

# Science Standards—Earth Science

## **COURSE FOCUS [Apply the following for each content standard.]**

### **ESC.1 Identify SDA Christian principles and values in correlation with science.**

- ESC.1.1 Recognize God’s power as Designer, Creator, Sustainer, and Redeemer in the universe.
- ESC.1.2 Acknowledge God as the Author of all scientific principles and laws regardless of man’s interpretation.
- ESC.1.3 Develop stewardship and service attitudes toward health, life, and earth’s environment.
- ESC.1.4 Apply Biblical principles of Christian morality, integrity, and ethical behavior to all aspects of life.
- ESC.1.5 Equip students with Christian perspectives on scientific issues.

## **COURSE ABILITIES [Apply the following to each content standard.]**

### **ESC.2 Develop abilities in science.**

- ESC.2.1 Develop critical and creative thinking skills (analysis, evaluation, divergent questioning, modeling).
- ESC.2.2 Understand and utilize the scientific method of problem solving.
- ESC.2.3 Utilize the principles and methodologies of cooperative learning.

### **ESC.3 Be able to apply science knowledge and skills to a variety of purposes.**

- ESC.3.1 Recognize scientific principles and laws as tools to solve problems in everyday life.
- ESC.3.2 Apply the scientific method in analysis of controversial topics, e.g., cloning, global warming, stem cell research.
- ESC.3.3 Read, write, and interpret scientific documents (lab write-ups, journals, scientific publications).
- ESC.3.4 Conduct research in the content area.
- ESC.3.5 Engage in various uses of technology.

## **COURSE CONTENT: Terminology, Geology, Geologic History, Weather, Water [Understand, explore, analyze, apply]**

### **ESC.4 Be able to understand the basic laws, principles, and theories of Earth Science.**

- ESC.4.1 Recognize God as the Designer and Creator of our earth within the universe.
- ESC.4.2 Introduce and relate terminology appropriate to Earth Science.
- ESC.4.3 Demonstrate understanding of the structure and composition of earth (geologic time table, plate tectonics, rocks and minerals).
- ESC.4.4 Become acquainted with the geologic history of the earth (fossil record, absolute vs. relative time).
- ESC.4.5 Familiarize students with the factors that affect earth’s climate patterns.
- ESC.4.6 Present the basic concepts of earth’s hydrologic cycle (oceans, glaciations, economic value).

### **ESC.5 Be able to safely explore Earth Science concepts.**

- ESC.5.1 Observe the structure and composition of rocks and minerals.
- ESC.5.2 Explore the fossil record of earth’s history from a creationist’s paradigm.
- ESC.5.3 Investigate principles of climate and global weather patterns.
- ESC.5.4 Examine earth’s water and factors affecting the hydrologic cycle.

### **ESC.6 Be able to analyze Earth Science concepts.**

- ESC.6.1 Classify different types of rocks and minerals.
- ESC.6.2 Correlate the fossil record to earth’s history from a creationist’s paradigm.
- ESC.6.3 Analyze and predict the relationship between climate and global weather patterns.
- ESC.6.4 Interpret the relationship between earth’s water and the factors affecting the hydrologic cycle.

### **ESC.7 Be able to apply fundamentals of Earth Science to life and the earth’s environment.**

- ESC.7.1 Strengthen belief in God as Designer and Creator by applying the fundamentals of Earth Science.
- ESC.7.2 Utilize the concepts of Earth Science to improve lifestyle choices.
- ESC.7.3 Apply the study of Earth Science to issues regarding the environment.

# Science Standards—Physical Science

## **COURSE FOCUS [Apply the following for each content standard.]**

### **PSC.1 Identify SDA Christian principles and values in correlation with science.**

- PSC.1.1 Recognize God’s power as Designer, Creator, Sustainer, and Redeemer in the universe.
- PSC.1.2 Acknowledge God as the Author of all scientific principles and laws regardless of man’s interpretation.
- PSC.1.3 Develop stewardship and service attitudes toward health, life, and earth’s environment.
- PSC.1.4 Apply Biblical principles of Christian morality, integrity, and ethical behavior to all aspects of life.
- PSC.1.5 Equip students with Christian perspectives on scientific issues.

