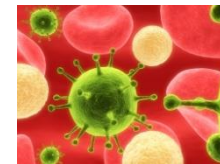




# BIOSCIENCE IN THE 21<sup>ST</sup> CENTURY:

## COURSE HIGHLIGHTS AND PROSPECTS



# COURSE GOALS AND EXPECTATIONS

Welcome and Introductions

What is this course about?

Course highlights and requirements

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

Coursesite: <http://coursesite.lehigh.edu/>  
(for course assignments, study guides, resources)

# Bioscience PLAYBILL: BioS 10 and BioS 90 Instructors



**Ware**



**Lang**



**Kuchka**



**Chen**



**Lowe-Krentz**



**Sands**

## Departments and Programs represented:

*Biological Sciences, Bioengineering, Chemical Engineering, Civil & Environmental Engineering, Chemistry, Computer Science & Engineering, Materials Science & Engineering, Electrical Engineering*

## Upcoming Faculty Guests:



**Davis**



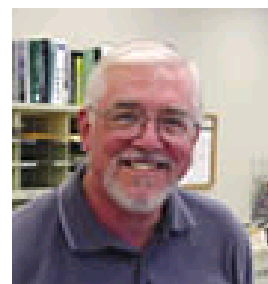
**Simon**



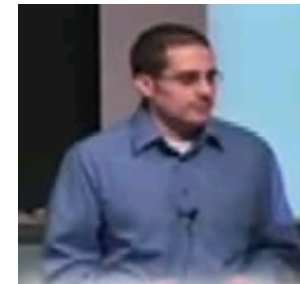
**Rice**



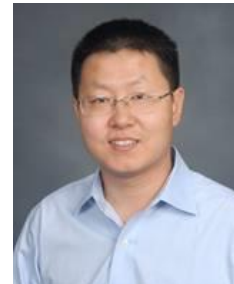
**Haas**



**Nyby**



**Wynne**

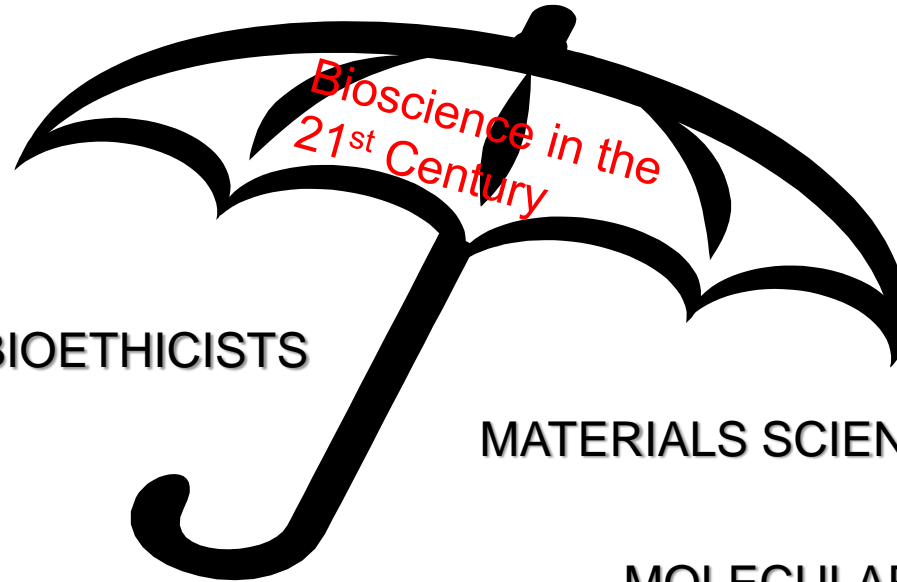


**Zhou**

# BIOSCIENCE IN THE 21<sup>ST</sup> 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



NEUROBIOLOGISTS

BIOETHICISTS

BIOCHEMISTS

MATERIALS SCIENCE ENGINEERS

BIOLOGICAL ENGINEERS

MOLECULAR BIOLOGISTS

CHEMISTS

CLINICIANS

MICROBIOLOGISTS

CELL BIOLOGISTS

VIROLOGISTS

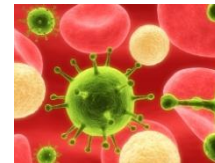
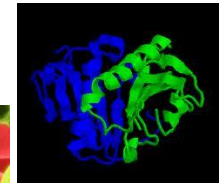
PHYSICISTS

CHEMICAL ENGINEERS

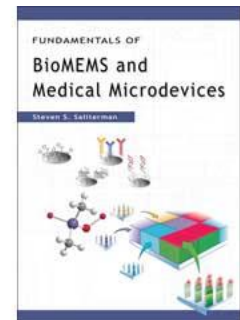
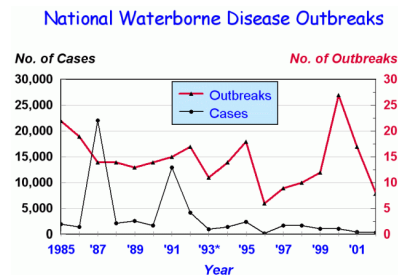
COMPUTER SCIENTISTS

# 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

# **Bioscience in the 21<sup>st</sup> Century**

[www.lehigh.edu/~inbios21](http://www.lehigh.edu/~inbios21)