FLORIDA ATLANTIC UNIVERSITY

NEW/CHANGE PROGRAM REQUEST
Graduate Programs

Department Ocean and Mechanical Engineering

College College of Engineering and Computer Science

UGPC Approval _____
UFS Approval _____
Banner Posted _____
Catalog _____

Program Name
Energy Resilience Graduate Certificate

☐ **New Program**
☑ **Change Program**

Effective Date *(TERM & YEAR)*
Fall 2020

Please explain the requested change(s) and offer rationale below or on an attachment

Add EML 6451 Advanced Energy Conversion Processes and Systems as an Elective

Faculty Contact/Email/Phone
Francisco Presuel-Moreno, fpresuel@fau.edu, 954-924-7236

Consult and list departments that may be affected by the change(s) and attach documentation
CEGE, CEECS

Approved by		***Date***
Department Chair	[signature]	11/18/2019
College Curriculum Chair	Ramesh Teegavarapu (Digitally signed by Ramesh Teegavarapu DN: cn=Ramesh Teegavarapu, o=FAU, ou=CEGE / COECS, email=rteegavar@fau.edu, c=US Date: 2019.11.22 13:27:18 -05'00')	11/22/2019
College Dean	Mihaela Cardei	11/22/2019
UGPC Chair	[signature]	12/11/19
UGC Chair	[signature]	12/11/19
Graduate College Dean	[signature]	12-11-19
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
NOV 25 2019

Energy Resilience Certificate

The availability of reliable electric power is foundational to the health and safety of citizens as well as the 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 technological advances are made possible by engineers and scientists with advanced knowledge of the power grid, data analysis techniques 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.

This 12-credit certificate provides graduate students with knowledge and skills in the concepts and technologies necessary to improve the efficiency and resiliency of energy generation, transmission and distribution.

Admission

This certificate program is open to students with a bachelor's degree in engineering or science and a GPA of 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 program 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

Core Courses		
Advanced Energy Engineering/Energy Engineering	CGN 5715	3
Smart Grid	EEL 6291	3
Elective Courses (choose two)		
Power System Analysis and Control	EEL 5256	3
Solar Energy Engineering	EML 6417C	3
Wind Turbine Systems	EML 6456	3
Marine Renewable Energy	EOC 6145	3
Advanced Energy Conversion Processes and Systems	EML 6451	3