BACHELOR OF SCIENCE IN BIOLOGY - BUSINESS OPTION

The undergraduate curriculum for the Bachelor of Science in Biology degree is designed to prepare students for employment in academia, government, or industry; for graduate studies in the biological sciences or science teaching; or for admission to medical, dental, or veterinary schools. The theme of the curriculum is systems biology, employing a systems approach in solving biological problems. All students participate in research through undergraduate research courses. The School also offers the International Plan, Business Option, a minor in biology, and several certificates.

Biology Undergraduate Programs (http://www.biology.gatech.edu/undergraduate-program)

Wellness
APPH 1040  Scientific Foundations of Health  2
or APPH 1050  The Science of Physical Activity and Health

Core A - Essential Skills
ENGL 1101  English Composition I  3
ENGL 1102  English Composition II  3
MATH 1552  Integral Calculus  4

Core B - Institutional Options
Select one of the following:  3
CS 1301  Introduction to Computing
CS 1315  Introduction to Media Computation
CS 1371  Computing for Engineers

Core C - Humanities
Any HUM (http://www.catalog.gatech.edu/academics/undergraduate/core-curriculum/core-area-c)  6

Core D - Science, Math, & Technology
PHYS 2211  Introductory Physics I  4
PHYS 2212  Introductory Physics II  4
MATH 1551  Differential Calculus  2
MATH 1553  Introduction to Linear Algebra  2

Core E - Social Sciences
Select one of the following:  3
HIST 2111  The United States to 1877
HIST 2112  The United States since 1877
INTA 1200  American Government in Comparative Perspective
POL 1101  Government of the United States
PUBP 3000  American Constitutional Issues
ECON 2106  Principles of Microeconomics  3
Any SS (http://www.catalog.gatech.edu/academics/undergraduate/core-curriculum/core-area-e)  6

Core F - Courses Related to Major
BIOL 1510  Biological Principles  4
CHEM 1211K  Chemical Principles I  4
CHEM 1212K  Chemical Principles II  4
CHEM 2311  Organic Chemistry I  3
CHEM 2312  Organic Chemistry II  3

Major Requirements
BIOL 1520  Introduction to Organismal Biology  4
or BIOL 1521  Honors Introduction to Organismal Biology
BIOL 2335  General Ecology  3
or BIOL 2337  Honors Ecology
BIOL 3450  Cell and Molecular Biology  3
BIOL 2344  Genetics  3
or BIOL 2354  Honors Genetics
Biology Lab  2
BIOL 3600  Introduction to Evolutionary Biology  3
BIOL 4460  Communicating Biological Research  1
Select one of the following:  3
BIOL 4590  Research Project Lab
BIOL 4690  Independent Research Project
BIOL 4910  Honors Undergraduate Research Thesis

Non-Biology Courses
CHEM 2380  Synthesis Laboratory I  2
BIOL 2400  Mathematical Models in Biology  3
or BIOL 4150  Genomics and Applied Bioinformatics
or BIOL 4401  Experimental Design and Statistical Methods in Biology

Biology Electives
Any BIOL at 3000-level or higher  15

Business Option
ACCT 2101  Accounting I: Financial Accounting  3
or MGT 3000  Financial and Managerial Accounting
Select one of the following:  3
MGT 3101  Organizational Behavior
MGT 3150  Principles of Management
PSYC 2220  Industrial/Organizational Psychology
Select two of the following:  6
MGT 3062  Financial Management
MGT 3078  Finance and Investments
MGT 3300  Marketing Management I
MGT 3660  International Business
MGT 4015  Advanced Managerial Accounting
MGT 4026  Financial Reporting and Analysis I
MGT 4028  Financial Analysis and Reporting of Technology Firms
MGT 4030  International Accounting
MGT 4190  Strategic Quality Management and Competitiveness
MGT 4191  The Entrepreneurship Forum
MGT 4192  Impact Speaker Series Forum
MGT 4193  Servant Leadership, Values & Systems
MGT 4194  Social Enterprise and Entrepreneurship
MGT 4303  Personal Selling and Sales Management
MGT 4304  Strategic Brand Management
MGT 4307  Strategic Marketing
MGT 4335  International Marketing
MGT 4610  Law, Management, and Economics
MGT 4670  Entrepreneurship

