

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 844		Proposed Prefix & Number: MLS 462	
b. Full Title:		Advanced Clinical Chemistry		Proposed Title: Clinical Chemistry	
c. Current Transcript Title (if full title is more than 40 characters): _____					
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:		2 Lecture		2 Laboratory ⁵	
		_____ Recitation		_____ Discussion	
		_____ Clinical		_____ Colloquium	
		_____ Practicum		_____ Research	
		_____ Seminar		_____ Studio	
		_____ Other – Please explain: _____			
Proposed:		3 Lecture		_____ Laboratory	
		_____ Recitation		_____ Discussion	
		_____ Clinical		_____ Colloquium	
		_____ Practicum		_____ Research	
		_____ 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:		3		Proposed number of credit hours: 3	
h. Currently, is this course repeatable for additional credit?				YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>

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 5.2.1.)

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Proposed to be repeatable for additional credit?		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:	<u>A study of the theory and evaluation of specialized clinical chemistry testing, including toxicology, therapeutic drug monitoring, endocrine function, and quality assurance issues.</u>		
Proposed Course Description for Bulletin:	<u>This course focuses on the study of the theory and practice of routine and specialized clinical chemistry laboratory testing. This will include discussion of quality assurance issues and instrumentation principles, problem-solving scenarios, and an emphasis on accuracy and confidentiality of patient laboratory findings.</u>		
j. Current Prerequisites, if any:	<u>Admission into the Clinical Laboratory Sciences Professional Program; biochemistry, immunology (may be taken concurrently) and CLS 832 or equivalent.</u>		
Proposed Prerequisites, if any:	<u>Admission into the Medical Laboratory Science Program or consent of instructor.</u>		
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.			
l. Current Supplementary Teaching Component, if any:	<input type="checkbox"/> Community-Based Experience <input type="checkbox"/> Service Learning <input type="checkbox"/> Both		
Proposed Supplementary Teaching Component:	<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"/>	
Proposed to be taught off campus?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	
4. Are significant changes in content/teaching objectives of the course being proposed?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	
If YES, explain and offer brief rationale:			
<u>Currently the CLS program offers CLS 832 Basic Clinical Chemistry (1 credit) and CLS 844 Advanced Clinical Chemistry (3 credits). The program proposes the following: (a) to combine the lecture components of CLS 832 and CLS 844 into one course, MLS 462; and (b) to separate the student laboratory component from the lecture components as the program is proposing a new Clinical Chemistry Laboratory course (MLS 462L). For more details see Program Change Rationale.</u>			
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	If <u>changed to</u> 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;	

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.

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	400G or 500.	by the graduate students; and/or (ii) establishing different grading criteria in the course for graduate students. (See SR 3.1.4.)
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COURSE CHANGE FORM

Signature Routing Log

General Information:



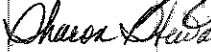
Course Prefix and Number: CLS 844 (Proposed MLS 462)

Proposal Contact Person Name: Michelle Butina Phone: 218-0852 Email: mbu228@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
CLS Faculty	9/20/10	Dr. Michelle Butina / 218-0852 / mbu228@uky.edu	
Clinical Sciences Department	9/20/10	Dr. Karen Skaff / 218-0585 / karenskaff@uky.edu	
CHS Associate Dean for Academic Affairs	10/26/10	Dr. Sharon Stewart / 218-0570 / srstew01@email.uky.edu	
		/ /	
		/ /	

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 462 Clinical Chemistry, Section 001
Course Credit: 3 credits
Course Time /Place: Lecture: CTW 403, Time: TBA
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
Office Hours: Immediately after class or by appointment

COURSE DESCRIPTION

Bulletin Description:

This course focuses on the study of the theory and practice of routine and specialized clinical chemistry laboratory testing. This will include discussion of quality assurance issues and instrumentation principles, problem-solving scenarios, and an emphasis on accuracy and confidentiality of patient laboratory findings. Prereq: Admission into 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. Define terminology used in clinical chemistry.
2. Describe pathological conditions for which each analyte is significant.
3. Discuss pathological conditions for which each analyte may be significant.
4. Describe analyte methodologies for each analyte, including reagents, interferences, and reference ranges.
5. Given a set of laboratory information discuss abnormalities and draw conclusions about the pathology occurring.
6. Calculate laboratory data from raw test readings.

General Course Objectives:

The objective of this course is to impart to students:

1. Entry level knowledge and practical application skills in the area of Clinical Chemistry
2. The ability to evaluate clinical results and correlate with common conditions and disease states.

Specific lecture objectives are provided for each topic presented/discussed in MLS 462.

Required Text:

Tietz Fundamentals of Clinical Chemistry 6th edition version, Carl A. Burtis and Edward Ashwood, WB Saunders Company, ISBN# 978-0-7216-3865-2

Optional textbook: *Clinical Chemistry: A Laboratory Perspective*, Wendy Arneson and Jean Brickell, FA Davis Company publishers, ISBN# 0-8036-1498-5

Grading:

Exams (x3)	45%
Final exam	25%
Assignments	20%
Vitamin/metal Project	10%

Exams: Exams are multiple choice of the type used on the professional certification exam. Exams may have visuals included in the questions. Each exam is worth 15% of the course grade. The date, time and location of exams can be found in the course schedule. The Final Exam is comprehensive and is worth 25% of the course grade.

