

I. CATALOG INFORMATIONA. Discipline: BIOLOGYB. Subject Code and Number: BIOL M16C. Course Title: Human Biology

D. Credit Course units:

Units: 3Lecture Hours per week: 3Lab Hours per week : 0Variable Units : No

E. Student Learning Hours:

Lecture Hours:

Classroom hours: 52.5 - 52.5

Laboratory/Activity Hours:

Laboratory/Activity Hours 0 - 0**Total Combined Hours** in a 17.5 week term: 52.5 - 52.5

F. Non-Credit Course hours per week _____

G. May be taken a total of: 1 2 3 4 time(s) for creditH. Is the course co-designated (same as) another course: No Yes

If YES, designate course Subject Code & Number: _____

I. Course Description:

Introduces the biology of humans covering basic cell structure, organ systems, inheritance, reproduction, development and aging, disease process, and human evolution and ecology. Explores biology as a scientific endeavor and analyzes the functioning of the human body both as an integrated system and as a part of the ecosystem with special attention to physiological structure and function. Emphasizes acquisition of knowledge needed to make intelligent decisions on bioethical issues that face society.

J. Entrance Skills

*Prerequisite: No Yes Course(s)

*Corequisite: No Yes Course(s)

Limitation on Enrollment: No Yes

Recommended Preparation: No Yes Course(s)

Other:

No Yes

K. Other Catalog Information:

II. COURSE OBJECTIVES

Upon successful completion of the course, a student will be able to:

| | | Methods of evaluation will be consistent with, but not limited by, the following types or examples. |
|---|-----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| 1 | explain how science is different from other human endeavors and why biology is a science. | Exams Quizzes Short essay Worksheet exercises |
| 2 | describe the significance of water to the human system and the basic macromolecules that comprise the human body. | Exams Quizzes Short essay Worksheet exercises |
| 3 | describe the essential aspects of cellular structure and how cells obtain energy for life processes. | Exams Quizzes Short essay Worksheet exercises |
| 4 | explain the process of reproduction both at a cellular level and at the organismal level. | Exams Quizzes Short essay Worksheet exercises |
| 5 | identify the major organ systems; discuss their function and relate it to their structure. | Exams Quizzes Short essay Worksheet exercises |
| 6 | illustrate the basic laws of genetics as they apply to human inheritance. | Exams Quizzes Short essay Worksheet exercises |
| 7 | explain the concept of disease; describe the processes and agents that lead to disease; and explain how the body protects itself. | Exams Quizzes Short essay Worksheet exercises |

| | | |
|----|------------------------------------------------------------------------------------------|--------------------------------------------------------|
| 8 | describe and relate the processes of development and aging. | Exams Quizzes Short essay Worksheet exercises |
| 9 | explain basic concepts of evolutionary theory and apply them to the evolution of humans. | Exams Quizzes Short essay Worksheet exercises |
| 10 | describe humans' role in and impact on the ecosystem. | Exams Quizzes Short essay Worksheet exercises |

III. COURSE CONTENT

| Estimated % | Topic | Learning Outcomes |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| Lecture (must total 100%) | | |
| 4.00% | Development and aging | 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 |
| 2.00% | Biology as science | 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 |
| 4.00% | Chemistry of life: importance of water, macromolecules | 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 |
| 6.00% | Cell structure, metabolism, and function | 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 |
| 50.00% | Structure and function of human tissues, organs, and organ systems Digestive Cardiovascular Respiratory Immune Skeletal Muscular Nervous Sensory Endocrine Urinary Reproductive | 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 |
| 4.00% | Reproduction – cellular and organismal | 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 |
| 4.00% | Disease process and immunity | 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 |

| | | |
|-------|--------------------------------------------------------------------------|-------------------------------------|
| 8.00% | Human inheritance – Mendelian and molecular | 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 |
| 4.00% | Principles of evolution | 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 |
| 6.00% | Principles of ecology The ecosystem Human impacts on the biosphere | 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 |
| 8.00% | Human genetics: chromosomes, genes, biotechnology, genes, disease | 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 |

IV. TYPICAL ASSIGNMENTS

A. Writing assignments

| | |
|---------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| Writing assignments are required. Possible assignments may include, but are not limited to: | |
| 1 | essays on assigned health-related topics such as the importance of vaccinations. |
| 2 | written evaluations of arguments related to an issue such as genetically modified food. |
| 3 | written evaluations of assigned readings on the human genome. |

B. Appropriate outside assignments

| | |
|---------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Appropriate outside assignments are required. Possible assignments may include, but are not limited to: | |
| 1 | cooperative group planning for written or oral presentation on a topic such as genetic testing for certain types of cancer. |
| 2 | group planning to prepare for a bioethical debate on such topics as the arguments for and against gene-edited babies. |

