## Table of Curriculum

\* Required subjects: At least two of the participant subjects related to battery education

	<b>C N</b>				
Classification	Course No.	Course Title	Lecturee:Lab.:	Comoston	Nata
Classification	(Computer Code)	Course Title	Credit (Homework)	Semester	Note
Elective	CBE571				
Courses	(39.571)	Energy Engineering	3:0:3(4)	Fall	O
	. ,	Special Lectures in Chemical			
Elective Courses	CBE591 (39.591)	and Biomolecular	3:0:3	Spring, Fall	Subtitle is assigned
		Engineering			Subtitle is assigned
Elective	CBE771	Advanced Electrochemical	3:0:3(4)	Spring, Fall	□CBE371
Courses	(39.771)	Engineering			
Elective	MS617 (34.617)	Solid-State Electrochemistry	3:0:3(3)	Spring	
Courses Elective	(34.017) MS626	Dhysical Droparties of Eporeu			
Courses	(34.626)	Physical Properties of Energy Materials	3:0:3	Spring	
Elective	MS658	Materials science aspects of			
Courses	(34.658)	rechargeable batteries	3:0:3(3)	Fall	
Elective	EE591	Introduction to Electric	2.1.2	Cariaa	
Courses	(35.591)	Vehicles	3:1:3	Spring	Ø
Elective	EE594	Power Electronics Systems	3:0:3	Fall	0
Courses	(35.594)	Power Electronics Systems	5.0.5	Fall	□EĒ391
Elective	EE772	Electronic Circuits for Green	3:0:3	Fall	
Courses	(35.772)	Energy	5.0.5		
Elective	EE791	Power Conversion Circuits	3:0:3	Spring	□EE391, EE594
Courses	(35.791)	and Systems			EE594
Elective Courses	EE897 (35.897)	Special Topics in Power Electronics	3:0:3	Spring, Fall	
Elective	(33.037)	Licetronies			
Major	ME411	Energy System Design and	3:0:3(3)	Fall	O
Courses	(B7.411)	Optimization	2.0.0(0)		
Elective	N 45 420	Introduction to Reliability in			
Major	ME430 (B7.430)	Mechanical Engineering	3:0:3(6)	Fall	O
Courses	(07.430)	Design			
Elective	ME432	2 Deformation, Fracture and	/ - /		
Major	(B7.432)	Strength of Materials	3:0:3(6)	Spring	O
Courses					
Elective Major	ME440	Engineering Design via FEM	3:1:3(6)	Spring	0
Courses	(B7.440)	Lingineering Design via i Livi	5.1.5(0)	spring	
Elective	ME800	Special topics in Mechanical			
Courses	(B7.800)	Engineering	3:0:3(6)	Spring, Fall	
Elective	CH AC A				
Major	CH464 (23.464)	Electroanalytical Chemistry	3:0:3(3)	Spring or Fall	O
Courses	(23.404)				
Elective	CH471	Introduction to Polymer			
Major	(23.471)	Chemistry	3:0:3(3)	Spring or Fall	O
Courses	-				
Mandatory Major	MO501	Modeling and Control of	3:3:4	Fall	
Major Courses	(G3.501)	Electric Propulsion Systems	3.3.4	rdii	O
Mandatory					
Major	MO506	Fundamentals of Vehicular	3:0:3	Fall	O
Courses	(G3.506)	Electric Systems		-	
Elective	MO531	Battery System Modeling	2.0.2	Fall	
Courses	(G3.531)	and Control	3:0:3	raii	
Elective	MO833	Special Topics on Electric	3:0:3	Spring or Fall	
Courses	(G3.833)	Power Systems	5.0.5		

