Document N: Course and Program Development:
IMPACT AND APPROVAL SIGNATURES

See Course and Program Development Policy and Procedures (www.ubalt.edu/provost) for instructions.

SCHOOL: ○ LAW ○ MSB ◉ CAS ○ CPA

CONTACT NAME: Ronald Castanzo **PHONE:** x1927

DEPARTMENT/DIVISION: Science, Information Arts and Technologies **DATE PREPARED:** 3/21/12

PROPOSED SEMESTER OF IMPLEMENTATION: ◉ fall ○ spring **YEAR:** 2013

TYPE OF ACTION: ○ add (new) ○ deactivate ◉ modify ○ other

LEVEL OF ACTION: ○ noncredit ◉ undergraduate ○ graduate ○ other

---

ACTION BEING REQUESTED (select one category, either Course Actions or Program Actions):

◉ ***COURSE ACTIONS*** ○ ***PROGRAM ACTIONS***

Original Subject Code/Course Number:

BIOL 101

Original Course Title:

Humankind in the Biological World

Original Program Title:

*Select one or multiple actions from **one** of the lists below (review the list of necessary documents and signatures):*

	COURSE ACTIONS
	1. Experimental Course
	2. Course Title
	3. Course Credits
	4. Course Number
	5. Course Level
	6. Pre- and Co-Requisite
	7. Course Description
	8. New Course
	9. Deactivate Course
✓	22. Other

	PROGRAM ACTIONS
	10. Program Requirements
	11a. Undergraduate Specialization (24 credits or fewer)
	11b. Master's Specialization (12 credits or fewer)
	11c. Doctoral Specialization (18 credits or fewer)
	12. Minor (add or delete)
	13. Closed Site Program
	14. Program Suspension
	15. Program Reactivation
	16a. Certificate Program (UG/G) exclusively within existing degree program
	16b. Certificate Program (UG/G) outside of or across degree programs (12 or more credits)
	17. Off-Campus Delivery of Existing Programs
	18a. Undergraduate Concentration (exceeds 24 credits)
	18b. Master's Concentration (exceeds 12 credits)
	18c. Doctoral Concentration (exceeds 18 credits)
	19. Program Title Change
	20. Program Termination
	21. New Degree Program
	22. Other

ADDITIONAL DOCUMENTATION (check all appropriate boxes of documents included; *review the list of necessary documents*):

☑ summary proposal (O) ☑ course definition document (P) ☐ full five-page MHEC proposal (Q)

☐ financial tables (MHEC) (R) ☐ other documents as may be required by MHEC/USM (S) ☐ other (T)

IMPACT REVIEW *(review the list of necessary signatures)*:

Impacted Entity	Signature	Date
a. Library ❑ no impact ❑ impact statement attached		
b. OTS ❑ no impact ❑ impact statement attached		
c. University Relations ❑ no impact ❑ impact statement attached		
d. Admissions ❑ no impact ❑ impact statement attached		
e. Records ❑ no impact ❑ impact statement attached		

APPROVAL SEQUENCE *(review the list of necessary signatures)*:

Approval Level	Signature	Date
A. Department/Division (Chair)	Deborah Kotel	March 23, 2012
B. General Education (for No. 7, 8)		
C. Final Faculty Review Body Within Each School (Chair)	D Hudgins	4/13/2
D. Dean	Daniel B. Pg	4/13/12
E. University Faculty Senate (Chair)		
F. University Council (Chair)[1]		
G. Provost and Senior Vice President for Academic Affairs	Beverly Schnell	rec'd - signed 2/07/2013
H. President		
I. Board of Regents (notification only)		
J. Board of Regents (approval)		
K. MHEC (notification only)		
L. MHEC (approval)		
M. Middle States Association notification	Required only if the University's mission is changed by the action	

[1] University Council *review* (for recommendation to the president or back to the provost) shall be limited to curricular or academic policy issues that may potentially affect the University's mission and strategic planning, or have a significant impact on the generation or allocation of its financial resources.

Document O: Course and Program Development: SUMMARY PROPOSAL

See Course and Program Development Policy and Procedures (www.ubalt.edu/provost) for instructions.