C. Critical thinking assignments

| | |
|-------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Critical thinking assignments are required. Possible assignments may include, but are not limited to: | |
| 1 | discussion of case studies regarding risk factors to diseases such as cancer and/or conditions such as obesity. |
| 2 | analysis of scientific papers/literature regarding a particular disease such as type 1 diabetes. |

V. METHODS OF INSTRUCTION

Methods of instruction may include, but are not limited to:

- Distance Education – When any portion of class contact hours is replaced by distance education delivery mode (Complete DE Addendum, Section XV)

□

- Lecture/Discussion
- Laboratory/Activity
- Other (Specify) Audio-visual
Case studies
Guest speakers
Group projects
- Optional Field Trips
- Required Field Trips

VI. METHODS OF EVALUATION

Methods of evaluation may include, but are not limited to:

- Essay Exam
- Classroom Discussion
- Skill Demonstration
- Problem Solving Exam
- Reports/Papers/Journals
- Participation
- Objective Exams
- Projects
- Other (specify)

Problem sets
Essays on assigned topics
Weekly quizzes

VII. REPRESENTATIVE TEXTS AND OTHER COURSE MATERIALS

Starr, Cecie, and Beverly McMillan. Human Biology. 11th ed. Cengage, 2016.

Mader, Sylvia, and Michael Windelspecht. Human Biology. 15th ed. McGraw-Hill, 2018.

VIII. STUDENT MATERIALS FEES

- No
- Yes

IX. PARALLEL COURSES

| College | Course Number | Course Title | Units |
|---------------------------|---------------|---------------|-------|
| CSU Long Beach | BIOL 205 | Human Biology | 4 |
| Cal Poly Pomona | BIO 1060 | Human Biology | 3 |
| San Francisco State Univ. | BIOL 100 | Human Biology | 3 |
| San Jose State Univ. | BIOL 021 | Human Biology | 3 |

X. MINIMUM QUALIFICATIONS

Courses Requiring a Masters Degree:
Master's degree in any biological science OR bachelor's degree in any biological science AND master's degree in biochemistry, biophysics, or marine science OR the equivalent.

XI. ARTICULATION INFORMATION

A. Title V Course Classification:

1. This course is designed to be taken either:

- Pass/No Pass only (no letter grade possible); or
 Letter grade (P/NP possible at student option)

2. Degree status:

Either Associate Degree Applicable; or Non-associate Degree Applicable

B. Moorpark College General Education:

1. Do you recommend this course for inclusion on the Associate Degree General Education list?

Yes: No: If YES, what section(s)?

- A1 - Natural Sciences - Biological Science
 A2 - Natural Sciences - Physical Science
 B1 - Social and Behavioral Sciences - American History/Institutions
 B2 - Social and Behavioral Sciences - Other Social Behavioral Science
 C1 - Humanities - Fine or Performing Arts
 C2 - Humanities - Other Humanities
 D1 - Language and Rationality - English Composition
 D2 - Language and Rationality - Communication and Analytical Thinking
 E1 - Health/Physical Education
 E2 - PE or Dance
 F - Ethnic/Gender Studies

C. California State University(CSU) Articulation:

1. Do you recommend this course for transfer credit to CSU? Yes: No:

2. If YES do you recommend this course for inclusion on the CSU General Education list?

Yes: No: If YES, which area(s)?

- A1 A2 A3 B1 B2 B3 B4
 C1 C2 D1 D2 D3 D4 D5

 D6 D7 D8 D9 D10 E

D. University of California (UC) Articulation:

1. Do you recommend this course for transfer to the UC? Yes: No:

2. If YES do you recommend this course for the Intersegmental General Education Transfer Curriculum (IGETC)? Yes: No:

IGETC Area 1: English Communication

- English Composition
- Critical Thinking-English Composition
- Oral Communication

IGETC Area 2: Mathematical Concepts and Quantitative Reasoning

- Mathematical Concepts

IGETC Area 3: Arts and Humanities

- Arts
- Humanities

IGETC Area 4: Social and Behavioral Sciences

- Anthropology and Archaeology
- Economics
- Ethnic Studies
- Gender Studies
- Geography
- History
- Interdisciplinary, Social & Behavioral Sciences
- Political Science, Government & Legal Institutions
- Psychology
- Sociology & Criminology

IGETC Area 5: Physical and Biological Sciences (mark all that apply)

- Physical Science Lab or Physical Science Lab only (non-sequence)
- Physical Science Lecture only (non-sequence)
- Biological Science
- Physical Science Courses
- Physical Science Lab or Biological Science Lab Only (non-sequence)
- Biological Science Courses
- Biological Science Lab course
- First Science course in a Special sequence
- Second Science course in a Special Sequence
- Laboratory Activity
- Physical Sciences

IGETC Area 6: Language other than English

- Languages other than English (UC Requirement Only)
- U.S. History, Constitution, and American Ideals (CSU Requirement ONLY)
- U.S. History, Constitution, and American Ideals (CSU

Requirement ONLY)

XII. REVIEW OF LIBRARY RESOURCES

- A. What planned assignment(s) will require library resources and use?

