

**COURSE APPROVAL FORM, Graduate School
University of Arkansas for Medical Sciences**

This form and attached materials are due in the Graduate School Office on the first Monday of the month. All forms will be submitted to the UAMS Graduate Council Curriculum Committee for review and approval prior to consideration by the Graduate Council.

This form is not required for minor stylistic or editorial corrections to the title or course descriptions. These may be made when revising the catalog copy.

1. **Program:** Biomedical Informatics

D	B	M	I				
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Department *Alpha (Department) Code*

2. **Action proposed** (indicate one or more items): Effective term: Fall 2017

<input type="checkbox"/> Add course	<input checked="" type="checkbox"/> Change title		
<input type="checkbox"/> Eliminate course (No outline needed)	<input checked="" type="checkbox"/> Change credit hours from: <u>3</u> to <u>2</u>		
	<input type="checkbox"/> Change course number from: _____ to _____		
	_____ Change description		

3. **Course ID, title and description:**

<table border="1" style="display: inline-table;"><tr><td>B</td><td>M</td><td>I</td><td>G</td></tr></table> prefix	B	M	I	G	<table border="1" style="display: inline-table;"><tr><td>5</td><td>0</td><td>1</td><td>0</td></tr></table> number	5	0	1	0	<u>BMI Project Rotations</u> title (20 characters)
B	M	I	G							
5	0	1	0							

Biomedical Informatics Project Rotations

catalog name (40 characters)

Scheduled offering: Fall Spring Summer On demand

To cross list a course, use the Course Cross Listing Form.

Describe the course in sentence form using 50 words or less as it is to appear in the catalog. List prerequisites, co-requisites and possible off-site instructional opportunities or requirements.

An Introduction to methods and tools often used in Biomedical Informatics through 'hands-on' experiences by helping to solidify your ability to grasp the core concepts of a research problem, come up with a properly-scoped proposal to explore possible solutions to the problem, all under the guidance of a faculty mentor.

4. **Justification:**

Justify this change in terms of course needs or curriculum improvement. State the effect of this change on any degree programs. Identify the courses to be eliminated, if any, if this course is approved. (Course Approval Forms must also be submitted for these courses) Identify any existing course or courses that would extensively overlap or be duplicated if the proposed curricular change occurs. Provide statements of concurrence with the change from the chairperson(s) and dean(s) of the programs/areas offering the affected courses.

The credit hour for this course should be changed from 3 credit hours to 2 credit hours. The title for the course should be changed from "Methods in Biomedical Informatics" to "Biomedical Informatics Project Rotations".

INSTRUCTIONS FOR COMPLETION OF THE UAMS GRADUATE SCHOOL COURSE APPROVAL FORM

1. Please save this PDF to your computer for editing.
2. The form has been designed with fields for your responses, and these are indicated in blue and gray shading. Please complete all fields. Use the "tab" key to move between fields. A 'beep' will sound if you attempt to enter a response that contains more characters than is permitted. **IF YOU NEED HELP IN ANY OF THE FIELDS, PRESS THE F1 KEY AND A HELP WINDOW WILL OPEN.**
3. Print the document, and then obtain the appropriate signatures before submitting the form to the Graduate Office.

5. Course Information: *This information is not required for seminars, special problems, research, thesis, dissertation, colloquia, practica, etc.*

Course Title and Course number: *See Graduate School Office for assignment of course number.*

Credit Hours:

Proposed Date/Semester:

Course Description: *Briefly describe course topics and educational materials the course will cover.*

Course Goals or Objectives: *State at least one: examples.*

- To evaluate ...
- To demonstrate ...
- To measure...
- To conduct ...
- To be able to ...

Course Prerequisites: *State if any; if none, indicate "No prerequisites."*
The prerequisites are...

Attendance: *See example below.*

Attendance is **required** for all classes. Excused absences may be obtained only by permission from the course director. Make-up exams will only be given under the most extenuating circumstances.

Student Evaluation: *See examples below;*

This is a pass/fail course. A grade of 70% or greater will constitute a "pass".

Students' grades will be based on the following:

Attendance, discussion of reading, class/lab participation.....	20%
Final Examination	80%
TOTAL.....	100%

Course Evaluation: *See example below; include evaluation by faculty peers as well as by students.*

At the end of the course, students will be provided with a Course Evaluation Form to anonymously assess the content and delivery of the course. Faculty will assess the course each term and make any appropriate modifications and updates.

Textbooks/Reading Materials: *See examples below.*

Textbook XXX along with other assigned reading will be used.

There will be no textbook but journal articles will be assigned reading.

Students will be e-mailed a copy of the PowerPoint presentations before each lecture.

