

NJIT



New Jersey's Science &
Technology University

THE EDGE IN KNOWLEDGE

The Department of Biological Sciences

**A proposal to create a Department of Biological Sciences within the
College of Science and Liberal Arts**

The Division of Biological Sciences

- Biological Sciences at NJIT is currently centered in a division of the Department of Mathematical Sciences which has nurtured its growth in the past three years
- The Division of Biological Sciences is currently federated with Rutgers-Newark
- We propose that the division be reorganized into a **Department of Biological Sciences**
- This proposal calls for no new degrees and the proposed new department will remain federated with Rutgers-Newark

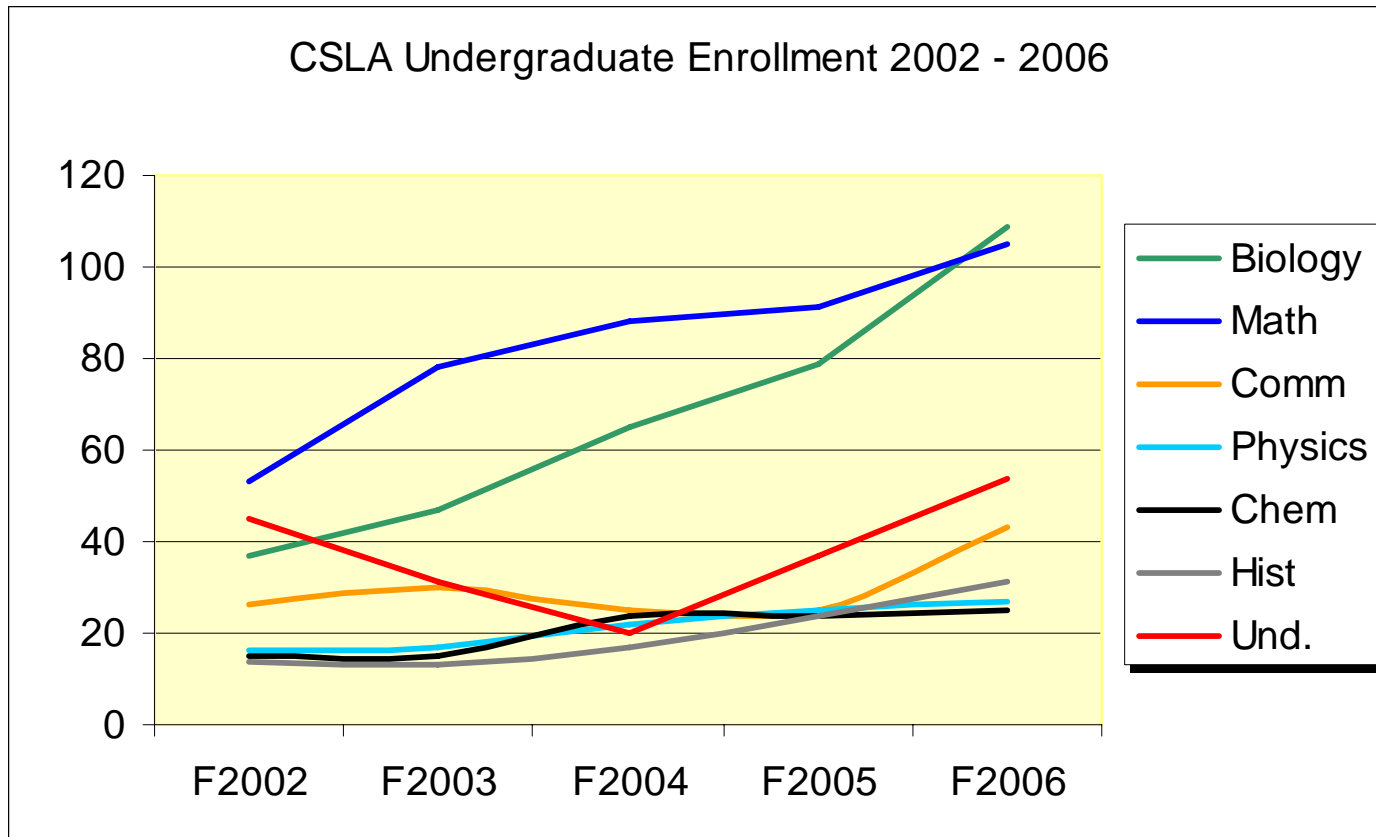
The Department of Biological Sciences will:

- Manage all degree programs in Biology at NJIT
- Continue the drive to increase the quantity and quality of the student body
- Expand the breadth and depth of biology courses on the NJIT campus
- Coincide with the planned construction of a stem cell research facility at NJIT
- Further elevate NJIT's visibility as a comprehensive research university and as a leader in research and education in the life sciences

