#### **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?	
If YES, what college/department will offer the course instead?	
d. What type of change is being proposed? Major In Minor (place cursor here for minor change definition)	Comment [OSC1]: Excerpt from SR 3.3.0.6.2  Definition. A request may be considered a minor
e. Contact Person Name: Michelle Butina Email: mbu228@uky.edu Phone: 218-0852	change if it meets one of the following criteria: a. change in number within the same hundred
f. Requested Effective Date: Semester Following Approval OR Specific Term <sup>2</sup> : Fall 2011	series*; b. editorial change in the course title or description
2. Designation and Description of Proposed Course.	which does not imply change in content or emphasis;
a. Current Prefix and Number: CLS 835 Proposed Prefix & Number: MLS 420	c. a change in prerequisite(s) which does not imply change in content or emphasis, or which is made
b. Full Title: Clinical Immunology Proposed Title: Clinical Immunology and Serology	necessary by the elimination or significant alteration of the prerequisite(s); d. a cross-listing of a course
c. Current Transcript Title (if full title is more than 40 characters):	under conditions set forth in SR 3.3.0.E; e. correction of typographical errors.
c. Proposed Transcript Title (if full title is more than 40 characters):	*for the specific purposes of the minor exception: rule, the 600-799 courses are the same "hundred
d. Current Cross-listing: N/A OR Currently <sup>3</sup> Cross-listed with (Prefix & Number):	series," as long as the other minor change requirements are compiled with. [RC 1/15/09]
Proposed − ☐ ADD³ Cross-listing (Prefix & Number):	C The Control of the
Proposed REMOVE <sup>3, 4</sup> Cross-listing (Prefix & Number):	
Courses must be described by at least one of the meeting patterns below. Include number of actual contact	
e. hours <sup>5</sup> for each meeting pattern type.	
Current: 3 Lecture Laboratory <sup>5</sup> Recitation Discussion Indep. Study	
ClinicalColloquiumPracticumResearchResidency	
Seminar Studio Other – Please explain:	
Proposed:   2 Lecture   2 Laboratory   Recitation   Discussion   Indep. Study	
ClinicalColloquiumPracticumResearchResidency	
SeminarStudioOther — Please explain:	
f. Current Grading System:	
Proposed Grading System: 🔀 Letter (A, B, C, etc.) 🔲 Pass/Fail	
g. Current number of credit hours: 3 Proposed number of credit hours: 3	
h. Currently, is this course repeatable for additional credit?	

<sup>&</sup>lt;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 sent to appropriate academic Council for normal processing and contact person is informed.

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

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

<sup>&</sup>lt;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 represents at least two hrs per wk for a semester for 1 credit hour. (See SR 5.2.1.)

# **COURSE CHANGE FORM**

	Proposed to be repeatable for additional credit?	YES 🗌	NO 🛛			
	If YES: Maximum number of credit hours:					
	If YES: Will this course allow multiple registrat	tions during the same semester?	YES 🗌	NO 🗆		
Ì.	Current Course Description for Bulletin:  An overview of immunology with a molecular basis for the immune response and the role of genetics in immunological disorders. Molecular biological techniques in the modern clinical laboratory will be emphasized.					
	Proposed Course Description for Bulletin:  This course is designed to provide students with a comprehensive students with a comprehensive students with a comprehensive students with a comprehensive students. This course is designed to provide students with a comprehensive students with a comprehensive students. This course is designed to provide students with a comprehensive students. This course is designed to provide students with a comprehensive students. This course is designed to provide students with a comprehensive students. This course is designed to provide students with a comprehensive students. This course is designed to provide students with a comprehensive students. This course is designed to provide students with a comprehensive students. This course is designed to provide students with a comprehensive students. This course is designed to provide students with a comprehensive students. This course is designed to provide students with a comprehensive students. This course is designed to provide students with a comprehensive students. This course is designed to provide students with a comprehensive students. This course is designed to provide students with a comprehensive students. This course is designed to provide students with a comprehensive students. The course is designed to provide students with a comprehensive students. This course is designed to provide students with a comprehensive students. The course is designed to provide students with a comprehensive students. The course is designed to provide students with a comprehensive students with a comprehensive students. The course is designed to provide students with a comprehensive student					
j.	Current Prerequisites, if any: Admission into	the Clinical Laboratory Sciences Profress	ional Progra	<u>m.</u>		
	Proposed Prerequisites, if any: Admission into	the Medical Laboratory Science Program	or consent o	of instructor.		
k.	Current Distance Learning(DL) Status: N/A	☐ Already approved for DL* ☐ Plea	se Add <sup>6</sup>	Please Drop		
	*If already approved for DL, the Distance Learning For box []) that the proposed changes do not affect DL d	rm must also be submitted <u>unless</u> the departm lelivery.	ent affirms (b	y checking this		
ī.	Current Supplementary Teaching Component, if a	ny: Community-Based Experience	Service Learn	ing 🔲 Both		
	Proposed Supplementary Teaching Component:					
_	Currently, is this course taught off campus?					
	Proposed to be taught off campus?		YES 🔀	NO 🗌		
4.	Are significant changes in content/teaching ob	jectives of the course being proposed?	YES 🔀	NO 🗌		
	If YES, explain and offer brief rationale:					
	Currently, CLS 835 is a lecture-only course. The program is proposing to add a student laboratory component to the course as Immunology and Serology are medical laboratory science discipline areas thus requiring proficiency in certain laboratory techniques. The proposed course will allow MLS students to develop basic laboratory skills necessary for working in Immunology and Serology departments.					
5.	Course Relationship to Program(s).					
a.	Are there other depts and/or pgms that could	be affected by the proposed change?	YES 🗌	NO ⊠		
	If YES, identify the depts. and/or pgms:					
b.	b. Will modifying this course result in a new requirement for ANY program?					
	If YES <sup>7</sup> , list the program(s) here: <u>Medical Laboratory Science</u>					
6.	Information to be Placed on Syllabus.					
a.	Check box 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.)					

