

2014 AUCSC CLASS INDEX

Monday, May 12	2:00 pm-6:00 pm	NACE Corrosion Technician Exam – Review Session													
	Location	ESB G39													
	Instructor	J. McLawhorn													
	3:00 pm-5:00 pm	Outdoor Clinic – AS Annex													
Instructor	Pinto/Kulczyk/McWilliams/Cairns/Scott/Girt/Roberts/Mayfield/Williams														
6:00 pm-8:00 pm	Basic Electricity														
Location	ESB G39														
Instructor	T. Perkins														
8:30 am-9:30 am	General Assembly - Welcome by General Chairman, Jim Bushman, Program and Schedule Changes, and Feature Slide Presentation by John Fitzgerald III														
		Fundamentals	Basic		Intermediate		Advanced	Coatings	Pipeline Integrity Management	Technology Today	Internal Corrosion	Water & Wastewater	System Diagnostics	Outdoor Workshop	What's New
Sub-Chair	Chair: B. Sperling	Chair: G. Rhodes		Chair: T. Conner		Chair: J. Otto	Chair: J. Didas	Chair: T. Cairns	Chair: M. Linville	Chair: K. Bowman	Chair: D. Schumacher	Chair: J. Block	Chair: J. Kulczyk	Chair: D. Carena	
Location	LAW 157	LAW 153	LAW 154	ESB G102	ESB G39	MRB 113	MRB 109	MRB 205	ESB G84	ESB G83	MRB 105	MRB 107	AS Annex	MRB 209	
Period 1	9:45 am-10:45 am	Fundamentals of Corrosion Mathematics and Electricity	Basic Electricity	Basic Electricity	Corrosion Cells in Action (ESB G-102)		Pipe-to-Soil Potential Surveys and Analysis	Fundamentals of Pipeline Coatings	Pipeline Integrity and Standards	In-Line Inspection and Data Interpretation	Introduction to Internal Corrosion	Corrosion and Corrosion Protection in the Water/Wastewater Industry	Troubleshooting Cathodic Protection Rectifiers	Pipe & Cable Locating Buried Structures (Outdoor @ AS Annex)	What's New in Instrumentation
Monitor		B. Marshall	S. Bracy		T. Conner			S. Quinn			K. Ray		L. Byrge		
Instructor		R. Row	T. Jenkins	J. Bushman	K. Lawson		K. Garrity	J. Didas	L. Reynolds	B. Deaton	B. Terrien	P. Rothman	C.M. Nelson	What'sNew@AUCSC.com/HandsonPage	
Period 2	11:00 am-Noon	Pipeline Locating	Basic Electricity (cont'd)	Basic Electricity (cont'd)	Installation of Galvanic Anodes	Installation of Galvanic Anodes	Pipe-to-Soil Potential Surveys and Analysis (cont'd)	Coating Failures Case Histories	Data Integration	Transmission Pipeline Repair Methods	Pipe Inspection	Condition Assessment of Underground Pipelines	Troubleshooting Cathodic Protection Rectifiers (cont'd)	Pipe & Cable Locating Buried Structures (Outdoor @ AS Annex) (cont'd)	What's New in Anodes and Electrodes
Monitor		J. Williams	S. Bracy					S. Quackenbush	T. Cairns	T. Shamblin		G. Walker	L. Byrge		
Instructor		G. Lomax	T. Jenkins	J. Bushman	W. Young	T. Conner	K. Garrity	M. Conner	E. Nicholson	R. Shoaf	D. Adams	M. Tarlton	C.M. Nelson	What'sNew@AUCSC.com/HandsonPage	
Exhibits	11:00 am-1:00 pm	EXHIBITS—SHELL BUILDING													
