Resolution #23 2010-2011
College Senate

Supersedes Res #:

TO: Dr. John R. Halstead, College President

FROM: The College Senate: April 4, 2011

RE: I. Formal Resolution (Act of Determination)
    II. Recommendation (Urging the Fitness of)
    III. Other, For Your Information (Notice, Request, Report, etc.)

SUBJ: Requirement for Biology Majors to take BIO201 and BIO202 Sequentially (routing #67_10-11UC)

Signed: ___________________________ Date: 04/21/11
(Dr. John R. Torre, 2010-11, College Senate President)

Please fill out the bottom portion and follow the distribution instructions at the end of this page.

TO: Jose R. Torre, College Senate President

FROM: John R. Halstead, College President

RE: I. Decision and Action Taken on Formal Resolution (circle choice)
   a. Accepted - Implementation Effective Date: Fall 2011
   b. Deferred for discussion with the Faculty Senate on _____/_____/_____
   c. Unacceptable for the reasons contained in the attached explanation

II, III. Response to Recommendation or Other/FYI
   a. Received and acknowledged _____/_____/_____
   b. Comment:

Signed: ___________________________ Date: 04/27/11
(Dr. John R. Halstead, President, The College at Brockport)

DISTRIBUTION

Upon approval, the College President will forward copies of resolutions to his staff who will, in turn, forward copies to their staff. The College Senate Office will post resolutions to the College Senate Web at http://www.brockport.edu/collegesenate/resolutions.
1. **PROPOSAL TITLE**: Please be somewhat descriptive, i.e. **Graduate Probation/Dismissal Proposal** rather than **Graduate Proposal**.

Requirement for Biology Majors to take BIO201 and BIO202 Sequentially

2. **BRIEF DESCRIPTION OF PROPOSAL**:

We wish to require Biology Majors to enroll in Introductory Biology I and Introductory Biology II (BIO201 and BIO202, respectively) **in sequence**. The content of BIO202 is simply too dependent upon content learned in BIO201 for a full understanding of concepts covered in BIO201. This change will better serve our students by increasing their overall understanding of concepts of Biology that are taught in BIO201 prior to exposure to material in BIO202 that is dependent on the BIO201 content. We believe this curriculum change will enhance student success within the major.

3. **WILL ADDITIONAL RESOURCES AFFECTING BUDGET BE NEEDED?** 

   - [X] No  
   - [ ] Yes 

   **EXPLAIN**

4. **HOW WILL THIS EFFECT TRANSFER STUDENTS?**

   No effect

5. **ANTICIPATED EFFECTIVE DATE**:

   Fall, 2011

6. **SUBMISSION & REVISION DATES**: Please put a date on all updated documents to avoid confusion.

<table>
<thead>
<tr>
<th>First Submission</th>
<th>Updated on</th>
<th>Updated on</th>
<th>Updated on</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/1/11</td>
<td>3/7/11 (see notes)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. **SUBMITTED BY** (contact person)

<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Craig Lending</td>
<td>Biology</td>
<td>X5755</td>
<td><a href="mailto:clending@brockport.edu">clending@brockport.edu</a></td>
</tr>
</tbody>
</table>

8. **COMMITTEES TO COPY** (Senate office use only)

<table>
<thead>
<tr>
<th>Standing Committee</th>
<th>Forwarded For Approval To</th>
<th>Dates</th>
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</thead>
<tbody>
<tr>
<td>Enrollment Planning &amp; Policies</td>
<td>Committee for approval</td>
<td>3/1/11, 3/7/11</td>
</tr>
<tr>
<td>Faculty &amp; Professional Staff Policies</td>
<td>Executive Committee</td>
<td>3/28/11</td>
</tr>
<tr>
<td>General Education &amp; Curriculum Policies</td>
<td>GED to Vice Provost</td>
<td>NA</td>
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<tr>
<td>Graduate Curriculum &amp; Policies</td>
<td>Senate</td>
<td>4/4/11</td>
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<tr>
<td>Student Policies</td>
<td>College President</td>
<td>4/7/11</td>
</tr>
<tr>
<td>Undergraduate Curriculum &amp; Policies</td>
<td>OTHER</td>
<td></td>
</tr>
</tbody>
</table>

   * follow special Gen Ed procedures for submission of General Education proposals at “How to Submit Proposals” on our Website.

