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OFFICE OF THE  
SENATE COUNCIL**Course Information**

Date Submitted: 2/25/2016

Current Prefix and Number: BMI - Biomedical Informatics, BMI 734 INTRO TO BIOMEDICAL IMAGE ANALYSIS

Other Course:

Proposed Prefix and Number: BMI 734

What type of change is being proposed?

Major Change

Should this course be a UK Core Course? No

**1. General Information**

a. Submitted by the College of: PUBLIC HEALTH

b. Department/Division: Dept Of Biostatistics

c. Is there a change in 'ownership' of the course? Yes

If YES, what college/department will offer the course instead: College of Medicine

e. Contact Person

Name: Andrea Perkins

Email: andrea.perkins@uky.edu

Phone: 218-2021

Responsible Faculty ID (if different from Contact)

Name: Kathryn Cardarelli

Email: kathryn.cardarelli@uky.edu

Phone: 218-0241

f. Requested Effective Date

Semester Following Approval: Yes OR Effective Semester:

**2. Designation and Description of Proposed Course**

a. Current Distance Learning (DL) Status: Already approved for DL\*

b. Full Title: INTRODUCTION TO BIOMEDICAL IMAGE ANALYSIS

Proposed Title: Same

c. Current Transcript Title: INTRO TO BIOMEDICAL IMAGE ANALYSIS

Proposed Transcript Title: Same

d. Current Cross-listing: none

Proposed – ADD Cross-listing :

Proposed – REMOVE Cross-listing:

e. Current Meeting Patterns

LECTURE: 3

Proposed Meeting Patterns

LECTURE: 3

f. Current Grading System: Graduate School Grade Scale

Proposed Grading System: *Graduate School Grade Scale*

g. Current number of credit hours: 3

Proposed number of credit hours: 3

h. Currently, is this course repeatable for additional credit? No

Proposed to be repeatable for additional credit? No

If Yes: Maximum number of credit hours:

If Yes: Will this course allow multiple registrations during the same semester? No

2i. Current Course Description for Bulletin: This class aims to give students a broad overview of biomedical image analysis and imaging informatics. We will introduce the state-of-the-art knowledge to understand, develop, and apply existing methods and software to handle biomedical image data to extract quantitative matrices.

Proposed Course Description for Bulletin: Same

2j. Current Prerequisites, if any:

Proposed Prerequisites, if any:

2k. Current Supplementary Teaching Component:

Proposed Supplementary Teaching Component:

3. Currently, is this course taught off campus? No

Proposed to be taught off campus? No

If YES, enter the off campus address:

4. Are significant changes in content/student learning outcomes of the course being proposed? No

If YES, explain and offer brief rationale:

5a. Are there other depts. and/or pgms that could be affected by the proposed change? Yes

If YES, identify the depts. and/or pgms: College of Medicine, Department of Internal Medicine

5b. Will modifying this course result in a new requirement of ANY program? No

If YES, list the program(s) here:

6. Check box if changed to 400G or 500: No

## Distance Learning Form

Instructor Name:

Instructor Email:

Internet/Web-based: No

Interactive Video: No

Hybrid: No

1. How does this course provide for timely and appropriate interaction between students and faculty and among students? Does the course syllabus conform to University Senate Syllabus Guidelines, specifically the Distance Learning Considerations?

2. How do you ensure that the experience for a DL student is comparable to that of a classroom-based student's experience? Aspects to explore: textbooks, course goals, assessment of student learning outcomes, etc.

3. How is the integrity of student work ensured? Please speak to aspects such as password-protected course portals, proctors for exams at interactive video sites; academic offense policy; etc.

4. Will offering this course via DL result in at least 25% or at least 50% (based on total credit hours required for completion) of a degree program being offered via any form of DL, as defined above?

If yes, which percentage, and which program(s)?

5. How are students taking the course via DL assured of equivalent access to student services, similar to that of a student taking the class in a traditional classroom setting?

6. How do course requirements ensure that students make appropriate use of learning resources?

7. Please explain specifically how access is provided to laboratories, facilities, and equipment appropriate to the course or program.

8. How are students informed of procedures for resolving technical complaints? Does the syllabus list the entities available to offer technical help with the delivery and/or receipt of the course, such as the Information Technology Customer Service Center (<http://www.uky.edu/UKIT/>)?

