## Foundations of Written Communication

<table>
<thead>
<tr>
<th>Course</th>
<th>Department</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENC 1101</td>
<td>College Writing</td>
<td>College Writing I (required)</td>
</tr>
<tr>
<td>ENC 1102</td>
<td>College Writing</td>
<td>College Writing II **</td>
</tr>
</tbody>
</table>

### The Following Courses Below May Be Substituted for ENC 1102:

- **English Department**
  - ENC 1930+ University Honors Seminar in Writing (permit only)
  - ENC 1939+ Special Topic: College Writing
  - ENC 2452+ Honors Composition for Science

### Anthropology Department

- ANT 1471+ Cultural Difference in a Globalized Society

### History Department

- HIS 2050+ Writing History: The American Revolution

### Nursing Department (Department Permission Required)

- NSP 1195+ Being Cared For: Reflections from Other Side of Bed

**Note:** Students must take four Writing-Across-the-Curriculum (WAC) courses, two of which must be taken from Foundations of Written Communication.

## Foundations of Science & the Natural World

(6 credit hours required - One of the courses must have a lab)

Student must take two of the following courses, one must be from group A. The second course may be from group A or group B.

### Group A

- **Biology Department**
  - BSC 1005 & L Life Science (3 cr w/Lab) (not for chem. major)
  - BSC 1010 & L & D Biological Principles (4 cr w/Lab & Dis)
  - BSC 2085 & L Anatomy & Physiology (4 cr w/Lab) (not for chem. major)

- **Chemistry Department**
  - CHM 1020C Contemporary Chemical Issues (not for major)
  - CHM 2045 & L General Chemistry 1 (4 cr w/Lab)

- **Geosciences Department (not for major)**
  - ESC 2000 Blue Planet (online course)
  - EVR 1001 Environmental Science and Sustainability

- **Physics Department**
  - AST 2002 Intro to Astronomy (P/F) (not for chem. major)
  - PHY 2048 & L General Physics 1 (5 cr w/Lab) **(BA or BS major)**
  - PHY 2055 College Physics 1 (5 cr w/Lab) **(BA major only)**

### Group B

- **Anthropology Department**
  - ANT 2511 Intro to Bio Anth (4 cr w/Lab) (not for chem. major)

- **Biology Department**
  - BSC 1011 & L Biodiversity (4 cr w/Lab & Discussion)

- **Chemistry Department (courses listed are not for chem. major)**
  - CHM 2032 & L Chemistry for Health Sciences (4 cr including Lab)
  - CHM 2033 Chemistry in Modern Life (P/F)

- **Engineering Dean Department (not for chem. major)**
  - ETG 2831 Nature: Inter. of Sci., Eng., & the Humanities

- **Geosciences Department (courses listed are not for chem. major)**
  - GLY 2010C Physical Geology (4 cr. including Lab)
  - GLY 2100 History of Earth and Life
  - MET 2010 & D Weather and Climate

- **Physics Department (courses listed are not for chem. major)**
  - PSC 2121 Physical Science

## Foundations of Mathematics & Quantitative Reasoning

(6 credit hours required – Grade of “C” or higher is required)

Student must take two of the following courses, one must be from group A. The second course may be from group A or group B.

**Pretest is required before taking your first math course**

### Group A

- MGF 1106 Math for Liberal Arts 1 (not for major)
- MGF 1107 Math for Liberal Arts 2 (not for major)
- MAC 1105 College Algebra (BA major only)
- STA 2023 Introductory Statistics (not for major)
- MAC 2311 Calculus with Analytic Geometry 1 (4 cr) (required - BS)

Any mathematics course for which one of the above courses is the direct prerequisite

### Group B

- MAC 1140 Precalculus Algebra
- MAC 1114 Trigonometry
- MAC 1147 Precalculus Algebra & Trigonometry (5 credits)
- MAC 2233 Methods of Calculus (BA major only)
- MAC 2312 Calculus with Analytic Geometry 2 (4 cr) (required - BS)

### Philosophy Department

- PHI 2102 Logic

**Note:** Students must take at least one course with the prefix MAC or MGF.

## Foundations of Society & Human Behavior

(6 credit hours required)

Student must take two of the following courses, one must be from group A. The second course may be from group A or group B.