Assignments: May consist of case studies, mathematical problems, study questions, quizzes or other study aids that will assist in learning. All assignments are due on the assigned date (see course schedule below) by the beginning of the class session.

Vitamin or metal project: Consists of a written component and a presentation component on either a vitamin or metal tested in clinical chemistry. More information about the project can be found on Blackboard.

Mid-Term Evaluation:

Students will be provided with a mid-term evaluation. Exams taken and assignments due 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: attending all classes, being prompt, notifying instructors of any absences, adhering to the highest standards of

academic honesty, and conversing respectfully with faculty and fellow students.

Attendance: Tardiness is defined as arriving 10 minutes after class begins or departure before the end of the class session. Three tardies constitute one unexcused absence. Attendance is mandatory. For the third and each subsequent unexcused absence, the final average will be lowered by 1 point (1%). You are expected to contact the instructor PRIOR to class if you are unable to attend.

Make-up opportunity: When there is an excused absence a student will be given an opportunity to make up the missed work and/or exams. It is the student's responsibility to inform the instructor of the absence, preferably in advance. Any missed scheduled assignment(s) will be due at the beginning of the class session on the day the student returns. Time and location of make-up exams 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: Assignments will be available on Blackboard. All assignments are to be accessed and submitted via Blackboard. All assignments are due on the assigned date (see course schedule) by the beginning of the class session.

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 i-Pads) 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.

Classroom Behavior: Classroom behavior should be in compliance with the student code of conduct. Full details can be viewed at: <http://www.uky.edu/StudentAffairs/Code/part1.html>. Consistent with this policy, student behavior that detracts from the educational environment will not be tolerated. Examples of inappropriate behaviors include engaging in disrespectful or uncivil discussions, holding disruptive discussions, or sleeping. Disruptive students will be asked to leave the classroom and re-admittance is at the discretion of the instructor.

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/>

DISTANCE LEARNING STUDENTS (Center for Rural Health Students)

Distance Learning: Formal educational process in which the majority of instruction in a course occurs when students and instructors are not in the same place.

Instructor Information:

Virtual Office Hours: TBD

Preferred method of contact: Email (email address given at top of syllabus)

Maximum timeframe for responding to student communications: 24 hours

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 SCHEDULE

Week	Date	Topic	Readings	Assignments
Week 1	TBA	Introduction/ Spectrophotometer	Chap. 4, pp 63-71	
		Glucose	Chap. 22, pp 373-401,	TBA: (Due: TBA)
		Electrolytes	Chap. 5, pp. 84-91, Chap 24, pp 431-440 Chap 35, pp. 655-662	
Week 2	TBA	Calcium, Magnesium, Phosphorus	Chap. 38, pp. 711-734	TBA: (Due: TBA)
		Protein	Chap. 18, pp. 286-298, pp.298-310, 310-316 Electrophoresis Chap. 6, pp.102-111	
		Non-Protein Nitrogen	Chap 5, pp.91-101, Chap.21pp.363-372 Renal function Chap. 34, pp.631-654	
Week 3	TBA	Enzymes	Chap. 9, pp. 140-154 Chap. 19, pp.317-330	TBA: (Due: TBA)
		Enzymes	Chap. 19, pp. 330-335	
		Bilirubin	Chap. 28, pp. 509-526	
Week 4	TBA	Exam #1 (Time: TBA, Location: TBA)		
		Lipids	Chap. 23, pp. 402-429	
		Immuno assays	Chap. 10, pp. 155-170	TBA: (Due: TBA)
		Fluorescence	Chap. 4, pp. 72-80, pp.80-83	
Week 5	TBA	Chromatography	Chap. 7, pp. 112-127, Chap 8, pp128-139	TBA: (Due: TBA)
		Clin. Chem. Automation	Chap. 11, pp. 171-187	

Week 6	TBA	Math/QC		TBA: (Due: TBA)
		QA/Ref ranges	Chap. 13 and 14	
		Endocrine	Chap. 25 and 39	
Week 7	TBA	Adrenal	Chap 40 and 26	TBA: (Due: TBA)
Week 8	TBA	Exam #2 (Time: TBA, Location: TBA)		
		Thyroid	Chap. 41	
		Reproduction	Chap, 42	TBA: (Due: TBA)
Week 9	TBA	TDM	Chap. 30	
		Toxicology	Chap. 31 and 32	TBA: (Due: TBA)
Week 10	TBA	Acid-Base	Chap. 24	
		Nutrition	Chap. 27	TBA: (Due: TBA)
Week 11	TBA	Metals	Chap. 29	
		GI function	Chap. 37	TBA: (Due: TBA)
Week 12	TBA	Exam #3 (Time: TBA, Location: TBA)		
		Cancer	Hand-outs	TBA: (Due: TBA)
		Pregnancy and fetal health	Chap. 20, 43, 44	TBA: (Due: TBA)
Week 13	TBA	Vitamin and Metal Presentations		TBA: (Due: TBA)
Week 14	TBA	Review		
Week 15	TBA	Final Exam (Time: TBA, Location: TBA)		