

## The Division of Science and Mathematics

A student completing the college-wide core curriculum along with eighteen additional hours from one of the programs of study listed below will be granted an Associate in Science Degree. He/she is then prepared to transfer to a senior institution as a junior. A student desiring to transfer to an institution outside the University System of Georgia or desiring a major in a science not listed can, with the approval of the advisor, obtain an Associate of Science Degree by selecting eighteen hours of appropriate courses from the areas listed below.

### ALLIED HEALTH

Students majoring in one of the fields below will be preparing for a career in the health care industry. Human health care will be an area of increasing need as the population continues to age. Detailed descriptions of the various programs in Allied Health can be obtained at the Science and Mathematics Division Office.

**Core Curriculum: Area A-E (see pages 87-89)**

**AREA D: Science Major**

**AREA F: Major courses – 18 hours**

#### Dental Hygiene Concentration

##### Required courses:

BIOL 2011/2011L Anatomy & Physiology I.....	4
BIOL 2012/2012L Anatomy & Physiology II.....	4
*COMM 1100 Human Communication .....	3
*PSYC 1101 Introduction to General Psychology.....	3
*SOC 1101 Introduction to Sociology.....	3

##### Select 1-10 hours from the following as Guided Electives

CHEM 1212/1212L Principles of Chemistry II.....	4
BIOL 2050/2050L Principles of Microbiology .....	4
BIOL 2107/2107L Principles of Biology I.....	4
BIOL 2108/2108L Principles of Biology II.....	4
MATH 2000 Statistics.....	3
ECON 2105 Principles of Macroeconomics .....	3
ECON 2106 Principles of Microeconomics .....	3
SOCI 1160 Introduction to Social Problems.....	3
PSYC 2201 Introduction to Abnormal Behavior .....	3
SCIE 1003 Medical Terminology .....	1
1 hour from Area A or D.....	1

\*If this is taken in another area of the core, the hours would be taken in additional guided electives.

*Area D Recommendation:* CHEM 1211/1211L should be one of the four-hour lab science courses.

**Health Information Management Concentration**

**Area F: Major Courses – 18 hours**

Required courses:

BIOL 2011/2011L Anatomy & Physiology I.....4  
BIOL 2012/2012L Anatomy & Physiology II.....4

Select a minimum of 10 hours from the following as Guided Electives

ACCT 2101 Principles of Accounting I .....3  
ACCT 2102 Principles of Accounting II.....3  
CISM 2201 Fundamentals of Computer Applications .....3  
MGMT 2165 Fundamentals of Management .....3  
SCIE 1003 Medical Terminology .....1  
1 hour from Area D .....1

**Physical Therapy Concentration**

**Area F: Major Courses – 18 hours**

Required courses:

BIOL 2011/2011L Anatomy & Physiology I.....4  
BIOL 2012/2012L Anatomy & Physiology II.....4

Select a minimum of 10 hours from the following as Guided Electives

CHEM 1211/1211L Principles of Chemistry I.....4  
CHEM 1212/1212L Principles of Chemistry II.....4  
BIOL 2107/2107L Principles of Biology I.....4  
BIOL 2108/2108L Principles of Biology II.....4  
PHYS 1111/1111L Introductory Physics I.....4  
PHYS 1112/1112L Introductory Physics II.....4  
MATH 2000 Statistics.....3  
PSYC 2103 Human Growth and Development.....3  
SCIE 1003 Medical Terminology .....1  
1 hour from Area D .....1

**Radiologic Sciences Concentration**

**Area F: Major Courses – 18 hours**

Required courses:

BIOL 2011/2011L Anatomy & Physiology I.....	4
BIOL 2012/2012L Anatomy & Physiology II.....	4

