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**
  - Original Subject Code/Course Number: BIOL 101
  - Original Course Title: Humankind in the Biological World

- **PROGRAM ACTIONS**
  - 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
10. 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
16. Certificate Program (UG/G) exclusively within existing degree program
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):

<table>
<thead>
<tr>
<th>Impacted Entity</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Library</td>
<td></td>
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<tr>
<td>b. OTS</td>
<td></td>
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<tr>
<td>c. University Relations</td>
<td></td>
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<td>d. Admissions</td>
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<tr>
<td>e. Records</td>
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</tr>
</tbody>
</table>

no impact  □ impact statement attached

APPROVAL SEQUENCE (review the list of necessary signatures):

<table>
<thead>
<tr>
<th>Approval Level</th>
<th>Signature</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Department/Division (Chair)</td>
<td>Deborah Kehl</td>
<td>March 27, 2012</td>
</tr>
<tr>
<td>B. General Education (for No. 7, 8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. Final Faculty Review Body Within Each School (Chair)</td>
<td></td>
<td>April 13, 2012</td>
</tr>
<tr>
<td>D. Dean</td>
<td>Daniel B. Pa</td>
<td>April 13, 2012</td>
</tr>
<tr>
<td>E. University Faculty Senate (Chair)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F. University Council (Chair)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>G. Provost and Senior Vice President for Academic Affairs</td>
<td>Beverly Schnell</td>
<td>July 30, 2013</td>
</tr>
<tr>
<td>H. President</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I. Board of Regents (notification only)</td>
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<tr>
<td>J. Board of Regents (approval)</td>
<td></td>
<td></td>
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<tr>
<td>K. MHEC (notification only)</td>
<td></td>
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<tr>
<td>L. MHEC (approval)</td>
<td></td>
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<tr>
<td>M. Middle States Association notification</td>
<td>Required only if the University’s mission is changed by the action</td>
<td></td>
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</table>

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

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

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</tr>
<tr>
<td>✓ 22. Other</td>
<td>16b. Certificate Program (UG/G) outside of or across degree programs (12 or more credits)</td>
</tr>
</tbody>
</table>

For changes to existing courses:

**OLD TITLE**

**SUBJECT CODE/COURSE NO.**

**NEW TITLE**

**SUBJECT CODE/COURSE NO.**
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.
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, Summer 2010
12. FACULTY QUALIFIED TO TEACH COURSE: Kemp, Pecher, Castanzo

13. CONTENT OUTLINE

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

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.

Summer 2010
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.

Other appropriate texts:

17. SPECIAL GRADING OPTIONS (if applicable)

18. SUGGESTED CLASS SIZE: 30

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

Summer 2010