the fundamental nature and extensive application of chemistry, an unusually large variety of challenging opportunities to contribute in the science-oriented community are open to students whose education is built around the principles of this discipline.

The Chemistry curriculum, through the career requirement options and the large number of electives, provides students the opportunity to select a coherent program of study beyond the basic courses. Career requirement options are provided for students anticipating graduate study in chemistry or related fields; employment following the BS degree in laboratory, production, technical sales, or management positions; professional studies (e.g., medicine); chemical physics; geochemistry; and employment in fields requiring extensive preparation in courses other than sciences (e.g., patent law and technical writing). Significant features of the curriculum are the student's extensive participation in experimental work and the opportunity to take part in a research investigation during the junior and senior years.

**Freshman Year**

**First Semester**
- 4 - CH 1010 General Chemistry
- 1 - CH 1410 Chemistry Orientation
- 3 - ENGL 1030 Accelerated Composition
- 4 - MATH 1060 Calculus of One Variable I

**Second Semester**
- 4 - CH 1020 General Chemistry
- 2 - CH 1520 Chemistry Communication I
- 4 - MATH 1080 Calculus of One Variable II
- 3 - PHYS 1220 Physics with Calculus I

**Sophomore Year**

**First Semester**
- 3 - CH 2230 Organic Chemistry
- 1 - CH 2270 Organic Chemistry Lab.
- 4 - MATH 2060 Calculus of Several Variables
- 3 - PHYS 2210 Physics with Calculus II
- 1 - PHYS 2230 Physics Lab. II

**Second Semester**
- 3 - CH 2230 Organic Chemistry
- 1 - CH 2270 Organic Chemistry Lab.
- 4 - MATH 2080 Intro. to Ordinary Diff. Equations
- 3 - PHYS 2220 Physics with Calculus III
- 1 - PHYS 2240 Physics Lab. III

**Junior Year**

**First Semester**
- 3 - CH 3130 Quantitative Analysis
- 2 - CH 3150 Quantitative Analysis Lab.
- 3 - CH 3310 Physical Chemistry
- 1 - CH 3390 Physical Chemistry Lab.
- 3 - ENGL 3140 Technical Writing

**Second Semester**
- 3 - CH 3320 Physical Chemistry
- 1 - CH 3400 Physical Chemistry Lab.
- 3 - CH 3600 Chemical Biology
- 3 - CH 4110 Instrumental Analysis
- 2 - CH 4120 Instrumental Analysis Lab.
- 3 - Arts and Humanities (Literature) Requirement

**Senior Year**

**First Semester**
- 3 - CH 4020 Inorganic Chemistry
- 3 - CH 4430 Research Problems
- 3 - Arts and Humanities Requirement or
- 3 - Social Science Requirement
- 3 - Chemistry Requirement
- 3 - Elective

**Second Semester**
- 2 - CH 4030 Advanced Synthetic Techniques
- 3 - CH 4440 Research Problems
- 3 - CH 4500 Chemistry Capstone
- 1 - CH 4520 Chemistry Communication II
- 3 - Arts and Humanities Requirement or
- 3 - Social Science Requirement
- 3 - Chemistry Requirement

122 Total Semester Hours

1See General Education Requirements. Six of these credit hours must also satisfy the Cross-Cultural Awareness and Science and Technology in Society Requirements.

One semester (through 1020) in any modern foreign language is required.

3See advisor.

BCHM 3050 may be substituted for CH 3600.

**CHEMISTRY**

**Bachelor of Arts**

**Freshman Year**

**First Semester**
- 4 - CH 1010 General Chemistry
- 1 - CH 1410 Chemistry Orientation
- 3 - ENGL 1030 Accelerated Composition
- 4 - MATH 1060 Calculus of One Variable I

**Second Semester**
- 3 - CH 1020 General Chemistry
- 2 - CH 1520 Chemistry Communication I
- 4 - MATH 1080 Calculus of One Variable II
- 3 - PHYS 1220 Physics with Calculus I

**Sophomore Year**

**First Semester**
- 3 - CH 2230 Organic Chemistry
- 1 - CH 2270 Organic Chemistry Lab.
- 4 - MATH 2060 Calculus of Several Variables
- 3 - PHYS 2210 Physics with Calculus II
- 1 - PHYS 2230 Physics Lab. II