## **COURSE ABILITIES [APPLY THE FOLLOWING TO EACH CONTENT STANDARD.]**

### **PSC.2 Develop abilities in science.**

- PSC.2.1 Develop critical and creative thinking skills (analysis, evaluation, divergent questioning, modeling).
- PSC.2.2 Understand and utilize the scientific method of problem solving.
- PSC.2.3 Utilize the principles and methodologies of cooperative learning.

### **PSC.3 Be able to apply science knowledge and skills to a variety of purposes.**

- PSC.3.1 Recognize scientific principles and laws as tools to solve problems in everyday life.
- PSC.3.2 Apply the scientific method in analysis of controversial topics, e.g., cloning, global warming, stem cell research.
- PSC.3.3 Read, write, and interpret scientific documents (lab write-ups, journals, scientific publications).
- PSC.3.4 Conduct research in the content area.
- PSC.3.5 Engage in various uses of technology.

## **COURSE CONTENT: Structure and Properties of Matter, Measurement and Conversions, Interactions of Matter, Force and Motion, Energy [Understand, explore, analyze, apply]**

### **PSC.4 Be able to understand the relationships between matter and energy and how they interact.**

- PSC.4.1 Recognize God as the Designer and Creator of our physical world.
- PSC.4.2 Introduce the fundamental structure and properties of matter (physical, chemical, periodic table).
- PSC.4.3 Demonstrate understanding of scientific measurement and expression (conversions, scientific notation).
- PSC.4.4 Become acquainted with the interactions of matter (bonding, reaction types).
- PSC.4.5 Familiarize students with the fundamental properties of force and motion (Newton’s laws, velocity, acceleration)
- PSC.4.6 Present the basic concepts of different energy forms (sound, light, kinetic, potential, heat, nuclear, etc.).

### **PSC.5 Be able to safely explore Physical Science concepts.**

- PSC.5.1 Observe the structure and properties of matter.
- PSC.5.2 Explore the interactions of matter.
- PSC.5.3 Investigate the properties and interactions of force and motion.
- PSC.5.4 Examine the fundamental concepts of different energy forms.

### **PSC.6 Be able to analyze Physical Science concepts.**

- PSC.6.1 Exhibit understanding of the basic structure and properties of matter.
- PSC.6.2 Interpret the results of the interactions of matter.
- PSC.6.3 Relate the concepts of force to motion.
- PSC.6.4 Compare and contrast the different forms of energy.

### **PSC.7 Be able to apply fundamentals of Physical Science to life and the physical environment.**

- PSC.7.1 Strengthen belief in God as Designer and Creator by applying the fundamentals of Physical Science.
- PSC.7.2 Utilize the concepts of Physical Science to improve lifestyle choices.
- PSC.7.3 Apply the study of Physical Science to issues regarding the environment.

# Science Standards—Biology I

## **COURSE FOCUS [APPLY THE FOLLOWING FOR EACH CONTENT STANDARD.]**

### **BI01.1 Identify SDA Christian principles and values in correlation with science.**

- BI01.1.1 Recognize God’s power as Designer, Creator, Sustainer, and Redeemer in the universe.
- BI01.1.2 Acknowledge God as the Author of all scientific principles and laws regardless of man’s interpretation.
- BI01.1.3 Develop stewardship and service attitudes toward health, life, and earth’s environment.
- BI01.1.4 Apply Biblical principles of Christian morality, integrity, and ethical behavior to all aspects of life.
- BI01.1.5 Equip students with Christian perspectives on scientific issues.

