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#### **Course Information**

Date Submitted: 2/25/2016

OFFICE OF THE SENATE COUNCIL

Current Prefix and Number: BMI - Biomedical Informatics, BMI 731 BIOMEDICAL INFORMATION RETRIEVAL

Other Course:

Proposed Prefix and Number: BMI 731

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: BIOMEDICAL INFORMATION RETRIEVAL

Proposed Title: Same

c. Current Transcript Title: BIOMEDICAL INFORMATION RETRIEVAL

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 is an introductory information retrieval class that is focused on biomedical information search engines. Basic IR concepts such index construction, optimization, visualization, and evaluation will be covered. In addition to core IR contexts, students will have an opportunity to learn about search engines, web crawling, and some Web 2.0 technologies based on hands-on exercises and assignments with a focus on techniques that can be used to access, retrieve, organize, and present information. Students will employ an open source indexing engine (e.g., Lemur or Lucene or something similar) to understand how back-end of retrieval engine is effectively and efficiently structured.

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 rational:



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 731 CHANGE College Review|20160225 SIGNATURE|ZNNIKO0|Roshan N Nikou|BMI 731 CHANGE Graduate Council Review|20160322



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 Biolmage Informatics

Sincerely,

Guznang, Professor

Wi Kcichat us hay n Radha Nagarajan, Associate Professor Sujin Kim, Associate Professor

Ramakanth Kavuluru, Assistant Professor

Division of Biomedical Informatics College of Medicine

#### **Course Change Form**

<u>Op</u>	en in full window to print	or save					Generate R	
ach	ments:	se) U	Jpload File					
	ID Attach 6328 Letter to COM. 6329 LOS BMI Cours First 1 Last	docx e Transfer.pdf						
		NOTE: Sta	art form entry by c	hoosing the Cu tes required fiel		nd Number		
	Current Prefix and Number:	BMI - Biomedical Inform BMI 731 BIOMEDICAL I	atics	[9]	Proposed Prei		BMI 731	
	What type of change is being proposed?			☐ Maj ☐ Min 799 is ☐ Min chang ☐ Min course or sign	☑ Major Change ☐ Major Add Distance Learning ☐ Minor change in number within the same hundred series, except 799 is the same "hundred series" ☐ Minor editorial change in course title or description which does not change in content or emphasis ☐ Minor a change in prerequisite(s) which does not imply a change course content or emphasis, or which is made necessary by the elimor significant attention of the prerequisite(s) ☐ Minor a cross listing of a course as described above			
	If YES, check the areas that apply:  Inquiry - Arts & Creativity Composition & Communications - II Inquiry - Humanities Inquiry - Nat/Math/Phys Sci Statistical Inferential Reasoning Inquiry - Social Sciences U.S. Citizenship, Community, Diversity Composition & Communications - I Global Dynamics  General Information							
	Submitted by the Colleg	ge of: PUBLIC HEALTH			Submi	ission Date: 2/25/2	016 :	
	Department/Division:		pt Of Biostatistics					
.*	Is there a change in "ow	<u> </u>	F - 3 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1					
».*	© Yes ○ No If YES, what college/department will offer the course instead? College of Medicine  * Contact Person Name: Andrea Perkins Email: andrea.perkins@uky.eduPhone: 218-2021  * Responsible Faculty ID (if different from Contact) Kathryn Cardarelli Email: kathryn.cardarelli@uky.eiPhone: 218-0241							
*	Requested Effective Da	te:	☑ Semester Follov	ving Approval	OR	Specific Term:	2	
	Designation and Desc	ription of Proposed Cou	irse.					
ı.	Current Distance Learning(DL) Status:							
	*If already approved for tagget affect DL delivery.	OL, the Distance Learning F	orm must also be sub		nless the department affirms (by checking this box ) that the proposed chang			
	BIOMEDICAL INFORMATION RETRIEVAL Full Title:			. 6.		Same		
),	Full Title:		TION RETRIEVAL	▼.	Proposed Title	¢*		
o, 		le (if full title is more than		· · · · · · · · · · · · · · · · · · ·		ATION RETRIEVAL		