### Group A

- **History Department**
  - AMH 2020 & D United States History Since 1877 (P/F)

- **Anthropology Department**
  - ANT 2000 Introduction to Anthropology

- **Economics Department**
  - ECO 2013 Macroeconomic Principles

- **Political Science Department**
  - POS 2041 Government of the United States

- **Psychology Department**
  - PSY 1012 Introduction to Psychology

- **Sociology Department**
  - SYG 1000 Sociological Perspectives

### Group B

- **History Department**
  - AMH 2010 & D United States History to 1877 (P/F)

- **Economics Department**
  - ECO 2023 Microeconomic Principles

- **Exceptional Student Education Department**
  - EEX 2091 Disability Studies

- **Geosciences Department**
  - EVR 2017 Environmental Science

- **Public Administration Department**
  - PAD 2258 Changing Environment of Soc., Bus., & Gov’t

- **Sociology Department**
  - SYG 2790 Race, Class, Gender, and Sexuality
  - SYG 2010 Social Problems

- **Urban & Regional Planning Department**
  - URP 2051 Designing the City
§ Writing Across the Curriculum (WAC)/Gordon Rule
Students must attain grades of “C” or higher. 12 credits of writing (WAC) and 6 credits of mathematics are required.

Please note:
Students must take four (4) WAC courses. Two (2) courses are to be taken from Foundations of Written Communication. We strongly recommend the two additional WAC courses come from these courses: PHI 2010, WOH 2012, LIT 2010, LIT 2030, LIT 2040 and LIT 2070. See advisor for additional details.

(D) = Discussion, (L) = Lab
Courses indicating a (D) or (L) are linked with a lecture, a lab, and/or a discussion. If you select one of these courses, you must register for the lecture, lab, and/or discussion. You must attend the lecture, lab, and/or discussion.

Elective Credits
The number of elective credits allowed varies by major. Please consult with an academic advisor to determine the number of elective credits required for your major. Certain majors do not allow any electives.

P/F
Certain designated undergraduate courses may be taken for a letter grade of pass (P) or fail (F). Students must indicate the grade option preferred when registering; otherwise, a letter grade will be given. The maximum credit available to any student on the P/F option is one course per term with a maximum of 12 credits during a student’s entire course of study. This option is not available for courses in the student’s major, for students on probation, or for Engineering majors.

Go to MyFAU to:
- Check e-mail
- See FAU Announcements
- FAU Self-Service:
  - Course schedules
  - Registration (drop/add classes) and withdrawals
  - Student records and financial aid
  - Tuition payments
  - The University Course Catalog

http://myfau.fau.edu
FOREIGN LANGUAGE (4 - 8 credits, 1 or more courses in the same language) - REQUIRED FOR MAJOR

Students with more than one year of a foreign language in high school should enroll in the second half of the beginners foreign language class (ARA/CHI/FRE/GER/HBR/ITA/JPN/LAT/SPN 1121) or a higher level course. Proficiency for a first-level course can be earned by successfully completing a second-level course. For questions related to this requirement, consult an academic advisor. CLEP exam credits meet this requirement: see the catalog.

- **NOTE:** Native Speakers of a foreign language must consult the Languages, Linguistics, & Comparative Literature Department regarding this requirement.

- **NOTE:** Honors Seminars SHALL BE ACCEPTED AS MEETING THE WAC/GRW REQUIREMENT. See the University Advising Services Office for details.

- **HONORS NOTE:** Students can apply for the PSYCHOLOGY HONORS PROGRAM after completion of 60 credits, and before completion of 105 credits. Students must have a 3.2 overall & Psychology GPA to be admitted and retained in the Honors track.

### B.A.

<table>
<thead>
<tr>
<th>Credits</th>
<th>Course</th>
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<tbody>
<tr>
<td>38</td>
<td>Intellectual Foundations Program &amp; Foreign Language (w/out Science)</td>
</tr>
<tr>
<td>33</td>
<td>Chemistry (17 of which are upper division)</td>
</tr>
<tr>
<td>10</td>
<td>College of Science (Physics)</td>
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<tr>
<td>28</td>
<td>Upper Division Electives</td>
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<tr>
<td>11</td>
<td>Other Electives</td>
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<td><strong>120</strong></td>
<td><strong>TOTAL</strong></td>
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### B.S.

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<tr>
<th>Chemistry</th>
<th>ACS</th>
<th>Biochemistry</th>
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<tbody>
<tr>
<td>40</td>
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<td>16</td>
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<td>09</td>
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<td>08</td>
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<td>55</td>
<td>58</td>
<td>65</td>
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<tr>
<td><strong>120</strong></td>
<td><strong>TOTAL</strong></td>
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**NOTE:** See the catalog for specific requirements, course descriptions and additional information. The requirements for some Intellectual Foundations Program (I.F.P.) courses & other courses may be satisfied by passing the appropriate AP or CLEP exam. Check with your advisor and college.