Period 3	1:30 pm-2:30 pm	Fundamentals of Corrosion	Corrosion Fundamentals	Corrosion Fundamentals	Installation of Impressed Current Cathodic Protection Systems	Installation of Impressed Current Cathodic Protection Systems	Pipe-to-Soil Potential Surveys and Analysis (cont'd)	Field Coatings with Shrinkable Sleeves	ECDA Indirect Inspection Tools - GIS	Foreign Contacts and Pipe Fault Surveys	NDT Methods	How to Provide Indefinite Life in Metallic Transmission Pipelines	Corrosion and Failure Analysis Electric Tower and Grids	Impressed Current System Hands-On Work Shop (Outdoor @ AS Annex)	What's New in Accessories
Monitor		J. Williams	S. Quackenbush	J. Empric	D. Cutlip	M. Choi		E. Bonner	B. Benson		B. Deaton				
Instructor		J. Otto	D. Krause	J. Fitzgerald	J. Burns	J. Sapp	K. Garrity	J. Wink	T. Jenkins	M. Byerley	S. LaBack	R. Brown	Dr. Zamanzadeh	Pinto/McWilliams/Kulczyk/Girt	
Period 4	2:45 pm-3:45 pm	(15 minute break) Introduction to Cathodic Protection (Class starts at 3:25PM)	Corrosion Fundamentals (cont'd)	Corrosion Fundamentals (cont'd)	Criteria For Cathodic Protection	Criteria For Cathodic Protection	Materials For Cathodic Protection	Field Applied Coatings Outdoor Clinic (Amphitheater)	ECDA Indirect Inspection Tools - DCVG/ACVG Current Attenuation	Planning and Executing a Pipeline Rehabilitation	Field Sampling and Testing	Economics of Cathodic Protection	Understanding the Reference Cell	Impressed Current System Hands-On Workshop (Outdoor @ AS Annex) (cont'd)	Practical Application on Materials
Monitor			B. Marshall		L. Byrge	T. Conner	G. Walker		B. Benson	T. Shamblin		K. Ray			
Instructor		T. Williams	D. Krause	J. Fitzgerald	T. Jenkins	R. Fullineer	G. Krewson	J. Williams/D. Reeves	J. Walton	B. Deaton	J. Fine	J. Bushman	J. Dimond	Pinto/McWilliams/Kulczyk/Girt	
Period 5	4:00 pm-5:00 pm	Introduction to Cathodic Protection (Class starts at 3:25PM)	Corrosion Control Methods	Corrosion Control Methods	Criteria for Cathodic Protection (cont'd)	Criteria for Cathodic Protection (cont'd)	Materials For Cathodic Protection (cont'd)	Field Applied Coatings Outdoor Clinic (Amphitheater) (cont'd)	ECDA Indirect Inspection Tools DCVG/ACVG Current Attenuation (cont'd)	Today's ILI	Laboratory Testing (Water/Gas Samples)	Electric Rail Corrosion and Corrosion Control	CP Test Stations – The Good, The Bad, The Ugly	Impressed Current System Hands-On Workshop (Outdoor @ AS Annex) (cont'd)	
Monitor					L. Byrge	T. Conner	G. Walker		B. Benson	M. Linville					
Instructor		T. Williams	H. George	J. Bushman	T. Jenkins	R. Fullineer	G. Krewson	J. Williams/D. Reeves	J. Walton	T. Shamblin	S. Hickman	S. Greenberger	Dr. Phull	Pinto/McWilliams/Kulczyk/Girt	
Exhibits	5:00 pm-8:00 pm	EXHIBITS—SHELL BUILDING													
Corrosion Math	7:00 pm-9:00 pm	Corrosion Mathematics – ESB G83													
Instructor		R. Row													

