

**Engineering Technical College of Mosul / Department of Mechanical  
Power Mechanics Techniques Engineering / Postgraduate Studies /  
Technical Master's Degree / Thermal Engineering Technologies**

**Master of Thermal Engineering Techniques  
First Course - General**

	<b>Subject</b>	<b>Theoretical</b>	<b>Practical</b>	<b>Units</b>
1	Advanced Heat Transfer	2	---	2
2	Advanced Fluid Mechanics	2	2	3
3	Advanced thermodynamics	2	---	2
4	Test Rigs Design, Measurements, and Data Analysis.	1	---	1
5	Advanced Applied Mathematics	2	---	2
6	Thermal Systems Design	2	---	2
7	English Language	1	---	1
	<b>Total</b>	<b>12</b>	<b>2</b>	<b>13</b>

**Second Course - Specialized**

	<b>Subject</b>	<b>Theoretical</b>	<b>Practical</b>	<b>Units</b>
1	Advanced Heat Exchangers Design	2	2	3
2	Computational Fluid Dynamics (CFD)	2		2
3	Exergy Analysis for Thermal Systems	2		2
4	Renewable Energy	2		2
5	Elective Subject #	2		2
6	Research Methodology	2		2
	<b>Total</b>	<b>12</b>	<b>2</b>	<b>13</b>

**# Elective Subjects**

	<b>Subject</b>	<b>Theoretical</b>	<b>Practical</b>	<b>Units</b>
1	Advanced Power Plants Engineering	2	---	2
2	Mixed Refrigerants and Low-Temperature Applications	2	---	2
3	Combustion Dynamic and Environment	2	---	2