

## CHANGE DOCTORAL DEGREE PROGRAM FORM

### GENERAL INFORMATION

College:	<u>Arts and Sciences</u>	Department:	<u>Mathematics</u>
Current Major Name:	<u>Mathematics</u>	Proposed Major Name:	_____
Current Degree Title:	<u>Ph.D.</u>	Proposed Degree Title:	_____
Current Formal Option(s):	<u>NA</u>	Proposed Formal Option(s):	_____
Current Specialty Fields w/in Formal Option:	<u>NA</u>	Proposed Specialty Fields w/in Formal Option:	_____
Date of Contact with Associate Provost for Academic Administration <sup>1</sup> :		<u>4/13/2013</u>	
Bulletin (yr & pgs):	<u>Spring 2013</u>	CIP Code <sup>1</sup> :	<u>27.0101</u>
Today's Date:		<u>15 April 2013</u>	
Accrediting agency (if applicable):	<u>None</u>		
Requested Effective Date:	<input checked="" type="checkbox"/> Semester following approval.	OR	<input type="checkbox"/> Specific Date <sup>2</sup> : _____
Dept Contact Person:	<u>Russell Brown</u>	Phone:	<u>7-3951</u>
Email:		<u>russell.brown@uky.edu</u>	

### CHANGE(S) IN PROGRAM REQUIREMENTS

	<u>Current</u>	<u>Proposed</u>
1. Number of transfer credits allowed:	_____	<u>NC</u>
<i>(Maximum is Graduate School limit of total of 9 hours (or 25% of the credit hours needed to fulfill the pre-qualifying residency requirement.)</i>		
2. Residence requirement:	_____	<u>NC</u>
<i>(Minimum of one year before and after Qualifying Exams.)</i>		
3. Language(s) and/or skill(s) required:	<u>1</u>	<u>0</u>
	<p>Students should satisfy the Foreign Language Requirement described under "General Requirements for all Master's Degrees" in the Graduate School Bulletin (pg. 44 of the Spring 2009 edition).</p> <p>Accepted languages for the mathematics graduate programs are ordinarily</p>	<p>Beginning with the entering class of Fall 2013, the Department of Mathematics will no longer require students in the doctoral program to complete a Foreign Language Requirement. At the option of the doctoral advisor, a doctoral student may be required to read a research paper written in French, German, Chinese, or another language, approved by the Director of</p>

<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> Programs are typically made effective for the semester following approval. No program will be made effective until all approvals are received.

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	<p>Chinese, French, German, and Russian. On the recommendation of the Advisory Committee, the Director of Graduate Studies may allow another language to be used. Such substitutions will be made only if the student can demonstrate the existence of a substantial body of mathematical research, in the student's major area, which is written in the requested language. The Foreign Language Component may be completed before or after the Preliminary Examinations. However, it must be completed before taking the Qualifying Examination.</p>	<p>Graduate Studies, as part of the advisee's doctoral work. _</p>
4. Provisions for monitoring progress and termination criteria:	_____	_____ <i>NC</i>
5. Total credit hours required:	_____	_____ <i>NC</i>
6. Required courses:	_____	_____ <i>NC</i>
7. Required distribution of courses within program:	_____	_____ <i>NC</i>
8. Minor area or courses outside program required:	_____	_____ <i>NC</i>
9. Distribution of courses levels required (400G-500/600-700):	_____	_____ <i>NC</i>
10. Qualifying examination requirements:	_____	_____ <i>NC</i>
<p>11. Explain whether the proposed changes to the program (as described in numbers 1 through 10) involve courses offered by another department/program. <u>Routing Signature Log must include approval by faculty of additional department(s).</u></p> <p>_____</p>		
<p>12. Other requirements not covered above:</p> <p>_____</p>		
<p>13. What is the rationale for the proposed changes? If the rationale involves accreditation requirements, please include specific references to those requirements.</p> <p><u>See attached document which includes the proposal approved by the faculty and the rationale for the change.</u></p>		

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Note that we would like to drop the language requirement for students who are currently in the program.

## CHANGE DOCTORAL DEGREE PROGRAM FORM

### Signature Routing Log

**General Information:**

Proposal Name: Mathematics PhD (drop language requirement)

Proposal Contact Person Name: Russell Brown      Phone: 7-3951      Email: Russell.brown@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
Mathematics Faculty	3/19/13	David Leep / 7-3470 / leep@uky.edu	
Mathematics Chair	4/15/13	David Leep / 7-3470 / leep@uky.edu	
		/ /	
		/ /	
A&S EPC and Dean's Office	4/19/13	Anna Bosch, Associate Dean / 7-6689 / bosch@uky.edu	

**External-to-College Approvals:**

Council	Date Approved	Signature	Approval of Revision <sup>3</sup>
Undergraduate Council			
Graduate Council			
Health Care Colleges Council			
Senate Council Approval		University Senate Approval	

Comments:

<sup>3</sup> Councils use this space to indicate approval of revisions made subsequent to that council's approval, if deemed necessary by the revising council.

