Scientific Technology (Chemistry Concentration)

Bachelor of Applied Science

The Bachelor of Applied Science in Scientific Technology is designed to provide applicants, who have earned an Associate of Applied Science degree, the opportunity to continue their education in a field of science and to pursue a position in an industrial laboratory setting.

Area A: Essential Skills
ENGL 1101 English Composition I 3
ENGL 1102 English Composition II 3
MATH 1111 College Algebra 3

Area B: Institutional Options
COMM 1110 Fundamentals of Speech 3

One of the following electives: 1

COMM 1120 Argumentation and Advocacy
ENGL 1105 Intro to Greek Mythology
ENGL 1110 Creative Writing
GEOL 1000 Natural Hazards
HIST 1050 Appalachian Hist-Special Topic
HIST 1051 Sports Hist & Amer Character
HUMN 1000 Mystery Fiction in Pop Culture
HUMN 1100 Political and Social Rhetoric
HUMN 1300 Christian Fiction/Pop Culture
PHED 1030 Health & Wellness Concepts
SOCI 1000 Race and Ethnicity in America

Area C: Humanities/Fine Arts
Must choose a minimum of one, but not more than two of the following electives: 6

ENGL 1201 Intro to Film as Literature
ENGL 2111 World Literature I
ENGL 2112 World Literature II
ENGL 2120 British Literature I
ENGL 2121 British Literature II
ENGL 2130 American Literature I
ENGL 2131 American Literature II
If only one English Elective chosen, add one of the following:

ARTS 1100 Art Appreciation
HUMN 1201 Expressions of Culture I
HUMN 1202 Expressions of Culture II
MUSC 1100 Music Appreciation
MUSC 1110 World Music
MUSC 1120 American Music
THEA 1100 Theatre Appreciation

Area D: Science/Mathematics/Technology
MATH 1113 Precalculus Mathematics 3

Select one of the following sequences: 8

BIOL 1107K & BIOL 1108K
Principles of Biology I and Principles of Biology II
CHEM 1211K & CHEM 1212K
Principles of Chemistry I and Principles of Chemistry II
GEOL 1121K & GEOL 1122K
Principles of Geology and Historical Geology
PHYS 1111K & PHYS 1112K
Introductory Physics I and Introductory Physics II

Area E: Social Sciences
HIST 2111 United States History to 18773 or
HIST 2112 United States Hist since 1877
POLS 1101 American Government3
Select two of the following: 6
ANTH 1103 Intro to Cultural Anthropology
ECON 2105 Principles of Macroeconomics
ECON 2106 Principles of Microeconomics
GEOG 1100 Introduction to Geography
GEOG 1101 Intro to Human Geography
GEOG 1111 Intro to Physical Geography
HIST 1111 World Civilization to 1650 CE
HIST 1112 World Civilization since 1650
HIST 2111 United States History to 1877
HIST 2112 United States Hist since 1877
PHIL 1103 Intro to World Religions

Form Revised 07/11/2014
PHIL 2010 Intro to Philosophical Issues
PHIL 2020 Logic and Critical Thinking
POLS 2101 Intro to Political Science
POLS 2201 State and Local Government
POLS 2301 Comparative Politics
POLS 2401 International Relations
PSYC 1101 Introduction to Psychology
PSYC 2101 Psychology of Adjustment
PSYC 2103 Human Development
SOCI 1101 Introduction to Sociology
SOCI 1160 Social Problems

**Associate of Applied Science or Applied Technology Credits**

Technology or Academic Credits (39)
CHEM 1211K and CHEM 1212K required in this area or in Area D

**Academic Core**

Additional Credits (39)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 3211K</td>
<td>Organic Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 3212K</td>
<td>Organic Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 3311K</td>
<td>Quantitative Analysis</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 3312K</td>
<td>Instrumental Methods of Analysis</td>
<td>4</td>
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Electives

Choose 23 hours from the following, at least 5 hours must be upper level chemistry courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL 3550</td>
<td>Conservation Biology</td>
<td>3</td>
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<tr>
<td>BIOL 4275</td>
<td>Bioremediation/Phytoremediation</td>
<td>3</td>
</tr>
<tr>
<td>BIOL 4600</td>
<td>Ecotoxicology</td>
<td>3</td>
</tr>
<tr>
<td>BUSA 3100</td>
<td>Survey of Business Law/Ethics</td>
<td>3</td>
</tr>
<tr>
<td>BUSA 3200</td>
<td>Survey of Economics</td>
<td>3</td>
</tr>
<tr>
<td>BUSA 3300</td>
<td>Survey of Accounting</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 3500</td>
<td>Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 3700K</td>
<td>Environmental Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 4103</td>
<td>Textile Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 4110K</td>
<td>Advanced Inorganic Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 4430</td>
<td>Advanced Organic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 4800</td>
<td>Chemistry Internship</td>
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</tr>
<tr>
<td>CHEM 4900</td>
<td>Special Topics in Chemistry</td>
<td>3</td>
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</tbody>
</table>

A minimum of 39 hours of upper level course work is required of which at least 21 hours must be upper level chemistry courses. Thirty of these upper level hours must be completed at DSC.

*BIO1 1107 & 1108 are prerequisites for the biology courses in the academic core*