

## CHANGE UNDERGRADUATE PROGRAM FORM

RECEIVED

DEC 16 2015

**1. General Information**

College: <u>Agriculture, Food and Environment</u>	Department: <u>Interdepartmental</u>	OFFICE OF THE SENATE COUNCIL
Current Major Name: <u>Agricultural Biotechnology</u>	Proposed Major Name: <u>Agricultural and Medical Biotechnology</u>	
Current Degree Title: <u>BS</u>	Proposed Degree Title: _____	
Formal Option(s): _____	Proposed Formal Option(s): _____	
Specialty Field w/in Formal Option: _____	Proposed Specialty Field w/in Formal Options: _____	
Date of Contact with Associate Provost for Academic Administration <sup>1</sup> : <u>08/19/2015</u>		
Bulletin (yr & pgs): <u>2015-16, pgs. 106-107</u>	CIP Code <sup>1</sup> : <u>26.1201</u>	Today's Date: <u>10/05/2015</u>
Accrediting Agency (if applicable): <u>N/A</u>		
Requested Effective Date: <input checked="" type="checkbox"/> Semester following approval. OR <input type="checkbox"/> Specific Date <sup>2</sup> : _____		
Dept. Contact Person: <u>Daniel K. Howe</u>	Phone: <u>218-1113</u>	Email: <u>dkhowe2@uky.edu</u>

**2. General Education Curriculum for this Program:**

The new General Education curriculum is comprised of the equivalent of 30 credit hours of course work. There are, however, some courses that exceed 3 credits & this would result in more than 30 credits in some majors.

- There is no foreign language requirement for the new Gen Ed curriculum.
- There is no General Education Electives requirement.

**Please list the courses/credit hours currently used to fulfill the University Studies/General Education curriculum:**

These courses currently fulfill the GenEd/UKCore requirements for ABT:

Arts and Creativity - choose from list - 3 credit hours  
Humanities - choose from list - 3 credit hours  
Social Sciences - choose from list - 3 credit hours  
Natural/Physical/Mathematical - CHE 105/111 - 5credit hours  
Comp & Comm I - CIS or WRD 110 - 3 credit hours  
Comp & Comm II - CIS or WRD 111 - 3 credit hours  
Quantitative Foundations - MA 123 or 113 or 137 - 4 credit hours  
Statistical Inferential Reasoning - STA 296 or BST 330- 3 credit hours  
Community, Culture and Citizenship in the USA - GEN 100\* - 3 credit hours  
Global Dynamics - choose from list - 3 credit hours

\*College requirement; not required of students transferring into the College of Ag who have satisfied this UKCore requirement previously

**Please identify below the suggested courses/credit hours to fulfill the General Education curriculum.**

<sup>1</sup> Prior to filling out this form, you MUST contact the Associate Provost for Academic Administration (APAA). If you do not know the CIP code, the (APAA) can provide you with that during the contact.

<sup>2</sup> Program changes are typically made effective for the semester following approval. No program will be made effective until all approvals are received.

CHANGE UNDERGRADUATE PROGRAM FORM

General Education Area	Course	Credit Hrs
<b>I. Intellectual Inquiry (one course in each area)</b>		
Arts and Creativity	_____	_____
Humanities	_____	_____
Social Sciences	_____	_____
Natural/Physical/Mathematical	_____	_____
<b>II. Composition and Communication</b>		
Composition and Communication I	CIS or WRD 110	3
Composition and Communication II	CIS or WRD 111	3
<b>III. Quantitative Reasoning (one course in each area)</b>		
Quantitative Foundations <sup>3</sup>	_____	_____
Statistical Inferential Reasoning	_____	_____
<b>IV. Citizenship (one course in each area)</b>		
Community, Culture and Citizenship in the USA	_____	_____
Global Dynamics	_____	_____
<b>Total General Education Hours</b>		_____

3. Explain whether the proposed changes to the program (as described in sections 4 to 12) involve courses offered by another department/program. Routing Signature Log must include approval by faculty of additional department(s).

