. program. After passing the Qualifying Exam, the student advances to candidacy.

Proposal Defense: Within two semesters after successful completion of the Qualifying Exam, the candidate must orally defend the dissertation proposal to the Dissertation/Supervisory Committee for approval. The student should submit a written proposal report to the Dissertation/Supervisory Committee for review prior to the oral presentation.

Dissertation Defense: The doctoral dissertation shall be written in the format specified by the Graduate College. The dissertation must be defended orally and represent an original piece of research that advances the body of knowledge in the field. A written dissertation is submitted to the members of the committee who may approve, suggest additional work or reject the dissertation work after the defense.

Masoud Jahandar Lashaki

From: Masoud Jahandar Lashaki
Sent: Friday, September 15, 2023 4:09 PM
To: Louis Merlin
Cc: Diana Mitsova; Evangelos Kaisar
Subject: RE: Review Request for Catalog Changes

Hi Dr. Merlin,

Thanks for your favorable consideration of our request.

With advisor approval, students can register for this course multiple times and for as many credits as they want. However, they can only count up to 3 credits of Advanced Research towards their 21-credit coursework.

Best regards,
Masoud

From: Louis Merlin <lmerlin@fau.edu>
Sent: Friday, September 15, 2023 3:43 PM
To: Masoud Jahandar Lashaki <mjahandarlashaki@fau.edu>
Cc: Diana Mitsova <dmitsova@fau.edu>; Evangelos Kaisar <ekaisar@fau.edu>
Subject: RE: Review Request for Catalog Changes

Dr. Lashaki,

What is the thinking behind limiting this to 3 credit hours?

I know other departments are encouraging students to get involved in research early in their program, so I would suggest considering removing that limit, and therefore allowing up to 6 hours of advanced research prior to the dissertation.

Either way, DURP will support this change.

Louis

From: Masoud Jahandar Lashaki <mjahandarlashaki@fau.edu>
Sent: Friday, September 15, 2023 9:13 AM
To: Louis Merlin <lmerlin@fau.edu>
Cc: Diana Mitsova <dmitsova@fau.edu>; Evangelos Kaisar <ekaisar@fau.edu>
Subject: Review Request for Catalog Changes

Good morning Dr. Merlin,

I hope all is well.

I am writing on behalf of the Department of Civil, Environmental and Geomatics Engineering. Our department would like to add an Advanced Research course to our PhD program in Transportation and Environmental Engineering. Could you please kindly review the attached documents and advise whether your department has any objections to this change? Once received, I will attach your remarks to our Change Program Request form. **I would be grateful if you provide your input by Monday, September 18th, at 12 PM.** Please let me know if you need any additional information in this regard. Thank you for your time and consideration.

Best regards,
Masoud

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