

COURSE CHANGE FORM

Complete 1a – 1f & 2a – 2c. Fill out the remainder of the form as applicable for items being changed.

1. General Information.	
a. Submitted by the College of:	College of Health Sciences
Today's Date:	9/20/10
b. Department/Division:	Department of Clinical Sciences/Clinical Laboratory Sciences
c. Is there a change in "ownership" of the course?	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
If YES, what college/department will offer the course instead? _____	
d. What type of change is being proposed?	<input checked="" type="checkbox"/> Major <input type="checkbox"/> Minor ¹ (place cursor here for minor change definition)
e. Contact Person Name:	Michelle Butina
Email:	mbu228@uky.edu
Phone:	218-0852
f. Requested Effective Date:	<input type="checkbox"/> Semester Following Approval OR <input checked="" type="checkbox"/> Specific Term ² : Fall 2011
2. Designation and Description of Proposed Course.	
a. Current Prefix and Number:	CLS 822
Proposed Prefix & Number:	MLS 410
b. Full Title:	Biochemistry for Clinical Sciences
Proposed Title:	Medical Laboratory Biochemistry
c. Current Transcript Title (if full title is more than 40 characters):	_____
c. Proposed Transcript Title (if full title is more than 40 characters):	_____
d. Current Cross-listing:	<input checked="" type="checkbox"/> N/A OR Currently ³ Cross-listed with (Prefix & Number): _____
Proposed – <input type="checkbox"/> ADD ³ Cross-listing (Prefix & Number):	_____
Proposed – <input type="checkbox"/> REMOVE ^{3,4} Cross-listing (Prefix & Number):	_____
e. Courses must be described by at least one of the meeting patterns below. Include number of actual contact hours ⁵ for each meeting pattern type.	
Current:	<u>3</u> Lecture _____ Laboratory ⁵ _____ Recitation _____ Discussion _____ Indep. Study _____
	_____ Clinical _____ Colloquium _____ Practicum _____ Research _____ Residency _____
	_____ Seminar _____ Studio _____ Other – Please explain: _____
Proposed:	<u>3</u> Lecture _____ Laboratory _____ Recitation _____ Discussion _____ Indep. Study _____
	_____ Clinical _____ Colloquium _____ Practicum _____ Research _____ Residency _____
	_____ Seminar _____ Studio _____ Other – Please explain: _____
f. Current Grading System:	<input checked="" type="checkbox"/> Letter (A, B, C, etc.) <input type="checkbox"/> Pass/Fail
Proposed Grading System:	<input checked="" type="checkbox"/> Letter (A, B, C, etc.) <input type="checkbox"/> Pass/Fail
g. Current number of credit hours:	<u>3</u>
Proposed number of credit hours:	<u>3</u>

Comment [OSC1]: Excerpt from SR 3.3.0.G.2 Definition. A request may be considered a minor change if it meets one of the following criteria:
a. change in number within the same hundred series*;
b. editorial change in the course title or description which does not imply change in content or emphasis;
c. a change in prerequisite(s) which does not imply change in content or emphasis, or which is made necessary by the elimination or significant alteration of the prerequisite(s); d. a cross-listing of a course under conditions set forth in SR 3.3.0.E;
e. correction of typographical errors.

* ...for the specific purposes of the minor exception rule, the 600-799 courses are the same "hundred series," as long as the other minor change requirements are complied with. [RC 1/15/09]

¹ 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 sent to appropriate academic Council for normal processing and contact person is informed.

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

³ Signature of the chair of the cross-listing department is required on the Signature Routing Log.

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

⁵ 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 represents at least two hrs per wk for a semester for 1 credit hour. (See SR 5.2.2.)