N/A

4. Explain how satisfaction of the University Graduation Writing Requirement will be changed.

Current	Proposed
<input type="checkbox"/> Standard University course offering. List: _____	<input type="checkbox"/> Standard University course offering. List: _____
<input type="checkbox"/> Specific course – list: _____	<input type="checkbox"/> Specific course) – list: _____

5. List any changes to college-level requirements that must be satisfied.

Current	Proposed
<input type="checkbox"/> Standard college requirement. List: _____	<input type="checkbox"/> Standard college requirement. List: _____
<input type="checkbox"/> Specific required course – list: _____	<input type="checkbox"/> Specific course – list: _____

6. List pre-major or pre-professional course requirements that will change, including credit hours.

Current	Proposed
_____	_____

7. List the major's course requirements that will change, including credit hours.

Current	Proposed
_____	_____

<sup>3</sup> Note that MA 109 is NOT approved as a Quantitative Foundations course. Students in a major requiring calculus will use a calculus course (MA 113, 123, 137 or 138) while students not requiring calculus should take MA 111, PHI 120 or another approved course.

## CHANGE UNDERGRADUATE PROGRAM FORM

8. Does the pgm require a minor AND does the proposed change affect the required minor?  N/A  Yes  No  
 If "Yes," indicate current courses and proposed changes below.

Current	Proposed

9. Does the proposed change affect any option(s)?  N/A  Yes  No  
 If "Yes," indicate current courses and proposed changes below, including credit hours, and also specialties and subspecialties, if any.

Current	Proposed

10. Does the change affect pgm requirements for number of credit hrs outside the major subject in a related field?  Yes  No  
 If so, indicate current courses and proposed changes below.

Current	Proposed

11. Does the change affect pgm requirements for technical or professional support electives?  Yes  No  
 If so, indicate current courses and proposed changes below.

Current	Proposed

12. Does the change affect a minimum number of free credit hours or support electives?  Yes  No  
 If "Yes," indicate current courses and proposed changes below.

Current	Proposed

**13. Summary of changes in required credit hours:**

	Current	Proposed
a. Credit Hours of Premajor or Preprofessional Courses:	_____	_____
b. Credit Hours of Major's Requirements:	_____	_____
c. Credit Hours for Required Minor:	_____	_____
d. Credit Hours Needed for a Specific Option:	_____	_____
e. Credit Hours Outside of Major Subject in Related Field:	_____	_____
f. Credit Hours in Technical or Professional Support Electives:	_____	_____
g. Minimum Credit Hours of Free/Supportive Electives:	_____	_____
h. Total Credit Hours Required by Level:	100: _____	_____
	200: _____	_____
	300: _____	_____
	400-500: _____	_____
i. Total Credit Hours Required for Graduation:	_____	_____

CHANGE UNDERGRADUATE PROGRAM FORM

**14. Rationale for Change(s) – if rationale involves accreditation requirements, please include specific references to that.**

The Agricultural Biotechnology (ABT) undergraduate degree program was initially founded on agriculture. Over time, however, the program has evolved to encompass a greater array of disciplines. This evolution has not occurred through major changes to the program’s curriculum or primary mission, but rather through a broadening of the interests and career goals of students majoring in ABT. The breadth of the current program is well exemplified by the large and diverse group of faculty members who serve as research mentors for the student research project that is required by the program (ABT 395). These faculty members are affiliated with multiple departments in CAFE and the Colleges of Medicine, Dentistry, Pharmacy, and Arts and Sciences. As well, the career paths pursued by ABT graduates is diverse, with alumni going to graduate school to study plant sciences, animal and/or human health, microbiology, etc., and to professional school for doctoral degrees in medicine, dentistry, pharmacy, and veterinary medicine.

Due to the increasing diversity of ABT student interests and career goals, there have been informal discussions in the past about changing the name of the program. While viewed positively, the idea of a name change was not high priority and no action was ever taken. However, the 2013-2014 self-study and external review of the Ag Biotech program resulted in a recommendation that the program change its name “to better align the program title with the academic program’s mission and to enhance the program’s reach.” Therefore, an email was sent to ABT students, faculty and alumni in June of 2014 to solicit opinions about a program name change and recommendations for a new name. Of 22 respondents, 18 favored a change. Seventeen of the respondents were current students or alumni. Based on the responses, the ABT Steering Committee voted in October 2014 to proceed with the recommendation from the external review committee to change the program name.