Select a minimum of 10 hours from the following as Guided Electives

CHEM 1211/1211L Principles of Chemistry I.....	4
CHEM 1212/1212L Principles of Chemistry II.....	4
BIOL 2107/2107L Principles of Biology I.....	4
BIOL 2108/2108L Principles of Biology II.....	4
PHSC 1011/1011L Physical Science I.....	4
PHYS 1111/1111L Introductory Physics I.....	4
PHYS 1112/1112L Introductory Physics II.....	4
MATH 2000 Statistics.....	3
MATH 2053 Calculus I.....	4
MGMT 2165 Fundamentals of Management.....	3
SCIE 1003 Medical Terminology.....	1
1 hour from Area D.....	1

*Area D Recommendation:* CHEM 1211/1211L, 1212/1212L and PHSC 1111/1111L are strongly recommended

**Respiratory Therapy Concentration**

**Area F: Major Courses – 18 hours**

Required courses – a minimum of 18 hours needed:

BIOL 2011/2011L Anatomy & Physiology I.....	4
BIOL 2012/2012L Anatomy & Physiology II.....	4
BIOL 2050/2050L Principles of Microbiology.....	4

Select a minimum of 6 hours from the following as Guided Electives

BIOL 2107/2107L Principles of Biology I.....	4
BIOL 2108/2108L Principles of Biology II.....	4
CHEM 1211/1211L Principles of Chemistry I.....	4
CHEM 1212/1212L Principles of Chemistry II.....	4
PHYS 1111/1111L Introductory Physics I.....	4
PHYS 1112/1112L Introductory to Physics II.....	4
MATH 2000 Statistics.....	3
PSYC 2103 Human Growth and Development.....	3
SCIE 1003 Medical Terminology.....	1
1 hour from Area D.....	1

**Sports Medicine (Exercise Science) Concentration**

**Area F: Major Courses – 18 hours**

Required courses:

BIOL 2011/2011L Anatomy & Physiology I.....	4
BIOL 2012/2012L Anatomy & Physiology II.....	4

Select a minimum of 10 hours from the following as Guided Electives

CHEM 1211/1211L Principles of Chemistry I.....	4
CHEM 1212/1212L Principles of Chemistry II.....	4
BIOL 2107/2107L Principles of Biology I.....	4
BIOL 2108/2108L Principles of Biology II.....	4
PHYS 1111/1111L Introductory Physics I.....	4
PHYS 1112/1112L Introductory Physics II.....	4
MATH 2000 Statistics.....	3
PSYC 1101 Introduction to General Psychology.....	3
SCIE 1003 Medical Terminology .....	1
1 hour from Area D .....	1

**Occupational Therapy Concentration**

**Area F: Major Courses – 18 hours**

Required courses:

BIOL 2011/2011L Anatomy & Physiology I.....	4
*SOC1 1101 Introduction to Sociology.....	3
*PSYC 1101 Introduction to Psychology .....	3
PSYC 2201 Introduction to Abnormal Behavior .....	3

Select a minimum of 5 hours from the following as Guided Electives

CHEM 1211/1211L Principles of Chemistry I.....	4
BIOL 2107/2107L Principles of Biology I.....	4
BIOL 2108/2108L Principles of Biology II.....	4
PHYS 1111/1111L Introductory Physics I.....	4
BIOL 2012/2012L Anatomy & Physiology II.....	4
MATH 2000 Statistics.....	3
PSYC 2103 Human Growth and Development.....	3
SCIE 1003 Medical Terminology .....	1
1 hour from Area D .....	1

\* If this is taken in another area of the core, the hours would be taken in additional guided electives.

*Area D Recommendation:* CHEM 1211/1211L and CHEM 1212/1212L are strongly recommended. PHYS 1111/1111L and PHYS 1112/1112L would be the second choice. Whichever sequence is taken in Area D, the first course of the other sequence should be taken in Area F.

