




MEMORANDUM

FINAL FACULTY SENATE APPROVAL ON MARCH 10, 2015

TO: Faculty Senate
FROM: Jack Kirby 
DATE: March 9, 2015
SUBJECT: Curriculum Proposal #14-15-22 REV#1

College of Science & Technology; Biology 1180 and 1181

I recommend approval of the attached Curriculum Proposal #14-15-22 REV#1. This proposal creates two courses, BIOL 1180 (Human Physiology) and BIOL 1181 (Human Anatomy). These two courses will replace Pierpont Community & Technical College courses, HLCA 1170 and HLCA 1171. This proposal passed both readings in the Curriculum Committee with minor revisions and a request for approval from the General Studies Committee. Revisions have been completed and the last page of this proposal is a memo of approval from the Chair of the General Studies Committee.

C: Dr. Christina Lavorata
Dr. Donald Trisel
Dr. Steven Roof
Dr. Tony Morris
Ms. Leslie Lovett
Ms. Cheri Varkonda
Dr. James Matthews





MEMORANDUM

TO: Curriculum Committee

FROM: Jack Kirby *JK*

DATE: January 23, 2015

SUBJECT: Curriculum Proposal #14-15-22
College of Science & Technology; Biology 1180 and 1181

I recommend approval of the attached Curriculum Proposal #14-15-22. This proposal requests to create two courses, BIOL 1180 (Human Physiology) and BIOL 1181 (Human Anatomy). This must be done in order to replace courses relegated to Pierpont Community and Technical College due to the separation.

C: Dr. Christina Lavorata
Dr. Donald Trisel
Dr. Steven Roof
Dr. Tony Morris
Ms. Leslie Lovett
Ms. Cheri Varkonda



CURRICULUM PROPOSAL (Submit one hard copy and an electronic copy to the Associate Provost by the second Tuesday of the month.)

Proposal Number: _____

School/Department/Program: Science and Technology/BCG/Biology

Preparer/Contact Person: Tony E. Morris

Telephone Extension: 4493

Date Originally Submitted: 12/5/2014

**Revision (Indicate date and label it
Revision #1, #2, etc.):** #14-15-22 REV #1

Implementation Date Requested: Fall 2015

- I. **PROPOSAL.** Write a brief abstract, not exceeding 100 words, which describes the overall content of the proposal.

BIOL 1170 was a Fairmont State University course, but was given to Pierpont Community and Technical College during the first separation. The community college, then, changed BIOL 1170 to HLCA 1170 and 1171. Because of the complete separation of the university and community college scheduled for fall 2015, the course must be returned to the University for the nursing and safety programs. There is no significant change to the curriculum or content. As with their HLCA counterparts, the proposed courses BIOL 1180 Human Physiology and BIOL 1181 Human Anatomy will be a 3 hour lecture course consisting of an introduction to human physiology (lecture) and a 1 hour human anatomy course (lab). It replaces the Pierpont course HLCA 1170 and HLCA 1171, and will replace these courses in university programs.

- II. **DESCRIPTION OF THE PROPOSAL.** Provide a response for each letter, A-H, and for each Roman Numeral II-V. If any section does not apply to your proposal, reply N/A.

- A. Deletion of course(s) or credit(s) from program(s)

Total hours deleted. N/A

- B. Addition of course(s) or credit(s) from program(s)

Total hours added. N/A

- C. Provision for interchangeable use of course(s) with program(s)

N/A

- D. Revision of course content. Include, as an appendix, a revised course description, written in complete sentences, suitable for use in the university catalog.

N/A

- E. Other changes to existing courses such as changes to title, course number, and elective or required status.

N/A

- F. Creation of new course(s). For each new course

1. Designate the course number, title, units of credit, prerequisites (if any), ownership (FSU or shared) and specify its status as an elective or required course. If you are creating a shared course, attach a memo from the Deans of the affected Schools explaining the rationale for the course being shared.

BIOL 1180 Physiology (3 credits) and 1181 Human Anatomy (1 credit) has no prerequisites, is FSU owned, is required course for nursing program and the safety program.

See Appendix A.

2. Include, as an appendix, a course description, written in complete sentences, suitable for use in the college catalog.

See Appendix B.

3. Include, as an appendix, a detailed course outline consisting of at least two levels.

See Appendix C.

4. In order to meet the requirements as outlined in Goal One of the Strategic Plan, please include Outcome Competencies and Methods of Assessment as an appendix. Examples are available upon request from the Chair of the Curriculum Committee.

See Appendix D.

- G. Attach an itemized summary of the present program(s) affected, if any, and of the proposed change(s).

Describe how this proposal affects the hours needed to complete this program. Specifically, what is the net gain or loss in hours? Use the format for Current and Proposed Programs in Appendix A.

