Important Facts for Students in the Biology Degree Program

Through the Department of Biology & Chemistry, Liberty University offers the B.S. in Biology (with concentrations in Molecular Biology, General Biology, Environmental Science and Pre-Med) and a B.S. in Biochemistry and Molecular Biology. We also offer minors in both Biology and Chemistry. A student also has the option of pursuing teacher certification in General Biology and Environmental Science.

1. Most careers in biology are highly specialized and require training beyond the Bachelor’s degree. Undergraduates from our program have entered Graduate Schools in fields as diverse as biochemistry, physiology, genetics, neuroscience, molecular biology, microbiology, nutrition, ecology, marine biology, and wildlife management.

2. Many of our graduates choose to enter the medical profession in some capacity. We have sent our alumni to medical, dental, veterinary, pharmacy, and chiropractic schools.

3. Some of the careers available with a bachelor’s degree include secondary school teachers and many types of medical, chemical, and laboratory technicians.

4. Students may choose to participate in directed research for upper-level Biology credit per Dr. Paul Sattler’s approval.


Please feel free to direct any additional questions to the following individuals:

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Frequently Asked Questions

1. Is the Biology major hard?
   Yes. The sciences are driven by technology which provides the tools by which science can answer questions. Because technology is advancing so rapidly, so is the information that is needed by anyone interested in pursuing science as a career. The sciences are hard because they are a very content-heavy discipline with lots of facts that must be learned. It is the nature of the discipline.

2. Do I have to take biology my first semester at Liberty University if I want to be a Biology major?
   No. There are three major basic areas that students need to start early in their biology career: biology, chemistry and math. Chemistry is a two-semester sequence with the first semester only offered in the fall and the second only in the spring semester. Since one cannot begin the chemistry sequence in the student’s second semester, chemistry is the most important course to start early. Because chemistry has math prerequisites, math may also be necessary to start immediately. If a student is not in the first biology course their first semester, they can start during their second semester. The first biology course is offered every semester for this reason.

3. Can I take the Biochemistry courses (BCHM prefix) and CRST 390 as my upper-level Biology electives as part of the Biology major?
   The Biochemistry courses (BCHM 451, 452 and 455) may be taken as Biology upper-level electives. CRST 390 may not. Note: Upper-level health courses cannot substitute for upper-level biology electives.

4. Can Biology majors claim a minor in chemistry?
   Yes. In addition to required chemistry courses for the biology major of CHEM 121, 122, 301 and 302, students must successfully complete CHEM 221 to obtain a minor in chemistry.

5. What is VCOM?
   The Virginia College of Osteopathic Medicine (VCOM) is a private Medical School in Blacksburg, Virginia on the campus of Virginia Tech. Their mission is to train primary care physicians for underserved and disadvantaged populations throughout rural Virginia, the Appalachian region, and globally in developing countries. They have one of the few Medical Missions Programs in the world, and three medical clinics Central and South America. VCOM approached Liberty University with an articulation agreement guaranteeing entrance of our graduates to VCOM. Students completing our science programs with a 3.5 overall and science GPA are accepted to VCOM. Their interest in our students is due to the similar mission of both institutions, with compassion and concern for the physical and spiritual health of people everywhere. A medical profession is difficult, with years of preparation in the basic sciences, and then additional training in the latest technologies needed to provide the best medical care in the world. It is not a profession to be lightly undertaken. It entails years of hard work preparing for a high stakes profession with a demanding schedule. However, it can provide a lifetime of service to the community around us. Students looking to pursue a
medical career should choose a science major and devote themselves to learning these basic biology, chemistry, physics, and mathematics subjects to provide the base for further medical training.

6. **What can I do with a degree in Biology?**

   There are some careers which can be performed with only the bachelor’s degree. Many of our students have obtained jobs in middle and high schools teaching biology and chemistry to secondary students. Because the sciences are a difficult subject to master, with fewer graduates, there is a continual high demand for science teachers. There are also some technical jobs available to graduates with the four-year degree. Many of our students have obtained employment as laboratory technicians on the strength of the lab skills they learn in our science classes.

   However, most of our students require additional training to pursue a more specialized subject in post-bachelorette or graduate schools. The sciences are so technically advanced so that one cannot hope to master in a few short years the highly technical skills and learning required to practice in the sciences at the highest levels. For this reason, the BS in Biology should usually be considered the first step in the pursuit of a scientific career. Most of our students go on to either graduate school or one of the medically related professional schools.

   Graduates of the Biology major have gone on to graduate schools in a wide variety of disciplines. Those interested in environmental careers have gone to graduate schools in ecological or wildlife departments and now practice in fields such as state level wildlife departments or marine biology. We have had students earn graduate degrees in Nutrition, Physiology, Microbiology, Biochemistry, Genetics, Molecular Biology, and Developmental Biology. Many now teach and perform research at major universities. Some work at government labs with the National Institutes of Health.

   A large number of our graduates have gone on to professional schools in the medical area. We have placed students in Medical Schools, Dental Schools, Schools of Veterinary Medicine, Physician Assistant Schools, Chiropractic Schools, and Schools of Pharmacy. Many of these graduates now practice some aspect of medicine in many areas around the country. Many of these graduates have opportunities for short-term mission trips to serve the physical and spiritual needs of peoples in underdeveloped countries around the world.

   The biological sciences are an academically challenging field where students have to learn basic facts before they are in a position to apply that knowledge to practical questions. Not everyone is willing to invest the time and effort needed to master these complex subjects and students should consider the cost in time and resources needed for successful careers in the sciences. However, for those gifted in these areas, and willing to invest their time in these subjects, there are many rewarding careers available.