Free Electives
Bachelor of Science in Biology - Business Option

Free Electives 5

Total Credit Hours 122

1. Students must complete two of the following three lab options:
   - BIOL 2336 or BIOL 2338
   - BIOL 2345 or BIOL 2355
   - BIOL 3451

2. Students are required to complete 15 credit hours of Biology electives defined as follows:
   - 12 'depth' credit hours must be courses with a 'BIOL' prefix, excluding BIOL 4694-4699. Biology Elective courses that are cross-listed with other departments are included in these 12 depth credit hours.
   - The remaining 3 'breadth' credit hours can be selected from: other BIOL 3000-level and higher courses, BIOL 4695, BIOL 4697, BIOL 4699, and the list of approved courses offered in the other departments (MATH 2000-level and higher courses and APPH, BMED, CHEM, EAS, PHYS, PSYC 3000-level and higher courses; EXCEPTION for the following: APPH 3300, APPH 3901-APPH 3904, APPH 4699, BMED 4699, BMED 4900-BMED 4903, CHEM 4601, CHEM 4699, CHEM 4901-CHEM 4903, EAS 4651, EAS 4699, EAS 4900, MATH 2699, MATH 4080, MATH 4090, MATH 4699, MATH 4999, PHYS 4601, PHYS 4602, PHYS 4699, PSYC 4600, PSYC 4601, PSYC 4699, PSYC 4900-PSYC 4910.)

International Plan

Georgia Tech’s International Plan, through the Office of International Education (www.oie.gatech.edu/), involves two study abroad experiences and coursework in global studies. The plan offers a challenging and coherent academic program for students to develop global competence within the context of a Biology degree. The requirements include: language proficiency equivalent to two years of college coursework (twelve hrs), one course in international relations (three hrs), global economy (three hrs), focused study of a region (three hrs), an integrative course synthesizing the international experience (three hrs), and two semesters (minimum of 26 weeks) in residence abroad. Georgia Tech biology courses are taught in Australia/New Zealand (www.oie.gatech.edu/sa/programs/) and Spain (www.oie.gatech.edu/sa/programs/) as part of the Study Abroad program. In addition, many biology courses are available through Georgia Tech partner universities abroad (www.oie.gatech.edu/sa/programs/). Some of these universities teach biology courses in English, such as Hong Kong University, Tokyo Technological University, University of Victoria (New Zealand), National University of Singapore, University of Strathclyde (Scotland), and Bilkent University (Turkey). Successful completion of this plan earns students an international designation on their Georgia Tech transcripts.

Research Option

This Research Option enables students to complete nine credit hours of supervised research with a Biology faculty member over multiple semesters. With faculty guidance, students write a brief proposal, perform independent, original research, and write a thesis about their work. The thesis is evaluated by two Biology Faculty members. The first six credit hours of the research option are taken as BIOL 2699/BIOL 4699 (research for credit) or BIOL 2698/BIOL 4698 (research for pay). Students then take either BIOL 4690 or BIOL 4910 in their final semester and two, one credit-hour writing courses, LMC 4701 and LMC 4702. These writing courses can be counted as Biology electives for Research Option students. Note that LMC 4701 should be taken in the semester prior to enrolling in BIOL 4910/BIOL 4690. The student’s research is presented in BIOL 4460.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>BIOL 2699</td>
<td>Undergraduate Research</td>
<td>6</td>
</tr>
<tr>
<td>BIOL 2698</td>
<td>Undergraduate Research Assistantship</td>
<td>6</td>
</tr>
</tbody>
</table>

In the final semester of study, select the following courses:

<table>
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<th>Code</th>
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<th>Credit Hours</th>
</tr>
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<tbody>
<tr>
<td>BIOL 4690</td>
<td>Independent Research Project</td>
<td>3</td>
</tr>
<tr>
<td>or BIOL 4910</td>
<td>Honors Undergraduate Research Thesis</td>
<td></td>
</tr>
<tr>
<td>LMC 4701</td>
<td>Undergraduate Research Proposal Writing</td>
<td>2</td>
</tr>
<tr>
<td>&amp; LMC 4702</td>
<td>and Undergraduate Research Thesis Writing</td>
<td></td>
</tr>
</tbody>
</table>

Total Credit Hours 11

1. These writing courses can be counted as Biology electives for Research Option students. Note that LMC 4701 should be taken in the semester prior to enrolling in BIOL 4910/BIOL 4690.

Successful completion of this option earns students a "Research Option in Biology" designation on their Georgia Tech transcripts.