



## H-Form ECE 435

A Brief Course Description			
<b>College</b>	Engineering		
<b>Department/ Program</b>	Electrical Engineering – Renewable Energy		
<b>Course Name</b>	Hydraulic and Pneumatic systems		
<b>Course Code</b>	ECE 333		
<b>Year / Level</b>	5/9		
<b>Credit Hours</b>	3		
<b>Contact Hours</b>	Lecture: 2	Lab/Tutorial: 2	Training: 0
<b>Language</b>	English		
<b>Course Type</b>	<input type="checkbox"/> University <input type="checkbox"/> College <input type="checkbox"/> Department <input checked="" type="checkbox"/> Program		
	<input checked="" type="checkbox"/> Required <input type="checkbox"/> Elective		
<b>Pre-requisites Course</b>	PHYS 216/ PHYS 243		
<b>Co-Requests</b>	-		
<b>Course Description</b>	Introduction to fluid power. Physical properties of hydraulic fluids. Energy & Power in Hydraulic systems. Frictional losses in hydraulic pipelines. Hydraulic pumps. Hydraulic cylinders and cushioning devices. Hydraulic motors and hydraulic valves Hydraulic circuit design and analysis. Pneumatics: air preparation and components. Pneumatics circuits and applications. Basic electrical controls for fluid power circuits.		