

<b>Fiscal Unit/Academic Org</b>	Plant Cell & Molec Biology - D0380
<b>Administering College/Academic Group</b>	Arts And Sciences
<b>Co-administering College/Academic Group</b>	
<b>Semester Conversion Designation</b>	Deactivated (i.e., program to be held in abeyance for possible future use, but not to be converted at present time, no new admissions shall be possible until reactivated, include effective date of deactivation)
<b>Rationale</b>	The historically small number of PCMB undergraduate majors, and a new plant specialization in the Molecular Genetics BS major, are the driving force behind the deactivation of the PCMB-BS program.
<b>Current Program/Plan Name</b>	Plant Cellular and Molecular Biology
<b>Program/Plan Code Abbreviation</b>	PCMB-BS
<b>Current Degree Title</b>	Bachelor of Science

## Attachments

- PCMB BA and BS deactivation cover letter.doc: NMS Division of Arts and Sciences cover letter

*(Letter from the College to OAA. Owner: Andereck, Claude David)*

- PCMB BS Deactivation-rev6-11.pdf: Deactivation proposal rev6-11

*(Letter from Program-offering Unit. Owner: Vaessin, Harald Emil Friedrich)*

## Comments

## Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Vaessin, Harald Emil Friedrich	05/18/2011 11:11 AM	Submitted for Approval
Approved	Vaessin, Harald Emil Friedrich	05/18/2011 11:11 AM	Unit Approval
Revision Requested	Andereck, Claude David	05/20/2011 11:12 AM	College Approval
Submitted	Vaessin, Harald Emil Friedrich	05/27/2011 02:17 PM	Submitted for Approval
Approved	Vaessin, Harald Emil Friedrich	05/27/2011 02:18 PM	Unit Approval
Approved	Andereck, Claude David	06/03/2011 02:30 PM	College Approval
Revision Requested	Vankeerbergen, Bernadette Chantal	06/07/2011 10:25 AM	ASCCAO Approval
Submitted	Vaessin, Harald Emil Friedrich	06/08/2011 08:51 AM	Submitted for Approval
Approved	Vaessin, Harald Emil Friedrich	06/08/2011 08:52 AM	Unit Approval
Approved	Andereck, Claude David	06/08/2011 09:14 AM	College Approval
Revision Requested	Vankeerbergen, Bernadette Chantal	06/10/2011 02:54 PM	ASCCAO Approval
Submitted	Vaessin, Harald Emil Friedrich	06/23/2011 05:07 PM	Submitted for Approval
Approved	Vaessin, Harald Emil Friedrich	06/23/2011 05:08 PM	Unit Approval
Approved	Andereck, Claude David	06/24/2011 09:38 AM	College Approval
Pending Approval	Nolen, Dawn Jenkins, Mary Ellen Bigler Meyers, Catherine Anne Vankeerbergen, Bernadette Chantal Hanlin, Deborah Kay	06/24/2011 09:38 AM	ASCCAO Approval

186 University Hall  
230 North Oval Mall  
Columbus, OH 43210

Phone (614) 292-8908  
Fax (614) 247-7498

June 3, 2011

Larry Krissek  
Chair, Arts and Sciences CCI

Dear Larry:

It is a pleasure to forward to you for consideration by the CCI and the Sciences Subcommittee proposals for the deactivation of the Plant Cellular and Molecular Biology (PCMB) BS and BA majors. The Departments of Molecular Genetics and PCMB have recently merged into a unified Molecular Genetics Department. The Department has decided that the existing PCMB major programs should cease to exist and will be subsumed under the Molecular Genetics BS as a specialization appropriate for those students with a particular interest in plant biology. At the present time there are no students in the BA program and deactivation is requested immediately. The approximately twenty students enrolled in the BS major may be straightforwardly handled during the semester transition with proper advising using the semester courses that will be available within Molecular Genetics. If deactivation formally occurs in 2016 as requested that will give the students currently enrolled sufficient time to complete all requirements. New students interested in plant biology will be directed toward the specialization within the Molecular Genetics BS.

If you have any questions, I would be happy to address them.