SCHOOL: ○ LAW ○ MSB ◉ CAS ○ CPA

CONTACT NAME: Ronald Castanzo **PHONE:** x1927

DEPARTMENT/DIVISION: Science, Information Arts and Technologies **DATE PREPARED:** 3/21/12

PROPOSED SEMESTER OF IMPLEMENTATION: ◉ fall ○ spring **YEAR:** 2013

ACTION BEING REQUESTED (select one category, either Course Actions or Program Actions):

◉ ***COURSE ACTIONS*** ○ ***PROGRAM ACTIONS***

Original Subject Code/Course Number: BIOL 101

Original Course Title: Humankind in the Biological World

Original Program Title:

*Select one or multiple actions from **one** of the lists below (review the list of necessary documents and signatures):*

	COURSE ACTIONS
	1. Experimental Course
	2. Course Title
	3. Course Credits
	4. Course Number
	5. Course Level
	6. Pre- and Co-Requisite
	7. Course Description
	8. New Course
	9. Deactivate Course
✓	22. Other

	PROGRAM ACTIONS
	10. Program Requirements
	11a. Undergraduate Specialization (24 credits or fewer)
	11b. Master's Specialization (12 credits or fewer)
	11c. Doctoral Specialization (18 credits or fewer)
	12. Minor (add or delete)
	13. Closed Site Program
	14. Program Suspension
	15. Program Reactivation
	16a. Certificate Program (UG/G) exclusively within existing degree program
	16b. Certificate Program (UG/G) outside of or across degree programs (12 or more credits)
	17. Off-Campus Delivery of Existing Programs
	18a. Undergraduate Concentration (exceeds 24 credits)
	18b. Master's Concentration (exceeds 12 credits)
	18c. Doctoral Concentration (exceeds 18 credits)
	19. Program Title Change
	20. Program Termination
	21. New Degree Program
	22. Other

For changes to existing courses:

OLD TITLE **SUBJECT CODE/COURSE NO.** **CREDITS**

NEW TITLE **SUBJECT CODE/COURSE NO.** **CREDITS**

DESCRIBE THE REQUESTED COURSE/PROGRAM ACTION (additional pages may be attached if necessary):

As part of an initiative of the Office of the Provost, SIAT is revising the learning goals of its general education biological/natural science courses to bring them more in line with COMAR and to make outcomes more assessable.

The original learning goals for BIOL 101 are as follows:
I. to understand the basic terminology, fundamental concepts, and significant persons in the fields of environmental science, genetics, cell biology, botany, zoology, epidemiology, and ecology;
II. to be able to extract and summarize information from a peer review journal article dealing with environmental science, genetics, cell biology, botany, zoology, epidemiology, and ecology;
III. to understand how science is conducted (including the construction and testing of hypotheses) and what distinguishes scientific fields from other types of disciplines;
IV. to understand the connection between fundamental principles and concepts of the biological sciences and the natural phenomena they encounter in their everyday lives.

New learning goals:
1. Discriminate science from non-science, especially including the attribute of testing of hypotheses about natural phenomena through observation.
2. Define the fundamental terminology and concepts and identify the significant historic figures in microbiology and disease pathology.
3. Access scientific information on an assigned topic from specified internet and other sources.
4. Name and describe technology and data collection and quantitative methods commonly used in microbiology and disease pathology.
5. Make judgments about conclusions reached from data obtained in peer-reviewed and other scientific investigations of natural phenomena.

SET FORTH THE RATIONALE FOR THIS PROPOSAL:

Learning goals for several general education courses are in need of revision to make them more assessable and to bring them more in line with state guidelines.

DOCUMENT P: COURSE DEFINITION

See Course and Program Development Policy and Procedures (http://www.ubalt.edu/template.cfm?page=257) for instructions.

1. DATE PREPARED: 3-21-12

---

2. PREPARED BY: Ronald Castanzo

---

3. DEPARTMENT/DIVISION: SIAT

---

4. COURSE NUMBER(S) with SUBJECT CODE(S): BIOL 101

---

5. COURSE TITLE: Humankind in the Biological World

---

6. CREDIT HOURS: 3.0

---

7. CATALOG DESCRIPTION

Deals in a broad sense with how humans interact with, affect, and are affected by other organisms. Presents an overview of the history of scientific thought, including important persons, shifts in philosophy, and technological innovations. Pathogenic organisms, genetic predisposition and natural immunity to disease, as well as disease treatments and cures are discussed. Addresses the ways that human activities such as hunting, commercial fishing, and deforestation have had an impact on other life on Earth.

