

Senate Bill 1112-11

UNIVERSITY SENATE

**UNIVERSITY AT ALBANY
STATE UNIVERSITY OF NEW YORK**

Introduced by: UAC

Date: March 5, 2012

ECO REVISIONS TO BA

IT IS HEREBY PROPOSED THAT THE FOLLOWING BE ADOPTED:

1. That this takes effect for the spring 2012 semester.
2. That this proposal be forwarded to President George M. Philip for approval.

University at Albany – State University of New York	
College of Arts and Sciences	Course and Program Action Form
Proposal No. <u>11-049</u>	
Please check one: <input type="checkbox"/> Course Proposal <input checked="" type="checkbox"/> Program Proposal	
Please mark all that apply:	
<input type="checkbox"/> New Course	Revision of: <input type="checkbox"/> Number
<input type="checkbox"/> Cross-Listing	<input type="checkbox"/> Title
<input type="checkbox"/> Shared-Resources Course	<input type="checkbox"/> Credits
<input type="checkbox"/> Deactivate/Activate Course (boldface & underline as appropriate)	<input checked="" type="checkbox"/> Other (specify): <u>Revision of Economics BA Program</u>
Department: <u>Economics</u>	Effective Semester, Year: <u>Spring, 2012</u>
Course Number Current: _____ New: _____ Credits: _____	
Course Title: _____	
Course Description to appear in Bulletin: _____	
Prerequisites statement to be appended to description in Bulletin: _____	
If S/U is to be designated as the only grading system in the course, check here: <input type="checkbox"/>	
This course is (will be) cross listed with (i.e., CAS ###): _____	
This course is (will be) a shared-resources course with (i.e., CAS ###): _____	
Explanation of proposal: Please see explanation following.	
Other departments or schools which offer similar or related courses and which have certified that this proposal does not overlap their offering: _____	
Chair of Proposing Department	Date
Terrence Kinal	6.10.11
Approved by Chair(s) of Department(s) offering course to be used as prerequisite (Copy of e-mail approval on following page.)	Date
<i>Kehe Zhan</i> 7/11/2011	
Dean of College	Date
Gregory Stevens/Edelgard Wulfert	10/26/11
Chair of Academic Programs Committee	Date
Pinka Chatterji	10/21/11
Dean of Undergraduate or Graduate Studies	Date

Added 11/11/11:

Resource Implications of Proposal for Revision of Bachelor of Arts in Economics
11-049 ECO (OT-Revisions to BA Program)

The major resource implication of the proposal to allow AMAT 101 to satisfy the mathematics requirement for the Bachelor of Arts in economics is that fewer students would take AMAT 106 and more students would take AMAT 101. The Department of Economics has corresponded with the Department of Mathematics on this change and the Department of Mathematics has indicated it is prepared for the changing enrollments as documented in the letter from Prof. Keke Zhu, Chair of the Department of Mathematics. The proposal may also result in additional students seeking the BA major in economics. We anticipate that any year-to-year enrollment increases from the proposal will be small relative to the fluctuations we have experienced in the past. If there are increases in numbers of majors over time, there would be increased enrollments in upper level economics courses after about two years. These increased enrollments could be anticipated from enrollments in principles courses and numbers of intended majors, allowing planning for the increases.

Dear Michael,

We have no problem with your proposal to change the math requirement from AMAT 106 or higher to AMAT 101 or higher. This will likely cause us to shift some teaching resources from 106 to 101 (and possibly 104 and 111), but the overall impact should be small. I will sign the form and send it to you by campus mail today. I am sorry about the delay in getting back to you.

Best regards,
Kehe Zhu
Chair/Department of Mathematics and Statistics

----- Original Message -----

Subject: Proposal for revision to BA program in economics

Date: Mon, 13 Jun 2011 14:11:01 -0400

From: Michael Sattinger <m.sattinger@albany.edu>

To: <plotnick@math.albany.edu>

CC: Terry Kinal <twk58@albany.edu>, Linda M Gallagher
<lgallagher@albany.edu>, Cindy Endres <cendres@cas.albany.edu>

Dear Steve,

Attached is our proposal for a revision to the Bachelor of Arts Economics major, in which AMat101 would be allowed to satisfy the math requirement for the degree.

I understand that you are acting chair of the department during the summer. The College of Arts and Sciences wants the signature of the chair on the program and course forms to show that the mathematics department knows about and approves of the proposed changes. Please let me know if you need more information, there are inaccuracies, or you wish to discuss alternatives. The proposal won't be considered until the fall, so there is plenty of time for discussions.

If you approve the changes, you can send me an email indicating your approval and I will attach the email to the document.

