

2013 AUCSC CLASS INDEX

Monday, May 20	2:00 pm–6:00 pm	NACE Corrosion Technician Exam – Review Session							NACE Corrosion Technician Exam – Proctored Exam (Thursday, May 23, Time TBD)							
	Location	ESB G-39							Location TBD							
	Instructor	J. McLawhorn							Administered by NACE							
	3:00 pm–5:00 pm	Outdoor Clinic														
	Instructor	Pinto/Girt/Pierce/Stanley/Walker/Mollica/Rine/Scott														
	6:00 pm–8:00 pm	Basic Electricity														
Location	ESB G-39															
Instructor	T. Perkins															
Tuesday, May 21	8:30 am–9:30 am	General Assembly - Mineral Resources Building Auditorium (Room 113); Welcome by General Chairman, Jerry Holton, 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. Carenza	
	Location	MRB 113 [198/85]	AGS 1001 [112/100]	SAS 1021 [250/100]	ESB G-102 [132/75]	ESB G-39 [102/75]	Law - Court Room [250/100]	MRB 109 [50/]	MRB 205 [65/59]	ESB 209 [50/44]	ESB G-83 [70/60]	MRB 105 [50/]	MRB 107 [50/45]	AS Annex	AGS G101 [44/30]	
	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	Understanding the Basics of Corrosion and Corrosion Control	Troubleshooting Cathodic Protection Rectifiers	Pipe & Cable Locating Buried Structures (Outdoor @ AS Annex)	What's New in Instrumentation
	Monitor	K. Ray	J. Miller	F. Rampton	M. Choi		R. Graeser	J. Tatum	E. Edwards		S. Bracy	D. Schumacher	A. Birx		C. Kawana	
	Instructor	R. Row	T. Jenkins	J. Bushman	K. Lawson		Kevin Parker	J. Didas	L. Reynolds	T. Shamblyn	K. Bowman	T. Conner	C.M. Nelson	J. Walton/L. Pinto/D. Scott	D. Carenza	
	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)	Digital Instrumentation for Inspection of Pipeline Coatings	Data Integration	Transmission Pipeline Repair Methods	Field Sampling and Testing	Coatings 101 for Water and Wastewater	Troubleshooting Cathodic Protection Rectifiers (cont'd)	Pipe & Cable Locating Buried Structures (Outdoor @ AS Annex) (cont'd)	What's New in Anodes and Electrodes
	Monitor	K. Ray	J. Miller	F. Rampton	C. Hendershot	R. Graeser	G. Walker	E. Edwards	B. Deaton	D. Ilich	S. Bracy					
	Instructor	E. Six	T. Jenkins	J. Bushman	W. Young	T. Conner	Kevin Parker	B. Corbett	E. Nicholson	R. Shoaf	J. Rine	J. Holton	C.M. Nelson	J. Walton/L. Pinto/D. Scott	D. Carenza	
	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 Coating with Shrinkable Sleeves	ECDA Indirect Inspection Tools CIS	Foreign Contacts and Pipe Fault Surveys	Pipe Inspection	Corrosion and Corrosion Control, Why Is It Important?	Corrosion and Failure Analysis Electric Tower and Grids	Impressed Current System Hands-On Work Shop (Outdoor @ AS Annex)	What's New in Accessories
	Monitor	A. Birx	S. Quackenbush		M. Choi	R. Swick	R. Graeser	J. Tatum	S. Bracy	G. Walker	K. Bowman	S. Bracy	C. Sheaks		B. Allen	
	Instructor	J. Otto	D. Krause	J. Fitzgerald	J. Burns	J. Sapp	Kevin Parker	J. Wink	T. Jenkins	M. Byerley	D. Adams	D. Haines	M. Zamanzadeh	Pinto /Kulczyk/McWilliams	D. Carenza	
	Period 4	2:45 pm–3:45 pm	15 minute break Class starts at 3:25 PM	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	Data Collection and Integration	Economics of Cathodic Protection	Understanding the Reference Cell	Impressed Current System Hands-On Workshop (Outdoor @ AS Annex) (cont'd)	What's New in Accessories
	Monitor		S. Quackenbush		M. Choi	R. Swick	L. Baer		T. Cairns	T. Shamblyn	G. Walker	D. Schumacher	D. Ilich		B. Allen	
	Instructor		D. Krause	J. Fitzgerald	T. Jenkins	R. Fultineer	G. Krewson	J. Williams	J. Walton	R. Shoaf	J. Brown	J. Bushman	J. Diamond	Pinto /Kulczyk/McWilliams	D. Carenza	
	Period 5	4:00 pm–5:00 pm	Introduction to Cathodic Protection	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)	Cost Savings in Integrity and GIS Collection	Monitoring Techniques and Selection	How to Provide Indefinite Life in Metallic Transmission Pipelines	CP Test Stations – The Good, The Bad, The Ugly	Impressed Current System Hands-On Workshop (Outdoor @ AS Annex) (cont'd)	What's New in Accessories
	Monitor				M. Choi		L. Baer		T. Cairns	B. Deaton		D. Schumacher	J. Keldsen		B. Allen	
	Instructor	T. Williams	H. George	J. Bushman	T. Jenkins	R. Fultineer	G. Krewson	J. Williams	J. Walton	G. Parker	J. Brown	R. Brown	B. Phull	Pinto /Kulczyk/McWilliams	D. Carenza	
Exhibits	5:00 pm–8:00 pm	EXHIBITS—SHELL BUILDING														
Corrosion Math	7:00 pm–9:00 pm	Corrosion Mathematics (ESB G-83)														
Instructor		R. Row														