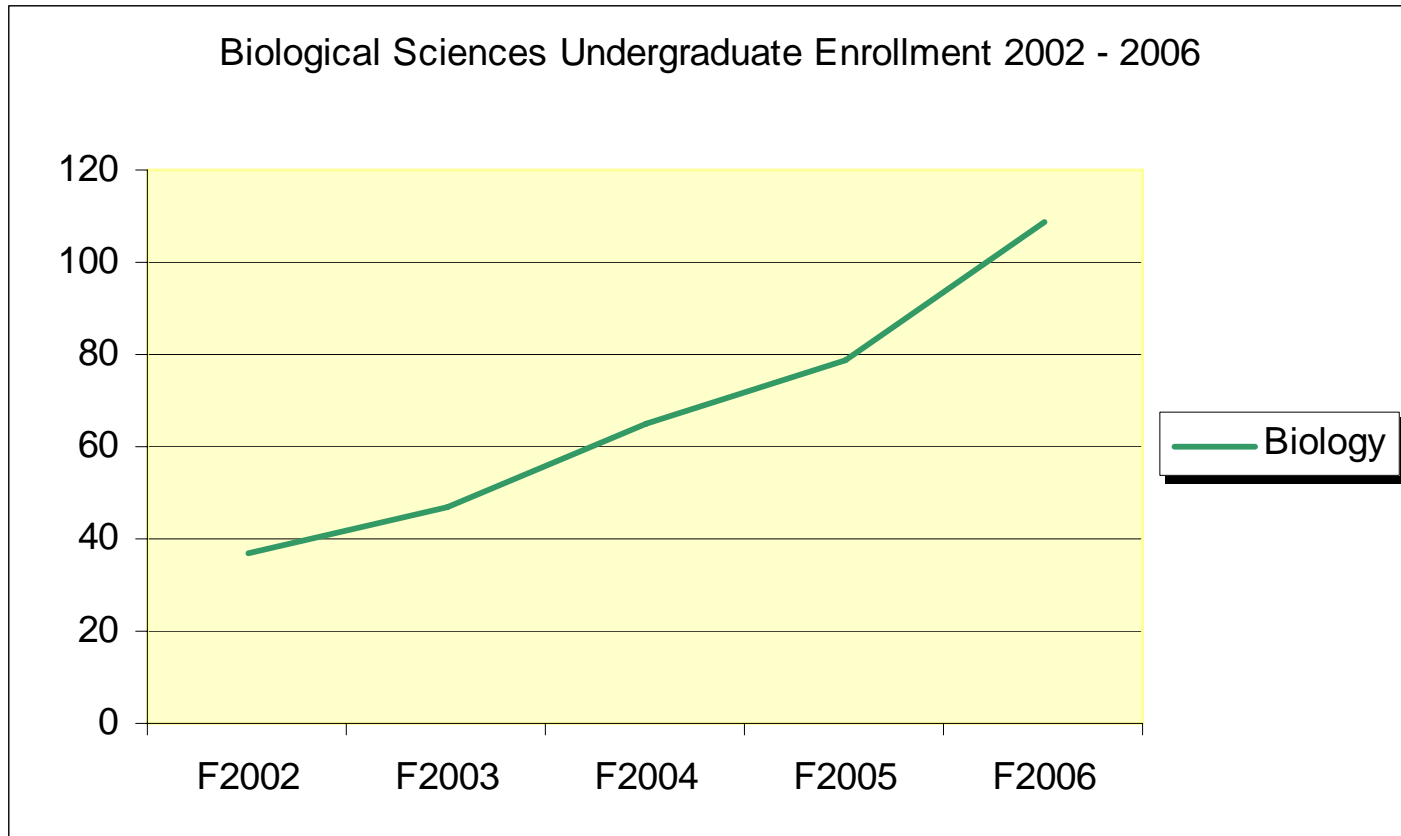
Current Offerings and Enrollment

- The Federated Division of Biological Sciences currently offers five degree programs in Biology
- Degrees include the B.A., B.S., M.S., and Ph.D. in Biology and the M.S. in Computational Biology (joint with Mathematics)
- Enrollment is currently 118 students (109 undergraduate, 6 masters and 3 doctorate)
- In the past three years, the undergraduate Biology program has tripled in size and it continues to grow

Undergraduate CSLA Enrollment



Undergraduate Biology Enrollment



A Departmental Structure will promote:

- The strengthening of academic and administrative oversight for the degree programs
- The quality of services offered to existing students (such as mentoring and academic advising)
- The recruitment of new students
- The expansion of research initiatives and opportunities

Biology Connections

- to promote CSLA's emergent Bioscience theme, bringing together Biochemistry, Biophysics, Biostatistics and Computational Biology
- to foster synergistic relationships across NJIT with partners such as Biomedical Engineering and Bioinformatics
- to support Pre-professional options: Pre-Med/Pre-Dental/Pre-Optometry
- to develop new UMDNJ Connections (i.e. Doctorate in Physical Therapy, BS/MS in Physician Assistant

Department Faculty

- Four NJIT faculty members in the Federated Department of Biological Sciences
- The search for a fifth faculty member has concluded
- In the long-term, grow to fifteen tenure-track and tenured faculty members will be required (within 10 years by hiring one faculty member per year)

Departmental Initiatives

- Stress emphasis on interdisciplinary and inter-college collaboration
- Act as a catalyst for excellence in biological sciences education and research
- Promote more effective coordination of life sciences initiatives at NJIT
- Build on existing strengths of the current NJIT biology faculty in:
 - Quantitative and computational biology
 - Membrane and cellular biophysics
 - Computational neuroscience
 - Computational molecular biology

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