

# CAREER OPPORTUNITIES

## AGS General Studies Biology

- **01 Biological Technician**

Biological technicians use the laboratory skills and techniques that biology majors learn in their labs, academic research, and collaborative research with faculty.

Technicians must carry out studies that yield accurate results. They document results and perform calculations just as they have done when compiling reports as a biology major.

Many new graduates who choose not to go on to graduate school or want to postpone graduate study find technician positions with researchers at medical schools, government agencies, non-profit research centers, or pharmaceutical/biotechnology firms.

- **02 Biochemist**

Biochemists play a key role in the fast-growing fields of biotechnology and biomedical research. Studying biology equips them with the laboratory and scientific research skills and knowledge to design and execute studies to develop new products. (Note: most jobs in this field will require an advanced degree.)

Knowledge of anatomy and physiology helps biochemists to understand the impact of drugs and biotechnology solutions on the human body.

Presentation and writing skills cultivated as a biology major help them to present proposals and findings to colleagues and potential funding sources.

- **03 Genetic Counselor**

Genetic counselors assess the genetic makeup of clients and communicate with them about the risk of transmitting a genetic disease or disability to their offspring. They might also work with adults who are concerned about the chances of showing symptoms of genetic disorders later in life.

They must have an advanced aptitude in biology to complete the required master's degree in the discipline.

Genetic counselors must be able to express scientific concepts in everyday language. Like a biology major, they must be able to think quantitatively to assess the likelihood of various outcomes based on the genetic predisposition of the patients.

Genetic counselors must have advanced knowledge of the scientific method to evaluate the usefulness of a rapidly growing body of research about the human genome.

- **04 Health Communications Specialist**

Health communications specialists are responsible for educating communities about health concerns, particularly public health issues, including communicable diseases, health management, and healthy living.

Often employed by hospitals or other healthcare companies, health communications specialists may also coordinate the institution's public relations campaigns, marketing strategies, and community involvement.

This career requires strong writing, and interpersonal skills as health communications specialists are responsible for discussing topics related to human health and disease to a wide audience.

A biology major provides a strong foundation and may offer an edge over other individuals who lack a background in hard science. Unlike many jobs on this list, health communications specialists can get started on their career with just a bachelor's degree.

- **05 Health Educator**

Health educators teach people about certain practices and behaviors that promote wellness. They must have scientific knowledge to digest information and interpret research about public health concerns. They use the scientific method to assess the needs of their constituents so they can design relevant programs.

Health educators need a solid understanding of human biology as well as verbal communication skills to convey scientific information in a language that their clients can easily comprehend.

Health educators, like biology majors, write about scientific topics like nutrition, safe sex, substance abuse, and stress reduction. They, therefore, need strong written communication skills. Employers may also require the Certified Health Education Specialist (CHES) credential in addition to a bachelor's degree.

- **06 Pharmaceutical / Medical Product Sales Representative**

Pharmaceutical or medical product sales representatives sell medical supplies, IT products, medicines, and more to hospitals, clinics, and other medical practices.

Pharmaceutical sales representatives must have a strong knowledge of chemistry, anatomy, and physiology so that they can explain to doctors how a new drug will affect their patients.

These workers need to have the technological knowledge to explain how a product works. They also need the scientific knowledge to be able to explain how this product will benefit both doctor and patient.

Pharmaceutical or medical product sales representatives need strong communication and interpersonal skills as well. A bachelor's degree is often enough education to get started in this occupation.

- **07 Physician Assistant and Nurse Practitioner**

Physician assistants and nurse practitioners are in high demand as front-line service providers. Biology provides an excellent foundation for graduate work in these similar professions.

Physician assistants and nurse practitioners must have a sound understanding of human biological systems, anatomy, and physiology to diagnose medical problems. They also need a biology major's advanced knowledge of the scientific method to interpret emerging research about various treatment options and medications.

Physician assistants and nurse practitioners must have an aptitude for learning and remembering scientific and medical terminology. These careers require at least a master's degree.

- **08 Medical and Health Services Manager**

Medical and health services managers spend much of their time interacting with health service professionals and must be equipped to communicate with them about scientific policies and procedures.

They must be able to interpret scientific regulations related to medical services, and modify programs accordingly.

Medical and health services managers often hire, supervise, and evaluate health professionals and researchers. They must be able to understand the nuances of their credentials and performance as they assess candidates and employees.

- **09 Attorney**

Biology majors can excel in many areas of the law that draw on scientific knowledge and reasoning. Patent and intellectual property lawyers need to understand the science behind biotechnology products, drugs, and medical instruments to process applications for patents and defend clients against infringement.

Environmental attorneys support and contest environmental projects and policies based on an understanding of how they will impact the ecosystem.

Medical malpractice lawyers must have the scientific knowledge required to analyze medical interventions and judge whether health professionals have acted ethically and correctly.

Biology majors learn to gather evidence to test a hypothesis. Litigation and criminal lawyers must do the same as they build a case for a client.

Add to that the technical nature of physical evidence such as DNA samples, and it is easy to see why many biology majors decide to go on to law school.

- **10 Financial Analyst**

Financial analysts evaluate stocks, bonds, mutual funds, and other investments for clients and businesses. Biology majors can use their advanced mathematical skills to help assess the success of various investments.

Most analysts focus on specific industries, and biology majors are particularly well suited for working as analysts in biotechnology, pharmaceutical, medical products, health services, and environmental companies.

Financial analysts, like biology majors, use computer-based resources to gather and analyze data to draw conclusions. They must have the writing skills to generate reports summarizing their findings. A bachelor's degree is often enough to get started in a career as a financial analyst.