Monday, May 12

Tuesday, May 13

**Location Abbreviations**

- MRB: Mineral Resources Bldg.
- ESB: Engineering Sciences Bldg.
- AS Annex: Agricultural Sciences Annex
- AGS: Agricultural Sciences Bldg
- SAS: South Agricultural Sciences Bldg

Wednesday, May 14

Thursday, May 15

Wednesday, May 14

Thursday, May 15

		Fundamentals	Basic		Intermediate		Advanced	Coatings	Pipeline Integrity Management	Technology Today	Internal Corrosion	Water & Wastewater	System Diagnostics	Outdoor Workshop
	Location	LAW 157	LAW 153	LAW 154	ESB G102	ESB G39	MRB 113	MRB 109	MRB 205	ESB G84	ESB G83	MRB 105	MRB 107	AS Annex
Period 6	8:30 am-9:30 am	Pipeline Electrical Isolation Methods	Introduction to Pipeline Coatings	Introduction to Pipeline Coatings	Corrosion Control for Pipelines	Corrosion Control for Pipelines	Evaluation of Underground Coatings Using Aboveground Techniques	Fusion Bonded Coatings and MI Inspection Techniques	Inline Inspection Standards, Methods and Tools	AC Corrosion Issues	Monitoring Techniques and Selection	Corrosion Control for Water Treatment and Storage Facilities	Electrical Isolation Devices	ECDA Indirect Inspection Field Simulation ACVG-CIS DCVG Current Attenuation, Outdoor @ Agricultural Annex
	Monitor			F. Rampton		J. Empric		D. Cullip		B. Marshall				
	Instructor	J. McLawhorn	J. Utley	J. Holton	J. Lary	J. Dimond	K. Lawson	D. Donald	M. Placzek	R. Allen	J. Brown	J. Bushman	J. Keldsen	Walton/Block/Scott/Verga
Period 7	9:45 am-10:45 am	Fundamental Introduction to Pipeline Coatings	Potential Measurements	Potential Measurements	Corrosion Control for Pipelines (cont'd)	Corrosion Control for Pipelines (cont'd)	Evaluation of Underground Coatings Using Aboveground Techniques (cont'd)	Critical Applications Steps with Two-Part Epoxies	AC Mitigation	Lightning and Over Voltage Protection for Pipelines	IC Failure Investigations (Pipe Samples)	Installing Cathodic Protection in a Water Storage Tank	Troubleshooting Distribution Systems	ECDA Indirect Inspection Field Simulation ACVG-CIS DCVG Current Attenuation, Outdoor @ Agricultural Annex (cont'd)
	Monitor					J. Empric		F. Rampton	E. Bonner	S. Alberico		J. Holton	G. Walker	
	Instructor	J. Didas	T. Jenkins	M. Roberts	J. Lary	J. Dimond	K. Lawson	F. Rampton	K. Garrity	M. Tachick	L. Bensman	A. Freeman	T. Williams	Walton/Block/Scott/Verga
Period 8	11:00 am-Noon	Fundamentals of Rectifier Monitoring	Potential Measurements (cont'd)	Potential Measurements (cont'd)	Static Stray Current Interference Testing	Static Stray Current Interference Testing	Dynamic Stray Current Analysis	Coating Selection for Underground Service	Atmospheric Corrosion Integrity Management	Decoupler Applications and Considerations When Taking Instant-Off Reads on a Decoupled P/L	IC Management Do's and Don'ts	Steel Structure Painting Aboveground Coatings and Maintenance	Troubleshooting Distribution Systems (cont'd)	ECDA Indirect Inspection Field Simulation ACVG-CIS DCVG Current Attenuation, Outdoor @ Agricultural Annex (cont'd)
	Monitor					M. Choi		S. Quackenbush	G. Walker	S. Alberico		J. Holton	G. Walker	
	Instructor	J. Brewer	T. Jenkins	M. Roberts	J. Burns	J. McLawhorn	J. Fitzgerald	J. Utley	M. Surkein	M. Tachick	N. Hanger	T. Fraebel	T. Williams	Walton/Block/Scott/Verga
Exhibits	11:00 am-1:00 pm	EXHIBITS—SHELL BUILDING												
Period 9	1:30 pm-2:30 pm	Introduction to Pipe-To-Soil Potential Measurements	Resistance Measurements	Resistance Measurements	Static Stray Current Interference Testing (cont'd)	Static Stray Current Interference Testing (cont'd)	Design of Impressed Current Cathodic Protection Systems	Evaluation and Selection of Directional Drill Pipe Coatings	Difficult To Pig Pipelines	Conducting Close Interval Potential Surveys	Chemical Treatment Do's and Don'ts	Pipeline Coating	Cased Pipe Assessment PHMSA Updates	Open Rain Date Outdoor @ AS Annex
	Monitor					M. Choi		S. Quinn	E. Edwards			C. Kawana	B. Deaton	
	Instructor	M. Placzek	M. Tarlton	K. Parker	J. Burns	J. McLawhorn	K. Garrity	M. Surkein	D. Wint	H. George	L. Bensman	D. Barder	J. Mataich	