Course Director(s): Dr. XXX

Tentative Course Schedule:

Session	Date	Topic	Instructor
1			
2			
3			
4			
5			
6			

6. Program Approvals:

Fred Prior, PhD, Department of Biomedical Informatics
(Print or type) Chairperson, Academic Department or Area

Fred Prior 05/15/2017
(Signature) Chairperson, Academic Department or Area Date

College Dean (Dean McGehee for College of Medicine) Date

7. Graduate School Approvals

Chairperson, Graduate Council Date

Dean of the Graduate School Date

University of Arkansas for Medical Sciences

BMIG 5010 Biomedical Informatics Project Rotations

COURSE DESCRIPTION:

This project course introduces you to methods and tools often used in Biomedical Informatics through 'hands-on' experiences. In addition, the course is intended to help solidify your ability to grasp the core concepts of a research problem, come up with a properly-scoped proposal to explore one or more possible solutions to the problem during the semester, make plans to implement the proposal, and then carry out those plans by the end of the semester, all under the guidance of a faculty mentor. The course not only helps you realize where you could improve your problem-solving skills, but also introduces you to the types of skills needed for both successful graduate studies, as well as a successful career post-graduation. The course also allows you to explore Biomedical Informatics areas prior to selection of a capstone or research project.

Prior to the course start, faculty members willing to serve as mentors will have listed several problem topics that you may choose from in creating your proposal. In general, the topics come from actual research issues that faculty mentors are working on. The faculty member should have already restricted their topics to a scope that they believe a new student could accomplish within the timeline of a 2 unit, one semester class. Students then write brief proposals on how they might address topics of interest. It is suggested that you write multiple proposals, in case your first proposal is not accepted by the faculty mentor. Based on reviews of the proposals, you will be paired with a mentor early in the course. You then carry out their selected proposal through the remainder of the course, culminating in a presentation of your results at the end of the course.

PRE-REQUISITES: None. Consent of instructor required.

GENERAL INFORMATION:

CREDITS: 2 unit, may be repeated over multiple semesters

SEMESTER: Fall, Spring on demand

LOCATION: TBD

SCHEDULE: You will meet with your mentor at a mutually agreed upon time to discuss your progress on your chosen research topic and plan. You are encouraged, but not required, to utilize other resources, such as online tutorials or courses, that could help you successfully complete your research proposal and plan.

FACULTY: Lawrence Tarbox, PhD

CONTACT: University of Arkansas for Medical Sciences,
4301 West Markham Street, Slot # 449
Little Rock, AR 72205

OFFICE HOURS: By appointment. Please contact Diana Stockton at
501.603.1416 or stocktondianac@uams.edu.

SPECIAL ASSISTANCE: Students who believe they may need accommodations
in this class based on mental or physical impairments
should contact the course instructor, as soon as
possible.

COURSE OBJECTIVES:

Upon successful completion of this course, you should be able to:

1. Write a brief research proposal and plan addressing a selected research topic. While this is not a full research proposal, such as what is needed to apply for a grant, the experience should be valuable preparation to create such a proposal and plan.
2. Conduct the research plan.
3. Present the outcome of the research plan both orally and in written form.
4. Review and assess other people's research projects.

MAJOR TOPICS (suggested):

1. Proposal writing
2. Planning methods and tools
3. Additional topics depend on the research topics that you chose and interactions with your mentor.
4. Presentation methods and tools
5. Report writing

ASSIGNMENTS:

1. One or more research proposals, drawn from the set of topics for which faculty mentors are available (1st week) (objective 1) (10% of final grade)
2. A research plan to accomplish the research proposal (2nd week) (objective 1) (15% of final grade)
3. Weekly progress reviews with your mentor (3rd through 13th week) (objective 2) (Not directly graded, but you must attend at least 8 progress reviews to

pass. These reviews can help you improve the outcomes from conducting your research plan. At the end of the course your mentor will assess your performance in conducting the research, worth 15% of your final grade.)

4. A final written report of the outcome of your work (14th week).(objective 3) (30% of final grade)
5. A 10 minute oral presentation of your work (15th week) (objective 3) (30% of final grade)
6. Assessments of other student's work (by the end of the normally-scheduled final examination time) (objective 4) (not graded, but all assessments should be submitted to pass). These assessments are combined in arriving at the scores for your written and oral reports.

TEXTBOOKS:

none

GRADING:

The final grade is primarily determined by the outcome of your project. There is no final examination. You instead will present the results of your work in both written and oral form to the rest of the class, who will then provide their assessments of your work. The students will provide separate assessments for the written and the oral presentations. These assessments will be averaged to create single peer assessments, one for your written presentation and one for your oral presentation. Your mentor and a selected group of faculty members will also assess your work. The final grade will be the average of the peer, mentor, and faculty assessments of your work.