Elective	AI501	Machina Learning for AL	2.0.2	Coring or Foll	
Courses	(F2.501)	Machine Learning for Al	3:0:3	Spring or Fall	0
Elective Courses	AI502 (F2.502)	Deep Learning	3:0:3	Spring or Fall	
Elective Courses	AI503 (F2.503)	Mathematics for AI	3:0:3	Spring or Fall	
Elective Courses	AI504 (F2.504)	Programming for Al	3:0:3	Spring or Fall	
Elective Courses	AI505 (F2.505)	Optimization for Al	3:0:3	Spring or Fall	O
Elective Courses	AI506 (F2.506)	Data Mining and Search	3:0:3	Spring or Fall	O
Elective Courses	Al603 (F2.603)	Machine Learning Theory	3:0:3	Spring or Fall	
Elective Courses	AI608 (F2.608)	Al-based Time Series Analysis	3:0:3	Spring or Fall	
Elective Courses	Al616 (FS.616)	Deep Learning Theory	3:0:3	Spring or Fall	
Elective	AI701 (F2.701)	Bayesian Machine Learning	3:0:3	Spring or Fall	
Elective Major Course	CS500 (36.500)	Design and Analysis of Algorithm	3:0:3(6)	Spring	©/Theory
Elective Major Course	CS504 (36.504)	Computational Geometry	3:0:3(8)	Spring	©/Theory
Elective Major Course	CS510 (36.510)	Computer Architecture	3:0:3(6)	Spring	©/Computer Systems
Elective Major Course	CS520 (36.520)	Theory of Programming Languages	3:0:3(6)	Fall	©/Theory
Elective Major Course	CS522 (36.522)	Theory of Formal Language and Automata	3:0:3(6)	Spring	©/Theory
Elective Major Course	CS524 (36.524)	Program Analysis	3:0:3	Spring	©/Theory
Elective Major Course	CS530 (36.530)	Operating System	3:0:3(6)	Spring or Fall	©/Computer Systems
Elective Major Course	CS543 (36.543)	Distributed Systems	3:0:3(3)	Fall	©/Computer Systems
Elective Major Course	CS546 (36.546)	Wireless Mobile Internet	3:0:3(5)	Spring or Fall	©/Computer Systems
Elective Major Course	CS550 (36.550)	Software Engineering	3:0:3(4)	Spring	©/Software
Elective Major Course	CS552 (36.552)	Models of Software Systems	3:0:3(10)	Fall	©/Software
Elective Major Course	CS554 (36.554)	Designs for Software and Systems	2:3:3(4)	Fall	©/Software

Elective					
Major	CS564	Data Science Methodology	3:0:3(6)	Spring or Fall	©/Software
5	(36.564)	Data science Methodology	5.0.5(0)	spring or rail	@/SUILWare
Course Elective					
	CS570	Artificial Intelligence and	2.0.2(0)	<u> </u>	
Major	(36.570)	Machine Learning)	3:0:3(6)	Spring	©/Software
Course					
Elective	CS572				
Major	(36.572)	Intelligent Robotics	3:0:3(6)	Fall	©/Software
Course	(30.372)				
Elective					
Major	CS574	Natural Language Processing	3:0:3(6)	Spring or Fall	©/Software
Course	(36.574)	I			0,1111
Elective					
Major	CS579	Computational Linguistics	2.0.2(6)	Fall	@ /Theony
5	(36.579)	Computational Linguistics	3:0:3(6)	Fall	©/Theory
Course					
Elective	CS591				_
Major	(36.591)	Software Ecosystem	3:0:3(5)	Fall	Ø
Course	(= = = = = = , ,				
Elective	C0500				
Major	CS592	Special Topics in Computing	3:0:3	Spring or Fall	O
Course	(36.592)				
Elective					
Major	CS610	Parallel Processing	3:0:3(8)	Spring	Computer
-	(36.610)	r araner r rocessing	5.0.5(0)	Spring	Systems
Course Elective					-
	CS620	Advanced Compiler			
Major	(36.620)	Construction	3:0:3(2)	Spring or Fall	
Course					
Elective	66622	Freehadded Onerating			
Major	CS632 (36.632)	Embedded Operating Systems	3:0:3(6)	Fall	
Course	(30.032)	Systems			
Elective					<b>C</b>
Major	CS634	Real-Time Systems	3:0:3	Spring or Fall	Computer
Course	(36.634)				Systems
Elective					
	CS650	Advanced Software	2.0.2(c)	Fall	
Major	(36.650)	Engineering	3:0:3(6)	FdII	
Course					
Elective	CS652	Software & Systems			
Major	(36.652)	Product Line Engineering	3:0:3(6)	Spring or Fall	
Course	(2 2 2 0 0 2)				
Elective					
Major	CS654	Software Process	3:0:3(6)	Spring or Fall	
Course	(36.654)		·-/		
Elective					
	CS655	System Modeling and	3:0:3(6)	Spring or Fall	
Major	(36.655)	Analysis	5.0.5(0)		
Course					
Elective	CS656	Software Engineering	2.6.2		
Major	(36.656)	Economics	3:0:3	Spring	
Course	, <b>-</b> -,				
Elective	CCCC				
Major	CS665	Advanced Data Mining	3:0:3	Spring or Fall	
Course	(36.665)				
Elective					
Major	CS670	Fuzzy and Intelligent System	3:0:3(6)	Spring or Fall	
-	(36.670)		5.0.5(0)		
Course					