I hope you are having a good summer.
Michael Sattinger
director of undergraduate studies, economics

Proposal for Revision of Bachelor of Arts in Economics Program
June 10, 2011

The Department of Economics offers two undergraduate degrees, a Bachelor of Arts and a Bachelor of Science in Economics. The BA degree is a liberal arts track appropriate for students interested in pre-law, the financial industry, business, government and social sciences in general, while the BS degree emphasizes a more technical preparation for graduate school and professional careers. About one fourth of our majors get BS degrees and three-fourths get BA degrees.

This proposal describes a revision to our Bachelor of Arts Economics Major with the purpose of making the major more open and accessible to students, and making the BA degree more appropriate for the careers and needs of the majority of University at Albany students. The revision would allow BA students to satisfy the mathematics requirement for the major with Mat 101. (There would be no change to the Bachelor of Science economics major.) Currently the mathematics requirement for the BA program is Mat 106, 111, 112, 118, or Eco 210. Most students take Mat 106, Survey of Calculus. The department believes that Mat 101 is more appropriate for our students than Mat 106 because it provides a review of precalculus material and does not include integral calculus, which is less useful for the BA degree. In addition to providing more preparation for calculus, Mat 101 covers limits and derivatives and differentiation rules in calculus. Students who later decide to switch to the BS program will be better off with Mat 101 than Mat 106, since Mat 106 does not contribute to the two-semester calculus sequence needed for the BS program. Students with Mat 101 can take Mat 111 to complete the first part of the calculus requirement without redundancy.

The department believes that the revision will widen the range of opportunities for undergraduates interested in economics while providing an improved educational experience for students choosing the Bachelor of Arts in Economics Major. This proposal addresses the problem that many BA students have difficulty passing Mat 106 in a timely fashion, perhaps unnecessarily discouraging many students from choosing to major in economics, delaying the time when students can take core courses (intermediate microeconomics, Eco 300, intermediate macroeconomics, Eco 301, or Eco 320, economic statistics), and extending the time needed to complete the undergraduate degree. The department continues to encourage students to acquire mathematical knowledge appropriate to their career goals in all programs.

Evidence that the current calculus requirement may be a barrier to choosing economics is provided by the following recent data on the calculus records for our current BA majors.

Economics Majors in the Bachelor of Arts Program Junior and Senior Status

GPA <2.5			
<u>Total # Students</u>		<u>less than 2.0</u>	<u>2.0-2.49</u>
	107	31	76
<u># Students Passed C or better first attempt</u>	53	13	40
<u># Students Passed C or better second attempt</u>	10	0	10
<u># Students Passed C or better more than 2 attempts</u>	0	0	0
<u># Students Passed less than C first attempt</u>	24	5	19
<u># Students Passed less than C more than one attempt</u>	6	5	1
<u># Students that did not pass</u>	8	5	3
<u># Students currently enrolled in Calc - 1st attempt</u>	3	1	2
<u># Students have not attempted</u>	3	2	1

GPA 2.5+			
<u>Total # Students</u>		<u>2.5-2.99</u>	<u>3.0+</u>
	153	102	51
<u># Students Passed C or better first attempt</u>	102	59	43
<u># Students Passed C or better second attempt</u>	8	6	2
<u># Students Passed C or better more than 2 attempts</u>	3	2	1
<u># Students Passed less than C first attempt</u>	23	21	2
<u># Students Passed less than C more than one attempt</u>	1	1	0
<u># Students that did not pass</u>	7	6	1
<u># Students currently enrolled in Calc - 1st attempt</u>			

	8	6	2
<u># Students have not attempted</u>			
	1	1	0

The data indicate that the current mathematics requirement constitutes a significant and unnecessary hurdle for many students and probably discourages many students from choosing an economics major. The difficulty may arise because many students lack the facility with precalculus that would prepare them for calculus. Mat 101 would solve this problem by providing a review of mathematics before starting on calculus. Mat 101 also provides sufficient coverage of differential calculus so that students will be prepared for the intermediate economics core courses. Allowing Mat 101 to satisfy the mathematics requirement will not require any changes in the content of intermediate core courses, but those courses will also need to be revised to allow Mat 101 to serve as the mathematics prerequisite. Course change proposals for Eco 300, Eco 301 and Eco 320 have therefore been included with this proposal. Also, a course change proposal for Eco 210 is included to prevent students from taking both Mat 101 and Eco 210 for credit.