## **COURSE ABILITIES [APPLY THE FOLLOWING TO EACH CONTENT STANDARD.]**

### **BI01.2 Develop abilities in science.**

- BI01.2.1 Develop critical and creative thinking skills (analysis, evaluation, divergent questioning, modeling).
- BI01.2.2 Understand and utilize the scientific method of problem solving.
- BI01.2.3 Utilize the principles and methodologies of cooperative learning.

### **BI01.3 Be able to apply science knowledge and skills to a variety of purposes.**

- BI01.3.1 Recognize scientific principles and laws as tools to solve problems in everyday life.
- BI01.3.2 Apply the scientific method in analysis of controversial topics, e.g., cloning, global warming, stem cell research.
- BI01.3.3 Read, write, and interpret scientific documents (lab write-ups, journals, scientific publications).
- BI01.3.4 Conduct research in the content area.
- BI01.3.5 Engage in various uses of technology.

## **COURSE CONTENT: Cell Structure and Processes, Genetics, Taxonomy, Ecology [understand, explore, analyze, apply]**

### **BI01.4 Be able to understand basic biological concepts.**

- BI01.4.1 Acknowledge God as Creator of life while recognizing divergent theories.
- BI01.4.2 Demonstrate understanding of cellular structures and processes.
- BI01.4.3 Describe the dynamics of genetics and biotechnology.
- BI01.4.4 Investigate taxonomy and the relationships among living organisms.
- BI01.4.5 Comprehend the interdependence between organisms and their environment.

### **BI01.5 Be able to safely explore biological concepts using the scientific method.**

- BI01.5.1 Manipulate cellular models and samples.
- BI01.5.2 Test concepts of Mendelian inheritance and evaluate genetic manipulation.
- BI01.5.3 Classify, compare, and examine organisms.
- BI01.5.4 Investigate relationships between organisms within their niche.
- BI01.5.5 Research the dynamics, organization, and problems in earth’s biomes.

### **BI01.6 Be able to analyze biological data.**

- BI01.6.1 Compare and contrast cell diagrams and processes.
- BI01.6.2 Draw conclusions about genetic trends and the ethical ramifications of biotechnology.
- BI01.6.3 Evaluate the rationale for the current system of taxonomy.
- BI01.6.4 Determine how the relationships between organisms affect the balance of the ecosystem.
- BI01.6.5 Assess the environmental issues facing local ecosystems and earth’s biomes.
- BI01.6.6 Validate God as the Author of life, while evaluating aspects of divergent theories of origin.

### **BI01.7 Be able to apply the principles of biology to health, life, and earth’s environment.**

- BI01.7.1 Develop a personal ethical value system regarding a world view of life.
- BI01.7.2 Utilize biological concepts to influence lifestyle choices.
- BI01.7.3 Minimize damage to the environment by practicing good stewardship.

# Science Standards—Biology II

## **COURSE FOCUS [Apply the following for each content standard.]**

### **BI02.1 Identify SDA Christian principles and values in correlation with science.**

- BI02.1.1 Recognize God’s power as Designer, Creator, Sustainer, and Redeemer in the universe.
- BI02.1.2 Acknowledge God as the Author of all scientific principles and laws regardless of man’s interpretation.
- BI02.1.3 Develop stewardship and service attitudes toward health, life, and earth’s environment.
- BI02.1.4 Apply Biblical principles of Christian morality, integrity, and ethical behavior to all aspects of life.
- BI02.1.5 Equip students with Christian perspectives on scientific issues.

## **COURSE ABILITIES [Apply the following to each content standard.]**

### **BI02.2 Develop abilities in science.**

- BI02.2.1 Develop critical and creative thinking skills (analysis, evaluation, divergent questioning, modeling).
- BI02.2.2 Understand and utilize the scientific method of problem solving.
- BI02.2.3 Utilize the principles and methodologies of cooperative learning.