9. Will the course be delivered via services available through the Distance Learning Program (DLP) and the Academic Technology Group (ATL)? NO

If no, explain how student enrolled in DL courses are able to use the technology employed, as well as how students will be provided with assistance in using said technology.

10. Does the syllabus contain all the required components? NO

11. I, the instructor of record, have read and understood all of the university-level statements regarding DL.

Instructor Name:

SIGNATURE|ALHAYS0|Andrea L Perkins|BMI 734 CHANGE College Review|20160225

SIGNATURE|ZNNIKO0|Roshan N Nikou|BMI 734 CHANGE Graduate Council Review|20160322



UNIVERSITY OF KENTUCKY

May 4th, 2016

Andrew Hippisley  
Chair, University of Kentucky Senate Council

Dear Dr. Hippisley,


We, the undersigned tenure and tenure-track faculty members of the Division of Biomedical Informatics (BMI), Department of Internal Medicine in the College of Medicine, support the proposed move of the following BMI courses from the Department of Biostatistics in the College of Public Health to the Division of Biomedical Informatics in the Department of Internal Medicine:

- BMI 633: Introduction to Bioinformatics
- BMI 730: Principles of Clinical Informatics
- BMI 731: Biomedical Information Retrieval
- BMI 732: Biomedical Ontologies and Semantic Web Techniques
- BMI 733: Biomedical Natural Language Processing
- BMI 734: Introduction to Biomedical Image Analysis
- BMI 735: Introduction to Biomed Image Informatics

Sincerely,



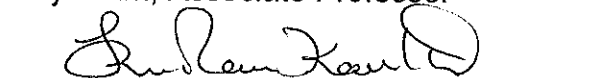
GQ Zhang, Professor



Radha Nagarajan, Associate Professor



Sujin Kim, Associate Professor



Ramakanth Kavuluru, Assistant Professor

Division of Biomedical Informatics  
College of Medicine

## Course Change Form

<https://myuk.uky.edu/sap/bc/soap/rfc?services=>

Open in full window to print or save

Generate R

## Attachments:

Browse...

Upload File

	ID	Attachment
Delete	6334	Letter to COM.docx
Delete	6335	LOS BMI Course Transfer.pdf

First 1 Last

NOTE: Start form entry by choosing the Current Prefix and Number  
(\*denotes required fields)

Current Prefix and Number:		BMI - Biomedical Informatics BMI 734 INTRO TO BIOMEDICAL IMAGE ANALYSIS	Proposed Prefix & Number: (example: PHY 401G) <input checked="" type="checkbox"/> Check if same as current	BMI 734
* What type of change is being proposed?		<input checked="" type="checkbox"/> Major Change <input type="checkbox"/> Major -- Add Distance Learning <input type="checkbox"/> Minor - change in number within the same hundred series, except 799 is the same "hundred series" <input type="checkbox"/> Minor - editorial change in course title or description which does not change in content or emphasis <input type="checkbox"/> Minor - a change in prerequisite(s) which does not imply a change course content or emphasis, or which is made necessary by the elim or significant alteration of the prerequisite(s) <input type="checkbox"/> Minor - a cross listing of a course as described above		
Should this course be a UK Core Course? <input type="radio"/> Yes <input checked="" type="radio"/> No				
If YES, check the areas that apply:				
<input type="checkbox"/> Inquiry - Arts & Creativity <input type="checkbox"/> Composition & Communications - II <input type="checkbox"/> Inquiry - Humanities <input type="checkbox"/> Quantitative Foundations <input type="checkbox"/> Inquiry - Nat/Math/Phys Sci <input type="checkbox"/> Statistical Inferential Reasoning <input type="checkbox"/> Inquiry - Social Sciences <input type="checkbox"/> U.S. Citizenship, Community, Diversity <input type="checkbox"/> Composition & Communications - I <input type="checkbox"/> Global Dynamics				
1. General Information				
a.		Submitted by the College of: PUBLIC HEALTH		Submission Date: 2/25/2016
b.		Department/Division: Dept Of Biostatistics		
c.* Is there a change in "ownership" of the course?				
<input checked="" type="radio"/> Yes <input type="radio"/> No If YES, what college/department will offer the course instead? College of Medicine				
e.*				
* Contact Person Name:		Andrea Perkins	Email: andrea.perkins@uky.edu	Phone: 218-2021
* Responsible Faculty ID (if different from Contact):		Kathryn Cardarelli	Email: kathryn.cardarelli@uky.edu	Phone: 218-0241
f.* Requested Effective Date:		<input checked="" type="checkbox"/> Semester Following Approval	OR	Specific Term: <sup>2</sup>
2. Designation and Description of Proposed Course.				
a.		Current Distance Learning(DL) Status:		
		<input type="radio"/> N/A <input checked="" type="radio"/> Already approved for DL* <input type="radio"/> Please Add <input type="radio"/> Please Drop		
*If already approved for DL, the Distance Learning Form must also be submitted unless the department affirms (by checking this box ) that the proposed change affect DL delivery.				
b.		Full Title:	INTRODUCTION TO BIOMEDICAL IMAGE ANALYSIS	Proposed Title: * Same
c.		Current Transcript Title (if full title is more than 40 characters):		INTRO TO BIOMEDICAL IMAGE ANALYSIS
c.		Proposed Transcript Title (if full title is more than 40 characters):		Same
d.		Current Cross-listing:		OR

