

 FLORIDA ATLANTIC UNIVERSITY	NEW/CHANGE PROGRAM REQUEST Graduate Programs		UGPC Approval _____ UFS Approval _____ Banner Posted _____ Catalog _____
	Department Interdisciplinary program College Engineering and Computer Science		
Program Name Energy Resilience Graduate Certificate	<input checked="" type="checkbox"/> New Program <input type="checkbox"/> Change Program	Effective Date <i>(TERM & YEAR)</i> Spring 2020	
Please explain the requested change(s) and offer rationale below or on an attachment College of Engineering and Computer Science is proposing a new Energy Resilience Graduate Certificate. The introduction and rationale, admission, and curriculum are attached.			
Faculty Contact/Email/Phone Dr. Mihaela Cardei/mcardei@fau.edu/561-302-4978		Consult and list departments that may be affected by the change(s) and attach documentation NA	
Approved by Department Chair _____ <i>M. Cardei</i> College Curriculum Chair _____ <i>M. Cardei</i> College Dean _____ <i>M. Cardei</i> UGPC Chair _____ <i>[Signature]</i> UGC Chair _____ <i>[Signature]</i> Graduate College Dean _____ <i>[Signature]</i> UFS President _____ Provost _____		Date 3/19/2019 3/25/19 3/25/2019 8/14/19 8/14/19 8-14-19	

Email this form and attachments to UGPC@fau.edu one week before the UGPC meeting so that materials may be viewed on the UGPC website prior to the meeting.

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Interdisciplinary Program

Graduate Certificate in Energy Resilience

Introduction and Rationale

The availability of reliable electric power is foundational to health and safety of the citizens, as well as to the local economy. Technology is rapidly providing solutions that increase the efficiency and resiliency of the electrical grid, while renewable energy technologies are providing cleaner sources of electric power. These technology advancements are made possible by engineers and scientists with advanced knowledge of the power grid, data analysis technics, and renewable energy extraction. By specializing in these areas, graduate students will be well prepared to contribute to the efficiency and resiliency of the electrical grid, as well as renewable power generation.

To provide graduate students with the knowledge necessary to improve the efficiency and resiliency of energy generation, transmission, and distribution, the College of Engineering and Computer Science is proposing a graduate certificate in Energy Resilience. This 12-credit certificate allows graduate students to expand their knowledge and skills in the concepts, technologies, and tools of power and energy, energy resiliency, and renewable power generation and be recognized for their achievement.

Admission

Open to students with a bachelor's degree in engineering or science and GPA at least 3.0. Students must satisfy the prerequisites for each course in the program. The average GPA of all four courses counted in the certificate must be 3.0 or better. All course materials are in English; all international students must demonstrate proficiency in English to enter the program.

Curriculum

Certificate of Advanced Study in Energy Resilience (12 credits)		
<i>Core courses (required courses):</i>		
Advanced Energy Engineering	CGN 5715	3
Smart Grid	EEL 6297	3
<i>Elective courses (choose 2 courses):</i>		
Wind Turbine Systems	EML 6456	3
Solar Energy Engineering	EML 6417C	3
Marine Renewable Energy	EOC 6145	3
Power System Analysis and Control	EEL 5252	3

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