### **BI02.3 Be able to apply science knowledge and skills to a variety of purposes.**

- BI02.3.1 Recognize scientific principles and laws as tools to solve problems in everyday life.
- BI02.3.2 Apply the scientific method in analysis of controversial topics, e.g., cloning, global warming, stem cell research.
- BI02.3.3 Read, write, and interpret scientific documents (lab write-ups, journals, scientific publications).
- BI02.3.4 Conduct research in the content area.
- BI02.3.5 Engage in various uses of technology.

## **COURSE CONTENT: Zoology, Embryology, Immunology, Microbiology, Botany [Understand, explore, analyze, apply]**

### **BI02.4 Be able to understand major specialty areas of biology.**

- BI02.4.1 Recognize God as the Designer and Creator of all life.
- BI02.4.2 Observe and model organisms representing the major groups of invertebrate and vertebrate animals.
- BI02.4.3 Describe the processes of gamete production, fertilization, and development.
- BI02.4.4 Identify the reactions, causes, and results of immune system function.
- BI02.4.5 Understand the diversity, impact, and diseases of microorganisms .
- BI02.4.6 Exhibit an understanding of global conservation efforts.
- BI02.4.7 Demonstrate understanding of simple and complex plant forms.

### **BI02.5 Be able to safely explore biology concepts.**

- BI02.5.1 Manipulate invertebrate and vertebrate animals.
- BI02.5.2 Investigate the reproductive processes within organisms.
- BI02.5.3 Explore immune system disorders.
- BI02.5.4 Examine the role of microbes in epidemiology.
- BI02.5.5 Research the impact of plant life on the biosphere.

### **BI02.6 Be able to analyze biology concepts.**

- BI02.6.1 Ascertain the increasing complexity from invertebrate to vertebrate animals.
- BI02.6.2 Compare embryological development of different organisms.
- BI02.6.3 Evaluate immune system responses at the cellular and molecular levels.
- BI02.6.4 Assess treatment methods and effectiveness in terms of microbial cause.
- BI02.6.5 Analyze the importance of plant life to human life.
- BI02.6.6 Validate God as the Author of life, while studying major areas of Biology II.

### **BI02.7 Be able to apply the higher concepts of Biology II to life.**

- BI02.7.1 Strengthen belief in God as Designer and Creator by applying the higher concepts of Biology II.
- BI02.7.2 Utilize the concepts of Biology II to improve lifestyle choices.
- BI02.7.3 Apply the study of Biology II to ethical issues regarding life.

# Science Standards—Chemistry

## **COURSE FOCUS [Apply the following for each content standard.]**

### **CHM.1 Identify SDA Christian principles and values in correlation with science.**

- CHM.1.1 Recognize God's power as Designer, creator, Sustainer, and Redeemer in the universe.
- CHM.1.2 Acknowledge God as the Author of all scientific principles and laws regardless of man's interpretation.
- CHM.1.3 Develop stewardship and service attitudes toward health, life, and earth's environment.
- CHM.1.4 Apply Biblical principles of Christian morality, integrity, and ethical behavior to all aspects of life.
- CHM.1.5 Equip students with Christian perspectives on scientific issues.

## **COURSE ABILITIES [Apply the following to each content standard.]**

### **CHM.2 Develop abilities in science.**

- CHM.2.1 Develop critical and creative thinking skills (analysis, evaluation, divergent questioning, modeling).
- CHM.2.2 Understand and utilize the scientific method of problem solving.
- CHM.2.3 Utilize the principles and methodologies of cooperative learning.

### **CHM.3 Be able to apply science knowledge and skills to a variety of purposes.**

- CHM.3.1 Recognize scientific principles and laws as tools to solve problems in everyday life.
- CHM.3.2 Apply the scientific method in analysis of controversial topics, e.g., cloning, global warming, stem cell research.
- CHM.3.3 Read, write, and interpret scientific documents (lab write-ups, journals, scientific publications).
- CHM.3.4 Conduct research in the content area.
- CHM.3.5 Engage in various uses of technology.

