



College of Engineering, Technology, and Architecture  
**UNIVERSITY OF HARTFORD**

Electrical and Computer Engineering Department  
**MASTER OF ENGINEERING, Electrical Engineering**

The graduate program stresses applied research for the practicing engineer. The goal is to prepare you to solve more sophisticated design problems that will help you advance in your engineering Career. Small classes promote interaction with the faculty

Course Name	Credit Hours
<b>Core Courses (choose 5 courses)</b>	<b>15</b>
ECE 521 Communications Theory	
ECE 532 Embedded Microprocessors	
ECE 534 VHDL and Applications	
ECE 540 DSP Hardware	
ECE 543 Digital Control Systems	
ECE 544 State Variable Control Systems	
ECE 565 Digital VLSI Design I	
ECE 567 Analog VLSI Design	
ECE 572 Power Systems Analysis	
ECE 573 Power Electronics	
ECE 551 Engr Design with Neural Nets	
ECE 641 Digital Signal Processing	
ECE 642 Adv Linear Discrete and Continuous Control Systems	
ECE 643 Advanced Digital Control Systems	
ECE 644 Estimation and Filtering Theory	
ECE 671 Transformers: Theory and Practice	
ECE 672 Protective Relaying	
ECE 674 Small-Power Electrodynamics	
ECE 675 Surge Processes in Power Engineering	
<b>Mathematics</b>	<b>3</b>
M 515 Methods of Applied Mathematics I	
<b>Engineering Management</b>	<b>3</b>
EM 601 Engineering Program Management	
<b>Independent Studies</b>	<b>6</b>
ECE 600 Independent Studies in Electrical Engineering	
<b>Electives (choose 1 course)</b>	<b>3</b>
ECE 600 may be increased to 9 credits	
M 517 Applied Engineering Statistics	
EM 600 Engineering and the Corporation	
Any approved graduate course	
<b>PROGRAM TOTALS:</b>	<b>30</b>

**Research Topics and Projects**

- App of Data / Electric Machinery Acquisition Techniques
- Cost-effective CAD for Robust Design of Integrated Circuits using Artificial Neural Networks
- Multi-target Tracking: Recent Adv and Development
- Real-Time Fault Diagnostics of Power Transformers
- Active Noise Control
- Digital Signal Processing