



2019 NPIRI Summer Course Program
Sonoco Institute – Clemson University
July 14 - 19, 2019
PROPOSED

Date	Time	Tab	Lecture	Location	Duration	Speaker
PASTE						
Sun.	5:00p		Check-in	HI		
7/14	6:30p	01a	Introductions, Review of Syllabus, Overview	HI	½	NAPIM
	7:00p	01b	Dinner	HI	1	NAPIM
PASTE						
Mon.	8:00a	02	Lithographic Print Process	GC	1	David Aynessazian
7/15	9:00a	03	Litho Paste Ink Vehicle Composition	GC	1	David Aynessazian
	10:00a	04	Litho Paste Ink Composition	GC	1½	Les Watkins
	11:30a	05	Energy Curable Paste Inks – Part I	GC	1	Joanne Arceneaux
	12:30p		LUNCH	GC	1	
	1:30p	05	Energy Curable Paste Inks – Part II	GC	1	Joanne Arceneaux
	2:30p	06	New Tech/Inkjet	GC	1	Douglas Bugner
	3:30p	06a	Offset Press Demo	GC	1	Pat Rose
	4:30p	06b	Digital Printing Substrates	GC	1	Jim Niemiec
	6:30p		OPEN EVENING – DINNER ON YOUR OWN	HI		
PASTE/LIQUID PM						
Tues.	7:45a	07	Substrates – Paper Properties & Printability	GC	1	Jim Niemiec
7/16	9:15a	08	Fountain Solution & Press Room Chemicals	GC	1½	Victor Lewis
	10:45a	09	Formulating Litho Inks & Vehicles	GC	1	Watkins & Aynessazian
	11:30a		LUNCH	GC	¾	
	12:15p	10a	Viscosity Demo	GC	1	Borpit Intawiwat
	1:15p	10b	Printability and Proofing Demo	GC	¾	Paul Sopko
	2:00p	10c	Inkometer Tack Measurements Demo	GC	¾	Dean Kershaw
	2:45p	10d	Printed Electronics/eInk/Sonoco Inst. Tour	SI	2½	Liam O'hara/Bobby Congdon
	6:00p	11	Repeat of Intro for Liquid Ink Attendees	HI	½	NAPIM
	6:30p		COMBINED PASTE & FLUID ATTENDEES DINNER	HI		
PASTE/LIQUID						
Wed.	8:00a	12	Principles of Rheology & Practical Applications	SI	1½	Charlie Hsu
7/17	9:30a	13	Organic/Inorganic Pigments, Metallic & Special Effect Colorants	SI	1½	Mike Oberski
	11:00a	14	Regulatory Overview for Ink Manufacturers	SI	¾	George Fuchs
	11:45a		GROUP PHOTO	SI	¼	
	12:00p		LUNCH		1	
	1:30p	15	Fundamentals of Carbon Black	SI	¾	John Foster
	2:15p	16	Introduction to Color Matching and Color Management	SI	1½	Bobby Congdon
	3:45p	17	Principles of Dispersion	SI	1	Charles Douglas
	5:00p	18	Manufacturing Dispersions for Paste & Fluid Inks – QC	SI	1	Charles Douglas
	6:00p		OPEN EVENING – DINNER ON YOUR OWN			
LIQUID						
Thurs.	8:00a	19	Flexo & Gravure Solvent Vehicle Composition	SI	1	Charlie Hsu
7/18	9:00a	20	Flexo & Gravure Water Based Ink & Vehicle Composition	SI	1½	David Tappa
	10:30a	21	Energy Curable Fluid Inks	SI	1½	Mike Oberski
	12:00p		LUNCH	SI	¾	
	1:00p	22	Flexo & Gravure Printing, Lamination, Converting Processes	SI	1½	Brian Chwierut
	2:30p	23a	Flexo Press Run	SI	¾	Kariahlyn Lindsey
	3:15p	23b	Digital Press Demo	SI	¾	Brian Frederick
	4:00p	23c	Flexo Plate Making/Mounting	SI	¾	Brad Gasque
	6:00p		DINNER	HI		
LIQUID						
Fri.	7:30a	24a	Anilox Discussion/Application	SI	¾	Tony Donato
7/19	8:15a	24b	Proofing & Printability Demo	SI	¾	Paul Sopko
	9:00a	25	Substrates for Surface & Reverse Printing and Lamination	SI	¾	Brian Chwierut
	9:45a	26	Flexo & Gravure Ink Composition	SI	¾	Brian Chwierut
	10:15a	27	Formulating Flexo & Gravure Vehicles and Inks	SI	¾	Brian Chwierut
	11:15p		LUNCH		½	
	11:45p	28	Flexo & Gravure Ink Testing	SI	¾	Brian Chwierut
	12:30p		END			