## **COURSE CONTENT: Structure and Properties of Matter, Chemical Interactions, Stoichiometry, Solutions [Understand, explore, analyze, apply]**

### **CHM.4 Be able to understand basic chemistry concepts.**

- CHM.4.1 Recognize God as the Designer and Creator of matter with inherent properties and laws.
- CHM.4.2 Demonstrate understanding of structure and properties of matter.
- CHM.4.3 Describe the interactions of matter and energy (bonding, chemical reactions, conservation).
- CHM.4.4 Integrate balanced equations, conversion factors, ratio and proportion, and dimensional analysis.
- CHM.4.5 Identify the types and properties of solutions.

### **CHM.5 Be able to safely explore chemistry concepts using the scientific method.**

- CHM.5.1 Explore the design of the periodic table and structure of molecules.
- CHM.5.2 Examine the relationship between energy and chemical reactions (bond, activation, thermal).
- CHM.5.3 Solve stoichiometric problems with appropriate chemical and mathematical skills.
- CHM.5.4 Investigate factors that define and affect solutions (pH, concentration, temperature, pressure).

### **CHM.6 Be able to analyze chemical data.**

- CHM.6.1 Correlate the relationship between periodicity and molecular structure in the periodic table.
- CHM.6.2 Interpret the relationship between energy and chemical reactions.
- CHM.6.3 Evaluate conditions and factors that affect stoichiometric results.
- CHM.6.4 Predict solution changes as factors are manipulated.

### **CHM.7 Be able to apply the principles of chemistry to health, life, and the physical environment.**

- CHM.7.1 Develop an increased respect for the Designer of all matter in the universe.
- CHM.7.2 Utilize various chemical resources to influence lifestyle choices (warning labels, MSDS, nutritional labels, Internet resources).
- CHM.7.3 Implement chemical principles to chemistry-related issues in society.

# Science Standards—Physics

## **COURSE FOCUS [Apply the following for each content standard.]**

### **PHY.1 Identify SDA Christian principles and values in correlation with science.**

- PHY.1.1 Recognize God’s power as Designer, Creator, Sustainer, and Redeemer in the universe.
- PHY.1.2 Acknowledge God as the Author of all scientific principles and laws regardless of man’s interpretation.
- PHY.1.3 Develop stewardship and service attitudes toward health, life, and earth’s environment.
- PHY.1.4 Apply Biblical principles of Christian morality, integrity, and ethical behavior to all aspects of life.
- PHY.1.5 Equip students with Christian perspectives on scientific issues.

## **COURSE ABILITIES [APPLY THE FOLLOWING TO EACH CONTENT STANDARD.]**

### **PHY.2 Develop abilities in science.**

- PHY.2.1 Develop critical and creative thinking skills (analysis, evaluation, divergent questioning, modeling).
- PHY.2.2 Understand and utilize the scientific method of problem solving.
- PHY.2.3 Utilize the principles and methodologies of cooperative learning.

### **PHY.3 Be able to apply science knowledge and skills to a variety of purposes.**

- PHY.3.1 Recognize scientific principles and laws as tools to solve problems in everyday life.
- PHY.3.2 Apply the scientific method in analysis of controversial topics, e.g., cloning, global warming, stem cell research.
- PHY.3.3 Read, write, and interpret scientific documents (lab write-ups, journals, scientific publications).
- PHY.3.4 Conduct research in the content area.
- PHY.3.5 Engage in various uses of technology.

## **COURSE CONTENT: Mechanics, Thermodynamics, Sound and Light, Electricity and Magnetism, Nuclear Physics [Understand, explore, analyze, apply]**

### **PHY.4 Be able to understand relationships between matter and energy and how they interact.**

- PHY.4.1 Recognize God as the Designer and Creator of our physical world and its governing laws.
- PHY.4.2 Identify the fundamental properties and laws of mechanics.
- PHY.4.3 Define the properties and laws of thermodynamics.
- PHY.4.4 Demonstrate an understanding of the sound and light principles.
- PHY.4.5 Describe the fundamental properties of electricity and magnetism.
- PHY.4.6 Understand the basic concepts of nuclear physics.