	<input checked="" type="checkbox"/> N/A	Currently <sup>3</sup> Cross-listed with (Prefix & Number):	none
Proposed – ADD <sup>3</sup> Cross-listing (Prefix & Number):			
Proposed – REMOVE <sup>3,4</sup> Cross-listing (Prefix & Number):			
<b>e. Courses must be described by at least one of the meeting patterns below. Include number of actual contact hours<sup>5</sup> for each meeting pattern</b>			
Current:	Lecture 3	Laboratory <sup>5</sup>	Recitation
			Discussion
			Indep. Study
	Clinical	Colloquium	Practicum
			Research
			Residency
	Seminar	Studio	Other Please explain:
Proposed: *	Lecture 3	Laboratory <sup>5</sup>	Recitation
			Discussion
			Indep. Study
	Clinical	Colloquium	Practicum
			Research
			Residency
	Seminar	Studio	Other Please explain:
<b>f. Current Grading System:</b>		Graduate School Grade Scale	
Proposed Grading System:*		<input type="radio"/> Letter (A, B, C, etc.) <input type="radio"/> Pass/Fail <input type="radio"/> Medicine Numeric Grade (Non-medical students will receive a letter grade) <input checked="" type="radio"/> Graduate School Grade Scale	
<b>g.</b>	Current number of credit hours:	3	Proposed number of credit hours:*
			3
<b>h.*</b>	Currently, is this course repeatable for additional credit?		<input type="radio"/> Yes <input checked="" type="radio"/> No
*	Proposed to be repeatable for additional credit?		<input type="radio"/> Yes <input checked="" type="radio"/> No
	If YES:	Maximum number of credit hours:	
	If YES:	Will this course allow multiple registrations during the same semester?	<input type="radio"/> Yes <input checked="" type="radio"/> No
<b>i.</b>	<b>Current Course Description for Bulletin:</b>		
	This class aims to give students a broad overview of biomedical image analysis and imaging informatics. We will introduce the state-of-the-art knowledge to understand, develop, and apply existing methods and software to handle biomedical image data to extract quantitative matrices.		
*	<b>Proposed Course Description for Bulletin:</b>		
	Same		
<b>j.</b>	<b>Current Prerequisites, if any:</b>		
*	<b>Proposed Prerequisites, if any:</b>		
<b>k.</b>	<b>Current Supplementary Teaching Component, if any:</b>		<input type="radio"/> Community-Based Experience

	<input type="radio"/> Service Learning <input type="radio"/> Both
Proposed Supplementary Teaching Component:	<input type="radio"/> Community-Based Experience <input type="radio"/> Service Learning <input type="radio"/> Both <input type="radio"/> No Change
3. Currently, is this course taught off campus?	<input type="radio"/> Yes <input checked="" type="radio"/> No
* Proposed to be taught off campus?	<input type="radio"/> Yes <input checked="" type="radio"/> No
If YES, enter the off campus address:	
4.* Are significant changes in content/student learning outcomes of the course being proposed?	<input type="radio"/> Yes <input checked="" type="radio"/> No
If YES, explain and offer brief rationale:	
<b>5. Course Relationship to Program(s).</b>	
a.* Are there other depts and/or pgms that could be affected by the proposed change?	<input checked="" type="radio"/> Yes <input type="radio"/> No
If YES, identify the depts. and/or pgms:	
College of Medicine, Department of Internal Medicine	
b.* Will modifying this course result in a new requirement <sup>2</sup> for ANY program?	<input type="radio"/> Yes <input checked="" type="radio"/> No
If YES <sup>2</sup> , list the program(s) here:	
<b>6. Information to be Placed on Syllabus.</b>	
a. <input type="checkbox"/>	Check box if <b>changed to</b> 400G or 500. If changed to 400G- or 500-level course you must send in a syllabus and you must include the differentiation between under and graduate students by: (i) requiring additional assignments by the graduate students; and/or (ii) establishing different grad criteria in the course for graduate students. (See SR 3.1.4.)

