

Inter-American University of Puerto Rico  
 Bayamon Campus  
 School of Engineering  
 Mechanical Engineering Department  
 Tel. 787-279-1912 ext. 2278, 2250, 2249  
 Master of Engineering in Mechanical Engineering with Specialization in Aerospace (422)

Required Total Credits: 33-36 credits

Core Course Requirements	3 credits
Specialization Requirements	9 credits
Prescribed Distributive Requirements	18 credits
Option A: Project Requirements	3 credits
Option B: Additional Prescribed Distributive Requirements	6 credits
Total Option A:	33 credits
Total Option B:	36 credits

Revised: January 2023

FIRST YEAR									
First Semester					Second Semester				
Course Number	Title	Credits	Requisites	Approved	Course Number	Title	Credits	Requisites	Approved
MECN 6010	Advanced Engineering Mathematics	3			MECN 6220	Advanced Aerospace Structures	3		
MECN 6210	Integration of Engineering Systems	3			MECN ____	Prescribed Distributive Requirement	3		
MECN ____	Prescribed Distributive Requirement	3			MECN ____	Prescribed Distributive Requirement	3		
<b>Total</b>		<b>9</b>			<b>Total</b>		<b>9</b>		

SECOND YEAR									
Third Semester					Fourth Semester				
Course Number	Title	Credits	Requisites	Approved	Course Number	Title	Credits	Requisites	Approved
MECN 6230	Aerospace Dynamics	3			MECN ____	Prescribed Distributive Requirement	3		
MECN ____	Prescribed Distributive Requirement	3			MECN ____	Prescribed Distributive Requirement	3		
MECN 6981 (Option A)	Project I	1	Department Chair Authorization		MECN 6982 (Option A)	Project II	2	MECN 6981	
MECN ____ (Option B)	Prescribed Distributive Requirement	3			MECN ____ (Option B)	Prescribed Distributive Requirement	3		
<b>Total</b>		<b>7 or 9</b>			<b>Total</b>		<b>8 or 9</b>		

\*\* Any student interested in the Master of Engineering in Mechanical Engineering must have approved the following courses or equivalent:

- a. MECN 4202 Thermodynamics II
- b. MECN 3135 Solid Mechanics
- c. MATH 3400 Differential Equations

**Core Course Requirements (3 credits)**

MECN 6010 Advanced Engineering Mathematics 3 crs.

**Aerospace Specialty Courses (9 credits)**

MECN 6210 Integration of Engineering Systems 3 crs.

MECN 6220 Advanced Aerospace Structures 3 crs.

MECN 6230 Aerospace Dynamics 3 crs.

**Prescribed Distributive Courses (18 or 24 credits)**

MECN 597\_ Advanced Topics in Mechanical Engineering 3 crs.

MECN 597\_ Advanced Topics in Mechanical Engineering 3 crs.

MECN 6020 Advanced Thermodynamics 3 crs.

MECN 6030 Advanced Solid Mechanics 3 crs.

MECN 6040 Computational Modeling for Engineering 3 crs.

MECN 6140 Fuel Cells 3 crs.

MECN 6150 Advanced Power Generation 3 crs.

MECN 6240 Aerospace Materials 3 crs.

MECN 6250 Computational Fluid Dynamics 3 crs.

MECN 6260 Advanced Mechanical Vibration 3 crs.

MECN 6300 Advanced Control Systems 3 crs.

MECN 6510 Lighting Systems Design 3 crs.