

Title: 6B. Ethical and Legal Aspects of Nanotechnology.

Goal: The goal for this module is to provide students an understanding of the ethical and legal aspects of nanotechnology.

Module Objectives: This module will provide the students with an overview of the ethical and legal aspects of nanotechnology. Topics covered in the first lecture include: risk and precaution, regulation of nanotechnology, and equity and access. The second lecture explores the implications of nanotechnology for particular contexts: environment, military, privacy, medicine, and human enhancement.

Prerequisites by Topic:

- none

Required Text: N/A

Reading: Write-up of this module

References: [TBD]

Student Learning Outcomes:

- Students will understand risk, regulation, and fairness in the context of nanotechnology.
- Students will understand the implications of nanotechnology for particular contexts: environment, military, privacy, medicine, and human enhancement.

Topics Covered: (Green highlighted topics are priority#1, Yellow highlighted are if time permits)

- **Lecture I**
 - Risk and Precaution
 - Regulating Nanotechnology
 - Equity and Access

- **Lecture II**
 - Environment
 - Military
 - Privacy
 - Medicine
 - Human Enhancement

Relationship to ABET Program Outcomes

- (f) An understanding of professional and ethical responsibility.
- (g) An ability to communicate effectively.
- (h) The broad education necessary to understand the impact of engineering solutions in a global economic, environmental, and societal context.
- (i) A recognition for the need for and an ability to engage in lifelong learning.
- (j) A knowledge of contemporary issues.