			☑ N/A		Currently <sup>2</sup> Cross-I Number):	isted with (Prefix &	none		
	Proposed – ADD <sup>3</sup> Cross-listing (Prefix & Number):						, , , , , , , , , , , , , , , , , , , ,		
	Proposed –	Proposed – REMOVE 3.1 Cross-listing (Prefix & Number):							
Θ,	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								
Curr	Current: Lecture 3			ory <sup>5</sup>	Recitation	Discussion	Indep. Study		
		Clinical	Colloqu	lum	Practicum	Research	Residency		
	Seminar		Studio		Other	Please explain:			
Prop	Proposed: * Lecture 3		Laborat	ory <u>a</u>	Recitation	Discussion	Indep. Study		
		Clinical	Colloqu	um	Practicum	Research	Residency		
		Seminar	Studio		Other:	Please explain:			
f.	Current Gra	iding System:		Graduate School Grade Scale					
	Proposed Grading System:*  Pass/Fail  Medicine Numeric Grade (Non-medical students will receive a letter grade)  Graduate School Grade Scale								
g.	Current nu	mber of credit hours:		3		Proposed number of credit hours:*	3		
h.*	Currently, i	s this course repeatable	for additional	redit?			○ Yes ᢀ No		
*	Proposed to	be repeatable for additio	nal credit?				○ Yes ֍ No		
	If YES:	Maximum numbe	r of credit hours.				:		
	If YES:	Will this course a	llow multiple reg	strations during the same	semester?	-	○ Yes ○ No		
i.	Current Co	urse Description for Bul							
	This class is an introductory information retrieval class that is focused on biomedical information search engines. Basic IR concepts such index construction, optimization, visualization, and evaluation will be covered. In addition to core IR contexts, students will have an opportunity to learn about search engines, web crawling, and some Web 2.0 technologies based on hands-on exercises and assignments with a focus on techniques that can be used to access, retrieve, organize, and present information. Students will employ an open source indexing engine (e.g., Lemur or Lucene or something similar) to understand how back-end of retrieval engine is effectively and efficiently structured.								
	Dennand C	ourse Description for Bull	o tin	***					
	Same		<i>3</i>				***************************************		
j.	Current Prerequisites, if any:								
*	Proposed P	rerequisites, if any:							
*	The second secon				1				
	<u></u>					T			
k.	Current Su	pplementary Teaching C	component, if a	iy:		© Community-Based Ex	perlence		

		○ Service Learning ○ Both					
	Proposed Supplementary Teaching Component:	<ul><li>○ Community-Based Experience</li><li>○ Service Learning</li><li>○ Both</li><li>○ No Change</li></ul>					
3.	Currently, is this course taught off campus?		⊖Yes ® No				
*	Proposed to be taught off campus?		⊖ Yes ® No				
	If YES, enter the off campus address:						
4.*	Are significant changes in content/student learning outcomes of the course being proposed?		⊙Yes ® No				
	If YES, explain and offer brief rationale:						
5.	Course Relationship to Program(s).						
a.*	* Are there other depts and/or pgms that could be affected by the proposed change?						
	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>™</sup> for ANY program?		○Yes ® No				
	If YES <sup>Z</sup> , list the program(s) here:						
6.	Information to be Placed on Syllabus.	-17-4-4-1b	habiaan indi-				
a.	Check box 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.)						

Ese 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 I appropriate academic Council for normal processing and contact person is informed.

ECourses are typically made effective for the semester following approval. No course will be made effective until all approvals are received.

Esignature of the chair of the cross-listing department is required on the Signature Routing Log.

Removing a cross-listing does not drop the other course—it merely unlinks the two courses.

Expensely, 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 gene least two hrs per vk for a semester for 1 credit hour. (See SR 5.2.1.)

Vou must also submit the Distance Learning Form in order for the course to be considered for DL delivery.

Fin 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

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 Bioimage Informatics

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

Sincerely,

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