Ele etito					
Elective	CS671		/ -		
Major	(36.671)	Advanced Machine Learning	3:0:3(6)	Spring or Fall	
Course	. ,				
Elective	66672				
Major	CS672 (36.672)	Reinforcement Learning	3:0:3(2)	Spring or Fall	
Course	(30.072)				
Elective					
Major	CS710	Special Topics in	3:0:3(6)	Spring or Fall	
-	(36.710)	Computational Architecture	5.0.5(0)		
Course					
Elective	CS712	Special Topics in Parallel	/ -		
Major	(36.712)	Processing	3:0:3(6)	Fall	
Course	. ,	5			
Elective	66720				
Major	CS720 (36.720)	Special Topics in	3:0:3(2)	Spring or Fall	
Course	(30.720)	Programming Languages			
Elective					
Major	CS730	Special Topics in Operating	3:0:3(6)	Spring or Fall	
-	(36.730)	Systems	5.0.5(0)		
Course					
Elective	CS744	5744 Special Topics in System			
Major	(36.744)	Architecture	3:0:3(9)	Spring or Fall	
Course					
Elective	IE523	Production System Design	2.1.2(E)	Coring	
Courses	(31.523)	Production system Design	3:1:3(5)	Spring	Ø
Elective	IE531	Linear Drogramming	2.1.2(6)	Coring	
Courses	(31.531)	Linear Programming	3:1:3(6)	Spring	Ô
Elective	IE532	Simulation and System	2.1.2(0)	Craning of	
Courses	(31.532)	Modeling	3:1:3(6)	Spring	O
Elective	IE533	Curtome Engineering	2.0.2(4)	[]	
Courses	(31.533)	Systems Engineering	3:0:3(4)	Fall	O
Elective	IE536	Scheduling Theory and	202(4)	<b>F</b> 11	0
Courses	(31.536)	Applications	3:0:3(4)	Fall	Ô
Elective	IE541	Advanced Engineering			2
Courses	(31.541)	Statistics	3:0:3(8)	Spring	Ô
Elective	IE542	Regression Analysis: Theory			~
Courses	(31.542)	and Practice	3:0:3(6)	Spring	Ô
Elective	IE553	Product Lifecycle			6
Courses	(31.553)	Management	3:1:3(6)	Spring	Ô
Elective	IE576				-
Courses	(31.576)	Risk Management	3:0:3	Fall	Ô
Elective	IE577	Fundamentals of Systems			_
Courses	(31.577)	Engineering	3:1:3	Fall	Ô
Elective	IE631		-		
Courses	(31.631)	Integer Programming	3:1:3(6)	Fall	
Elective	IE636	Intelligent Systems & Soft			
Courses	(31.636)	Computing	3:0:3(3)	Fall	
Elective	IE638	Wireless and Cellular			
Courses	(31.638)	Communication Systems	3:1:3(3)	Spring	
Elective		-			
Courses	IE645 (31.645)	Quality Engineering	3:0:3(6)	Spring	
Elective					
Courses	IE646 (31.646)	Data Mining	3:1:3(4)	Spring	
Courses	(31.070)				