## College Transfer Programs

### Physician Assistant Concentration

#### Area F: Major Courses – 18 hours

##### Required courses:

CHEM 2040/2040L Fundamental Organic Chemistry I.....	4
BIOL 2050/2050L Principles of Microbiology .....	4

##### Select a minimum of 10 hours from the following as Guided Electives

BIOL 2107/2107L Principles of Biology I.....	4
BIOL 2108/2108L Principles of Biology II.....	4
PHYS 1111/1111L Introductory Physics I.....	4
PHYS 1112/1112L Introductory Physics II.....	4
*BIOL 2011/2011L Anatomy & Physiology I.....	4
BIOL 2012/2012L Anatomy & Physiology II.....	4
PSYC 1101 Introduction to Psychology .....	3
PSYC 2103 Human Growth and Development.....	3
SCIE 1003 Medical Terminology .....	1
1 hour from Area D .....	1

\* Strongly suggested

*Area D Recommendation:* CHEM 1211/1211L and CHEM 1212/1212L should be taken as the lab sequence.

### Medical Technology Concentration

#### Area F: Major Courses – 18 hours

##### Required courses:

*BIOL 2107/2107L Principles of Biology I .....	4
CHEM 2040/2040L Fundamental Organic Chemistry I.....	4
BIOL 2050/2050L Principles of Microbiology .....	4

##### Select a minimum of 6 hours from the following as Guided Electives

BIOL 2108/2108L Principles of Biology II.....	4
PHYS 1111/1111L Introductory Physics I.....	4
PHYS 1112/1112L Introductory Physics II.....	4
MATH 2000 Statistics.....	3
SCIE 1003 Medical Terminology .....	1
1 hour from Area D .....	1

PHED 1100 and two PE activities

**TOTAL 60**

\*If this is taken in another area of the core, the hours would be taken in additional guided electives.

*Area D Recommendation:* CHEM 1211/1211L and CHEM 1212/1212L should be taken as the lab science sequence.

## BIOLOGY

A student interested in biology can obtain an Associate of Science Degree with a program of study in biology by taking the prescribed course work at Abraham Baldwin College. A student would then transfer to a four-year college or university where after completion of the junior and senior requirements the Bachelor of Science Degree with a major in biology may be received. A great diversity of employment opportunities exist in biology. Biologists are involved in research which seeks to discover ways of curing disease, eliminating famine, controlling climate, increasing life expectancy, and in many other ways improving our lives. Biologists may be employed by a variety of government agencies such as the Department of Agriculture, the Fish and Wildlife Service, the National Park Service, and NASA. Additional job opportunities are also available for biologists in the teaching profession as teachers. The major private industries employing biologists are those related to food and drug production where individuals are employed in research and sales. The military service provides many jobs for biologists both in uniform and as civilian employees.

**Core Curriculum: Areas A-E (see pages 87-89)**

**AREA D: SCIENCE MAJOR**

**AREA F: Major courses – 18 hours**

	<b>Hours</b>
<u>Required courses:</u>	
BIOL 2107/2107L Principles of Biology I.....	4
BIOL 2108/2108L Principles of Biology II.....	4
<u>Select a minimum of 10 hours from the following as Guided Electives</u>	
CHEM 1211/1211L Principles of Chemistry I.....	4
CHEM 1212/1212L Principles of Chemistry II.....	4
PHYS 1111/1111L Introductory Physics I.....	4
PHYS 1112/1112L Introductory Physics II.....	4
SCIE 1005H Environmental Science (Honors).....	4
CHEM 2040/2040L Fundamental Organic Chemistry I.....	4
CHEM 2041/2041L Fundamental Organic Chemistry II.....	4
BIOL 2026/2026L Vertebrate Zoology .....	4
Hours from Core Areas A & D.....	1-2
PHED 1100 and two PE activities	
<b>TOTAL 60</b>	

Students intending to teach grades 9 – 12 should also take the following pre-professional courses:

EDUC 2110 Investigating Critical and Contemporary Issues in Education .....	3
EDUC 2120 Exploring Socio-Cultural Perspectives on Diversity in Educational Contexts.....	3
EDUC 2130 Exploring Learning and Teaching .....	3

**TOTAL 69**

\* A minimum grade of C is required in all EDUC courses for Education majors.