The College of Science has the following requirements:

1. Any course work in the major field transferred from another institution must be approved by the major dept.;
2. No major course may be taken pass/fail;
3. The maximum amount of credit which may be earned through co-op is 10 credits; some departments allow some of these credits to substitute for major courses, check with the department for specifics.
MAJOR COURSES, COLLEGE REQUIREMENTS and ELECTIVES

BACHELOR OF ARTS DEGREE (B.A.) IN CHEMISTRY

The Bachelor of Arts is a liberal arts degree intended for students planning professional careers in chemistry-related professions; ex. health professions (medicine, dentistry, & pharmacy), environmental consulting, technical sales and secondary school teaching. In addition to the University and Charles E. Schmidt College of Science requirements, students seeking a Bachelor of Arts (B.A.) degree in Chemistry must complete the following program:

MATHEMATICS (6 credits minimum, 2 courses) (Gordon Rule, must get a “C” or better)

MUST TAKE A PLACEMENT TEST BEFORE REGISTERING FOR MATH COURSES

MAC 1105 College Algebra (3 credits) – REQUIRED for BA
MAC 2233 Methods of Calculus (3 credits) – REQUIRED for BA

CHEMISTRY (33 credits minimum, 9 or more courses plus labs)

CHM 2046 & L General Chemistry II and lab (3 + 1 = 4 credits)
CHM 3120 & L Quantitative Analysis - CHM 2045 & 2046 w/labs are prerequisites (2 + 2 = 4 credits)
CHM 2210 & D Organic Chemistry I with discussion - CHM 2045 & 2046 w/labs are prerequisites (3 credits)
CHM 2211 Organic Chemistry II - CHM 2210 is a prerequisite (3 credits)
CHM 2211 Lab Organic Chemistry II Lab - CHM 2210 is a prerequisite (2 credits)
BCH 3033 Biochemistry I - CHM 2210 & 2211 w/lab is a prerequisites (3 credits)
BCH 3103 L Biochemistry Laboratory BCH 3034 is a co-requisite (3 credits)
CHM 3400 Introduction to Physical Chemistry - 8 credits of Gen Chem. are prerequisites (3 credits)
CHM 3609 & L Inorganic Chemistry & Lab - 8 credits of Gen Chem. are prerequisites (3 + 1 = 4 credits)

PHYSICS (10 credits, 2 lectures and 2 labs)

PHY 2054 College Physics II (4 credits)
and
PHY 2049L General Physics Lab II (1 credit)

ELECTIVES (39 credits) - needed to meet the 120 credit minimum required for the degree

___ Upper Division Electives (28 credits)
___ Other Electives - (11 credits) Elective courses decided upon by student, advisor and department.

BACHELOR OF SCIENCE (B.S.) WITH MAJOR IN CHEMISTRY: COMPREHENSIVE PROGRAM

The Bachelor of Science degree is designed for students planning professional careers as chemists in industry, government, or academic research. Students interested in advanced graduate studies in chemistry, biochemistry, or related fields should also follow one of the B.S. degree programs. In addition to the University and Charles E. Schmidt College of Science requirements, the Comprehensive B.S. degree program requires the following courses:

MATHEMATICS (8 credits 2 courses) (Gordon Rule, must get a “C” or better)

MUST TAKE A PLACEMENT TEST BEFORE REGISTERING FOR MATH COURSES

MAC 1114 Trigonometry (3 credits) - Recommended if not ready for MAC 2311
MAC 2311 Calculus with Analytical Geometry I (4 credits) – REQUIRED for BS
MAC 2312 Calculus with Analytical Geometry II (4 credits) – REQUIRED for BS

PHYSICS (10 credits)

PHY 2048 & L General Physics I & Lab (4 + 1 = 5 credits) - Prerequisite of a “C” in MAC 2311
PHY 2049 & L General Physics II & Lab (4 + 1 = 5 credits)

CHEMISTRY (32 credits – 45 credits upper division in major with ACS certified & 13 credits upper division electives)

CHM 2046 & L General Chemistry II and lab (3 + 1 = 4 credits)
CHM 3120 & L Quantitative Analysis - CHM 2045 & 2046 w/labs are prerequisites (4 credits)
CHM 2210 & D Organic Chemistry I with discussion - CHM 2045 & 2046 w/labs are prerequisites (3 credits)
CHM 2211 Organic Chemistry II - CHM 2210 is a prerequisite (3 credits)
CHM 2211 Lab Organic Chemistry II Lab - CHM 2210 is a prerequisite (2 credits)
CHM 3060 Chemical Literature (1 credit)
BCH 3033 Biochemistry I (3 credits)
CHM 3609 & L Inorganic Chemistry and lab (3 + 1 = 4 credits)
CHM 3410 & L Physical Chemistry I and lab (3 + 2 = 5 credits)
CHM 3411 & L Physical Chemistry II and lab (3 + 2 = 5 credits)
CHM 4139 & L Bioanalytical Instrumentation and lab (2 + 2 = 4 credits)
CHM 4905 Directed Independent Study (3 credits)
BACHELOR OF SCIENCE (B.S.) WITH MAJOR IN CHEMISTRY: ACS Approved PROGRAM

The ACS-approved B.S. program offers similar rigorous training in all aspects of chemistry as the basic track, but includes some additional requirements corresponding with the certification guidelines of the Committee on Professional Training of the American Chemical Society (ACS). An ACS-certified degree can offer advantages in job placement and graduate school admission. The ACS approved program requires all courses in the Comprehensive program plus MAC 2313 or MAP 3305, and one of the following courses:

- BCH 3034 Biochemistry II (3 credits)
- CHM 4422 Advanced Physical Chemistry (3 credits)
- CHM 4220 Advanced Organic Chemistry (3 credits)
- CHM 4610 Advanced Inorganic Chemistry (3 credits)

BACHELOR OF SCIENCE DEGREE WITH MAJOR IN CHEMISTRY: BIOCHEMISTRY PROGRAM (B.S.)