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h. Currently, is this course repeatable for additional credit?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
<i>Proposed to be repeatable for additional credit?</i>	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
If YES: Maximum number of credit hours: _____		
If YES: Will this course allow multiple registrations during the same semester?	YES <input type="checkbox"/>	NO <input type="checkbox"/>
i. Current Course Description for Bulletin:	A presentation of the biochemistry of carbohydrates, lipids, proteins, and amino acids and nucleic acids and exploration of major metabolic pathways as the basis of clinical chemistry. Case studies will be used to emphasize the role of biochemistry in the understanding of clinical science.	
<i>Proposed Course Description for Bulletin:</i>	<i>This course provides the student with an understanding of biochemical systems in the body. During this course, the student will be able to describe how these systems work, the interaction between the systems and understand the consequences that occur when there is a disruption of a system. At the completion of this course, the journey through these metabolic pathways will provide a relevant and informative experience.</i>	
j. Current Prerequisites, if any:	CHE 105, 107, and 115 or the equivalent and/or consent of the instructor.	
<i>Proposed Prerequisites, if any:</i>	<i>Admission into the Medical Laboratory Science Program or consent of instructor.</i>	
k. Current Distance Learning(DL) Status:	<input type="checkbox"/> N/A <input type="checkbox"/> Already approved for DL* <input checked="" type="checkbox"/> Please Add ⁶ <input type="checkbox"/> Please Drop	
*If already approved for DL, the Distance Learning Form must also be submitted <u>unless</u> the department affirms (by checking this box <input type="checkbox"/>) that the proposed changes do not affect DL delivery.		
Current Supplementary Teaching Component, if any:	<input type="checkbox"/> Community-Based Experience <input type="checkbox"/> Service Learning <input type="checkbox"/> Both	
<i>Proposed Supplementary Teaching Component:</i>	<input type="checkbox"/> Community-Based Experience <input type="checkbox"/> Service Learning <input type="checkbox"/> Both	
3. Currently, is this course taught off campus?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
<i>Proposed to be taught off campus?</i>	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
4. Are significant changes in content/teaching objectives of the course being proposed?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
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?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
If YES, identify the depts. and/or pgms: _____		
b. Will modifying this course result in a new requirement⁷ for ANY program?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
If YES ⁷ , list the program(s) here: <u>Medical Laboratory Science</u>		
6. Information to be Placed on Syllabus.		
a. <input type="checkbox"/> Check box if changed to 400G or 500.	If changed to 400G- or 500-level course you must send in a syllabus and you must include the differentiation between undergraduate and graduate students by: (i) requiring additional assignments by the graduate students; and/or (ii) establishing different grading criteria in the course for graduate students. (See SR 3.1.4.)	

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

⁷ In order to change a program, a program change form must also be submitted.

COURSE CHANGE FORM

Signature Routing Log

General Information:

Course Prefix and Number: CLS 822 (Proposed: MLS 410)

Proposal Contact Person Name: Michelle Butina Phone: 218- Email: mbu228@uky.edu
0852

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
CLS Faculty	9/20/10	Dr. Michelle Butina / 218-0852 / mbu228@uky.edu	<i>Michelle Butina</i>
Clinical Sciences Department	9/20/10	Dr. Karen Skaff / 218-0585 / karenskaff@uky.edu	<i>[Signature]</i>
CHS Associate Dean for Academic Affairs	10/26/10	Dr. Sharon Stewart / 218-0570 / srstew01@email.uky.edu	<i>Sharon Stewart</i>
		/ /	
		/ /	

External-to-College Approvals:

Council	Date Approved	Signature	Approval of Revision ⁸
Undergraduate Council	3/1/2011		
Graduate Council			
Health Care Colleges Council			
Senate Council Approval		University Senate Approval	

Comments:

⁸ Councils use this space to indicate approval of revisions made subsequent to that council's approval, if deemed necessary by the revising council.

**University of Kentucky
College of Health Sciences
Department of Clinical Sciences
Clinical Laboratory Sciences**

Course Number/Title/Section: MLS 410 Medical Laboratory Biochemistry, Section 201
Course Credit: 3 credits
Course Place: Lecture: On-Line
Course Faculty: Linda S. Gorman, PhD, MLS
126G CTW Bldg. 900 S. Limestone
Lexington, KY 40536-0200
Email (preferred for contacting instructor):
lsgorm0@uky.edu
Office phone: (859) 218-0855

Virtual Office Hours: TBD
Response Time: Maximum timeframe for responding to student communications is 24 hours

Delivery Format:

MLS 410 is a distance learning course and will be delivered on-line with no face-to-face meetings. All course content will be available on Blackboard.

