



**Mutah University**  
**College of Graduate Studies**

## Master's Degree in Smart Grids in Electrical Power Systems Comprehensive Track

**Comprehensive Track: The total credit hours required for graduation are 33 credit hours, distributed as follows:**

<b>A: - Specialization Requirements Compulsory Credit Hours (24)</b>	Course Code	Course Title	Credit Hours	Prerequisite
	0401720	Smart Grids; Components & Functionalities	3	
	0401730	Electrical Network Automation and Protection	3	
	0401731	Sensors, Measurement, and Smart Metering	3	
	0401734	Electrical Renewable Energy Systems	3	
	0401736	Research methods	3	
	0401737	Power System Stability and Dynamics	3	
	0401738	Advanced Power Electronics and Drives	3	
	0401739	Power Systems Modeling and Simulation	3	

<b>B: - Elective Major Requirements Credit Hours (9)</b>	Course Code	Course Title	Credit Hours	Prerequisite
	0401740	Power System Quality	3	
	0401741	Fault Tolerant Systems	3	
	0401742	Modern Control Theory	3	
	0401743	Wide Area Monitoring in Smart Grids	3	
	0401744	Electrical Systems Management and Energy Economy	3	
	0401745	Energy Storage Technology	3	
	0401746	Computational Methods for Power System Analysis	3	
0401747	Power Systems Operation and Control	3		

<b>C: - College Compulsory</b>	Course Code	Course Title	Credit Hours	Prerequisite
	.....	Continuous Registration	0	
		Comprehensive Exam	0	