---

8. PREREQUISITES: none

---

9. COURSE PURPOSE (how the course is to be used in the curriculum; e.g., required for the major, elective, etc.): general education

---

10. GENERAL EDUCATION AREA (if applicable; e.g., social sciences, humanities, mathematics, etc.): GSCI

---

11. COURSE TYPE/COMPONENT (clinical, continuance, discussion, field studies, independent study, laboratory, lecture, practicum, research,

seminar, supervision, thesis research, tutorial or workshop; **this must match PeopleSoft 9.0 coding, so check with your dean's office if you are unsure of the correct entry**): lecture

---

12. FACULTY QUALIFIED TO TEACH COURSE: Kemp, Pecher, Castanzo

---

13. CONTENT OUTLINE

Week	*Topics*
1	Scientific thought in prehistory; Ancient Greece and Rome
2	Science in non-Western society: India, China, and the Muslim World
3	Middle Ages, Enlightenment, and beginning of modern science
4	Rise of medicine; cell structure
5	DNA; diversity of microorganisms
6	Acellular and prokaryotic microbes
7	Microbial physiology; environmental microbiology
8	Epidemiology; microbial ecology
9	Diagnosing infectious disease; host defense mechanisms; antibiotics
10	Medicine in the 20th century; bacterial, viral, and fungal diseases; parasitic diseases
11	Human ecology; sustainable development; ecosystem organization
12	Human population growth and regulation; ecological succession
13	Co-evolution and co-adaptation of human social systems and ecosystems
14	Ecosystem services; perceptions of nature
15	Unsustainable and sustainable human-ecosystem interactions

---

14. LEARNING GOALS

1. Discriminate science from non-science, especially including the attribute of testing of hypotheses about natural phenomena through observation.

2. Define the fundamental terminology and concepts and identify the significant historic figures in microbiology and disease pathology.

3. Access scientific information on an assigned topic from specified internet and other sources.

4. Name and describe technology and data collection and quantitative methods commonly used in microbiology and disease pathology.

5. Make judgments about conclusions reached from data obtained in peer-reviewed and other scientific investigations of natural phenomena.

---

15. ASSESSMENT STRATEGIES

Possible assessment strategies include:

I. frequent quizzes and/or short assignments (e.g. observational studies, completion of take-home questions, etc.);
II. at least two exams, including a final exam;
III. writing assignments (stressing scientific format and writing) that require students to utilize, on a limited basis, the peer review literature (articles chosen by the instructor are suggested);
IV. field trip reports, oral presentations, and other kinds of assessment tools are possible, but not essential, for the instruction of the course.

---

16. SUGGESTED TEXT(S) and MATERIALS (e.g. textbooks, equipment, software, etc., that students must purchase)

Burton, G. and Englekirk, P. 2003 *Microbiology for the Health Sciences.* Lippincott Williams & Wilkins.
Kennedy, M. T. 2004 *A Brief History of Disease, Science & Medicine*. Asklepiad Press.
Marten, G. G. and Strong, M. 2001 *Human Ecology: Basic Concepts for Sustainable Development.* Earthscan/James & James.

Other appropriate texts:
Clarke, S. C. 2004 *Modern Medical Microbiology*. Arnold Publishers.
Myers, J. P., Reichert, J., and Daily, G. C. 1997 *Nature's Services: Societal Dependence on Natural Ecosystems.* Island Press.
Gribbin, J. 2003 *Science, A History*. Penguin Books, Ltd.
Kormondy, E. J. and Brown, D. E. 1998 *Fundamentals of Human Ecology*. Prentice Hall.
Lindberg, D. C. 1992 *The Beginnings of Western Science: The European Scientific Tradition in Philosophical, Religious, and Institutional Context, 600 B.C. to A.D. 1450*. University of Chicago Press.

---

17. SPECIAL GRADING OPTIONS (if applicable)

---

18. SUGGESTED CLASS SIZE: 30

---

19. LAB FEES (if applicable): n/a