Thirteen possible names were suggested by the respondents. Since it was unreasonable to put forward all 13 names for a vote, the ABT Steering Committee met to narrow the list. Several names were considered impractical by the committee because they might be seen as infringing on the mission of other degree programs on campus. As well, there was strong sentiment to retain “Agricultural” in the program name. The two names selected by the committee for further consideration were “Agricultural and Medical Biotechnology” and “Agricultural and Biomedical Technology”. Both of these names were believed to better reflect the current mission and content of the program, and both would allow for continued use of the “ABT” acronym, which has become synonymous with the full name and is an important brand for the program. While neither name is fully comprehensive, no better names were put forward.

In January/February 2015, a poll using Qualtrics online survey software asked members of the ABT community to vote on the two prospective names. A URL link to the survey was sent by email to 247 ABT students, alumni, and faculty. Of 134 votes submitted via the survey link, 82 were for Agricultural and Medical Biotechnology.

It is important to note that we are proposing to change only the name of the program; there will be no changes to the program mission, curriculum, etc.

**15. List below the typical semester by semester program for the major. If multiple options are available, attach a separate sheet for each option.**

<b>YEAR 1 – FALL:</b> (e.g. “BIO 103; 3 credits”)	_____	<b>YEAR 1 – SPRING:</b>	_____
<b>YEAR 2 - FALL :</b>	_____	<b>YEAR 2 – SPRING:</b>	_____
<b>YEAR 3 - FALL:</b>	_____	<b>YEAR 3 - SPRING:</b>	_____
<b>YEAR 4 - FALL:</b>	_____	<b>YEAR 4 - SPRING:</b>	_____

**Bachelor of Science in Agricultural Biotechnology**  
**4-Year Plan**  
**Effective Fall 2014**



<p><u>Fall First Year</u></p> <p>ABT 101 Introduction to Biotechnology 1</p> <p>CHE 105 General Chemistry I 4</p> <p>CHE 111 General Chemistry Lab I 1</p> <p>CIS/WRD 110 Composition &amp; Communication I 3</p> <p>GEN 100 Current Issues in Ag, Food &amp; Env 3</p> <p>MA 113 Calculus I <b>OR</b></p> <p>MA 123 Elementary Calculus <b>OR</b></p> <p>MA 137 Calculus I w/Life Science Apps <u>4</u></p> <p style="text-align: right;">16</p>	<p><u>Spring First Year</u></p> <p>ABT 120 Genetics &amp; Society 3</p> <p>BIO 148 Introductory Biology I 3</p> <p>BIO 155 Lab for Intro Biology I 1</p> <p>CHE 107 General College Chemistry II 3</p> <p>CHE 113 General College Chemistry II Lab 2</p> <p>CIS/WRD 111 Composition &amp; Communication II <u>3</u></p> <p style="text-align: right;">15</p>
<p><u>Fall Second Year</u></p> <p>ABT 201* Scientific Method in ABT 1</p> <p>BIO 152 Principles of Biology II 3</p> <p>CHE 230 Organic Chemistry I 3</p> <p>CHE 231 Organic Chemistry Lab I 1</p> <p>UK Core Arts &amp; Creativity 3</p> <p>Electives <u>6</u></p> <p style="text-align: right;">17</p>	<p><u>Spring Second Year</u></p> <p>CHE 232 Organic Chemistry II 3</p> <p>CHE 233 Organic Chemistry II Lab 1</p> <p>STA 296 Stats Methods &amp; Motivations <b>OR</b></p> <p>BST 330 Stats Thinking for Pop Health 3</p> <p>UK Core Social Science 3</p> <p>UK Core Humanities 3</p> <p>Elective <u>3</u></p> <p style="text-align: right;">16</p>
<p><u>Fall Third Year</u></p> <p>ABT 301 Writing &amp; Presentation in Life Sciences 2</p> <p>ABT 360 Genetics <b>OR</b></p> <p>BIO 304 Principles of Genetics 3-4</p> <p>PHY 211 General Physics I 5</p> <p>UK Core Global Dynamics <u>3</u></p> <p style="text-align: right;">16-17</p>	<p><u>Spring Third Year</u></p> <p>BCH 401G Fundamentals of Biochemistry 3</p> <p>BIO 308 General Microbiology 3</p> <p>BIO 309 General Microbiology Lab 2</p> <p>PHY 213 General Physics II 5</p> <p>Specialty Support <u>3</u></p> <p style="text-align: right;">16</p>
<p><u>Fall Fourth Year</u></p> <p>ABT 495 Experimental Methods in ABT <b>OR</b></p> <p>BIO 510 Recombinant DNA Tech Lab 4</p> <p>ABT 395 Ind Study in ABT <b>OR</b></p> <p>ABT 399 Exp Learning in ABT 3</p> <p>Specialty Support <u>6</u></p> <p style="text-align: right;">16</p>	<p><u>Spring Fourth Year</u></p> <p>ABT 460 Intro to Molecular Genetics 3</p> <p>ABT 461 Intro to Population Genetics 3</p> <p>Specialty Support <u>10</u></p> <p style="text-align: right;">16</p>
<p><b>Total Credits 128</b></p>	