University at Albany – State University of New York	
College of Arts and Sciences	Course and Program Action Form
Proposal No. <u>11-049A</u>	
Please check one: <input checked="" type="checkbox"/> Course Proposal <input type="checkbox"/> Program Proposal	
Please mark all that apply:	
<input type="checkbox"/> New Course	Revision of: <input type="checkbox"/> Number <input checked="" type="checkbox"/> Description
<input type="checkbox"/> Cross-Listing	<input type="checkbox"/> Title <input type="checkbox"/> Prerequisites
<input type="checkbox"/> Shared-Resources Course	<input type="checkbox"/> Credits
<input type="checkbox"/> Deactivate/Activate Course (boldface & underline as appropriate)	<input checked="" type="checkbox"/> Other (specify): <u>Equivalents</u>
Department: <u>Economics</u>	Effective Semester, Year: <u>Spring 2012</u>
Course Number Current: <u>Eco 210</u> New: _____	Credits: <u>3</u>
Course Title: <u>Tools of Economics</u>	
Course Description to appear in Bulletin:	
Introduction to some of the basic mathematical tools used in economics, including the construction and comprehension of simple graphs, as well as some of the economist's conceptual tools, including marginal analysis, national income analysis, supply and demand. May not be taken for credit by students with credit for A MAT 101, 106, 111, 112, 118, or equivalent.	
Prerequisites statement to be appended to description in Bulletin:	
If S/U is to be designated as the only grading system in the course, check here: <input type="checkbox"/>	
This course is (will be) cross listed with (i.e., CAS ###): _____	
This course is (will be) a shared-resources course with (i.e., CAS ###): _____	
Explanation of proposal:	
With the proposal for changes in the Bachelor of Arts program in economics, A Mat 101 would be accepted as satisfying the mathematics requirement for the major. The change for Eco 210 would prevent students from taking Eco 210 after getting equivalent or more difficult material in Mat 101.	
Other departments or schools which offer similar or related courses and which have certified that this proposal does not overlap their offering:	
Chair of Proposing Department	Date
Terrence Kinal	6.10.11
Approved by Chair(s) of Department(s) (Mathematics) offering course to be used as prerequisite (Copy of e-mail approval on following page):	Date
<i>Kebe Zhan</i> 7/11/2011	Date
Dean of College	Date
Gregory Stevens/Edelgard Wulfert	10/26/11
Chair of Academic Programs Committee	Date
Pinka Chatterji	10/21/11
Dean of Undergraduate or Graduate Studies	Date

University at Albany – State University of New York	
College of Arts and Sciences	Course and Program Action Form
Proposal No. <u>11-049B</u>	
Please check one: <input checked="" type="checkbox"/> Course Proposal <input type="checkbox"/> Program Proposal	
Please mark all that apply:	
<input type="checkbox"/> New Course	Revision of: <input type="checkbox"/> Number
<input type="checkbox"/> Cross-Listing	<input type="checkbox"/> Title
<input type="checkbox"/> Shared-Resources Course	<input type="checkbox"/> Credits
<input type="checkbox"/> Deactivate/Activate Course (boldface & underline as appropriate)	<input type="checkbox"/> Other (specify): _____
Department: <u>Economics</u>	Effective Semester, Year: <u>Spring 2012</u>
Course Number Current: <u>Eco 300</u> New: _____	Credits: <u>3</u>
Course Title: <u>Intermediate Microeconomics</u>	
Course Description to appear in Bulletin: Introduction to price theory, distribution theory, and market structure analysis. Relevance of economic theory in production and consumption decisions. (No change)	
Prerequisites statement to be appended to description in Bulletin: Prerequisite(s): A ECO 110 with grade of C or better; A ECO 111; and A ECO 210 or A MAT 101, 106, 111, 112, or 118.	
If S/U is to be designated as the only grading system in the course, check here: <input type="checkbox"/>	
This course is (will be) cross listed with (i.e., CAS ###): _____	
This course is (will be) a shared-resources course with (i.e., CAS ###): _____	
Explanation of proposal: The course proposal would change the list of prerequisites to include A Mat 101 in accordance with the proposal to change the Bachelor of Arts program to allow A Mat 101 to satisfy the mathematics requirement for the major.	
Other departments or schools which offer similar or related courses and which have certified that this proposal does not overlap their offering: 	
Chair of Proposing Department	Date
Terrence Kinal	6.10.11
Approved by Chair(s) of Department(s) having cross-listed course(s) [Copy of e-mail approval on following page.]	Date
<i>Kehe Zhen</i> 7/11/2011	Gregory Stevens/Edelgard Wulfert 10/26/11
Chair of Academic Programs Committee	Date
Pinka Chatterji 10/21/11	Chair of Undergraduate or Graduate Studies