### **PHY.5 Be able to safely explore physics concepts.**

- PHY.5.1 Test the properties and laws of mechanics (Newton’s laws, work, power, velocity, energy, etc.).
- PHY.5.2 Explore the properties and laws of thermodynamics (laws, heat energy).
- PHY.5.3 Investigate the properties of sound and light (waves, optics, etc.).
- PHY.5.4 Examine the principles of electricity and magnetism (circuits, Ohm’s law, forces, charges, fields).
- PHY.5.5 Research the principles of nuclear physics (quantum theory, radioactivity, dating methods, etc.).

### **PHY.6 Be able to analyze physics data.**

- PHY.6.1 Predict the outcome of motion and force problems using the principles of mechanics.
- PHY.6.2 Correlate changes in energy to the laws of thermodynamics.
- PHY.6.3 Evaluate the conditions and factors which affect sound and light.
- PHY.6.4 Analyze various electrical circuits.
- PHY.6.5 Interpret the results of nuclear research.

### **PHY.7 Be able to apply principles of physics to health, life, and the physical environment.**

- PHY.7.1 Strengthen belief in God as Designer and Creator by applying the laws of physics.
- PHY.7.2 Utilize the concepts of physics to improve lifestyle choices.
- PHY.7.3 Apply the study of physics to issues regarding nuclear energy.

# Science Standards—Ecology

## **COURSE FOCUS [Apply the following for each content standard.]**

### **ECO.1 Identify SDA Christian principles and values in correlation with science.**

- ECO.1.1 Recognize God’s power as Designer, Creator, Sustainer, and Redeemer in the universe.
- ECO.1.2 Acknowledge God as the Author of all scientific principles and laws regardless of man’s interpretation.
- ECO.1.3 Develop stewardship and service attitudes toward health, life, and earth’s environment.
- ECO.1.4 Apply Biblical principles of Christian morality, integrity, and ethical behavior to all aspects of life.
- ECO.1.5 Equip students with Christian perspectives on scientific issues.

## **COURSE ABILITIES [Apply the following to each content standard.]**

### **ECO.2 Develop abilities in science.**

- ECO.2.1 Develop critical and creative thinking skills (analysis, evaluation, divergent questioning, modeling).
- ECO.2.2 Understand and utilize the scientific method of problem solving.
- ECO.2.3 Utilize the principles and methodologies of cooperative learning.

### **ECO.3 Be able to apply science knowledge and skills to a variety of purposes.**

- ECO.3.1 Recognize scientific principles and laws as tools to solve problems in everyday life.
- ECO.3.2 Apply the scientific method in analysis of controversial topics, e.g., cloning, global warming, stem cell research.
- ECO.3.3 Read, write, and interpret scientific documents (lab write-ups, journals, scientific publications).
- ECO.3.4 Conduct research in the content area.
- ECO.3.5 Engage in various uses of technology.

## **COURSE CONTENT: Principles, Population Dynamics, Natural Resources, Energy, Conservation [Understand, explore, analyze, apply]**

### **ECO.4 Be able to understand the basic principles of Ecology/Environmental Science.**

- ECO.4.1 Recognize God as the Designer and Creator of our earth.
- ECO.4.2 Understand the factors that influence organisms within their environment (trophic levels, symbiosis, food chain/web, biomes).
- ECO.4.3 Demonstrate understanding of the nature of population dynamics (plant, animal, and human).
- ECO.4.4 Identify non-energy resources and their effects on the environment.
- ECO.4.5 Classify conventional and alternative energy sources.
- ECO.4.6 Exhibit an understanding of global conservation efforts.

### **ECO.5 Be able to safely explore Ecology/Environmental Science concepts.**

- ECO.5.1 Examine relationships between organisms within the environment.
- ECO.5.2 Investigate the factors affecting population dynamics.
- ECO.5.3 Survey advantages, disadvantages, and uses of conventional and alternative energy sources.
- ECO.5.4 Explore conservation methods for natural resources.