\*Students must complete CIS/WRD 110 and CIS/WRD 111 and have earned 30 hours before taking ABT 201.

CHANGE UNDERGRADUATE PROGRAM FORM

CHANGE UNDERGRADUATE PROGRAM FORM

**Signature Routing Log**

**General Information:**

Current Degree Title and Major Name: Agricultural Biotechnology

Proposal Contact Person Name: Daniel K. Howe Phone: 218-1113 Email: dkhowe2@uky.edu

**INSTRUCTIONS:**

Identify the groups or individuals reviewing the proposal; note the date of approval; offer a contact person for each entry; and obtain signature of person authorized to report approval.

**Internal College Approvals and Course Cross-listing Approvals:**

Reviewing Group	Date Approved	Contact Person (name/phone/email)	Signature
ABT Steering Committee	10/03/2015	Daniel K. Howe / 218-1113 / dkhowe2@uky.edu	
CAFE Undergraduate Curriculum Committee	10/09/2015	Larry J. Grabau / 257-3469 / lgrabau@uky.edu	
		/ /	
		/ /	
		/ /	

**External-to-College Approvals:**

Council	Date Approved	Signature	Approval of Revision <sup>4</sup>
Undergraduate Council	12/10/15	Joanie Ett-Mims	
Graduate Council			
Health Care Colleges Council			
Senate Council Approval		University Senate Approval	

**Comments:**

<sup>4</sup> Councils use this space to indicate approval of revisions made subsequent to that council's approval, if deemed necessary by the revising council.



College of Agriculture,  
Food and Environment  
Office of the Dean  
S123 Ag. Science Building – North  
Lexington, KY 40546-0091

859 257-4772  
Fax 859 323-2885

October 23, 2015

Dr. Dan Howe  
Chair, Steering Committee, Agricultural Biotechnology B.S. Program  
427 Gluck Equine Research Building  
Lexington, KY 40546-0099

Dear Dr. Howe:

The Agricultural Biotechnology (ABT) program has been an essential part of the College of Agriculture, Food and Environment's undergraduate suite of programs for over twenty years. Over those two decades, an exciting partnership with the College of Medicine (COM) has developed, primarily through the engagement of COM in mentoring research projects of individual students. However, COM faculty have also become engaged in this program in other critical ways; namely, directing courses and taking on positions as part of the ABT Steering Committee.

Further, a substantial portion of the graduates of the ABT program are finding themselves in careers related to medicine. As detailed in Dr. Grabau's enclosed letter, the ABT team went through an exhaustive external and internal review process. One of the conclusions of that process was that the program's name needed to be broadened to be more inclusive of both student outcomes and faculty engagement.

The newly chosen name is to be "Agricultural and Medical Biotechnology"; this name preserves the identity of "agriculture" and allows the program to continue using ABT as a course prefix, yet establishes a new identity, inclusive of "medicine."