<sup>1</sup>See comment description regarding minor course change. *Minor changes are sent directly from dean's office to Senate Council Chair. If Chair deems the change as "not minor," the form will be appropriate academic Council for normal processing and contact person is informed.*

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

<sup>3</sup>Signature of the chair of the cross-listing department is required on the Signature Routing Log.

<sup>4</sup>Removing a cross-listing does not drop the other course – it merely unlinks the two courses.

<sup>5</sup>Generally, undergrad courses are developed such that one semester hr of credit represents 1 hr of classroom meeting per wk for a semester, exclusive of any lab meeting. Lab meeting generally two hrs per wk for a semester for 1 credit hour. (See SR 5.2.1.)

<sup>6</sup>You must also submit the Distance Learning Form in order for the course to be considered for DL delivery.

<sup>7</sup>In order to change a program, a program change form must also be submitted.



Charles "Chipper" Henry Griffith, III, MD, MSPH  
Senior Associate Dean for Medical Education  
Professor of Internal Medicine and Pediatrics  
University of Kentucky College of Medicine  
Office of the Dean  
800 Rose Street, MN 143  
Lexington, KY 40536-9983

Dear Dr. Griffith:

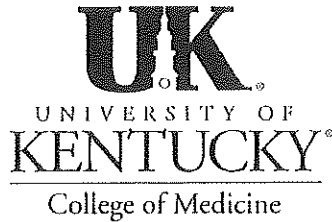
The Division of Biomedical Informatics in the College of Public Health was dissolved in fall 2015, and the faculty that were formerly affiliated with that division have now transferred to the College of Medicine. The College of Public Health now proposes to transfer the following courses to the College of Medicine:

- BMI 633 – Introduction to Bioinformatics
- BMI 730 – Principles of Clinical Informatics
- BMI 731 – Biomedical Information Retrieval
- BMI 732 – Biomedical Ontologies and Semantic Web Techniques
- BMI 733 – Biomedical Natural Language Processing
- BMI 734 – Introduction to Biomedical Image Analysis
- BMI 735 – Introduction to Bioimage Informatics

These courses are not required for any of our college's degree programs but will likely be of interest to your college as its new Division of Biomedical Informatics, under the leadership of Dr. Zhang, continues to develop. Thank you for considering our proposal.

Sincerely,

Kathryn M. Cardarelli, Ph.D.  
Associate Dean for Academic and Student Affairs  
College of Public Health  
University of Kentucky



February 22, 2016

Kathryn M. Cardarelli, Ph.D.  
Associate Dean for Academic and Student Affairs  
University of Kentucky College of Public Health  
111 Washington Ave., Suite 120  
Lexington, KY 40536

Office of Medical Education  
Vice Dean for Education  
800 Rose Street, MN 104 UKMC  
Lexington, KY 40536-0298  
(859) 257-5286  
[www.mc.uky.edu](http://www.mc.uky.edu)

Dear Dr. Cardarelli:

Given the transfer of the Division of Biomedical Informatics faculty from the College of Public Health to the College of Medicine in fall 2015, the College of Medicine is supportive of your proposal to transfer the following courses to the College of Medicine:

- BMI 633 - Introduction to Bioinformatics
- BMI 730 - Principles of Clinical Informatics
- BMI 731- Biomedical Information Retrieval
- BMI 732 - Biomedical Ontologies and Semantic Web Techniques
- BMI 733 - Biomedical Natural Language Processing
- BMI 734 - Introduction to Biomedical Image Analysis
- BMI 735 - Introduction to Biomed Image Informatics

Thank you for your efforts in the transfer of these courses.

Sincerely,

A handwritten signature in black ink, appearing to read "CHG".

Charles H. Griffith, III, MD, MSPH  
Professor of Internal Medicine and Pediatrics  
Vice Dean for Education  
University of Kentucky College of Medicine