

Device Manufacturing: From Energy to AI

July 27-29, 2020

Professor Jennifer Rupp

Day One

Time	Topics	Instructor(s)
9:30-10:30 am	Introduction to Society's Needs and Recent Developments of AI and Energy Devices	Jennifer Rupp
10:30-11:00 am	Coffee Break	
11:00-12:30 pm	Energy and AI Information Landscape: Emerging Trends	Jennifer Rupp
12:30-1:30 pm	Lunch	
1:30-3:00 pm	Manufacturing materials and device interfaces over length scales: Powder, large-scale component, thin film design for circuitry	Jennifer Rupp
3:00-3:30 pm	Coffee Break	
3:30-5:30 pm	Lab 1: Ceramic Processing	TBA
6:00-8:00 pm	<i>Special Evening: Social & Networking Reception</i>	
Time	Topics (include lectures, hands-on work, laboratory work and social events as applicable)	Instructor(s)
9:30-10:30 am	Review of work done in previous day's Lab 1	Jennifer Rupp
10:30-11:00 am	Coffee Break	
11:00-12:30 pm	Device Design and Performance Engineering Industry Focus "Energy I": Batteries	Jennifer Rupp
12:30-1:30 pm	Lunch	
1:30-3:00 pm	Device Design and Performance Engineering Industry Focus "Energy II": Fuel Cells	Jennifer Rupp
3:00-3:30 pm	Coffee Break	
3:30-5:30 pm	Lab 2: Energy Devices	TBA

Time	Topics (include lectures, hands-on work, laboratory work and social events as applicable)	Instructor(s)
9:30-10:30 am	Review of work done in previous day's Lab 2	Jennifer Rupp
10:30-11:00 am	Coffee Break	
11:00-12:30 pm	Device Design and Performance Engineering Industry Focus "Energy III": Renewable Fuel Conversion	Jennifer Rupp
12:30-1:30 pm	<i>Working Lunch: Networking and Discussion on Industry Applications and Needs</i>	Jennifer Rupp
1:30-3:00 pm	Device Design and Performance Engineering Industry Focus "AI & Information II": Memories and Neuromorphic Computing and Sensing for Artificial Intelligence	Jennifer Rupp
3:00-3:30 pm	Coffee Break	
3:30-5:30 pm	Lab 3: Neuromorphic computing and memories for AI	TBA