Technological Requirements:

- Access to a computer with Internet capabilities (DSL or Cable modems are highly recommended.)
- System Requirements for Blackboard see
<http://wiki.uky.edu/blackboard/Wiki%20Pages/FAQS.aspx>

Technology Support:

- Contact information for Teaching and Learning Services Center (TASC):
Website: <http://www.uky.edu/TASC/>
Phone: 859-257-8272
- Contact information for Information Technology Customer Service Center (ITSC):
Website: <http://www.uky.edu/UKIT/>
Phone: 859-218-HELP
- Procedure for resolving technical complaints: Contact TASC or ITSC first, then contact instructor

Distance Learning Library Services:

- Contact information for Distance Learning Library Services:
Website: <http://www.uky.edu/Libraries/DLLS>
DL Librarian: Carla Cantagallo
Email: dllservice@email.uky.edu
Phone: 859 257-0500, ext. 2171; (800) 828-0439 (option #6)

DL Interlibrary Loan Service:

http://www.uky.edu/Libraries/libpage.php?lweb_id=253&llib_id=16

COURSE DESCRIPTION

Bulletin Description:

This course provides the student with an understanding of biochemical systems in the body. During this course, the student will be able to describe how these systems work, the interaction between the systems and understand the consequences that occur when there is a disruption of a system. At the completion of this course, the journey through these metabolic pathways will provide a relevant and informative experience. Prereq: Admission to the Medical Laboratory Science Program or consent of instructor.

Student Learning Outcomes:

Upon completing this course, students will be able to demonstrate the following learning outcomes:

1. Explain basic metabolic pathways.
2. Explain key concepts associated with biochemistry mechanisms.
3. Describe the biochemistry associated with carbohydrates, proteins and lipids
4. Characterize the hormonal influences seen in biochemistry and what they result in physiologically
5. Describe the mechanisms of DNA and RNA as they pertain to protein synthesis.
6. Explain enzyme theory and describe the reactions of common clinical enzymes.

General Course Objective:

The objective of this course is for students to gain entry level knowledge in the area of Biochemistry.

Specific lecture objectives are provided for each topic presented/discussed in MLS 410.

Required Text:

Biochemistry: The Molecular Basis of Life, McKee, Trudy, and McKee, James R., 4th edition, Oxford University Press, USA; ISBN-10: 0195305752 ; ISBN-13: 978-0195305753

Optional: *Medical Biochemistry*, John Baynes and Marek Dominiczak, 3rd Edition, Elsevier; ISBN: 9780323053716

Grading:

Exam I	20.0%
Exam II	20.0%
Exam III	20.0%
Student Case Study	5.0%
Final Exam	35.0%

Exams: The majority of exam questions multiple choice questions with some short answer

questions. The date and time frame for taking exams can be found in the course schedule.

Final Exam: The Final will be made up of most recent material covered plus comprehensive questions over all the previous material up to the final. Forty percent of the final exam will be comprehensive questions while sixty percent will be composed of questions covering the most recent content.

Student Case Study: Students must prepare a written report regarding a case of interest found in a reputable journal. The Case should be about some aspect of Biochemistry in humans and of physiological interest. More information about the Case Study will be posted.

Mid-Term Evaluation:

Students will be provided with a mid-term evaluation. Exams taken before mid-term (mid-term date can be found on the UK Academic Calendar) will be used to determine mid-term progress.

Grading Scale:

A	90-100%
B	80-89%
C	70-79%
D	60- 69%
F	below 60%

COURSE POLICIES

Professional Preparation: This program prepares students for entry into the clinical laboratory science profession. As such, instructors have a responsibility to assist students in learning about ethical and professional behavior. Professional behavior in this program includes adhering to the highest standards of academic honesty and conversing respectfully with faculty and fellow students.

Make-up opportunity: When there is an excused absence a student will be given an opportunity to take the missed exam. It is the student's responsibility to inform the instructor of the absence, preferably in advance. Rescheduling of the exam will be determined by the instructor.

Excused Absences:

S.R. 5.2.4.2 defines the following as acceptable reasons for excused absences:

- a) serious illness;
- b) illness or death of family member;
- c) University-related trips;
- d) major religious holidays;
- e) other circumstances you find to be "reasonable cause for nonattendance".

