SYLLABUS

DATE OF LAST REVIEW: 02/2013

CIP CODE: 12.0301

SEMESTER: DEPARTMENTAL SYLLABUS

COURSE TITLE: The Living Body

COURSE NUMBER: BIOL-0123

CREDIT HOURS: 3

INSTRUCTOR: DEPARTMENTAL SYLLABUS

OFFICE LOCATION: DEPARTMENTAL SYLLABUS

OFFICE HOURS: DEPARTMENTAL SYLLABUS

TELEPHONE: DEPARTMENTAL SYLLABUS

EMAIL: DEPARTMENTAL SYLLABUS

KCKCC- issued email accounts are the official means for electronically communicating with our students.

PREREQUISITE(S): none

REQUIRED TEXT AND MATERIALS: Please check with the KCKCC bookstore, http://www.kckccbookstore.com for the required text in this area.

COURSE DESCRIPTION:
In this course, emphasis is placed upon human anatomical and physiological systems, evolution, genetics and embryology, environmental effects on human growth and development, and recent developments in biological research. No laboratory is required. The Living Body is not open to students who have passed BIOL 121.

METHOD OF INSTRUCTION: A variety of instructional methods may be used depending on content area. These include but are not limited to: lecture, multimedia, cooperative/collaborative learning, labs and demonstrations, projects and presentations, speeches, debates, and panels, conferencing, performances, and learning experiences outside the classroom. Methodology will be selected to best meet student needs.

COURSE OUTLINE:
I. Introduction to science, scientists and the scientific method.
II. Basic chemistry to help you understand human biology.
III. Human cell structure and function.
IV. Human tissues, organs and homeostasis.
V. Chromosomes and inheritance.
Vi. DNA and biotechnology.
VII. Cancer and mitosis
VIII. Genes and medical genetics.
IX. The circulatory system
X. Blood
XI. The lymphatic system and immunity.
XII. The digestive system and nutrition.
XIII. The respiratory system.
XIV. The urinary system and excretion.
XV. The nervous system.
XVI. Our special senses.
XVII. The endocrine system.
XVIII. The skeletal system.
XIX. The muscular system.
XX. The reproductive system.
XXI. Sexually transmitted diseases.
XXII. Human development and aging.

EXPECTED LEARNER OUTCOMES:
A. The learner will become acquainted with the methods of science, especially as they relate to human biology and biological research
B. The learner will appreciate the anatomical and functional complexities of the human body
C. The learner will understand the value of critical thinking both during the course and after it ends

COURSE COMPETENCIES:
1. The learner will list the steps of the scientific method.
2. The learner will describe the nature of molecules, including the variability of their structure and functions within the human body.
3. The learner will describe and explain the structure and function of human cells.
4. The learner will classify human tissues and organs by structure and function.
5. The learner will explain the features of mitosis and meiosis and assemble a human karyotype.
6. The learner will describe a DNA molecule and the effect of its manipulation on human life.
7. The learner will compare and contrast five characteristics of cancer cells.
8. The learner will describe characteristics, especially disorders, that are inherited as either dominant or recessive genes.
9. The learner will trace the flow of blood from the heart through the body and back again to the heart.
10. The learner will compare and contrast the structure and functions of red and white blood cells.
11. The learner will describe the general structure and function of an antibody and its relationship to B and T cells.
12. The learner will trace the passage of food from the mouth to the anus, describing the structure and functions of the organs through which it passes.
13. The learner will describe the pathway of air into and out of the lungs, describing the structure and functions of the structures though which it passes.
14. The learner will explain the movement of a water molecule through a kidney as it is affected by ADH.
15. The learner will describe the various divisions of the nervous system and the functions of each.
16. The learner will compare and contrast the structure and functions of the eye and ear with regard to processing sensory input.
17. The learner will describe the structure and function of the major endocrine organs of the body.
18. The learner will identify the structures and functions of the axial and appendicular skeleton.
19. The learner will name the major muscles of the body and describe their functions.
20. The learner will describe the path through which both sperm and egg move from their formation until implantation in the uterus.
21. The learner will describe the causative agent and symptoms of an infection by a sexually transmitted virus and bacterium.
22. The learner will describe the effects of aging on humans, from the embryo through senescence

**ASSESSMENT OF LEARNER OUTCOMES:**
Regular tests
Grading scale: 100-90%=A, 89-80%=B, 79-70%=C, 69-60%=D, 59-0%=F

**SPECIAL NOTES:**
This syllabus is subject to change at the discretion of the instructor. Material included is intended to provide an outline of the course and rules that the instructor will adhere to in evaluating the student’s progress. However, this syllabus is not intended to be a legal contract. Questions regarding the syllabus are welcome any time.

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