   **NOTES**: 3/7/11 - I have added a letter of support from the Chemistry Department, as the Biochemistry Major is affected by this change as well. I am the Coordinator for the Medical Technology Major, and the reasons for changing the Biology Major apply equally to the Medical Technology Major. I have also included additional information on a similar requirement for sequentially taking BIO155 and BIO156 at MCC. – Craig Lending
Major in Biological Sciences

**Current Biology requirements**

(37 credits; 29 credits at the 300 and 400 level)

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
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</tr>
<tr>
<td>BIO 202 Biology II</td>
<td>4</td>
</tr>
<tr>
<td>BIO 301 Cell Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIO 302 Genetics</td>
<td>4</td>
</tr>
<tr>
<td>300-level Elective Credits</td>
<td>0-8</td>
</tr>
<tr>
<td>BIO 498 Seminar</td>
<td>1</td>
</tr>
<tr>
<td>BIO 400-level courses (by advisement)</td>
<td>12-20</td>
</tr>
</tbody>
</table>

**Minimum Total:** 37

Note: two of the 400-level courses above MUST entail a laboratory-based component selected from the following: BIO401 (Adv.Cell Lab), 404 (Dev.Bio), 417 (Recomb. DNA), 424 (Exp. Res.), 428 (Microtechniques), 429 (Cellular Imaging), 460 (Neurophysiology, 555), 470 (Biochemistry), 480 (Genomics and Proteomics), General Microbiology (BIO???)

**Proposed Biology requirements**

(37 credits; 29 credits at the 300 and 400 level)

<table>
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<tr>
<td>BIO 201 Biology I</td>
<td>4</td>
</tr>
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<td>BIO 202 Biology II (requires BIO201)</td>
<td>4</td>
</tr>
<tr>
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<td>4</td>
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**Chemical requirements:**

CHM 205-206 College Chemistry I & II | 8
CHM 305 Organic Chemistry I | 4
CHM 306 or CHM 313 (Organic II or Quantitative Chemical Analysis) | 4

**Math requirements:**

MTH201, MTH221, or MTH243 | 3 or 4

**Physics requirements:**

PHS 205-210 Intro to Physics I & II w/lab | 8

OR

PHS 235-240 Physics I & II w/lab | 8
II
BIO 323 Microbiology 4

**Chemistry requirements:**
CHM 205-206 College Chemistry I & II 8
CHM 305 Organic Chemistry I 4
CHM 306 or CHM 313 (Organic II or Quantitative Chemical Analysis) 4

**Math requirements:**
MTH201, MTH221, or MTH243 3 or 4

**Physics requirements:**
PHS 205-210 Intro to Physics I & II w/lab 8

OR

PHS 235-240 Physics I & II w/lab 8
3. The changes above reflect our Department’s desire to improve student performance and learning in our core lower-level courses. The material in the lower-level Biology courses needs to be taught sequentially, as mastery of the content in BIO201 is essential to success in BIO202. This proposal impacts the Biochemistry Major as well, and we have included a letter of support from the Chair of the Department of Chemistry. This proposal will not affect time to degree completion, as we plan on offering (as we currently do) trailer sections during the ‘off’ semesters. Additionally, one of our main ‘feeder’ schools, MCC, requires a sequential series for their Introductory Biology as well (BIO155 is a prerequisite for BIO156).

4. There are no new courses involved in this proposal.

5. There are no additional staffing needs required by this proposal.

6. **Letter of Support – Department Chair**

Craig,

I fully endorse this proposal. We are constantly striving to improve the education of our students, and this proposal will help us obtain our goal. Modern biology is such that all fields are being studied at the cellular and molecular level. Therefore it is necessary to first establish a grounding in these areas for our students. This is done in BIO 201. The topics in BIO 202, such as evolution and physiology require basic knowledge int cellular and molecular biology to understand their contemporary concepts and research approaches. Not requiring BIO 201 greatly limits what can actually be taught in BIO 202. If we want to claim that we are giving our majors the best education possible, then we must require that BIO 201 and 202 be taught sequentially.

Sincerely,
Stuart

--
Stuart Tsubota
Professor and Chair
Department of Biology
The College at Brockport
stsubota@brockport.edu
585-395-5745
To: Dr. Craig Lending, Department of Biology  
From: Dr. Stephen Godleski, Chair, Department of Chemistry  

The Department of Chemistry supports the Senate proposal from the Department of Biology to require that BIO 201 and 202 be taken sequentially. We believe this change will be beneficial for our Biochemistry majors.