Guide to Seminar

in the

Imaging Science and Engineering Program

of the departments of

Electrical Engineering

Computer Science

Systems Science and Mathematics

Biomedical Engineering

and

Physics

at

Washington University

St. Louis, Missouri

Students pursuing a certificate in the graduate IS&E Program are required to participate in the IS&E Seminar course so that they may gain insights into imaging science and technologies. This guide contains a description of the seminar requirement and a schedule of seminars for the Fall, 2000 semester.

I. Seminar

EE/CS/SSM/BME 567I Seminar in Imaging Science and Engineering. This seminar course consists of a series of tutorial lectures on Imaging Science and Engineering with emphasis on applications of imaging technology. Students are exposed to a variety of imaging applications that vary depending on the semester, but may include multispectral remote sensing, astronomical imaging, microscopic imaging, ultrasound imaging, radiological imaging, tomographic imaging, and electromagnetic imaging. Guest lecturers come from several parts of the university. This course is required of all students in the Imaging Science and Engineering program; the only requirement is attendance. This course is graded PASS/FAIL.

This course is intended to expose students to the wide array of imaging applications at Washington University since this diversity is one of the strengths of this program. In addition, the students will be able to meet researchers with whom they might spend a semester on their required practicum. The talks are intended to be tutorial in nature and are for first-year graduate students.
Seminar coordinators are D. L. Snyder and J. A. O'Sullivan.

I. Seminar Schedule, Fall 2000

The IS&E Seminar will meet Fridays, 8:30-10:00 AM in Bryan Hall, Room 305. Following is the schedule of speakers and topics for these seminars. The first day of classes for the Fall, 2000 semester is Wednesday, August 30, and the last day of classes is Monday, December 11.

September, 2000

Sept. 1  Donald L. Snyder, Electrical Engineering
         The IS&E Program.

Sept. 8  Donald L. Snyder, Electrical Engineering
         X-ray Tomography

Sept. 15 William H. Smith, Earth and Planetary Science
         Hyperspectral Remote Sensing

Sept. 22 John C. Schotland, Electrical Engineering
         Diffusion Tomography

Sept. 29 Barbara G. Pickard, Biology
         Computational Optical-Sectioning Microscopy

October, 2000

Oct.  6  R. Martin Arthur, Electrical Engineering
         Imaging Aspects of Electrocardiography

Oct. 13  Victor Wickerhauser, Mathematics
         Wavelet Image Compression

Oct. 20  Fall break, no seminar

Oct. 27  G. James Blaine, Electronic Radiology Laboratory
         Electronic Radiology

November, 2000

Nov.  3  J. Trobaugh, ESSRL
         Ultrasonic Imaging

Nov. 10  Cindy Grimm, Computer Science
         Images as input data for graphics applications

Nov. 17  Chrysanthe Preza, ESSRL
         Computational Microscopy

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Nov. 24  Thanksgiving holiday, no seminar

December, 2000
Dec. 1  Joseph A. O'Sullivan, Electrical Engineering
Imaging Research in the Electronic Systems and Signals Research
Laboratory

Dec. 8  Amir Amini
Measurement of Left-Ventricular Deformations from MRI