The Biochemistry program is designed for students pursuing careers in biochemistry and related disciplines such as molecular biology, biophysics, and pharmacology. Additionally premedical students who wish to pursue a research-oriented curriculum might be interested in it. In addition to the University and Charles E. Schmidt College of Science requirements, the B.S. in Chemistry (Biochemistry) degree program requires the following courses:

**MATHMATICS** (11 – 12 credits - 3 courses) Gordon Rule - must get a “C” or better

MUST TAKE A PLACEMENT TEST BEFORE REGISTERING FOR MATH COURSES

- MAC 1114 Trigonometry (3 credits) - Recommended if not ready for MAC 2311
- MAC 2311 Calculus with Analytical Geometry I (4 credits) – **REQUIRED for BS**
- MAC 2312 Calculus with Analytical geometry II (4 credits) – **REQUIRED for BS**
- MAC 2313 Calculus with Analytical geometry III (4 credits)
- MAP 3305 Engineering Mathematics I (3 credits)

<table>
<thead>
<tr>
<th>BIOCHEMISTRY AND BIOLOGY COURSES (20 credits)</th>
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<tbody>
<tr>
<td>BSC 1010 &amp; L Biological Principles &amp; Lab (4 credits)</td>
</tr>
<tr>
<td>BCH 3033 Biochemistry I (3 credits)</td>
</tr>
<tr>
<td>BCH 3034 Biochemistry II (3 credits)</td>
</tr>
<tr>
<td>BCH 3103L Biochemistry Lab (3 credits)</td>
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<tr>
<td>BCH 4035 Advanced Biochemistry (3 credits)</td>
</tr>
<tr>
<td>CHM 4139 &amp; L Bioanalytical Instrumentation &amp; lab (2 + 2 = 4 credits)</td>
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<tr>
<th>PHYSICS (10 credits)</th>
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<tbody>
<tr>
<td>PHY 2048 &amp; L General Physics I &amp; Lab (5 credits) - <strong>Prerequisite of a “C” in MAC 2311</strong></td>
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<tr>
<td>PHY 2049 &amp; L General Physics II &amp; Lab (5 credits)</td>
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<thead>
<tr>
<th>CHEMISTRY (34 credits)</th>
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<tbody>
<tr>
<td>CHM 2045 &amp; L General Chemistry I &amp; Lab (4 credits)</td>
</tr>
<tr>
<td>CHM 2046 &amp; L General Chemistry II &amp; Lab (4 credits)</td>
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<td>CHM 3120 &amp; L Quantitative Analysis I &amp; Lab (4 credits)</td>
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<td>CHM 2210 &amp; D Organic Chemistry I with discussion (3 credits)</td>
</tr>
<tr>
<td>CHM 2211 Organic Chemistry II - <strong>CHM 2210 is a prerequisite</strong> (3 credits)</td>
</tr>
<tr>
<td>CHM 2211 Lab Organic Chemistry II Lab - <strong>CHM 2210 is a prerequisite</strong> (2 credits)</td>
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<td>CHM 3060 Chemical Literature (1 credit)</td>
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<td>CHM 3410 &amp; L Physical Chemistry I &amp; Lab (5 credits)</td>
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<td>CHM 3411 &amp; L Physical Chemistry II &amp; Lab (5 credits)</td>
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<tr>
<td>CHM 4905 Directed Independent Study (3 credits or approved substitute)</td>
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Biology/Biochemistry Elective - Choose one (1) of the following courses (3 credits).

- MCB 3020 General Microbiology (3 credits)
- PCB 4023 Cell Biology (3 credits)
- BCH 5415 Biochemistry of the Gene (3 credits)

**PREMEDICAL/PREPROFESSIONAL COURSES FOR CHEMISTRY MAJORS**

- BSC 1011 & L Biodiversity & Lab (4 credits)
- BSC 1010 & L Biological Principles (4 credits)
- BCH 3034 Biochemistry II (3 credits)
- MCB 3020 & L General Microbiology & Lab (3 credits)

And ONE of the following:

- ZOO 4690 Comparative Vertebrate Morphogenesis (3 credits)
- PCB 3063 Genetics (4 credits)