

4-30-2012

Elimination of MTH 221 from the biology co-requisites

The College at Brockport, College Senate

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The College at
BROCKPORT
STATE UNIVERSITY OF NEW YORK


350 New Campus Drive
Brockport, New York 14420
585-395-2586 * 585-395-2246 (fax)
senate@brockport.edu
brockport.edu/collegesenate

Resolution # 29 2011-2012
College Senate

Supersedes Res #: _____

TO: Dr. John R. Halstead, College President

FROM: The College Senate: 4/30/12

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


SUBJ: ***Elimination of MTH 221 from the Biology co-requisites*** (*routing #44_11-12UC*)

Signed:  Date: 5/7/12
(John P. Daly 2011-2012, College Senate President)

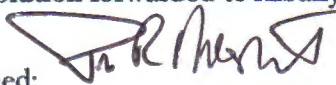
Please fill out the bottom portion and follow the distribution instructions at the end of this page.

TO: John P. Daly, 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 2012
 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:

Resolution forwarded to Albany by President's Office for final approval. ___ YES ___ NO

Signed:  Date: 9/5/12
(Dr. John R. Halstead, President, The College at Brockport)

DISTRIBUTION:

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>.

**COLLEGE SENATE OFFICE
RESOLUTION PROPOSAL COVER PAGE**

Routing Number <i>Routing # assigned by Senate Office</i>	#44_11-12UC <i>Use routing number and title in all reference to this proposal.</i>
Replaces Resolution	#

DEADLINE FOR SUBMISSIONS: FEBRUARY 28

Incomplete proposals or proposals received after the deadline may not be reviewed until next semester.

INSTRUCTIONS – please, no multiple attachments – each proposal must be submitted electronically as one document.

- Submit only complete proposals. Include support letters from department chair and dean.
- Proposals must be prepared individually in Word format using committee guidelines available at brockport.edu/collegesenate/proposal.html.
- Fill out this cover page for each proposal and insert it electronically as the front page of your document. (collegesenate/proposal.html)
- Email whole proposal with cover page as one attachment to senate@brockport.edu and facprez@brockport.edu.
- All updates must be resubmitted to the Senate office with the original cover page including routing number.
- Questions? Call the Senate office at 395-2586 or the appropriate committee chairperson.

1. **PROPOSAL TITLE:** Please be somewhat descriptive, ie. *Graduate Probation/Dismissal Proposal* rather than *Graduate Proposal*.

Elimination of MTH 221 (Calculus for Business, Social, and Life Sciences) from the Biology co-requisites

2. BRIEF DESCRIPTION OF PROPOSAL:

We wish remove MTH 221 (Calculus for Business, Social, and Life Sciences) from the Biology Majors Math requirements. The content of MTH221 is not sufficient to provide the comprehensive background needed by contemporary Biology graduates. Importantly, this course does not satisfy the math prerequisites for PHS 205, 210 Introduction to Physics I and II and PHS 235, 240 Physics I and II. Therefore, we do not recommend that our majors enroll in this course. This change will better serve our students by increasing their overall understanding of mathematics as it applies to concepts of Biology.

3. **WILL ADDITIONAL RESOURCES AFFECTING BUDGET BE NEEDED?** NO YES EXPLAIN

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

No affect

5. **ANTICIPATED EFFECTIVE DATE:**

Fall, 2012

6. **SUBMISSION & REVISION DATES:** PLEASE PUT A DATE ON ALL UPDATED DOCUMENTS TO AVOID CONFUSION.

<i>First Submission</i>	<i>Updated on</i>	<i>Updated on</i>	<i>Updated on</i>
3/19/12			

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

<i>Name</i>	<i>Department</i>	<i>Phone</i>	<i>Email</i>
Craig Lending	Biology	X5755	clending@brockport.edu

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

Standing Committee	Forwarded For Approval To	Dates
<input type="checkbox"/> Enrollment Planning & Policies	Committee for approval	3/19/12
<input type="checkbox"/> Faculty & Professional Staff Policies	Executive Committee	4/9/12
<input type="checkbox"/> General Education & Curriculum Policies *	GED to Vice Provost	
<input type="checkbox"/> Graduate Curriculum & Policies	Senate	4/16/12
<input type="checkbox"/> Student Policies	College President	
<input checked="" type="checkbox"/> Undergraduate Curriculum & Policies	OTHER	
<i>* follow special Gen Ed procedures for submission of General Education proposals at "How to Submit Proposals" on our Website.</i>	REJECTED -WITHDRAWN	