**Memo to:** The Graduate Council

**Memo from:** Peter Perry, Director of Graduate Studies, Mathematics

**Date:** March 27, 2013

**Subject:** Faculty Vote to end Foreign Language Requirement for the Doctoral Degree in Mathematics

On Tuesday, March 19, the faculty of the Department of Mathematics voted to abolish the foreign language requirement for the doctoral degree in Mathematics (1) for all students admitted Fall 2013 or later and (2) for all current students who have not yet fulfilled the requirement (two separate votes were taken). This issue was considered in response to the report of our Alumni Advisory Council, consisting of Professor Suzanne Lenhart (University of Tennessee, Knoxville; chair); Associate Professor Michael Dorff (Brigham Young University); Dr. Mark Fahey (National Center for Computational Sciences, Oak Ridge National Laboratories); Professor Overtoun Jenda (Associate Provost for Diversity, Auburn University); and Dr. Glenn Lilly (Chief, Mathematics Research, National Security Agency). In their report, the Advisory Council noted that many graduate programs in mathematics nationwide no longer have such a requirement, and that the present requirement delays students' entry into research. It was also argued that knowledge of a foreign language is no longer essential to a successful career as a research mathematician because almost all current mathematical research is available in English translation.

The first proposal approved by the faculty is to replace the description of the current requirement in the Graduate Student Handbook with the following paragraph:

Beginning with the entering class of Fall 2013, the Department of Mathematics will no longer require students in the doctoral program to complete a Foreign Language Requirement. At the option of the doctoral advisor, a doctoral student may be required to read a research paper written in French, German, Chinese, or another language, approved by the Director of Graduate Studies, as part of the advisee's doctoral work.

The second proposal approved by the faculty would amend this paragraph to read

Beginning with all enrolled students who, as of Spring 2013, have not completed the Foreign Language Requirement, and continuing with subsequent entering classes...

The revised language leaves doctoral advisors the flexibility to require demonstrated foreign language competency of their advisees, but removes the department-wide requirement. I have attached a copy of the DGS's letter to faculty concerning this matter. Please contact me if there are any questions or if further documentation is needed.

12 March 2013

Dear Colleagues:

I'm writing to propose that the Department of Mathematics abolish its foreign language requirement for doctoral students. Here, first, is the requirement in its present form (Graduate Student Handbook, 2013 revision, page 7):

**Foreign Language Component:**

Students should satisfy the Foreign Language Requirement described under "General Requirements for all Master's Degrees" in the Graduate School Bulletin (pg. 44 of the Spring 2009 edition).

Accepted languages for the mathematics graduate programs are ordinarily Chinese, French, German, and Russian. On the recommendation of the Advisory Committee, the Director of Graduate Studies may allow another language to be used. Such substitutions will be made only if the student can demonstrate the existence of a substantial body of mathematical research, in the student's major area, which is written in the requested language.

The Foreign Language Component may be completed before or after the Preliminary Examinations. However, it must be completed before taking the Qualifying Examination.

Next, here is Recommendation 3 from the report of our Alumni Advisory Board, chaired by Dr. Suzanne Lenhart, following their April 2012 visit to the Department:

**3. Observation:** Students still have a foreign language requirement.

**Recommendation:** There is no clear need for the language requirement. Removing this requirement would give graduate students more time to work on mathematics.

Finally, here is the proposal for discussion and vote on Tuesday, March 19:

**Proposal:** The 2013-2014 Graduate Handbook will be revised to replace the three paragraphs above with the following paragraph:

Beginning with the entering class of Fall 2013, the Department of Mathematics will no longer require students in the doctoral program to complete a Foreign Language Requirement. At the option of the doctoral advisor, a doctoral student may be required to read a research paper written in French, German, Chinese, or another language, approved by the Director of Graduate Studies, as part of the advisee's doctoral work.

### Rationale for Proposal

Most of our doctoral students fulfill the foreign language requirement by taking a one-semester, three credit-hour "Reading for Research Course" in French or German, typically in the second or third year of residence. I have recently learned that these courses are now offered at most once per year and may be offered either in the fall, spring, or summer semester of a given academic year. This has already created scheduling difficulties for our current students.

The "opportunity cost" is the time that might otherwise be spent in a graduate course in mathematics or in independent research. In recent years, students have been forced to fit the "Reading for Research" course into their schedules by dropping topics courses in their area of research interest.

The DGS believes that the vast majority of our students no longer need this specific skill for their likely careers, and that their time would be better spent progressing in coursework and moving toward independent research.

The attached brief survey of other graduate programs, together with the DGS's conversation with DGS's at other comparable graduate programs in Mathematics, suggests that this viewpoint is gaining acceptance among our peer institutions. A "yes" means that the named doctoral program has a foreign language requirement, and a "no" indicates that there is no such requirement.



Foreign Language Requirement Survey

Georgia Institute of Technology - No

Johns Hopkins University - No

Notre Dame University - No

Ohio State - Yes

Oklahoma State University - No

Notre Dame University - No

Purdue University - Yes

Texas A&M University - Yes

University of Arizona - Yes

University of California, San Diego - Yes

University of Illinois, Champaign-Urbana - Yes

University of Indiana – Yes

**University of Kentucky** - Yes

University of Michigan - Yes, but considering abolition

University of Pennsylvania - No

University of Wisconsin- No

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University of Michigan - Yes, but considering abolition

University of Notre Dame - No

University of Pennsylvania - No

University of Wisconsin- No