

BIOMEDICAL SIMULATIONS RESOURCE
UNIVERSITY OF SOUTHERN CALIFORNIA

BMSR Short Course

COMPUTER SIMULATION
IN NEUROBIOLOGY

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May 30 – 31, 1992

University of Southern California
Main Campus
Los Angeles, California

Sponsored by

BIOMEDICAL RESEARCH TECHNOLOGY PROGRAM
NATIONAL CENTER FOR RESEARCH RESOURCES
NATIONAL INSTITUTES OF HEALTH

Announcement and Call For Registration

BMSR Short Course

COMPUTER SIMULATION IN NEUROBIOLOGY TRAINING

Los Angeles, California — May 30 – 31, 1992

This is the second USC/BMSR Short Course on Simulation in Neurobiology organized by Dr. George P. Moore. As in the previous course, we employ simulation as a tool for understanding the relationship between theory and experimental design in neurobiology.

The complexity of contemporary experiments and concepts in neurobiology poses a major educational challenge to teaching programs. Using simulation and published data, the personal computer can bring milestone experiments into the classroom and computer laboratory, making it possible for students to recreate individual experimental trials, compile results based on the original designs and paradigms, and compare their results with predictions arising from basic theory or competing hypotheses.

The course will be based on four significant experimental papers concerned with complex issues in sensory and motor behavior. Participants will be sent copies of the original papers and other background references prior to the course. Lectures will review the basic rationale of the experiments using simulations to illustrate the major points of the experimental design, underlying physiology, and data analysis. Similar demonstration programs will be available for class use and problem-solving sessions in our PC-equipped laboratories. Tutorials explaining techniques used in our simulation will be offered throughout. Participants are encouraged to suggest additional topics in advance for class discussion. While prior computer experience is not essential, it will be assumed that participants have a basic understanding of contemporary issues in neurobiology.

The Course is intended primarily for college and university instructors, graduate students and post doctoral scholars; but others with special interests may also apply. There is no registration fee, but a \$50 advance charge will be made to cover the costs of course materials, notes, and diskettes. Space is limited; early registration is advised.

organized by the

BIOMEDICAL SIMULATIONS RESOURCE
UNIVERSITY OF SOUTHERN CALIFORNIA
LOS ANGELES, CALIFORNIA 90089-1451
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UNIVERSITY OF SOUTHERN CALIFORNIA

1992 Workshop on

COMPUTER SIMULATION IN NEUROBIOLOGY

May 30-31, 1992
Los Angeles, CA

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