Science or Computer Science Courses – Associate of General Studies and Associate of Science Outcomes

Department/Discipline: Health Professions Course HO 150

1. Science Discipline Studies Outcomes

As a result of taking Science Discipline Studies courses, a student should be able to:	Course Outcome(s) related to the Science Outcome	Under what conditions and criteria will the course outcome be assessed? (i.e., a menu of suggested assessment options)
1. Gather, comprehend, and communicate scientific and technical information in order to explore ideas, models and solutions and generate further questions.	After completing this course students will be able to comprehend and discuss the essential structure and functions of the human body. Students will build an understanding of the human organism by exploring the systems of the body.	Class discussion, collaborative work groups, class exercises, exams and quizzes.
2. Apply scientific and technical modes of inquiry, individually and collaboratively, to critically evaluate existing or alternative explanations, solve problems, and make evidence-based decisions in an ethical manner.	Students will use critical analysis of human anatomy and physiology to explain how the body responds to specific factors such as: physical activity, stress, disease and aging. Students will use scientific inquiry to examine body functions such as: homeostasis and regulatory control.	Class discussion, collaborative work groups, class exercises, exams and quizzes
3. Assess the strengths and weaknesses of scientific studies and critically examine the influence of scientific and technical knowledge on human society and the environment**.**	Students will examine, synthesize and interpret scientific literature in their textbook and other media. Students will be able to determine the scope and limitations of these research studies.	Class discussion, collaborative work groups, class exercises, exams and quizzes

2. Science Discipline Studies Course Criteria

A General Education course in Science should:	How course meets criterion	Related Course Outline statements

A General Education course in Science should:	**How course meets criterion**	**Related Course Outline statements**
1. Analyze the development, scope, and limitations of fundamental scientific concepts, models, theories, and methods.	Students will develop an understanding of the scope and limitations of science as it applies to the basic structure and function of the body. An example of this is predicting how the body uses both negative and positive feedback mechanisms to maintain a stable internal environment.	Upon successful completion of this course students will be able to describe important processes and systems such as homeostasis and feedback mechanisms. Upon successful completion of this course students will be able to describe fundamental cell anatomy including cell membrane function.
2. Engage students in problem-solving and investigation, through the application of scientific and mathematical methods and concepts, and by using evidence to create and test models and draw conclusions. The goal should be to develop analytical thinking that includes evaluation, synthesis, and creative insight.	Students will use diagrams, models, skeletons and laboratory dissections to investigate and learn the structure and function of the human body. These tools will assist students in developing an understanding of how all the systems of the body are related and interdependent.	Upon successful completion of this course students will be able to describe the structure and function of the skeletal and muscular systems. Upon successful completion of this course students will be able to describe the structure and function of the eye. Upon successful completion of this course students will be able to describe the structure and function of the heart and cardiovascular system.
3. Examine relationships with other subject areas, including the ethical application of science in human society, and the relevance of science to everyday life.	Students will establish a basic understanding of the relationship between chemistry and biology. Students will examine how physics affects body movement and structure.	Upon successful completion of this course students will be able to describe the basic chemistry, structure and function of the nervous system. Upon successful completion of this course students will be able to describe elements, atoms and the subatomic particles of an atom.
In addition, a General Education course in Science should:	**How course meets criterion**	**Related Course Outline statements**

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• Engage students in collaborative, hands-on and/or real-life activities that develop scientific reasoning and the capacity to apply mathematics, and that allow students to experience the exhilaration of discovery.	Students will develop scientific reasoning skills through collaborative laboratory dissections. Students will explore the differences between textbook diagrams and actual human anatomy. Students will analyze the chemical basis of life as a way to mathematically understand chemical structure and reactions.	Upon successful completion of this course students will be able to describe the divisions, directional terms and planes of the body. Upon successful completion of this course students will be able to describe the components and function of blood. Also, the course outline statements in sections 2 and 3 are applicable to this section.

Instructor **Date** **Academic Dean** **Date**