Location Abbreviations
 MRB: Mineral Resources Bldg.
 ESB: Engineering Sciences Bldg.
 Annex: Agricultural Sciences Annex
 AGS: Agricultural Sciences Bldg
 SAS: South Agricultural Sciences Bldg

Wednesday, May 22

		Fundamentals	Basic		Intermediate		Advanced	Coatings	Pipeline Integrity Management	Technology Today	Internal Corrosion	Water & Wastewater	System Diagnostics	Outdoor Workshop
	Location	MRB 113	SAS 1021	AGS 1001	ESB G-102	ESB G-39	Law - Court Room	MRB 109	MRB 205	ESB 209	ESB G-83	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 Mill Inspection Techniques	Inline Inspection Standards, Methods and Tools	AC Corrosion Issues	Chemical Treatment Do's and Don'ts	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	E. Six	T. Conner		C. Hendershot				T. Shamblyn	S. Alberico		G. Walker		
	Instructor	J. McLawhorn	J. Utley	J. Holton	J. Lary	J. Dimond	K. Lawson	B. Donald	M. Placzek	R. Allen	L. Bensman	J. Bushman	J. Keldsen	
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 Application Steps with Two-Part Epoxies	AC Mitigation	Lightning and Over Voltage Protection for Pipelines	Hydrates	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	E. Six						G. Walker	J. Tatum	S. Alberico	K. Bowman	S. Bracy		
	Instructor	J. Didas	T. Jenkins	M. Roberts	J. Lary	J. Dimond	K. Lawson	J. Bertsche	K. Garrity	M. Tachick	J. Germer	A. Freeman	T. Williams	
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	Corrosion - Its Causes, Effects and Prevention for Ductile Iron Pipe	Troubleshooting Distribution Systems (cont'd)	ECDA Indirect Inspection Field Simulation ACVG-CIS-DCVG Current Attenuation, Outdoor @ Agricultural Annex (cont'd)
	Monitor						J. Miller	S. Quackenbush	J. Stanley	B. Deaton	T. Cairns	D. Schumacher		J. Walton
	Instructor	J. Brewer	T. Jenkins	M. Roberts	J. Burns	J. McLawhorn	J. Fitzgerald	J. Utley	M. Surkein	M. Tachick	R. Eckert	A. Cox	T. Williams	J. Walton/J. Block/D. Scott
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	Technical Aspects of Close Interval Surveys (CIS)	Impacts of Shale Gas	Water Main Condition Assessment	Field Tests for Shorted Casings	Open Rain Date Outdoor @ AS Annex
	Monitor						C. Hendershot		R. Swick		K. Bowman	D. Schumacher	K. Barron	
	Instructor	M. Placzek	Keith Parker	R. Geib	J. Burns	J. McLawhorn	K. Garrity	M. Surkein	D. Wint	R. Pawson	R. Fultineer	Y. Zhang	J. Block	
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)	Coating Failures Case Histories	Difficult To Pig Pipelines (cont'd)	Corrosion Control at M&R Stations and Delivery Facilities	IC Roundtable	Corrosion Control Monitoring	Cased Pipe Assessment PHMSA Updates	Open Rain Date Outdoor @ AS Annex
	Monitor		T. Conner		A. Birx			S. Quackenbush	R. Swick	G. Walker	Bowman/Bensman/Fultineer / Adams/Terrien	D. Schumacher	K. Barron	
	Instructor	M. Placzek	R. Geib	M. Linville	J. Burns	J. Otto	K. Garrity	L. Clark	D. Wint	J. McLawhorn		E. Lungelund	J. Mataich	
Period 11	4:00 pm–5:00 pm	Workshop @ AS Annex - Courtyard - Outdoor			Troubleshooting Cathodic Protection Systems (cont'd)	Troubleshooting Cathodic Protection Systems (cont'd)	Design of Galvanic Cathodic Protection Systems	Painting and Coating Inspection	SCC Direct Inspection	Modern Tools for Indirect Inspections for DA and Beyond	IC Roundtable	Electric Rail Corrosion and Corrosion Control	Guided Wave Technology for Casings	Open Rain Date Outdoor @ AS Annex
	Monitor	Pinto/McWilliams/Block/Cairns/Scott/Girt/Roberts/Mayfield/Kulczyk/Warner/Peirce/Stanley/Walker/Mollica			A. Birx			G. Walker			Bowman/Bensman/Fultineer / Adams/Terrien	S. Bracy	K. Barron	
	Instructor				J. Burns	J. Otto	J. Bushman	T. Fraebel	J. Beavers	J. Walton		S. Greenberger	J. Pikas	
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												

