

Schedule for Fundamentals, Experiments, and Applications in Corrosion

Monday

8:00-8:30	Presentations and expectations
8:30-9:15	Lecture 1: Introduction to Corrosion
9:15-9:25	Morning Break 1
9:25-10:50	Lecture 2: Thermodynamics
10:50-11:00	Morning Break 2
11:00 a.m.-noon	Lecture 2: Thermodynamics/ Kinetics of Corrosion
noon-1:00 p.m.	Lunch
1:00-1:45	Lecture 3: Electrochemical Methods for Corrosion
1:45-3:00	Lab 1: Half-cell Potential measurements and Lab 2a: Polarization Methods-LPR
3:00-5:00	Lab 2b: Polarization Methods for Determining Corrosion Rate-Tafel

Tuesday

8:00-8:45	Laboratory and assignment discussions (Q&A)
8:45-8:55	Morning Break 1
8:55-9:55	Lecture 3a-Lab 2c: Comparison of corrosion rates (Weight loss vs electrochemical methods)
9:55-10:05	Morning Break 2
10:05 a.m.-11:00	Lecture 4: Active to the passive state
noon-1:00 p.m.	Lunch
1:00-3:30	Lab 3a: Polarization Methods Active to Passive State
3:30-3:45	Afternoon Break 1
3:45-5:00	Lecture 4: Localized Corrosion and passivity

Wednesday

8:00-8:45	Laboratory and assignment discussions (Q&A)
8:45-8:55	Morning Break 1
8:55-11:00	Lab 3b: Electrochemical Methods for Evaluating Localized Corrosion-Pitting potential
11:00-11:10	Morning Break 2

11:10a.m.-noon	Lecture 5: Fundamentals of Electrochemical Impedance Spectroscopy
noon-1:00 p.m.	Lunch
1:00-1:45	Lecture 5: Electrochemical Impedance Spectroscopy in Coated Metals and Passivity
1:45-2:00	Afternoon Break 1
2:00-5:00	Lab 4: EIS with metals and coatings
6:00-8:00	Group Dinner

Thursday

8:00-8:45	Laboratory and assignment discussions (Q&A)
8:45-9:45	Lecture 6: Rotating Electrode Conditions
9:45-10:00	Morning Break 1
10:00-noon	Lab 5: RCE with electrochemical methods
noon-1:00 p.m.	Lunch
1:00-2:00	Lecture 7: Measurements in Harsh Environments
2:00-5:00	Lab 6: Harsh Environments Measurements

Friday

8:00-8:45	Laboratory and assignment discussions (Q&A)
8:50-9:00	Morning Break 1
9:00-10:00	Lecture 8: Measurements in Reinforced Concrete Elements
10:00-10:10	Morning Break 2
10:10-noon	Lab 7: Reinforced Concrete Measurements
noon-1:00 p.m.	Picnic