BACHELOR OF SCIENCE IN BIOCHEMISTRY - BUSINESS OPTION

The Bachelor of Science in Biochemistry degree program consists of a combination of requirements and electives that ensure a strong foundation in the chemical and biological sciences while providing the flexibility to tailor the curriculum to satisfy specific interests or career goals. This program may be of interest to students who plan careers in research, teaching, or in a life/health science profession (medicine, pharmacy, dentistry). The judicious use of free electives also enables the student to achieve considerable knowledge of other disciplines at Georgia Tech, such as chemical and biomolecular engineering, bioinformatics (computing), biomedical engineering, and biology. The biochemistry curriculum enables majors who are interested in medical, dental, or law school to meet admission requirements of these schools. Successful completion of the Pre-Health Science Option is noted on the student’s transcript.

Chemistry Website (http://www.chemistry.gatech.edu)

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

CS 1301 Introduction to Computing 3
or CS 1315 Introduction to Media Computation
or 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

CHEM 1211K Chemical Principles I 4
CHEM 1212K Chemical Principles II 4
CHEM 2380 Synthesis Laboratory I 2
MATH 2551 Multivariable Calculus 4
Biol 1510 Biological Principles 4

Major Requirements

CHEM 2211 Introduction to Quantitative Analysis 3
CHEM 2311 Organic Chemistry I 3
CHEM 2312 Organic Chemistry II 3
or CHEM 23ORganic and Bioorganic Chemistry
CHEM 3211 Analytical Chemistry 5
CHEM 3371 Organic Chemistry Laboratory 2
CHEM 3411 Physical Chemistry I 3
CHEM 4511 Biochemistry I 3
CHEM 4512 Biochemistry II 3
CHEM 4521 Biophysical Chemistry 3
CHEM 4581 Biochemistry Laboratory I 3
CHEM 4582 Biochemistry Laboratory II 3
CHEM 4601 Chemistry Seminar 2

Biology Electives

Select two of the following: 6

BIOL 2344 Genetics
BIOL 3450 Cell and Molecular Biology
BIOL 4668 Eukaryotic Molecular Genetics

Select one of the following: 3

BIOL 3380 Introductory Microbiology
BIOL 3450 Cell and Molecular Biology
BIOL 4015 Cancer Biology and Biotechnology
BIOL 4340 Medical Microbiology
BIOL 4401 Experimental Design and Statistical Methods in Biology
BIOL 4418 Microbial Physiology
BIOL 4440 Plant Physiology
BIOL 4464 Developmental Biology, Developmental Genetics
BIOL 4570 Immunology and Imunochemistry
BIOL 4608 Prokaryotic Molecular Genetics
CHEM 4765 Drug Design, Development, and Delivery

Business Option

ACCT 2101 Accounting I: Financial Accounting 3
or MGT 300 Accounting for Decision Making

MGT 3101 Organizational Behavior 3
or MGT 3155 Principles of Management
or 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, Marketing 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
Bachelor of Science in Biochemistry - Business Option

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<td>MGT 4191</td>
<td>The Entrepreneurship Forum</td>
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<td>Impact Speaker Series Forum</td>
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<td>Servant Leadership, Values &amp; Systems</td>
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<td>Social Enterprise and Entrepreneurship</td>
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<td>MGT 4303</td>
<td>Personal Selling and Sales Management</td>
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<td>MGT 4670</td>
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**Free Electives**

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**Total Credit Hours**

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Pass-fail only allowed for Free Electives.

**International Plan**

The BS in Chemistry (International Plan) and BS in Biochemistry (International Plan) are offered to undergraduate students seeking to understand their majors in a global perspective. Students in this program must demonstrate proficiency in a foreign language; complete coursework in a country/regional elective, international relations, and global economics; and participate study or research abroad experience (usually in the junior year). While abroad, students are required to complete in a supervised research experience with a faculty member in chemistry and biochemistry at the host institution. Upon successful completion of degree requirements for the International Plan, a "International Plan" designator is indicated on the diploma. If interested in participating in the International Plan as part of the BS in Chemistry or BS in Biochemistry, students should visit: www.internationalplan.gatech.edu

Chemistry Website (http://www.chemistry.gatech.edu)

**Research Option**

The BS in Chemistry (Research Option) and BS in Biochemistry (Research Option) are offered for students who wish to participate in a research problem under the supervision of one of the fifty members of faculty and adjunct faculty in the School. Participants in the Research Option learn how to address a research problem from experiment design and execution to interpretation of results. There is an expectation that undergraduates who contribute to completed studies will be co-authors on submissions to high-quality scholarly journals. Research projects are available in the traditional areas of chemistry (analytical, biological, inorganic, organic, physical, and polymer chemistry) as well as highly interdisciplinary research areas, such as nanotechnology, polymer and materials chemistry, environmental chemistry and sensors, medicinal chemistry, molecular biophysics, and computational chemistry.

To pursue the Research Option in the School of Chemistry and Biochemistry, students should obtain a research project with a faculty member in the department and apply online via www.undergradresearch.gatech.edu. Successful completion of the Research Option requires the following:

1. Supervised research with faculty over three or more semesters
2. Approval of proposal on project by a committee of two or more faculty
3. Submission of an approved thesis

Successful completion of the Research Option is noted on the student's transcript. Students completing this option often pursue graduate studies in the chemical or biological sciences or research careers in industrial or governmental laboratories.

Chemistry Website (http://www.chemistry.gatech.edu)