FLORIDA ATLANTIC UNIVERSITY

NEW/CHANGE PROGRAM REQUEST
Graduate Programs

Department Interdisciplinary program

College Engineering and Computer Science

UGPC Approval _____
UFS Approval _____
Banner Posted _____
Catalog _____

Program Name	☑ **New Program** / ☐ **Change Program**	**Effective Date** *(TERM & YEAR)*
Energy Resilience Graduate Certificate		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	**Consult and list departments that may be affected by the change(s) and attach documentation**
Dr. Mihaela Cardei/mcardei@fau.edu/561-302-4978	NA

Approved by		***Date***
Department Chair	MCardei	3/19/2019
College Curriculum Chair		3/25/19
College Dean	MCardei	3/25/2019
UGPC Chair		
UGC Chair		
Graduate College Dean		
UFS President		
Provost		

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.

GRADUATE COLLEGE
MAR 29 2019
Received

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)		
Core courses (required courses):		
Advanced Energy Engineering	CGN 5715	3
Smart Grid	EEL 6297	3
Elective courses (choose 2 courses):		
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