

UNH Materials Science Seminar

11:10-12:00 am, Thursday, September 20, 2007

Kingsbury S145

University of New Hampshire

Good Things Come in Small Packages

A discussion of how micro and nano morphology are essential to new applications in modern printing.

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Today's printing world is a far cry from the world of Gutenberg or Ben Franklin. The modern printing environment demands high quality, rapid turn-around, environmentally responsible and sustainable processes that are compatible with the digital work flow and internet society in which we exist. This is being made possible by using new materials and structures to eliminate process steps and hazardous chemicals. Quality is not being sacrificed, but instead is being enhanced with these newer methods. Costs are also being minimized in this increasingly competitive field. Key to these enhancements is the application of materials science to the challenges at hand. Being able to manipulate molecular architecture and morphology to arrive at the required chemical and physical properties is essential. The use of micro and nano particulates and composites in the world of printing is discussed along with a brief description of the imaging and printing processes used.

Eugene Langlais, a surface chemist, has 40 years of experience in leading product development and manufacturing teams in the Graphic Arts industry. He has developed films, proofing systems, and plate products that have emphasized simple processing, operator safety, and environmental soundness. Recently, he has participated

in programs that have resulted in infra-red laser imaging “no-process” imagesetter film; “no-process” photopolymer lithoplates; and digital color proofing systems based on phase-transfer ink jet technology as well as laser ablation transfer technology. He also led the R&D operations at Duroolith, NAPP systems, SAGE Technology, and POLAROID Graphics Imaging.

Host: Professor Donald Sundberg