Our matter matters!
Be part of the Biology Department at Manhattanville College
The Biology Experience

• Our Biology major is intensive, comprehensive and challenging

• Students work one-on-one with advisors and research mentors to develop their skills and laboratory experiences

• Students develop personal ties to peers, mentors and the department and college that persist long after graduation
Majors

• Biology Major
• Biochemistry Major
• Environmental Studies Major
• Animal Behavior Self-Designed major
Minors and Concentrations

- Biology minor
- Environmental Studies minor
- Pre-health minor
- Health Sciences minor
- Neuroscience concentration
Biology Faculty
Dr. Nancy E. Todd

• Professor and Chair of Biology and Environmental Studies

• **Teaching and research areas:**
  Environmental studies, anatomy, osteology, evolution, tropical ecology, forensic ecology, biostatistics, and paleontology
Dr. Annemarie Bettica

• Associate Professor of Biology

• **Teaching and Research Areas:** Molecular biology, Neuroscience, Biology of Cancer, Electron Microscopy, Forensics
Dr. Anna Cheung

• Associate Professor of Biology

• Teaching and Research Areas:
  Microbiology, Immunology, Infectious Diseases, Nutrition in Health and Disease, Virology
Dr. Wendy McFarlane

• Associate Professor of Biology

• Teaching and Research Areas:
  Environmental physiology,
  Anatomy and development,
  Marine biology and ecology,
  Invertebrate and vertebrate zoology
Additional Faculty and Staff

- Dr. Chris Pappas
  - Laboratory manager, Parasitology, Nutrition, Introductory Biology
- Dr. Hiroshi Osaka
  - Biochemistry and Human Biology
- Dr. David Cassuto
  - Wellness and health
- Professor Sunera Rahman
  - Environmental studies and ecology
Biology Facilities
Teaching Laboratories
Environmental/Microbiology
Teaching Laboratories
Cell Culture
Teaching Laboratories
Intro Biology/Anatomy
• We have our own research park on campus and Ecoclassroom

Restored Lady Chapel
Biology Major Curriculum

• We have a diverse curriculum within the biology department
• Combine classroom experience with field work
• A variety of internship opportunities
• Interdisciplinary connections with other departments
Classes
Fieldwork
Prerequisites and Introductory Courses

- Students take prerequisite courses in their first and second year
  - Principles of Biology 1, II
  - Principles of Chemistry 1, II
  - Calculus I
Upper Level Courses

• 3rd and 4th years
• Seven biology electives
  – 4 must be 3000 level laboratory courses (4 cr.)
  – Only 2 can be at the 2000 level
  – See catalogue and website for a complete course listing
Research Sequence

• Each student is paired with a research mentor to work on a year-long project in their senior year
  – Research Seminar – Fall of Junior year
  – Senior Research – Fall of Senior year
  – Senior Evaluation – Spring of Senior year
Research Opportunities

- Microbiology – bacterial studies, research with tick-borne diseases
- Cell biology – antioxidants, natural remedies, cancer research
- Aquatic toxicology – effects of pollutants on aquatic organisms
- Forensic ecology and entomology
- Physiological adaption to stress
- Developmental projects
Student Research
Student Research
Conference Presentations
Tri Beta Regional Conference 2011

The antioxidant and neuroprotective efficacies of several common bioavailable polyphenolic flavonoids and terpenoids from Ginkgo biloba leaf extract against neurotoxin-induced Parkinson’s disease model in vitro

Brittany Baur
Dr. Anne Marie Bettica
Manhattanville College

Dental microwear variation in complete molars of Mammuthus
Roselle Leone
Conference Presentations

Ecological Society of America 2008
Conference Presentations

Dominican College Undergraduate Symposium 2008
Recent Published Research

Faculty and Students
Aggression, Interactions, and Preference for Males in Female Siamese Fighting Fish (\textit{Betta splendens})

N. E. Todd, A. Sica, and R. Trahey


Clubs and Activities

Upsilon Sigma Chapter of Beta Beta Beta
Biological Honor Society
Achieving Conservation Together
Campus Environmental Club
Voted Club of the Year in 2007

Join our club to implement sustainability on campus!
Field Research Site
Island of Barbuda, Caribbean

We have our own international field research site in the Caribbean!

We offer a summer or winter class in Tropical Ecology and Marine Biology
Internships outside Manhattanville

- New York Medical College
- Regeneron Pharmaceuticals
- Pepsico
- Local animal shelters
- Reproductive health clinics
- Local hospitals
Education and Outreach

Trip to Guatemala with Global Donations
Student Organized Charity
Education and Outreach

Renovating a science classroom for Holy Trinity Elementary School, Barbuda, Lesser Antilles
Education and Outreach

Manhattanville Annual Science Competition
We hope you decide to come to Manhattanville!

- For any further questions, please contact:
  - Dr. Nancy E. Todd, Department Chair

- [Nancy.Todd@mville.edu](mailto:Nancy.Todd@mville.edu) or 914-323-5121