I strongly support this proposed name change.

Sincerely,

A handwritten signature in cursive script that reads "Nancy M. Cox".

Dr. Nancy M. Cox  
Dean, College of Agriculture, Food and Environment  
University of Kentucky

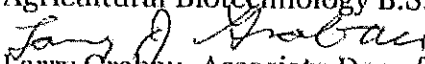




September 30, 2015

MEMORANDUM

TO: Dr. Dan Howe, Chair, Steering Committee,  
Agricultural Biotechnology B.S. Program

FROM:   
Larry Grabau, Associate Dean for Instruction, College of Agriculture, Food and  
Environment

RE: Support for Proposed Program Name Change

College of Agriculture,  
Food and Environment  
Office of Academic Programs  
N6 Agricultural Science Center  
1100 South Limestone  
Lexington, KY 40546-0091  
859 257-3469  
fax 859 257-5212  
academics.ca.uky.edu

The interdisciplinary Agricultural Biotechnology (ABT) program has been providing high quality, intensive science training to students in this College since the early 1990s. From its very inception, the ABT program was broadly interdisciplinary within the College, and that activity quickly grew to include faculty members in several other colleges as well (for example, Medicine, Pharmacy, Dentistry, and Arts & Sciences). The program's most recent self-study and external review recommended that the ABT program consider changing its name in order "... to better align the program title with the academic program's mission and to enhance the program's reach." Based on the results of a survey of students, faculty and alumni conducted in June of 2014, the ABT Steering Committee (SC) concluded that a name change was in order. The ABT SC voted to proceed toward a name change in October of 2014.

Two names were proposed for consideration:

- "Agricultural and Medical Biotechnology" and
- "Agricultural and Biomedical Technology."

The intent was to continue using the same major prefix (that is, ABT) with whichever new major code was chosen.

A January and February of 2015, a survey was sent to 247 ABT students, faculty and alumni; a remarkable 54% responded to the survey. Of the respondents, 61% were in favor of "Agricultural and Medical Biotechnology."

As Associate Dean for Instruction in the College of Agriculture, Food and Environment, I am writing to indicate my support for this proposal, because I believe that it has been carefully vetted among the affected constituencies and should accomplish the recommendation of the program review (noted above). Of course, at this writing, the Undergraduate Curriculum Committee in the College has not yet reviewed this proposal, so I am not speaking for them (though I chair that committee, I do not vote on the proposals it considers).



An Equal Opportunity University



Dean, College of Medicine  
Vice President for Clinical  
Academic Affairs  
138 Leader Avenue, Room 211  
Lexington, KY 40506-9983  
859 323-6582  
fax 859 323-2039  
www.uky.edu

Dr. Daniel Howe  
University of Kentucky  
Department of Veterinary Science  
437 Gluck Equine Research Building  
Lexington, KY 40546-0099

Dear Dr. Howe:

I am pleased to support the programmatic name change of *Agricultural Biotechnology* to *Agricultural and Medical Biotechnology*. As you know, many of the students in your program perform their required undergraduate research in the College of Medicine, working closely with COM faculty, staff and students on medically-oriented research projects. The lecture courses and laboratories within the ABT program also contain a significant amount of medical biotechnology, and COM faculty have been involved in teaching within the program, and consistently are members of the ABT steering committee. For all of these reasons, the name change is fully appropriate.

Sincerely,

A handwritten signature in black ink, appearing to read "F. de Beer".

Frederick C. de Beer, M.D.  
Dean, College of Medicine  
Vice President for Clinical Academic Affairs  
University of Kentucky

/FCD





UNIVERSITY OF KENTUCKY

**College of Medicine**

*Rebecca Ellis Dutch, Ph.D.*

*Department of Molecular and  
Cellular Biochemistry*

*BBSRB B177*

*Lexington, KY 40536-0509*

*Tel: (859) 323-1795*

*E-mail: rdutc2@uky.edu*

October 14, 2015

Dear Dr. Howe,

I am writing to fully support the changing of your program's name from "Agricultural Biotechnology" to "Agricultural and Medical Biotechnology". The ABT program has had a long history of incorporating medical biotechnology into its curriculum, and College of Medicine faculty have served for many years on the ABT steering committee and as mentors for ABT students completing their undergraduate research. I understand that this name change was suggested during a program review to clarify the nature of the program, and I think this is an excellent idea. Many of the ABT students who have performed research in my laboratory have gone on to medical school or graduate school focused on biomedical research. While the ABT curriculum has provided them with an excellent foundation for these programs, they have frequently had to deal with concerns or questions about the relevance of their undergraduate degree program, and this name change will clarify this point.