University at Albany – State University of New York	
College of Arts and Sciences	Course and Program Action Form
Proposal No. <u>11-049C</u>	
Please check one: <input checked="" type="checkbox"/> Course Proposal <input type="checkbox"/> Program Proposal	
Please mark all that apply:	
<input type="checkbox"/> New Course	Revision of: <input type="checkbox"/> Number
<input type="checkbox"/> Cross-Listing	<input type="checkbox"/> Title
<input type="checkbox"/> Shared-Resources Course	<input type="checkbox"/> Credits
<input type="checkbox"/> Deactivate/Activate Course (boldface & underline as appropriate)	<input type="checkbox"/> Other (specify): _____
Department: <u>Economics</u>	Effective Semester, Year: <u>Spring 2012</u>
Course Number Current: <u>Eco 301</u> New: _____ Credits: <u>3</u>	
Course Title: <u>Intermediate Macroeconomics</u>	
Course Description to appear in Bulletin: Theoretical and empirical analysis of aggregate output and employment, the average price level, and interest rates. Applications include long-run growth, business cycles, and fiscal and monetary policy. (No change)	
Prerequisites statement to be appended to description in Bulletin: Prerequisite(s): A ECO 110; A ECO 111 with grade of C or better; and A ECO 210 or A MAT 101, 106, 111, 112, or 118.	
If S/U is to be designated as the only grading system in the course, check here: <input type="checkbox"/>	
This course is (will be) cross listed with (i.e., CAS ###): _____	
This course is (will be) a shared-resources course with (i.e., CAS ###): _____	
Explanation of proposal: The course proposal would change the list of prerequisites to include A Mat 101 in accordance with the proposal to change the Bachelor of Arts program to allow A Mat 101 to satisfy the mathematics requirement for the major.	
Other departments or schools which offer similar or related courses and which have certified that this proposal does not overlap their offering: 	
Chair of Proposing Department	Date
Terrence Kinal	6.10.11
Approved by Chair(s) of Department(s) offering course to be used as prerequisite (Copy of e-mail approval on following page)	Date
<i>Kehe Glen</i> 7/11/2011	Date
Dean of College	Date
Gregory Stevens/Edelgard Wulfert	10/26/11
Chair of Academic Programs Committee	Date
Pinka Chatterji	10/21/11
Dean of Undergraduate or Graduate Studies	Date

University at Albany – State University of New York	
College of Arts and Sciences	Course and Program Action Form
Proposal No. <u>11-049D</u>	
Please check one: <input checked="" type="checkbox"/> Course Proposal <input type="checkbox"/> Program Proposal	
Please mark all that apply:	
<input type="checkbox"/> New Course	Revision of: <input type="checkbox"/> Number
<input type="checkbox"/> Cross-Listing	<input type="checkbox"/> Title
<input type="checkbox"/> Shared-Resources Course	<input type="checkbox"/> Credits
<input type="checkbox"/> Deactivate/Activate Course (boldface & underline as appropriate)	<input type="checkbox"/> Other (specify): _____
Department: <u>Economics</u>	Effective Semester, Year: <u>Spring 2012</u>
Course Number Current: <u>Eco 320</u> New: _____	Credits: <u>3</u>
Course Title: <u>Economic Statistics</u>	
Course Description to appear in Bulletin: Statistical techniques in economic analysis. Topics include distribution theory and statistical inference as applied to regression models. Students gain experience in testing economic theories using a computer regression package. (No change)	
Prerequisites statement to be appended to description in Bulletin: Prerequisite(s): A ECO 110 and 111; A ECO 210 or A MAT 101, 106, 111, 112, or 118.	
If S/U is to be designated as the only grading system in the course, check here: <input type="checkbox"/>	
This course is (will be) cross listed with (i.e., CAS ###): _____	
This course is (will be) a shared-resources course with (i.e., CAS ###): _____	
Explanation of proposal: The course proposal would change the list of prerequisites to include A Mat 101 in accordance with the proposal to change the Bachelor of Arts program to allow A Mat 101 to satisfy the mathematics requirement for the major.	
Other departments or schools which offer similar or related courses and which have certified that this proposal does not overlap their offering: 	
Chair of Proposing Department	Date
Terrence Kinal	6.10.11
Approved by Chair(s) of Department(s) (Mathematics) offering course to be used as prerequisite (Copy of e-mail approval on following page.)	Date
<i>Kebe Zhen</i> 7/11/2011	
Chair of Academic Programs Committee	Date
Pinka Chatterji 10/21/11	
Dean of College	Date
Gregory Stevens/Edelgard Wulfert 10/26/11	