N/A

III. **RATIONALE FOR THE PROPOSAL.**

A. **Quantitative Assessment:** Indicate the types of assessment data, i.e., surveys, interviews, capstone courses, projects, licensure exams, nationally-normed tests, locally developed measurements, accreditation reports, etc., that were collected and analyzed to determine that curricular changes were warranted. Quantitative data is preferred.

N/A

B. **Qualitative Assessment:** Based upon the assessment data above, indicate why a curricular change is justified. Indicate the expected results of the change. Be sure to include an estimate of the increased cost, or reduction in cost of implementation. FOR EXAMPLE: Will new faculty, facilities, equipment, or library materials be required?

The cost of implementation is uncertain at this time since the separation of the university and community college has yet to occur, but it is likely that some human models may be needed especially if the community college completely leaves Hunt Haught Hall.

IV. Should this proposal affect any course or program in another school, a memo must be sent to the Dean of each school impacted and a copy of the memo(s) must be included with this proposal. In addition, the Deans of the affected schools must sign below to indicate their notification of this proposal.

By signing here, you are indicating your college's/school's notification of this proposal.

College/School	Dean	Signature
Don Trisel	Science and Technology	
Sharon Boni	Nursing	

V. Should this proposal affect any course to be added or deleted from the general studies requirements, a memo from the chair of the General Studies Committee indicating approval of the change must be included with this proposal.

The courses will be submitted to general studies in the near future.

VI. **ADDITIONAL COMMENTS.**

APPENDIX A

	B.X. Degree in XXXXXXXX Current Program
NA	
	B.X. Degree in XXXXXXXX Proposed Program
NA	

APPENDIX B

Proposed Course Description

BIOL 1180 Human Anatomy and Physiology (lecture)..... 3 hrs.

Human Anatomy and Physiology is single semester examination of the architecture and function of cells, tissues, organs, and organ systems of the human being. This examination will include an intensive and detailed study of the integumentary, skeletal, muscular, cardiovascular, lymphatic, digestive, respiratory, urinary, nervous, reproductive, and endocrine systems as well as their interactions with each other. Three hours of lecture per week.

BIOL 1181 Human Anatomy and Physiology (lab)..... 1 hr.

Complementary to BIOL 1180, the laboratory focuses on the anatomical study of the human form, including microscopic examination of cells and tissues, and gross examination of organs and organ systems (skeleton, muscles, blood vessels, nerves, and internal organs). Physiological exercises to supplement the material covered in BIOL 1181.

Current Pierpont Course Descriptions

HLCA 1170 Human Anatomy and Physiology..... 3 hrs.

A single semester examination of the architecture and function of cells, tissues, organs, and organ systems of the human being. This examination will include an intensive and detailed study of the integumentary, skeletal, muscular, cardiovascular, lymphatic, digestive, respiratory, urinary, nervous, reproductive, and endocrine systems as well as their interactions with each other. Three hours lecture per week.

HLCA 1171 Human Anatomy and Physiology

Laboratory..... 1 hr.

Complementary to HLCA 1170, the laboratory focuses on the anatomical study of the human form, including microscopic examination of cells and tissues, and gross examination of organs and organ systems (skeleton, muscles, blood vessels, nerves, and internal organs). Physiological exercises are also included, such as real-time examination of electrocardiograms, heart sounds, peripheral circulation, blood pressure, reflexes, electromyograms, electroencephalograms, lung volume, and breathing patterns, to supplement the material covered in HLCA 1170. Prerequisite or corequisite: HLCA 1170.

APPENDIX C

Course Outline

BIOL 1180: Human Anatomy and Physiology (lecture)

- I. An Introduction to Human Anatomy and Physiology
 - a) Body Structure Is Closely Linked to Function at All Levels of Organization
 - b) All Living Things Carry Out Common Life Processes
 - c) Anatomical Road Maps Guide Navigation Through the Body

- II. Cells and Tissues of the Human Body
 - a) Cells Have Distinct Parts
 - b) Cells Carry Out Many Processes
 - c) Cells Specialize into Various Tissues
 - d) Aging Affects Cells and Tissues

- III. Integumentary System
 - a) The Integumentary System Is Composed of Skin, Glands, Hair, Nails, and Nerve Endings
 - b) Accessory Structures Provide Protection and Help Regulate Body Temperature
 - c) The Skin Plays a Number of Roles in the Body

- IV. Skeletal System
 - a) The Structure of Bone Controls Function and Growth
 - b) The Axial Skeleton Is Composed of 80 Bones
 - c) Bones of the Lower Body Form the Pelvic Girdle and Legs
 - d) Articulations Form Where Bones Join Together
 - e) Skeletal Structure Changes with Aging