Students anticipating an absence for a major religious holiday are responsible for notifying the instructor in writing of anticipated absences due to their observance of such holidays no later than the last day for adding a class. Information regarding dates of major religious holidays may be obtained through the religious liaison, Mr. Jake Karnes (859-257-2754).

Verification of Absences:

The instructor has the right to request appropriate verification of an excused absence. Students missing work due to an excused absence bear the responsibility of informing the instructor about their excused absence (except where prior notification is required) and of making up the missed work (see "Make-up Opportunity" policy above).

Late work: Late work will not be accepted for a grade unless approved by instructor. If approved, points will be deducted for late work at the rate of 5 points per day. After one week, late work will not be accepted.

Submission of assignments: Student case study information will be available on Blackboard and final report will be submitted via Blackboard. Case studies are due on the assigned date (see course schedule) by 5:00pm.

Questions Concerning Grades: All assignments and exams will be evaluated. Any assignment graded incorrectly or questions concerning the grading must be brought to the instructors' attention within one week of the grade being posted/returned. One week after grades have been posted/returned they become final and no corrections will be made.

Electronic Device Policy: Generally cell phone use is not permitted for any reason. All cell phones must be placed in the "off" or "silenced" position during class. If there is a situation where a student might need to be notified during a class period, please alert the instructor to this potential and carefully monitor your phone. Other electronic devices (except for computers and iPads) such as smartphones, i-Pods, MP3 Players, and electronic game devices should be turned off.

Academic Integrity, Cheating, and Plagiarism: Each student in the class and program are expected to adhere to the highest standards of academic honesty. Cheating, plagiarism, and destruction of course materials violate the rules of the University. For more information on the University's policy on academic integrity please see Students Rights and Responsibilities, Part II, Section 6.3 (<http://www.uky.edu/StudentAffairs/Code/part2.html>). Violations of the university's rules regarding academic honesty can lead to a failing grade in the course and suspension, dismissal or expulsion from the University. Instances of academic dishonesty will be reported to appropriate University officials as required by University rules and procedures.

Academic Accommodations: If you have a documented disability that requires academic accommodations, please see me as soon as possible during scheduled office hours. In order to receive accommodations in this course, you must provide me with a Letter of Accommodation from the Disability Resource Center (Room 2, Alumni Gym, 859-257-2754, email address jkarnes@email.uky.edu) for coordination of campus disability services available to students with disabilities. We can then collaborate on the best solution.

Severe Weather: It is the policy of the University of Kentucky to keep all offices open and classes meeting as scheduled except under extraordinary conditions.

If severe weather should result in changes to the university schedule, the university will follow specific procedures about when those decisions are made and how they will be announced. Details of those procedures are available at <http://www.uky.edu/PR/News/severeweather.htm>.

All faculty, staff and students should note that announcements regarding the cancellation of classes and closure of offices, or a delayed opening will normally be made by 6 a.m. through the local news media. The most up-to-date and complete information will be available from the UK Infoline at 859-257-5684, UK TV Cable Channel 16, or the UK Web site at <http://www.uky.edu/>

COURSE SCHEDULE

Week	Topic	Chapter
Week 1	Introduction to Biochemistry	TBA
	Living Cells and their structures	TBA
	Water and Energy Foundations	TBA
Week 2	Peptides and Proteins	TBA
	Enzymes	TBA
Week 3	Nucleic Acids and Protein synthesis	TBA
	Carbohydrates	TBA
Week 4	Review	
	Exam I (Time: TBA)	
Week 5	Carbohydrates Metabolism	TBA
	Lipids and Membranes	TBA
Week 6	Lipid Metabolism	TBA
	Aerobic Metabolism	TBA
Week 7	Aerobic Metabolism	TBA
	Case Studies	
Week 8	Review	
	Exam II (Time: TBA)	
Week 9	Nitrogen Metabolism: Synthesis	TBA
Week 10	Nitrogen Metabolism: Degradation	TBA
Week 11	Integration of Metabolism	TBA
	Case Studies	
Week 12	Review	
	Exam III (Time: TBA)	
Week 13	Hormones and their functions	TBA
	Case Studies	
Week 14	Biotransformations	TBA
Week 15	Student Case Studies Due	
	Review	
	Final exam (Time: TBA)	