**CHEMISTRY**

A student interested in chemistry can obtain an Associate of Science Degree with a program of study in chemistry by taking the prescribed course work at Abraham Baldwin College. A student would then transfer to a four-year college or university to complete course work at the junior and senior level. A chemistry graduate is qualified for employment in research and development work in commercial or government laboratories, in the teaching profession, or in chemical industries in production and inspection or sales.

**Core Curriculum: Areas A-E (see pages 87-89)**

**AREA D: SCIENCE MAJOR**

**AREA F: Major courses – 18 hours**

	<b>Hours</b>
<u>Required courses:</u>	
CHEM 2040/2040L Fundamental Organic Chemistry I.....	4
CHEM 2041/2041L Fundamental Organic Chemistry II.....	4
MATH 2054 Calculus II .....	4
<u>Select a minimum of 6 hours from the following as Guided Electives</u>	
CHEM 1211/1211L Principles of Chemistry I.....	4
CHEM 1212/1212L Principles of Chemistry II.....	4
MATH 2055 Calculus III .....	4
PHYS 1111/1111L Introductory Physics I.....	4
PHYS 1112/1112L Introductory Physics II.....	4
PHYS 2211/2211L Principles of Physics I .....	4
PHYS 2212/2212L Principles of Physics II .....	4
SCIE 1000 Addressing Environmental Issues.....	1
Hours from Areas A & D .....	1-2
PHED 1100 and two PE activities	
	<b>TOTAL 60</b>

Students intending to teach grades 9 – 12 should also take the following pre-professional courses:

EDUC 2110 Investigating Critical and Contemporary Issues in Education .....	3
EDUC 2120 Exploring Socio-Cultural Perspectives on Diversity in Educational Contexts.....	3
EDUC 2130 Exploring Learning and Teaching .....	3

**TOTAL 69**

\* A minimum grade of C is required in all EDUC courses for Education majors.

## COMPUTER SCIENCE

A student interested in computer science can obtain an Associate of Science Degree with a program of study in Computer Science by taking the prescribed course work at Abraham Baldwin College. This curriculum prepares a student to transfer to a senior institution where, after completion of the junior and senior requirements, a B.S. degree with a major in Computer Science may be earned. A degree in computer science leads to a career as a programmer/analyst, systems analyst, or systems programmer.

**Core Curriculum: Areas A-E (see pages 87-89)**

**AREA D: SCIENCE MAJOR**

**AREA F: Major courses – 18 hours**

	<b>Hours</b>
<u>Required courses:</u>	
CSCI 1301 Computer Science I .....	4
CSCI 1302 Computer Science II .....	4
MATH 2054 Calculus II .....	4
<u>Select a minimum of 6 hours from the following as Guided Electives</u>	
PHYS 1111/1111L Introductory Physics I.....	4
PHYS 1112/1112L Introductory Physics II.....	4
PHYS 2211/2211L Principles of Physics I .....	4
PHYS 2212/2212L Principles of Physics II .....	4
MATH 2055 Calculus III .....	4
MATH 2000 Statistics.....	3
MATH 2208 Intro to Linear Algebra.....	3
Hours from Areas A and D.....	1-2
PHED 1100 and two PE activities	
<b>TOTAL 60</b>	

## MATHEMATICS

A student interested in mathematics can obtain an Associate of Science Degree with a program of study in mathematics by taking the prescribed course work at Abraham Baldwin College. This curriculum prepares a student to transfer to a four-year college or university to complete course work at the junior and senior level. A student holding a Bachelor of Science degree with a major in mathematics is qualified as a mathematician for employment by governmental agencies, private industries, insurance companies, institutions of higher learning, computer centers and engineering firms.