Sincerely,

Rebecca Dutch  
Professor, Molecular and Cellular Biochemistry  
Associate Dean for Biomedical Education

# UK

## KENTUCKY

### Memorandum

**To:** Dr. Larry Grabau, CAFE Associate Dean for Instruction  
**From:** D.K. Howe, Chair, Agricultural Biotechnology Steering Committee  
**Date:** October 5, 2015  
**Re:** Program Name Change

College of Agriculture, Food  
and Environment  
Veterinary Science  
Gluck Equine Research Center  
Lexington, KY 40516-0099  
859.257.4757  
fax 859.257.8542  
writing direct dkh@uky.edu  
www.uky.edu

Digitally signed by Daniel K. Howe  
DN: cn=Daniel K. Howe, o=University of  
Kentucky, ou=Dept. of Veterinary Science,  
email=dkhowe2@uky.edu, c=US  
Date: 2015.10.05 15:12:32 -04'00'

This letter accompanies a program change form proposing to change the name of the Agricultural Biotechnology undergraduate degree program to Agricultural and Medical Biotechnology.

The Agricultural Biotechnology (ABT) undergraduate degree program was initially founded on agriculture. Over time, however, the program has evolved to encompass a greater array of disciplines. This evolution has not occurred through major changes to the program's curriculum or primary mission, but rather through a broadening of the interests and career goals of students majoring in ABT. The breadth of the current program is well exemplified by the large and diverse group of faculty members who serve as research mentors for the student research project that is required by the program (ABT 395). These faculty members are affiliated with multiple departments in CAFE and the Colleges of Medicine, Dentistry, Pharmacy, and Arts and Sciences. As well, the career paths pursued by ABT graduates is diverse, with alumni going to graduate school to study plant sciences, animal and/or human health, microbiology, etc., and to professional school for doctoral degrees in medicine, dentistry, pharmacy, and veterinary medicine.

Due to the increasing diversity of ABT student interests and career goals, there have been informal discussions in the past about changing the name of the program. While viewed positively, the idea of a name change was not high priority and no action was ever taken. However, the 2013-2014 self-study and external review of the Ag Biotech program resulted in a recommendation that the program change its name "to better align the program title with the academic program's mission and to enhance the program's reach." Therefore, an email was sent to ABT students, faculty and alumni in June of 2014 to solicit opinions about a program name change and recommendations for a new name. Of 22 respondents, 18 favored a change. Seventeen of the respondents were current students or alumni. Based on the responses, the ABT

Steering Committee voted in October 2014 to proceed with the recommendation from the external review committee to change the program name.

Thirteen new names were suggested by the respondents. Since it was unreasonable to put forward all 13 names for a vote, the ABT Steering Committee met to narrow the list. Several names were considered impractical by the committee because they might be seen as infringing on the mission of other degree programs on campus. As well, there was strong sentiment to retain "Agricultural" in the program name. The two names selected by the committee for further consideration were "Agricultural and Medical Biotechnology" and "Agricultural and Biomedical Technology". Both of these names were believed to better reflect the current mission and content of the program, and both would allow for continued use of the "ABT" acronym, which has become synonymous with the full name and is an important brand for the program. While neither name is fully comprehensive, no better names were put forward.

In January/February 2015, a poll using Qualtrics online survey software asked members of the ABT community to vote on the two prospective names. A URL link to the survey was sent by email to 247 ABT students, alumni, and faculty. Of 134 votes submitted via the survey link, 82 were for Agricultural and Medical Biotechnology.

It is important to note that we are proposing to change only the name of the program; there will be no changes to the program mission, curriculum, etc.