

Dakota County Technical College

NANO 1210: Computer Simulation

A. COURSE DESCRIPTION

Credits: 1

Lecture Hours/Week: *.*

Lab Hours/Week: 1

OJT Hours/Week: *.*

Prerequisites:

NANO 1100 - Fundamentals of Nanotechnology I

Corequisites: None

MnTC Goals: None

This course will cover the application of computer simulation (modeling) to nanoscale systems. In addition, this course provides a visualization of concepts and interactions covered in NANO1100 and NANO1200. The course will cover applied statistics, design of experiments and impact of input parameter variations for biological and mechanical systems. Prerequisites: NANO1100 and concurrent with NANO 1200.

B. COURSE EFFECTIVE DATES: 01/10/2005 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

D. LEARNING OUTCOMES (General)

1. analyze biological and material structure properties using simulation
2. determine best practice approaches and design of experiments
3. evaluate impacts of input parametric variations on results
4. visualize systems using different molecular models (ball and stick, wire etc.)

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted