## Revise Course (BIO 103, effective Fall 2013)

### Summary of Changes

**Distribution Credit**

### Course Changes

#### Course Details

<table>
<thead>
<tr>
<th>Current</th>
<th>Requested (Leave blank for no change)</th>
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</thead>
<tbody>
<tr>
<td>Prefix</td>
<td>BIO</td>
</tr>
<tr>
<td>Course Number</td>
<td>103</td>
</tr>
<tr>
<td>Credit Hours</td>
<td>4</td>
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<td>Distribution Credit</td>
<td>N, NL</td>
</tr>
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<td>Schedule Type</td>
<td>HW</td>
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</table>

#### Short Title (30 character maximum, including spaces)

BIO: its Human Implications

### Course Listing

**Introductory presentation of scientific approaches to nutrition, genetics, and plant biology and their applications to human needs. Lecture and laboratory. Intended for non-science majors. BIO 103 and 104 may be taken in either order.**

### Amended Prerequisites / Corequisites / Restrictions

<table>
<thead>
<tr>
<th>Amended Course Description</th>
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</thead>
<tbody>
<tr>
<td>Standard (ABCDE)</td>
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</table>

### Repeat Status

Not repeatable for additional credit

### Cross Listings

(Will automatically be created/changed)

### Comments

**IF THIS AFFECTS PROGRAM REQUIREMENTS, A PROGRAM FORM IS REQUIRED**

### Approvers

<table>
<thead>
<tr>
<th>Name</th>
<th>Reviewer Type</th>
<th>Review Status</th>
<th>Review Time</th>
<th>Reason</th>
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<tbody>
<tr>
<td>Cynthia</td>
<td>Requester</td>
<td>Accepted</td>
<td>11-01-2012 01:28</td>
<td>Original Request</td>
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[https://sis.umflint.edu/prod/zwcc_course_change.view_change](https://sis.umflint.edu/prod/zwcc_course_change.view_change)
Your form "Request for General Education Designation" has received the following response:

Submitted on: 11/29/2012 03:34:41 PM
Completion time: 1 hr. 47 min. 24 sec.

Q. Email:
R. cholzer@umflint.edu

Q. Course Title:
R. Biology: Its human implications I

Q. Department:
R. Biology

Q. Course Prefix:
R. BIO

Q. Course Number:
. 103

Q. Learning Outcome No.
R. 3 - Demonstrate the ability to think critically

Q. Narrative:
R. This learning outcome is satisfied through the various topics covered in the course, which include the study of cells, nutrition, genetics and the basis of life. Students learn how these topics are interconnected and how they apply to our every day life.

Q. Assessment tools:
R. Multiple graded assignments require the student to be able to demonstrate their knowledge in completing genetics inheritance problems, interpret case studies and compare and contrast various processes learned in the laboratory sessions.

Q. Learning Outcome No.
R. 5 - Produce competent written work

Q. Narrative:
R. Students are instructed to read material from their textbooks and glean important information that may have a predicted impact on their lives.

Q. Assessment tools:
R. Utilizing questions posed by the instructor, students will write, in an essay format, a comprehensive summary of the readings. These assignments are intended to broaden a student's knowledge base beyond what they will receive in lecture or in the laboratory.

Q. Learning Outcome No.
R. 6 - Participate in dialogue that involves respectful and careful listening
Q. Narrative:
R. Students will read assigned articles, which relate to controversial issues from the textbook and case studies. They will be required to assimilate information that can support or refute either side of the respective controversial issue.

Q. Assessment tools:
R. An outline representing the strong points of each side of the issue will be handed in at the beginning of the following lecture period. After being randomly selected to represent one side of the issue or the other, the remainder of the lecture period will be used for a debate. The desired result of the debate, is students being prepared for decisions they may need to make in the near future with respect to the topics being debated. The outline submitted and student participation during the debate will be evaluated.

Q. Learning Outcome No.
R. 7 - Use visual or non-verbal tools to decode messages

Q. Narrative:
R. As a biology course, students will learn to read graphs, tables and pedigrees. For the genetics portion of the class, students will create their own Punnett squares to determine the probability of specific outcomes in children given particular traits of the parents. Students will produce drawings of hypothetical cells, containing a specific number of chromosomes, as they go through mitosis and meiosis. These diagrams will allow the student to visualize how chromosomes move throughout these processes.

Q. Assessment tools:
R. Homework, relating to mitosis, meiosis and solving genetics problems will be graded. A demonstration of understanding mitosis and meiosis will also be assessed in the laboratory using clay chromosome models which the student can physically manipulate. Evaluation can be implemented at every step of the process allowing for immediate feedback.

Q. Learning Outcome No.
R. 8 - Demonstrate knowledge of culture, social structures, and physical and natural world

Q. Narrative:
R. Due to the nature of a biology course, the primary focus will be on the physical and natural world and how it affects the human condition.

Q. Assessment tools:
R. Throughout the semester, students will demonstrate their knowledge through homework, case studies, exams, discussions and post laboratory assignments. Instructor generated rubrics will be utilized for assessment purposes.