FLORIDA ATLANTIC UNIVERSITY

NEW/CHANGE PROGRAM REQUEST
Graduate Programs

UGPC Approval _____
UFS Approval _____
Banner _____
Catalog _____

Department Ocean and Mechanical Engineering

College Engineering and Computer Science

Program Name	☐ **New Program***	**Effective Date** *(TERM & YEAR)*
PhD in Mechanical Engineering	☑ **Change Program***	Fall/2021

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

This proposal adds a new concentration in Aerospace Engineering to the PhD in Mechanical Engineering program.
This concentration is motivated by the research expertise and activity of some of the faculty in the OME department.

*All new programs and changes to existing programs must be accompanied by a catalog entry showing the new or proposed changes.

Faculty Contact/Email/Phone	**Consult and list departments that may be affected by the change(s) and attach documentation**
Manhar Dhanak/dhanak@fau.edu/561-297-2827	NA

Approved by		***Date***
Department Chair	Digitally signed by Manhar Dhanak DN: cn=Manhar Dhanak, o=Florida Atlantic University, ou=Ocean and Mechnical Engineering, email=dhanak@fau.edu, c=US Date: 2021.03.14 15:00:28 -05'00'	
College Curriculum Chair	Francisco Presuel-Moreno Digitally signed by Francisco Presuel-Moreno DN: cn=Francisco Presuel-Moreno, o=Florida Atlantic University, ou=Ocean and Mechanical Engineering, email=fpresuel@fau.edu, c=US Date: 2021.03.14 18:04:31 -04'00'	3/14/2021
College Dean	MCardei Digitally signed by Mihaela Cardei DN: cn=Mihaela Cardei, o=Florida Atlantic University, ou, email=mcardei@fau.edu, c=US Date: 2021.03.15 09:11:30 -04'00'	3/15/2021
UGPC Chair		
UGC Chair		
Graduate College Dean		
UFS President		
Provost		

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

Doctor of Philosophy with Major in Mechanical Engineering: Aerospace Engineering Concentration

Students in the Ph.D. with Major in Mechanical Engineering have the option of pursuing a concentration in Aerospace Engineering. See below for details.

Admission Requirements
Applicants should meet all the admission requirements for the Ph.D. with Major in Mechanical Engineering program.

Degree Requirements
Applicants should meet all the degree requirements for the Ph.D. with Major in Mechanical Engineering program. In addition, the following requirements should be met.

1. Graduate coursework counted for the PhD program include three Ph.D. core courses (Advance Strength of Materials, Advanced Fluid Dynamics and Advanced Control) and at least three graduate courses that includes content on theoretical and/or applied Aerospace engineering. Graduate courses completed during the master's degree program may also be used to meet this requirement. The three Aerospace engineering courses are listed in the table below. Additional courses may be approved by the dissertation advisor.

2. The student's dissertation research and scholarship must have a strong emphasis on one or more areas of Aerospace Engineering.

Graduate Coursework (9 credits)		
Core course		
Principles of Aerodynamics	EML 6930	3
Elective courses (select two of the following courses)		
Computational Fluid Dynamics	EOC 6189	3
Fracture Mechanics	EML 6239	3
Introduction to Finite Element	EGM 5351	3
Advanced Dynamics	EML 6271	3
Turbomachinery	EML 6402	3