

Listed below are course sequences offered by the University of California's Jacobs School of Engineering that LANL's Engineering Institute is considering offering during the 2008-2009 academic year. We are soliciting your input for classes that will be transmitted to Los Alamos through a two-way distance learning system that is located in the Los Alamos Research Park. If you are interested in having any of these classes or a class sequences offered at LANL please send an e-mail to Kathie Womack ([Womack@lanl.gov](mailto:Womack@lanl.gov)) by May 30<sup>th</sup>, 2008 and provide the following information:

1. Class sequence or individual course you are interested in.
2. Your contact information (Name, group, e-mail, phone number)
3. Mode in which you would like to take the class.
  - a. You can sign up for a class under concurrent enrollment where you are not part of a degree program. This mode of enrollment is appropriate for staff wanting to take course in fulfillment of continuing education requirements needed to maintain professional engineering registration.
  - b. If you are interested in pursuing a graduate degree (MS or Ph.D.), you can enroll in a program and perform all the degree requirements here at LANL. For those interested in this option Kathie will arrange a meeting with the EI staff to discuss this program in more detail. Note you can still sign up for a class through the concurrent enrollment and then subsequently transfer up to 12 credits into a degree program.

Please note that we will need at least three students to have a class offered.

Also note that this is not a complete listing of engineering courses available from UCSD. A complete listing of courses can be found at the respective engineering departments' web pages at [www.ucsd.edu](http://www.ucsd.edu). The EI staff will work with you to get any class from the Jacobs school of Engineering offered if there is sufficient interest (three or more students).

If you have any questions about the course offerings, about needs for other graduate level engineering courses not listed below, or about how the courses are given, please forward them to Kathie.

### **Potential Course Series Offered Long Distance to LANL**

#### Signal Processing

Introduction to DSP SIO 207A

Digital Signal Processing ECE 251 AN, SIO 207B

Digital Signal Processing ECE 251 BN

Array Processing ECE 251 DN

Detection Theory ECE 254

Parameter Estimation ECE 275A

Stochastic Processes in Dynamic Systems ECE 272A

Sensor Networks ECE 156, MAE 149, SIO 238

Random Processes ECE 250 (not yet offered)

### Embedded Systems

Introduction to Embedded Systems CSE 237A

Software for Embedded Systems CSE 237B

Validation and Testing of Embedded Systems CSE 237C

Design Automation and Prototyping for Embedded Systems CSE 237D

### Parallel Computing

Large Scale Computing CSE 260, 294 (seminar)

System Support for Parallel Computation CSE 262

### Controls:

Linear Systems Theory MAE 280A

Nonlinear Control Systems MAE 281A, B

Approx Identification and Control MAE 283B

Applied Structural Control, MAE 207

### Computational Mechanics

Numerical Methods MAE 290

Finite Element Analysis I, MAE 232 A

Finite Element Analysis II. MAE 232 B

Computational Fluid Dynamics MAE 223

Verification and Validation SE 207

### Applied Mechanics

Theory of Elasticity SE 272

Theory of Plasticity and Viscoelasticity SE 273

Structural Stability SE 202

Solid Mechanics for Structural and Aerospace Engineering, SE 271

Mechanics of Laminated Composite Structures, SE 253

### Structural Dynamics

Structural Dynamics SE 203

Advanced Structural Dynamics SE 204

Nonlinear Mechanical Vibration SE 205

Random Vibrations, SE 206

Wave Propagation in Elastic Media, SE 235

Wave Propagation in Continuous Structural Elements, SE 236

### NDE/SHM

Experimental Mechanics and NDE SE 252

Structural Health Monitoring SE 265