**Core Curriculum: Areas A-E (see pages 87-89)**

**AREA D: SCIENCE MAJOR**

**AREA F: Major courses – 18 hours**

	Hours
<u>Required courses:</u>	
MATH 2054 Calculus II .....	4
MATH 2055 Calculus III .....	4
<u>Select a minimum of 10 hours from the following as Guided Electives</u>	
PHYS 1111/1111L Introductory Physics I.....	4
PHSY 1112/1112L Introductory Physics II.....	4
PHYS 2211/2211L Principles of Physics I .....	4
PHYS 2212/2212L Principles of Physics II .....	4
CHEM 1211/1211L Principles of Chemistry I.....	4
CHEM 1212/1212L Principles of Chemistry II.....	4
CSCI 1301 Computer Science I .....	4
CSCI 1302 Computer science II .....	4
MATH 2000 Statistics.....	3
MATH 2208 Introduction to Linear Algebra.....	3
Hours from Areas A & D .....	1-2
PHED 1100 and two PE activities	
<b>TOTAL 60</b>	

Students intending to teach grades 9 – 12 should also take the following pre-professional courses:

EDUC 2110 Investigating Critical and Contemporary Issues in Education .....	3
EDUC 2120 Exploring Socio-Cultural Perspectives on Diversity in Educational Contexts.....	3
EDUC 2130 Exploring Learning and Teaching .....	3

**TOTAL 69**

\* A minimum grade of C is required in all EDUC courses for Education majors.

## PHARMACY

A student interested in receiving the Doctor of Pharmacy Degree can obtain an Associate of Science Degree with a program of study in pharmacy by taking the prescribed course work at Abraham Baldwin College. A student who graduates from Abraham Baldwin will have completed all necessary requirements for applying for admission to a college of pharmacy.

**Core Curriculum: Areas A-E (see pages 87-89)**

**AREA D: SCIENCE MAJOR**

**AREA F: Major courses – 18 hours**

	<b>Hours</b>
<u>Required Courses:</u>	
BIOL 2107/2107L Principles of Biology I.....	4
BIOL 2108/2108L Principles of Biology II.....	4
CHEM 2040/2040L Fundamental Organic Chemistry I.....	4
CHEM 2041/2041L Fundamental Organic Chemistry II.....	4
<u>Select a minimum of 2 hours from the following as Guided Electives</u>	
CHEM 1211/1211L Principles of Chemistry I.....	4
CHEM 1212/1212L Principles of Chemistry II.....	4
PHYS 1111/1111L Introductory Physics I.....	4
MATH 2000 Statistics.....	3
SCIE 1000 Addressing Environmental Issues.....	1
Hours from Areas A & D.....	1-2
PHED 1100 and two PE activities	
<b>TOTAL</b>	<b>60</b>

## PHYSICS

A student interested in physics and any of its sub-disciplines like solid state, atomic, nuclear or elementary particle physics can obtain an Associate of Science with a program in physics by taking the prescribed course work at Abraham Baldwin College. A physics major can then transfer to a four-year college or university to complete a bachelor's degree in physics. Double majors in physics and some engineering disciplines are also possible at the bachelor's level. Physicists are employed, for example, in research and development, engineering technology, and the manufacture of modern devices.

**Core Curriculum: Areas A-E (see pages 87-89)**

**AREA D: SCIENCE MAJOR**

**AREA F: Major courses – 18 hours**

	<b>Hours</b>
<u>Required courses:</u>	
PHYS 2211/2211L Principles of Physics I .....	4
PHYS 2212/2212L Principles of Physics II .....	4
MATH 2054 Calculus II .....	4
MATH 2055 Calculus III .....	4
<u>Select a minimum of 2 hours from the following as Guided electives</u>	
CHEM 1211/1211L Principles of Chemistry I.....	4
CHEM 1212/1212L Principles of Chemistry II.....	4
CSCI 1301 Computer Science I .....	4
MATH 2208 Introduction to Linear Algebra.....	3
Hours from Areas A & D .....	1-2
PHED 1100 and two PE activities	
<b>TOTAL 60</b>	

Students intending to teach grades 9 – 12 should also take the following pre-professional courses:

EDUC 2110 Investigating Critical and Contemporary Issues in Education .....	3
EDUC 2120 Exploring Socio-Cultural Perspectives on Diversity in Educational Contexts.....	3
EDUC 2130 Exploring Learning and Teaching .....	3
<b>TOTAL 69</b>	

\* A minimum grade of C is required in all EDUC courses for Education majors.