

SHORT COURSE ANNOUNCEMENT

Introduction to Magnetic Materials and Magnetic Recording

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We wish to understand design criteria for high density recording systems: e.g. 500Gbits/in² at 1GHz with 10⁻⁶ BER stable to 10 years. What are the essential characteristics of the medium and the write and read transducers to achieve this goal?

This course will focus on understanding essentials of magnetic recording leading to such design goals. The course begins with basic material design and nature of the medium and transducers of a digital drive. At the end design criteria will be presented based on the earlier fundamentals.

The course is in two parts (approximately 300 pages of material):

PART I: System Overview, Magnetic Fields, Materials, Readback Process

February 23, 25, 2009 (Monday, Wednesday)

9:00 – 11:00 AM

and

February 26, 2009 (Thursday)

1:00 – 3:00 PM

PART II: Write Process, Medium Noise, SNR and BER, System Density Limitations

April 13, 15, 17, 2009 (Monday, Wednesday, Friday)

9:00 – 11:00 AM

Location: **CMRR Auditorium**

To reserve a seat and a copy the material please send your full name and email address to bmanoulian@ucsd.edu by Friday, February 20, 2009.