Sincerely,



David Andereck  
Professor of Physics  
Associate Dean of Natural and Mathematical Sciences, College of Arts and Sciences



Department of Molecular Genetics

984 Biological Sciences Building  
484 W 12<sup>th</sup> Ave  
Columbus, OH 43210  
Phone: (614) 292-8084  
Fax: (614) 292-4466  
www.osumolgen.org

To: Office of Academic Affairs

From: Anita Hopper, Chair, Department of Molecular Genetics

Mark Seeger, Associate Chair, Department of Molecular Genetics

Date: June 22, 2011

Re: Deactivation of the PCMB BS Major

At the completion of Spring Quarter 2011 there are a total of 16 declared Plant Cellular and Molecular Biology (PCMB) BS majors and no PCMB BA majors. In fact, the historically small number of PCMB undergraduate majors was a significant driving force behind the recent merger of the Department of Plant Cellular and Molecular Biology with the Department of Molecular Genetics. As part of the program and curriculum review for the quarter to semester conversion process the PCMB and Molecular Genetics faculties discussed the future of the PCMB Undergraduate Majors and Minor. These discussions took place within our curriculum committees and combined faculty meetings starting in the 2009/2010 academic year and continuing through Autumn Quarter 2010. The consensus that emerged was to deactivate the PCMB Majors, both BA and BS. In their place, we created a PCMB Specialization within the Molecular Genetics Undergraduate Major. This specialization utilizes significant portions of the Molecular Genetics undergraduate core course sequence and supplements this with plant specific elective coursework. Courses in general plant biology, plant anatomy, plant physiology, and plant biochemistry will continue to be offered and provide a repertoire of plant specific electives for the PCMB Specialization. Foundational studies in genetics, molecular biology, cell and developmental biology will be provided from courses that are required of all Molecular Genetics undergraduates. This plan provides opportunities for undergraduates who desire extensive training in plant cellular and molecular biology, while maintaining a program that is fiscally viable.

The PCMB and Molecular Genetics joint faculty voted unanimously (21-0) at the November 2010 faculty meeting to deactivate the PCMB Undergraduate Major and replace it with the Molecular Genetics Major with PCMB Specialization. The Molecular Genetics Major with Specialization in PCMB is currently under review and will become active Summer 2012. The

PCMB Minor will be continued with slight modifications; the semester conversion proposal for the PCMB Minor is under review.

We request that the PCMB BS Major be deactivated at the end of Spring Quarter 2016. This five-year period will provide adequate time for current majors to complete their degree requirements. Deactivation of the major prior to 2016 would cause undue concern for current students in the program who would find themselves in a program that no longer officially exists. In addition, the administrative burden for temporary reactivation of the program for graduation of any of the current cohort of PCMB majors would be excessive. Of the sixteen declared PCMB Majors one is rank 1, two are rank 2, two are rank 3, and eleven are rank 4. New students with an interest in PCMB will be directed to the MG Major with a specialization in PCMB or the PCMB Minor.

#### Transition Policy

PCMB Undergraduate Majors will not be penalized or delayed in their path to degree completion due to the semester conversion process or deactivation of the PCMB Undergraduate Major. Many of the required courses for the PCMB major will continue to be offered under the semester format. Courses that are being discontinued will be substituted with appropriate courses from the Molecular Genetics undergraduate core sequence. Undergraduate majors will be individually advised as to the specific courses that should be taken to meet degree requirements with special consideration given to their individual career plans and the availability of appropriate courses. Given the small number of PCMB majors (16 students currently), individualized advising can easily be handled by our current plant faculty undergraduate advisor. Email will be utilized to communicate the upcoming changes to majors on a quarterly basis during the 2011/2012 academic year. The following chart lists course requirements for the PCMB major, available course offerings for the 2010/2011, 2011/2012, and 2012/2013 academic years in quarter and semester formats. This chart demonstrates that existing PCMB Majors will not encounter difficulties in completing their major requirements. In addition, we have provided a sample curriculum for the quarter version of the PCMB Major and a sample curriculum for a student starting as a freshman in 2011/2012 and completing years two through four in the semester format. The standard conversion rate for quarter versus semester credit hours will be utilized to determine when students have achieved an appropriate number of credit hours for various requirements in the PCMB major.