- V. The Muscular System
 - a) The Body Contains Three Different Types of Muscular Tissue
 - b) Muscles Are Built to Move
 - c) Smooth Muscle Tissue Is in the Walls of Most Organs
 - d) Cardiac Muscle Tissue Forms the Muscular Wall of the Heart
 - e) Skeletal Muscles Are Grouped Based on Location and Action

- VI. The Nervous System
 - a) Nerve Cells "Talk" to Each Other
 - b) The Central Nervous System Coordinates All Nervous Activity
 - c) The Autonomic Nervous System Controls the Activities of Smooth Muscle, Cardiac Muscle, and Glands
 - d) The Peripheral Nervous System Communicates with the Outside World

- VII. The Endocrine System
 - a) Exocrine Glands versus Endocrine Glands
 - b) Endocrine Glands

- VIII. The Cardiovascular System
- Blood Functionally Connects the Body Organ Systems
 - Blood Cells Are Created in the Red Bone Marrow
 - Blood Clotting Controls Bleeding
 - Matching the ABO Group Allows Safe Transfusions
 - Analysis of Blood Components Can Tell Much About an Individual's Health
- IX. The Circulatory System
- The Heart Pumps Blood Through Blood Vessels to All Tissues
 - Blood Vessels Are the Body's Plumbing
 - Maintaining Blood Pressure Is Critical for Survival
- X. The Lymphatic System
- Components of the Lymphatic System Are Found Throughout the Body
 - Immune Responses Help Protect the Body Against Disease
 - HIV Causes a Breakdown of the Immune Response
- XI. The Respiratory System
- Respiratory Organs Move Air and Exchange Gases
 - Breathing Involves Changes in Pressures and Volumes
 - Gases Are Exchanged at the Blood Capillaries
 - The Brain Controls Breathing
 - Good Respiratory Health Is Essential
- XII. The Digestive System
- Let's Journey Through the Digestive System
 - Your Diet Contains Many Nutrients
 - Nutrients Are Metabolized in a Number of Ways
- XIII. The Urinary System
- The Urinary System Plays a Vital Role in Maintaining Homeostasis
 - The Urinary Bladder Stores Urine and Expels It from the Body
 - The Kidneys Regulate the Composition of Body Fluids
 - The Kidneys Help Maintain the Acid–Base Balance of Body Fluids
- XIV. The Reproductive Systems
- The Reproductive Organs Make, Deliver, and Receive the Sex Cells
 - The Female Reproductive Cycle Shows That Timing Is Everything
 - Fertilization Requires the Egg and Sperm to Get Very Close to One Another
 - Pregnancy Lasts from Fertilization to Delivery
 - Giving Birth Requires a Complex Series of Hormonal Changes
 - Aging Alters Reproductive Capacity

Outline for BIOL 1181: Human Anatomy and Physiology (lab)

- I. Block 1: Histology
 - a. Parts and use of a microscope
 - b. Examination of selected organ tissues

- II. Block 2: Skeletal System Anatomy
 - a. Examination of gross skeletal structure

- III. Block 3: Muscular System
 - a. Gross anatomy of muscles and tendons.
 - b. Systems Physiology

- IV. Block 4: Organ and Vessels Anatomy
 - a. Gross anatomy of heart, brain, and blood vessels.
 - b. Systems Physiology

APPENDIX D

Course Outcomes linked to General Studies VII.D.1-4

BIOL 1180: Human Anatomy and Physiology (lecture)

1. Use of anatomical and physiological vocabulary, concepts, theories, and laws as they relate to the human body. VII.D.1
2. Discuss the limitations of medicine by diagnosing and recommending available treatment for a case study. VII.D.2
3. Diagnose and propose a treatment for a case study. VII.D.3
4. Diagnose and propose treatment for pathological conditions from a case study using the skills of scientific inquiry by collecting symptoms, analysis of test results, and interpretation of quantitative and qualitative patient assessment. VII.D.4

Outcome 1 assessed by exams, outcomes 2 - 4 assessed by class activities and case studies.

BIOL 1181: Human Anatomy and Physiology (lab)

1. Identify the major bones, muscles, organs, and vessels of the human body. VII.D.1
2. Exhibit correct use of a microscope by examining and identifying human tissues. VII.D.1

Assessment by lab practical exams

March 9, 2015

To: FSU Faculty Senate

From: General Studies Committee, James Matthews, Chair

Re: BIOL 1180 & 1181

The General Studies committee's approval of new courses is dependent on an examination of course outcomes and GS mapping. A review of the proposals for BIOL 1180/1181 shows that their course outcomes and the accompanying mapping to General Studies are the same as those for HLCA 1170/1171, the Pierpont courses they are intended to replace. Given that the prefix and number changes here do not affect those areas, the committee accepts the replacement of HLCA 1170/1171 with BIOL 1180/1181 for General Studies purposes.