### **ECO.6 Be able to analyze Ecology/Environmental Science concepts.**

- ECO.6.1 Evaluate factors affecting relationships between organisms within the environment.
- ECO.6.2 Research and predict how factors affect population dynamics.
- ECO.6.3 Compare and contrast advantages, disadvantages, and uses of conventional and alternative energy sources.
- ECO.6.4 Analyze current natural resource conservation methods.

### **ECO.7 Be able to apply fundamentals of Ecology/Environmental Science to life and the earth’s environment.**

- ECO.7.1 Strengthen belief in God as Designer and Creator by applying the fundamentals of Ecology/Environmental Science.
- ECO.7.2 Utilize the concepts of Ecology/Environmental Science to improve lifestyle choices.
- ECO.7.3 Apply the study of Ecology/Environmental Science to ethical issues regarding the environment.

# Science Standards—Anatomy & Physiology

## **COURSE FOCUS [Apply the following for each content standard.]**

### **A&P.1 Identify SDA Christian principles and values in correlation with science.**

- A&P.1.1 Recognize God’s power as Designer, Creator, Sustainer, and Redeemer in the universe.
- A&P.1.2 Acknowledge God as the Author of all scientific principles and laws regardless of man’s interpretation.
- A&P.1.3 Develop stewardship and service attitudes toward health, life, and earth’s environment.
- A&P.1.4 Apply Biblical principles of Christian morality, integrity, and ethical behavior to all aspects of life.
- A&P.1.5 Equip students with Christian perspectives on scientific issues.

## **COURSE ABILITIES [Apply the following to each content standard.]**

### **A&P.2 Develop abilities in science.**

- A&P.2.1 Develop critical and creative thinking skills (analysis, evaluation, divergent questioning, modeling).
- A&P.2.2 Understand and utilize the scientific method of problem solving.
- A&P.2.3 Utilize the principles and methodologies of cooperative learning.

### **A&P.3 Be able to apply science knowledge and skills to a variety of purposes.**

- A&P.3.1 Recognize scientific principles and laws as tools to solve problems in everyday life.
- A&P.3.2 Apply the scientific method in analysis of controversial topics, e.g., cloning, global warming, stem cell research.
- A&P.3.3 Read, write, and interpret scientific documents (lab write-ups, journals, scientific publications).
- A&P.3.4 Conduct research in the content area.
- A&P.3.5 Engage in various uses of technology.

## **COURSE CONTENT: Anatomical Orientation, Cells and Tissues, Systems [Understand, explore, analyze, apply]**

### **A&P.4 Be able to understand principles of anatomy.**

- A&P.4.1 Recognize God as the designer and creator of the human body.
- A&P.4.2 Define and properly use anatomical orientation terminology.
- A&P.4.3 Demonstrate an understanding of the structure of cell types and tissues.
- A&P.4.4 Identify the components within each system (skeletal, digestive, circulatory, etc.).

### **A&P.5 Be able to safely explore human anatomy and physiology.**

- A&P.5.1 Examine anatomy of specimens.
- A&P.5.2 Explore human cells and tissues with microscopes.
- A&P.5.3 Investigate the function of components within each system.

### **A&P.6 Be able to analyze human physiology.**

- A&P.6.1 Interpret the relationship between the structure and the function of cell types and tissues..
- A&P.6.2 Evaluate the relationship between the structure and the function of organs.
- A&P.6.3 Correlate the structure of each organ system with its function.
- A&P.6.4 Analyze the interdependence of organ systems in the body.

### **A&P.7 Be able to apply principles of anatomy and physiology to health and life.**

- A&P.7.1 Strengthen belief in God as Designer and Creator from studying anatomy and physiology.
- A&P.7.2 Utilize the concepts of anatomy and physiology to improve lifestyle choices.