**Second Semester**
- 3 - CH 2230 Organic Chemistry
- 1 - CH 2270 Organic Chemistry Lab.
- 4 - MATH 2080 Intro. to Ordinary Diff. Equations
- 3 - PHYS 2220 Physics with Calculus III
- 1 - PHYS 2240 Physics Lab. III

**Junior Year**

**First Semester**
- 3 - CH 3130 Quantitative Analysis
- 2 - CH 3150 Quantitative Analysis Lab.
- 3 - CH 3310 Physical Chemistry
- 1 - CH 3390 Physical Chemistry Lab.
- 3 - ENGL 3140 Technical Writing

**Second Semester**
- 3 - CH 3320 Physical Chemistry
- 1 - CH 3400 Physical Chemistry Lab.
- 3 - CH 3600 Chemical Biology
- 3 - CH 4110 Instrumental Analysis
- 2 - CH 4120 Instrumental Analysis Lab.
- 3 - Arts and Humanities (Literature) Requirement

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**Sophomore Year**

**First Semester**
- 3 - CH 2230 Organic Chemistry
- 1 - CH 2270 Organic Chemistry Lab.
- 4 - MATH 2060 Calculus of Several Variables
- 3 - PHYS 2210 Physics with Calculus II
- 3 - Elective

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### Second Semester
- CH 2505 Introduction to Inorganic Chemistry
- CH 2240 Organic Chemistry
- CH 2280 Organic Chemistry Lab.
- Arts and Humanities Requirement
  - or
- Social Science Requirement
- Foreign Language Requirement

### Junior Year
**First Semester**
- CH 3130 Quantitative Analysis
- CH 3170 Quantitative Analysis Lab.
- CH 3310 Physical Chemistry
- Arts and Humanities Requirement
  - or
- Social Science Requirement
- Foreign Language Requirement
- Minor Requirement

### Second Semester
- CH 3320 Physical Chemistry
- ENGL 3140 Technical Writing
- Arts and Humanities (Literature) Requirement
- Foreign Language Requirement
- Minor Requirement

### Senior Year
**First Semester**
- Arts and Humanities Requirement
  - or
- Social Science Requirement
- Chemistry Requirement
- Foreign Language Requirement
- Minor Requirement
- Elective

**Second Semester**
- CH 4500 Chemistry Capstone
- CH 4520 Chemistry Communication II
- Chemistry Requirement
- Minor Requirement
- Elective

### Sophomore Year
**First Semester**
- Computer Science Requirement
  - or
- Information Systems Requirement
- CPSC 2120 Algorithms and Data Structures
- Arts and Humanities (Literature) Requirement
- Oral Communication Requirement
- Social Science Requirement

**Second Semester**
- CPSC 2150 Software Development Foundations
- CPSC 2310 Intro. to Computer Organization
- CPSC 2910 Seminar in Professional Issues I
- MGT 2010 Principles of Management
- STAT 3090 Introductory Business Statistics

### Junior Year
**First Semester**
- ACCT 2010 Financial Accounting Concepts
- CPSC 2200 Microcomputer Applications
- CPSC 3220 Introduction to Operating Systems
- CPSC 3720 Intro. to Software Engineering
- Writing Requirement

**Second Semester**
- ACCT 2020 Managerial Accounting Concepts
- CPSC 3600 Networks and Network Program.
- CPSC 3710 Systems Analysis or
- MGT 4520 Systems Analysis and Design
- ECON 2110 Principles of Microeconomics
- Computer Science Requirement

### Second Semester
- MGT 3120 Decision Models for Management
- MKT 3010 Principles of Marketing
- Business Requirement
- Computer Science Requirement
- Information Systems Requirement

### Bachelor of Science
The Computer Science program is oriented toward design, implementation, and application of software systems to solve information processing problems. Emphasis areas outside computer science allow students to tailor the program to their individual needs and interests. This program is more technically oriented than the Computer Information Systems curriculum. It prepares students for employment in the computer software field or for continued study toward an advanced degree in computer science. This program is accredited by the Computing Accreditation Commission (CAC) of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4102; telephone: (410) 347-7700. Additional information can be found at www.cs.clemson.edu.

Students who change majors into Computer Science must have a cumulative grade-point average of 2.0 or higher.

### Combined Bachelor’s/Master’s Plan
The School of Computing allows students to count up to nine hours of graduate credit (6000- and 8000-level courses) toward both the bachelor’s and master’s degrees. Students participating in this program must have a minimum grade-point average of 3.0.