

SPRINGFIELD TECHNICAL COMMUNITY COLLEGE

ACADEMIC AFFAIRS

Course Number: HONR-~~511~~ **512**
Course Title: Survey of Nanoscience

Department: HONORS
Semester: Fall Year: 2009

Objectives/Competencies

Objectives

1. To address and participate in the emerging field and application of nanoscience and technology.
2. To participate in the process of discovery of new and emerging technologies that will effect our lives.
3. To utilize critical thinking in the process of nano based product designs and applications that will be environmentally friendly and aid humanity.
4. To establish group dynamics that will foster effective written and verbal communication skills.
5. To be able to assemble and demonstrate concepts and ideas through the construction of prototypes from a variety of appropriate materials.
6. To improve self-esteem and interpersonal skills through focused discussions and projects that foster self-expression and innovation.

Competencies

1. Demonstrate through observed performance and participation a firm grasp of nanoscience, what it is and some of the ways it can be utilized.
2. Demonstrate through verbal and written practice, examination and observation in the field and research through the Internet and library the physical and social effects of nanoscience.
3. Display the capacity to apply the hard and soft skills associated with nanotechnology products and processes to support developments that will affect our future.
4. Through the use of sample projects and group interactions, the student will communicate their ideas and concerns effectively.
5. Students will be able to create, draw, assemble, describe and demonstrate their designs through the use of a variety of materials and tools available.
6. Students will brainstorm and prescribe possible solutions in a process of debate until each team has an agreed upon improvement to pursue.