NOTES:

Major in Biological Sciences Current Biology requirements

(37 credits; 29 credits at the 300 and 400 level)	Credits
BIO 201 Biology I	4
BIO 202 Biology II	4
BIO 301 Cell Biology	4
BIO 302 Genetics	4
300-level Elective Credits	0-8
BIO 498 Seminar	1
BIO 400-level courses (by advisement)	12-20
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 (BIO495)

Elective credits at the 300 level must be selected from the following, and can include a maximum of 8 total credit hours:

BIO 303 Ecology	4
BIO 321 Anatomy and Physiology I	4
BIO 322 Anatomy and Physiology II	4
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, MTH243 or ENV437	3 or 4
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Physics requirements:

PHS 205-210 Intro to Physics I & II w/lab	8
OR	
PHS 235-240 Physics I & II w/lab	8

Major in Biological Sciences Proposed Biology requirements

(37 credits; 29 credits at the 300 and 400 level)	Credits
BIO 201 Biology I	4
BIO 202 Biology II	4
BIO 301 Cell Biology	4
BIO 302 Genetics	4
300-level Elective Credits	0-8
BIO 498 Seminar	1
BIO 400-level courses (by advisement)	12-20
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 (BIO495)

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BIO 303 Ecology	4
BIO 321 Anatomy and Physiology I	4
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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, MTH243 or ENV437	3 or 4
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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 in understanding the mathematical concepts that relate to Biology. The content of MTH221 is not sufficient to provide the comprehensive background needed by contemporary Biology graduates. Importantly, this course does not satisfy the math prerequisites for PHS 205, 210 Introduction to Physics I and II and PHS 235, 240 Physics I and II. The prerequisite for PHS205 is MTH122. Therefore, we do not recommend that our majors enroll in this course MTH221, as it does not meet any of the prerequisites required for any of the Biology corequisite courses in Physics. This change will better serve our students by increasing their overall understanding of mathematics as it applies to concepts of Biology.
 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



The College at
BROCKPORT
STATE UNIVERSITY OF NEW YORK

**350 New Campus Drive
Brockport, New York 14420**

Rey Antonio L. Sia, Ph.D.
Department Chair
Associate Professor
Dept. of Biology
rsia@brockport.edu

February 16, 2012

To the Committee,

The Department of Biology supports the change in the course requirement for its B.S. Biology major. We want to remove MTH 221 Calculus for Business, Social, and Life Sciences as an option to fulfill the major's math requirement. This course does not satisfy the math prerequisites for PHS 205, 210 Introduction to Physics I and II with Lab and PHS 235, 240 Physics I and II with Lab. Therefore, we do not recommend that our majors enroll in this course.

Sincerely,
Rey A. Sia

Letter of Support – Other Departments

Biology Department Curriculum Committee
Dr. Craig Lending

Dear Craig,

I have reviewed and, on behalf of the Department of Physics, support the proposed changes to the mathematics requirements to the Biology major curriculum.

Best regards,

SFR

Stanley F. Radford, Ph.D.
Professor and Chairman
Department of Physics
The College at Brockport
State University of New York
350 New Campus Drive
Brockport, NY 14420
585-395-5576
sradford@brockport.edu



The College at
BROCKPORT
STATE UNIVERSITY OF NEW YORK

**350 New Campus Drive
Brockport, New York 14420**

February 27, 2012

From: Mihail Barbosu, Professor and Chair
Department of Mathematics

To: Craig Lending, Department of Biology

To the Committee,

The Department of Mathematics supports the proposal submitted by the Biology Department to remove MTH 221, Calculus for Business as an option to fulfill the B.S. Biology major's math requirement, given that most applications in MTH 221 are business and economics related.

Sincerely,

Mihail Barbosu

mbarbosu@brockport.edu



The College at
BROCKPORT
STATE UNIVERSITY OF NEW YORK

School of Science and Mathematics

28 December 2012

To: College Senate

I have reviewed the proposal by the Biology Department to remove MTH 221 (Calculus for Business, Social, and Life Sciences) as a course that would satisfy one of the requirements of the Biology Major. I concur with the view of the department that the content of MTH221 is not sufficient to provide the comprehensive background needed by contemporary Biology graduates. Accordingly, I support the proposal.

Sincerely,

A handwritten signature in black ink, reading 'Jose Maliekal'.

Jose Maliekal, PhD
Interim Dean, School of Science & Mathematics