<b>PCMB Major Requirements (quarter credit hours)</b>	<b>Quarter Course Offerings in 2010/2011</b>	<b>Quarter Course Offerings in 2011/2012</b>	<b>Course Offerings/Requirements in the Semester Format</b>
<b>Core Requirements</b>			
PCMB 300 General Plant Biology (5)	PCMB 300 (Au, Wi)	PCMB 300 (Au)	Mol Gen 3300 General Plant Biology (Au) – 3 semester credit hrs
Mol Gen 500 (5)	Mol Gen 500 (Au, Wi, Sp, Su)	Mol Gen 500 (Au, Wi, Sp, Su)	Mol Gen 4500 (Au, Sp, Su) – 3 semester credit hours
Biochem 511 (5)	Biochem 511 (Au, Wi, Sp, Su)	Biochem 511 (Au, Wi, Sp, Su)	Biochem 4511 (Au, Sp, Su) – 4 semester credit hours
Laboratory experience: lab course or undergrad research (4 or more credit hrs)	PCMB 693 or H783	PCMB 693 or H783	Mol Gen 4998 or 4999 -or- Mol Gen lab course with a plant component such as 5601 or 5602 ; 3-4 semester credit hours
<b>Other Major Courses</b>			
<b>15 quarter credit hrs of plant courses at 300 level or higher from the following possibilities:</b>			<b>10 semester credit hrs of plant courses at the 3000 level or higher from the following possibilities:</b>
PCMB 436 Intro Plant Physiology (5)	PCMB 436 (Au, Wi)	PCMB 436 (Au, Wi)	Mol Gen 3436 Intro Plant Physiology (Sp) – 3 semester credit hours
PCMB 622 Plant Molecular Biology (4)	PCMB 622 (Wi)	PCMB 622 (Wi)	Mol Gen 5701 DNA Transactions and Gene Regulation (Au) – 4 semester credit hours
PCMB 631 Plant Physiology (3)	PCMB 631 (Au)	PCMB 631 (Au)	Mol Gen 5630 Plant Physiology (Au) – 3 semester credit hours
PCMB 643 Plant Anatomy (5)		PCMB 643 (Sp)	Mol Gen 5643 Plant Anatomy (Sp) – 3 semester credit hours
PCMB 735 Plant Biochemistry I (3)		PCMB 735 (Sp)	Mol Gen 5735 Plant Biochemistry (Sp) – 3 semester credit hours
Mol Gen 607 Cell Biology (3) – substitute for PCMB 648	Mol Gen 607 (Au)	Mol Gen 607 (Au)	Mol Gen 5607 Cell Biology – 3 semester credit hours
<b>6 additional elective quarter credit hours from biological sciences courses (or 4 semester credit hours).</b>	Choices from Biochem, EEOB, Micro, Mol Gen, HCS, and Plant Path with approval of advisor.	Choices from Biochem, EEOB, Micro, Mol Gen, HCS, and Plant Path with approval of advisor.	Choices from Biochem, EEOB, Micro, Mol Gen, HCS, and Plant Path with approval of advisor.

### PCMB Undergraduate Major Sample Curriculum in Quarter Format:

#### Freshman Year (Quarters):

Biological Sciences Survey	1
General Chemistry	15
General Biology	10
Mathematics	5
GEC courses	20
Freshman Seminar	1
Total hours	52

#### Sophomore Year (Quarters):

Organic Chemistry	8
Calculus	10
General Plant Biology	5
PCMB Major Course	5
GEC courses	25
Total hours	53

#### Junior Year (Quarters):

Physics	10
PCMB Major Courses	10
General Genetics	5
Introduction to Biochemistry	5
Organic Chemistry Lab	3
GEC courses	15
Total hours	48

#### Senior Year (Quarters):

Research	5
Introduction to Statistics	5
PCMB Major Courses	10
Electives	15
GEC courses	10
Total hours	45

### PCMB Undergraduate Major Sample Curriculum for Students Starting Autumn 2011:

#### Freshman Year (Quarters):

Biological Sciences Survey	1
General Chemistry	15
General Biology	10
Mathematics	5
GEC courses	20
Freshman Seminar	1
Total hours	52

#### Sophomore Year (Semesters):

Organic Chemistry	8
Calculus	5
General Plant Biology	3
PCMB Major Course	3
GE courses	12
Total hours	31

#### Junior Year (Semesters):

Physics	10
Two PCMB Major Courses	5-7
General Genetics	3
Introduction to Biochemistry	4
Organic Chemistry Lab	2
GE courses	9
Total hours	33-35

#### Senior Year (Semesters):

Research/Lab Course	3-4
Introduction to Statistics	3
Two PCMB Major Courses	5-7
Electives	9
GE courses	9
Total hours	29-32