BIOSCIENCE IN THE 21ST CENTURY:

COURSE HIGHLIGHTS AND PROSPECTS
Welcome and Introductions

What is this course about?

Course highlights and requirements

Course website: www.lehigh.edu/~inbios21
(for lecture videos, syllabus, schedule)

Coursesite: http://coursesite.lehigh.edu/
(for course assignments, study guides, resources)
Bioscience PLAYBILL: Participating Faculty and Guests

Departments and Programs represented:
Biological Sciences, Bioengineering, Chemical Engineering, Civil & Environmental Engineering, Chemistry, Computer Science & Engineering, Materials Science & Engineering, Electrical Engineering
BIOSCIENCE IN THE 21ST CENTURY

• What biologically-relevant problems confront society?
• What are the strategies for studying these problems?
• What are the prospects for solutions to these problems?
MULTIDISCIPLINARY APPROACHES

Bioscience in the 21st Century

NEUROBIOLOGISTS
BIOETHICISTS
BIOCHEMISTS
MATERIALS SCIENCE ENGINEERS
BIOLOGICAL ENGINEERS
MOLECULAR BIOLOGISTS
CHEMISTS
MICROBIOLOGISTS
CELL BIOLOGISTS
CLINICIANS
VIROLOGISTS
PHYSICISTS
CHEMICAL ENGINEERS
COMPUTER SCIENTISTS
Topics for consideration:

• Neurophysiological processes
• Cancer and novel treatment strategies
• Genomics, Proteomics and bioinformatics
• Stem cell biology and disease treatment prospects
• Advances in engineered biosystems, biodevices, and bioimaging
• Social/Ethical issues in bioscience
• Microbiology & Infectious diseases
• Human physiology
• Environmental health

http://www.dep.state.pa.us

spie.org
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Course Schedule

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Syllabus and Course Requirements

www.lehigh.edu/~inbios21