The following assignments require library resources:

Research, using the Library's print and online resources, for written and oral presentations on topics such as whether or not children should be required to be vaccinated.

- B. Are the currently held library resources sufficient to support the course assignment?

YES: NO:

If NO, please list additional library resources needed to support this course.

XIII. PREREQUISITE AND/OR COREQUISITE JUSTIFICATION

BIOL M16: Not Applicable

XIV. WORKPLACE PREPARATION

BIOL M16: Not Applicable

XV. DISTANCE LEARNING COURSE OUTLINE ADDENDUM

1. Mode of Delivery

Online (course will be delivered 100% online)

Online with onsite examinations (100% of the instruction will occur online, but examinations and an orientation will be scheduled onsite)

Online/Hybrid (a percentage of instruction will be held online and the remaining percentage of instruction will be held onsite)

Lab activities will be conducted onsite

Televideo (Examinations and an orientation will be held onsite)

Teleconference

Other

2. Need/Justification

Improve general student access.

3. Describe how instructors teaching this course will ensure regular, effective contact with and among students.

Instructors may provide on-site orientation and on-site testing. Instructor may provide live interactive and/or asynchronous online lectures. Students may perform interactive on-line activities, engage in asynchronous discussion groups, participate in chat rooms, submit written assignment via email.

4. Describe how instructors teaching this course will involve students in active learning.

Instructor may provide live interactive or asynchronous online lectures. Students may perform interactive online activities, engage in asynchronous discussion

groups, participate in chat rooms, and submit written assignments via email.

5. Explain how instructors teaching this course will provide multiple methods of content representation.

Instructors may provide live interactive and/or asynchronous online lectures. Students may perform interactive online activities, engage in asynchronous discussion groups, participate in chat rooms, submit written assignments via email, computer lab simulations, and other electronically based assignments, in addition to any typical assignments an instructor may choose to require.

6. Describe how instructors teaching this course will evaluate student performance.

Methods of evaluation may consist of electronically- based assessments, exams and/or assignments, participation in chat sessions and /or asynchronous discussion forums, and/or submission of written work electronically.

XVI. GENERAL EDUCATION COURSE OUTLINE ADDENDUM

General Education Division of Learning [check all applicable boxes]:

- Natural Sciences
 - Biological Science
 - Physical Science
- Social and Behavioral Sciences
 - American History/Institutions
 - Other Social Science
- Humanities
 - Fine or Performing Arts
 - Other Humanities
- Language and Rationality
 - English Composition
 - Communication and Analytical Thinking
- Health/Physical Education
- Ethnic/Women's Studies

Check either Option 1 or Option 2

- OPTION #1:** Moorpark College has already received approval from the CSU and/or UC systems for this course to fulfill a GE requirement. Note: This option applies only to technical revisions and updated courses.
- OPTION #2:** Moorpark College has not received approval from the CSU and/or UC systems for this course to fulfill a GE requirement. This option applies to all new and substantively revised courses.

XVII. STUDENT MATERIALS FEE ADDENDUM

BIOL M16: Not Applicable

XVIII. REPEATABILITY JUSTIFICATION TITLE 5, SECTION 55041

BIOL M16: Not Applicable

XIX. CURRICULUM APPROVAL

Course Information:

Discipline: BIOLOGY

Discipline Code and Number: BIOL M16

Course Revision Category: Outline Update

Course Proposed By:

Originating Faculty Ana Barcenas 09/13/2018

Faculty Peer: Melia Tabbakhian 09/13/2018

Curriculum Rep: Beth Miller 09/14/2018

Department Chair: Audrey Chen 09/13/2018

Division Dean: Carol Higashida 09/13/2018

Approved By:

Curriculum Chair: Jerry Mansfield 02/08/2019

Executive Vice President: _____

Articulation Officer: Letrisha Mai 02/06/2019

Librarian: Mary LaBarge 02/04/2019

Implementation Term and Year: Fall 2019

Approval Dates:

Approved by Moorpark College Curriculum Committee: 02/19/2019

Approved by Board of Trustees (if applicable): _____

Approved by State (if applicable): 02/27/2019