MASTER OF ELECTRICITY MARKETS

Restructuring of electricity delivery brings major changes to the electric power industry. Electricity is traded as a commodity in financial markets which affect the way electric power grids are controlled and operated. Today's electrical engineers are compelled to understand both the technical and business sides of such changes in order to address the needs of the electric power industry.

The Department of Electrical and Computer Engineering and the Stuart School of Business have teamed up to offer a master's degree in electricity markets. Combining courses from graduate programs in electrical engineering and in finance, the Master of Electricity Markets degree program provides graduate-level education in electricity suitable for electric power engineers. A background in finance is not required.

The admission requirements for this degree follow the existing admission requirements for other professional master's degrees in the ECE department. Students whose accredited B.S. degree is not in electrical engineering may pursue this degree, provided that they have an adequate background and can demonstrate proficiency in the material contained in undergraduate courses equivalent to Illinois Institute of Technology's:

ECE 211 & ECE 213	Circuit Analysis I and Circuit Analysis II	7
ECE 311	Engineering Electronics	4
ECE 319	Fundamentals of Power Engineering	4
MATH 251	Multivariate and Vector Calculus	4
MATH 252	Introduction to Differential Equations	4

A student may demonstrate proficiency by successfully completing the courses or by demonstrating satisfactory performance in one or more special examinations administered by the ECE department.

Curriculum

Requirement	Credits
Minimum Degree Credits	30
Maximum 400-Level Credit	12
Minimum 500-Level Credit	18
Maximum Transfer Credit	9

Code	Title	Credit Hours
Required Core Courses		(15)
Select a minimum of five courses from the following:		15
ECE 417	Power Dist Engring	3
ECE 418	Power Systems Analysis	3
ECE 420	Analyt. Methods for Power Syst	3
ECE 537	Next Generation Smart Grid	3
ECE 553	Power System Planning	3
ECE 555	Power Market Operations	3
ECE 556	Power Mkt Ecnmcs Security	3
ECE 557	Fault Tolerant Power Systems	3
ECE 558	Power System Reliability	3
ECE 561	Deregulated Power Systems	3
ECE 562	Power Syst Tran Management	3
ECE 564	Cntrl Oprtn Elect Power Systs	3
ECE 579	Oper/Plan/Dist Power Grid	3
ECE 580	Elements of Sustainable Energy	3
ECE 581	Elements of Smart Grid	3
ECE 582	Microgrid Design and Operation	3
Finance Courses		(6)
Select a minimum of two courses from the following:		6
MSF 502	Statistical Analys in Fin Mkts [1]	3
MSF 503	Financial Modeling [1]	3

MSF 504	Valuation/Portfolio Management	3
MSF 505	Futures/Option/OTC Derivatives	3
MSF 524	Models for Derivatives	3
MSF 526	Computational Finance	3
MSF 534	Corporate Finance	3
MSF 554	Market Risk Management	3
MSF 584	Equity & Equity Deriv Trading	3
General Electives		(9)
Select nine credit hours of electives from ECE 400-799		9
Total Credit Hours		30

[1] A student can take MSF 502 or MSF 503, but only one can be counted toward the degree program.