

Power Curriculum at NC State

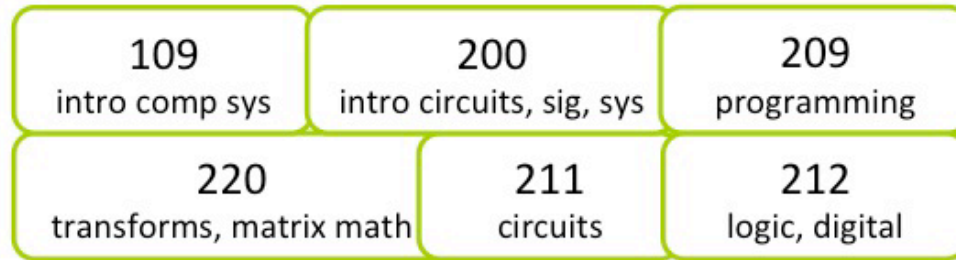
Mesut Baran

NC State University

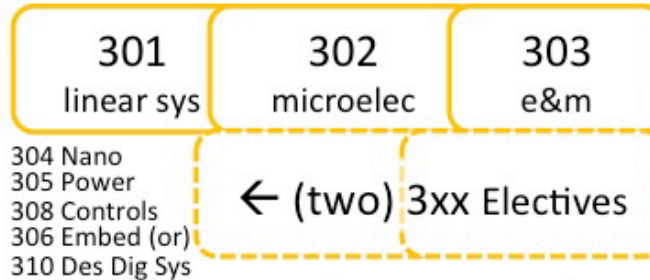


ECE UG Curriculum

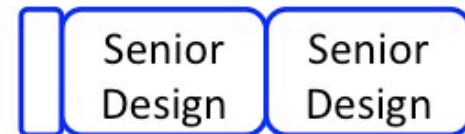
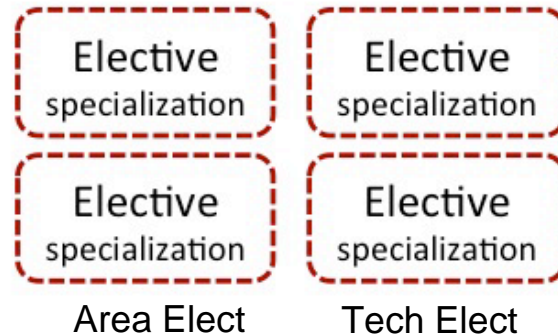
Introduction



(Foundation)



Specialization



Specialization Electives

two courses from any ONE of the following areas:

Communication & Signal Processing Systems

Control Systems

Circuits & Electromagnetic Systems

Nano Systems

Power Systems

ECE 434: Fundamentals of Power Electronics

ECE 451: Power Systems Analysis

ECE 452: Renewable Electric Energy Systems

ECE 453: Electric Motor Drives

REES (Renewable Electric Energy Systems) concentration

a set of elective coursework, which focuses on electromech energy conversion, renewable electric power systems, power electronics, and power systems.

ECE 305 → Required: ECE 452
Electives: ECE 434, 451, 453

Fall 2012	Fall 2013	Fall 2014	Fall 2015
52	65	73	76



Graduate Program - MS

MS –EE Options:

Accelerated MS- ABM: double count 4 graduate ECE courses

MS Non-Thesis: all courses, 30 credit hours

MS Thesis: Thesis with up to 6 credit hours

Engineering Online: MS-EE



MS – EPSE: Electric Power System Engineering

Fall Semester	Spring Semester
Core 1: ECE 550: Power System Operation and Control	Core 4: ECE 552: Electric Power Generation
Core 2: ECE 534: Power Electronics and Utility Applications	Core 5: ECE 551: Smart Distribution Systems
Core 3: ECE 586: Comm and SCADA Systems	Core 6: ECE 583: Power Engineering Practicum I
Core 7: Capstone (Summer of Fall)	
<u>Electives:</u> select three courses from the following for the sub-	
ECE 554: Electric Motor Drives	ECE 581: Power System Switchgear and Protection
ECE 585: The Business of the Electric Utility	ECE 736: Power System Stability
ECE 753: Computational Methods	ECE 734: Advanced Power Electronic

Offered Online

<https://www.ece.ncsu.edu/graduate/msepsc>

Concentration in Power Electronics

Thank You!