

# AEROSPACE ENGINEERING, POST-BACCALAUREATE CERTIFICATE (P.B.C.)

All Graduate Certificate in Engineering Programs consist of 4 courses/12 credits. All students are expected to complete a preliminary course plan for their intended degree program. Degree planning worksheets can be found here: <https://advancedengineering.umd.edu/degree-planning-sheets> (<https://advancedengineering.umd.edu/degree-planning-sheets/>)

Students complete **12 credits** in one of the following specializations:

## General

Course	Title	Credits
Select four courses and include at least one course from each of the three specializations: 12		
ENAE641	Linear System Dynamics	
ENAE642	Atmospheric Flight Control	
ENAE654	Mechanics of Composite Structures	
ENAE655	Structural Dynamics	
ENAE656	Aeroelasticity	
ENAE674	Aerodynamics of Compressible Fluids	
ENAE676	Turbulence	
<b>Total Credits</b>		<b>12</b>

## Rotocraft

Course	Title	Credits
Select four of the following: 12		
ENAE631	Helicopter Aerodynamics I	
ENAE632	Helicopter Aerodynamics II	
ENAE633	Helicopter Dynamics	
ENAE634	Helicopter Design	
ENAE635	Helicopter Stability and Control	
<b>Total Credits</b>		<b>12</b>

## Space

Course	Title	Credits
Select four of the following: 12		
ENAE601	Astrodynamics	
ENAE602	Spacecraft Attitude Dynamics and Control	
ENAE691	Satellite Design	
ENAE694	Spacecraft Communications	
ENAE696	Spacecraft Thermal Design	
ENAE741	Interplanetary Navigation and Guidance	
ENAE791	Launch and Entry Vehicle Design	
<b>Total Credits</b>		<b>12</b>