Period 10	2:45 pm-3:45 pm	Introduction to Pipe-To-Soil Potential Measurements (cont'd)	Current Flow Measurements	Current Flow Measurements	Troubleshooting Cathodic Protection Systems	Troubleshooting Cathodic Protection Systems	Design of Impressed Current Cathodic Protection Systems (cont'd)	Quality Control Inspection Instruments for the 21st Century	Difficult To Pig Pipelines (cont'd)	Corrosion Control at M&R Stations and Delivery Facilities	Impacts of Shale Gas	Corrosion Failures in the Water/Wastewater Industry	Guided Wave Technology for Casings	Open Rain Date Outdoor @ AS Annex
	Monitor					T. Conner		E. Edwards		G. Walker	T. Shamblin	C. Kawana		
	Instructor	M. Placzek	M. Tarlton	M. Linville	J. Burns	J. Otto	K. Garrity	B. Corbett	D. Wint	J. McLawhorn	R. Fultineer	Dr. Zamanzadeh	J. Pikas	
Period 11	4:00 pm-5:00 pm	Outdoor Workshop @ Law School			Troubleshooting Cathodic Protection Systems (cont'd)	Troubleshooting Cathodic Protection Systems (cont'd)	Design of Galvanic Cathodic Protection Systems	Paint and Coating Inspection	SCC Direct Inspection	Modern Tools for Indirect Inspections for DA and Beyond	IC Roundtable	Corrosion Failures - Drinking Water Corrosivity	Practical Approach to Use and Storage of Equipment and Material	Open Rain Date Outdoor @ AS Annex
	Monitor					T. Conner	B. Williams	G. Walker	T. Cairns	B. Deaton				
	Instructor	Pinto/McWilliams/Williams/Kulczyk/Kapuzal/Adams/Block/Cairns/Edwards/Scott/Girt			J. Burns	J. Otto	J. Bushman	T. Fraebel	J. Beavers	J. Walton	Adams/Benjamin/Falshaw/Reese	Dr. Zamanzadeh	D. Carezza	
Exhibits	5:00 pm-6:30 pm	EXHIBITS—SHELL BUILDING												
Round Table	7:00 pm-9:00 pm	Round Table - MRB 113												
Moderator		K. Garrity												
NACE EXAMS - Offered 8:00am to 5:00pm - Please contact NACE for information regarding the exams, (281) 228-6211														
Period 12	8:30 am-9:30 am	Voluntary Test Fundamentals	Record Keeping	Record Keeping	Rectifier Maintenance	Rectifier Maintenance	MC Inspection and Testing	Field Applied Coatings Outdoor Clinic, Course 2 (Amphitheater)	Corrosion Regulations DOT/PHMSA Perspective	Interference Issues - AC Interference Case History	Outdoor Clinic: IC Testing	Workshop, Instrumentation & Measurement: Field Applied Coatings (Outdoor Clinic)	Advanced Rectifier Workshop *space limited *bring meter to class	Instrumentation and Measurement for Cathodic Protection Systems (Outdoor @ AS Annex)
	Monitor									G. Walker				
	Instructor	B. Sperling	T. Conner	R. Graesar	M. Tarlton	J. Otto	K. Garrity	J. Williams/D. Reeves	J. Mataich	M. Placzek		Various Instructors	C.M. Nelson	
Period 13	9:45 am-10:45 am	Voluntary Test Fundamentals (cont'd)	Voluntary Test Basic		Voluntary Test Intermediate		Voluntary Test Advanced	Field Applied Coatings Outdoor Clinic, Course 2 (Amphitheater) (cont'd)	Corrosion Regulations DOT/PHMSA Perspective (cont'd)	In-Line Cathodic Protection Current Measurement	Outdoor Clinic: IC Testing	Workshop, Instrumentation & Measurement: Potential Readings/Soil Resistivity/Pick Up/Discharge (Outdoor Clinic)	Advanced Rectifier Workshop (cont'd)	Instrumentation and Measurement for Cathodic Protection Systems (cont'd) (Outdoor @ AS Annex)
	Monitor		B. Benson				Bowan, Didas, Krewson							
	Instructor	B. Sperling						J. Williams/D. Reeves	J. Mataich	D. Williams		Various Instructors	C.M. Nelson	
Period 14	11:00 am-Noon	Outdoor Clinic @ AS Annex	Voluntary Test Basic (cont'd)		Voluntary Test Intermediate (cont'd)		Voluntary Test Advanced (cont'd)	Field Applied Coatings Outdoor Clinic, Course 2 (Amphitheater) (cont'd)	IC Monitoring Utilizing Permanent UT Sensors	Corroded Pipe Measurement Using 3D Structured Light	Outdoor Clinic: IC Testing	Workshop, Instrumentation & Measurement: Potential Readings/Soil Resistivity/Pick Up/Discharge (Outdoor Clinic)	Advanced Rectifier Workshop (cont'd)	Instrumentation and Measurement for Cathodic Protection Systems (cont'd) (Outdoor @ AS Annex)
	Monitor		B. Benson				Bowan, Didas, Krewson			M. Linville				
	Instructor							J. Williams/D. Reeves	O'Riely/Schweitzer	J. Pikas		Various Instructors	C.M. Nelson	

For more for information, please visit our website ([www.aucsc.com](http://www.aucsc.com)) or contact 304.293.4307 or [aucsc@mail.wvu.edu](mailto:aucsc@mail.wvu.edu)

**Location Abbreviations**  
 Mineral Resources Bldg.  
 Engineering Sciences Bldg.

AS Annex: Agricultural Sciences Annex  
 AGS: Agricultural Sciences Bldg  
 SAS: South Agricultural Sciences Bldg