The Biological Sciences major teaches basic organization and processes of life, investigates how organisms evolve and interact with their environments and explores how these factors impact in health and disease. Pursuing a degree in biological sciences provides students with the opportunity to work independently as well as become collaborative members of diverse teams to develop valuable skills ranging from critical thinking and research to analysis and communication. Students who supplement their coursework with on-campus activities, community engagement, research, and industry experience will be well-positioned for advanced professional training in the health sciences or graduate study in basic and applied areas of biology. Additionally, graduates are competitive for entry-level positions related to biology- including jobs in scientific journalism; biological and pharmaceutical supply industries; biological, environmental or medical research; scientific libraries and museums; as well as in other industries where the products or by-products have potential biological impacts. Finally, many Cornell biological sciences alumni obtain entry-level positions as consultants, financial analysts, project managers, sales representatives, business developers and educators.

**Skills developed** *(adapted from University of Michigan Career Center Career Guide)*:

**Investigative and Research Skills**: define problems, assess risks, develop and test hypotheses, utilize laboratory and field research equipment, conduct laboratory/field experiments, record observations, prepare and inspect specimens, catalog information, learn and use software programs for computations and simulations, interpret results, perform statistical tests, prepare reports

**Analytical Skills**: examine components of problems/ideas, reason logically, categorize data, make projections from data, organize ideas/information, evaluate the effects of phenomena, recommend future research

**Communication Skills**: write laboratory reports, develop research proposals, contribute to teams, summarize research findings, explain complex ideas for technical and nontechnical audience, design charts, graphs and other visual aids, report results and conclusions orally and in writing, present alternative explanations and recommendations

**Career Areas for biological sciences graduates**:

**Agriculture**: work in local or international agribusiness to test and develop new crops or pest control products to feed the World.

**Art**: work as a digital artist or illustrator and create science infographics and science media, as well as contribute to textbooks, newspapers, magazines and websites.

**Biotechnology**: run assays/tests for biological testing companies, conduct genetic analyses or apply scientific principles to develop and enhance products, tools, and technological advances in fields such as agriculture, food science, and medicine/pharmaceuticals.

**Business**: work with manufacturers of scientific products and services to research, test, market and sell new products.

**Computational biology/Bioinformatics**: apply mathematical techniques to solve biological problems, such as modeling ecosystem processes and gene sequencing.

**Economics**: work with the government and other organizations to study and address the economic impacts of biological issues, such as climate change, species extinctions, forest protection, and environmental pollution.

**Education**: work with the public to understand biology/life science through formal K-12 teaching or informal education at nature/science centers, museums, etc.

**Environment**: work with government agencies and non-profits dealing with the public policy, conservation, science education, medicine and international relations.

**Forensic Science**: work with police departments and other law enforcement agencies using scientific methods to discover and process evidence that can be used to solve crimes.

**Government/Policy**: work for federal, state or local government as a researcher, technician, advisor or inspector to create new legislation on topics ranging from biomedical research to environmental protection.
Health Sciences: work to deliver health care to humans or animals in the areas of diagnostic services, therapeutic services, genetic counseling, support services, education, health informatics and biotechnology research and development.

Law: work as a technical specialist, patent agent, technology-transfer specialist or associate in areas ranging from intellectual property to environmental law.

Medicine: work in applied science or the practice of diagnosis, treatment and prevention of disease.

Science Writing and Communication: work as a journalist or writer to inform the general public about relevant and emerging biological issues.

Biological Sciences Alumni - a sample of companies/organizations who hired Cornell biological sciences graduates:

- Amgen
- Audubon Society
- Boston Museum of Science
- Children’s Hospital of Philadelphia
- Clarity Insights
- Cornerstone Research
- Dana Farber Cancer Institute
- Daversa Partners, LLC
- E & J Gallo Winery
- Epic
- Evercore
- Facebook
- Google
- Health Advances
- Healthcare Legal Solutions, LLC
- Houlihan Lokey Global Investment Bank
- Kraft Foods
- National Institutes of Health
- Norwell Health
- Novartis
- Peace Corps
- Pfizer
- Proctor and Gamble
- Regeneron
- River LA
- Saltwater Incorporated
- Teach for America
- The Dedham Group
- US Army Corps of Engineers Institute for Water Resources
- US Department of Agriculture
- US Fish and Wildlife Service
- US Geological Survey
- USA Scientific
- Wildlife Conservation Society

Professional Associations

- American Association for the Advancement of Science
- American Academy of Forensic Science
- American Institute of Biological Sciences: Careers
- American Society for Microbiology
- American Society of Cell Biology
- American Society for BioChem and Mol Bio
- American Society of Human Genetics
- American Society of Limnology and Oceanography
- Biotechnology Innovation Organization
- Biotechnology Institute
- Council for the Advancement of Science Writing
- Informatics
- Inter Society for Comp Bio
- National Academies
- Society for Industrial Microbio and Biotechnology

Occupational Outlook

- US Dept of Labor, Occupational Outlook Handbook
- O*Net
- Biochemists and Biophysicists
- Biological Technicians
- Clinical Laboratory Technologists and Technicians
- Conservation Scientists and Foresters
- Dentists
- Epidemiologists
- High School Teachers
- Medical Scientists
- Microbiologist
- Natural Sciences Managers
- Physician Assistants
- Physicians and Surgeons
- Postsecondary Teachers
- Technical Writers
- Veterinarians
- Zoologists and Wildlife Biologists

Career Resources & Opportunities

- Association of Zoos and Aquariums
- Careers in Physiology
- Explore Health Careers
- International Marine Animal Trainers’ Association
- LifeSciencesWorld
- Marine Careers
- National Association of Marine Labs
- National Human Genome Research Institute
- National Wildlife Federation
- Professional Science Masters
- Sloan Foundation Careers in Science, Technology and Medicine
- USDA Living Science
- Bio-Link
- Biospace
- New Scientist Jobs
- Science Careers
- Conservation Job Board
- Makingthedifference.org

*Adapted from University of Tennessee’s Center for Career Development  (January 2019)