Wednesday, May 22

Thursday, May 23

Period 12	8:30 am–9:30 am	Voluntary Test Fundamentals	Record Keeping	Record Keeping	Rectifier Maintenance	Rectifier Maintenance	MIC Inspection and Testing	Field Applied Coatings Outdoor Clinic, Course 2 (Amphitheater)	Corrosion Regulations DOT/PHMSA Perspective	Interference Issues – AC Interference and Case History	Outdoor Clinic: IC Testing	Workshop Instrumentation and Measurement for Cathodic Protection Systems	Advanced Rectifier Workshop ^{*space limited} ^{*bring meter to class}	Instrumentation and Measurement for Cathodic Protection Systems (Outdoor @ AS Annex)
	Monitor								M. Linville	G. Walker		D. Schumacher		
	Instructor	B. Sperling	T. Conner	R. Graeser	J. Warner	M. Tarlton	K. Garrity	J. Williams	J. Mataich	M. Placzek	J. Rine/K. Bowman		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)	CP Interference, The Alternate Perspective	Outdoor Clinic: Hands-On of UC Tests Discussed in Period 2	Workshop Instrumentation and Measurement for Cathodic Systems (cont'd)	Advanced Rectifier Workshop (cont'd)	Instrumentation and Measurement for Cathodic Protection Systems (cont'd) (Outdoor @ AS Annex)
	Monitor								M. Linville	B. Scullion		D. Schumacher		
	Instructor	B. Sperling						J. Williams	J. Mataich	R. Pawson	J. Rine/K. Bowman		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)	Assessment of Casing Filler Effectiveness	CP Monitoring via In-Line Inspection	Outdoor Clinic: IC Testing	Workshop Instrumentation and Measurement for Cathodic Protection Systems (cont'd)	Advanced Rectifier Workshop (cont'd)	Instrumentation and Measurement for Cathodic Protection Systems (cont'd) (Outdoor @ AS Annex)
	Monitor									B. Deaton		D. Schumacher		
	Instructor							J. Williams	J. Warner	D. Williams	J. Rine/K. Bowman		C.M. Nelson	

Thursday, May 23

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For more for information, please visit our website (www.aucsc.com) or contact 304.293.4307 or aucsc@mail.wvu.edu

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