<sup>&</sup>lt;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.

#### **COURSE CHANGE FORM**

Signature Routing Log

General	Intorn	nation:

Course Prefix and Number:

CLS 835 (Proposed MLS 420)

Proposal Contact Person Name:

Michelle Butina

Phone: 218-

0852

Em

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 Nuhelle Butter	
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	9000	
CHS Associate Dean for Academic Affairs	10/26/10	Dr. Sharon Stewart / 218-0570 / srstew01@email.uky.edu	Sharen Awar	
		1 1		
		/ /		

#### **External-to-College Approvals:**

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

Comments:		
	•	

<sup>&</sup>lt;sup>8</sup> 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 420 Clinical Immunology and Serology, Section 001

Course Credit:

3 credits (2 lecture contact hours; 2 laboratory contact

hours)

**Course Time /Place:** 

Lecture: CTW 403; Laboratory: CTW 425, Time: TBA

Course Faculty:

Michelle Butina, PhD, MLS(ASCP)

124D CTW Bldg. 900 S. Limestone

Lexington, KY 40536-0200

Email (preferred for contacting instructor):

Michelle.Butina@uky.edu
Office phone: (859) 218-0852

Office Hours:

Immediately after class or by appointment

## **COURSE DESCRIPTION**

# **Bulletin Description:**

This course is designed to provide students with a comprehensive study of the immune system including principles of immunological and serological procedures, immunological disorders and diseases, and significance of laboratory methods used for diagnosis. 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. Demonstrate an understanding of the concepts of immunity.
- 2. Provide an overview of the function and role of the lymphoid system.
- 3. Describe the structure, function, and characteristics of immunoglobulins, complement and cytokines.
- 4. Describe the immunologic responses involved in preventing and combating infections.
- 5. Describe and differentiate the principles of immunological and serological testing.
- 6. Describe and differentiate infectious and autoimmune diseases.
- 7. Perform basic immunological and serological testing.
- 8. Evaluate validity of patient specimens, test results and quality assurance data related to immunological and serological testing.
- 9. Relate immunological and serological test results to the disease or condition associated with them

#### **General Course Objectives:**

The objective of this course is to impart to students:

1. Entry level knowledge and practical application skills in the areas of Immunology and

Serology.

2. The ability to interpret clinical results and correlate with common conditions and disease states.

Specific lecture objectives are provided for each topic presented/discussed in MLS 420.

## **Required Text:**

Stevens, C (2009). Clinical Immunology and Serology: A Laboratory Perspective, 3<sup>rd</sup> ed., F. A. Davis (ISBN: 978-0-8036-1814-5)

# **Grading:**

15%
15%
15%
30%
5%
5%
15%

**Exams:** Exams are multiple choice of the type used on the professional certification exam. Exams cover BOTH lecture and laboratory material. The Final Exam is comprehensive. The date, time and location of exams can be found in the course schedule.

**Assignments:** Include study questions for certain lecture topics. Study questions will be posted on Blackboard. All assignments are due on the assigned date (see course schedule below) by the beginning of the class session.

Lab reports allow for students to document their work and assess students knowledge on the topic covered that day. Reports are due at the end of the lab session.

Lab practical: MLS 420 has one laboratory practical which assesses the knowledge and skill the student gained during the student laboratory sessions. The practical will consist of a written component (various questions regarding laboratory procedures) and a "wet" component (perform certain immunology/serology laboratory tests). The date and time of the practical can be found in the course schedule.

#### **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%
В	80-89%
C	70-79%
D	60- 69%

#### 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 <u>excused absence</u> 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: <u>Late work will not be accepted</u> 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 below) 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 (<a href="http://www.uky.edu/StudentAffairs/Code/part2.html">http://www.uky.edu/StudentAffairs/Code/part2.html</a>). 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 <a href="http://www.uky.edu/PR/News/severeweather.htm">http://www.uky.edu/PR/News/severeweather.htm</a>.

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 <a href="http://www.uky.edu/">http://www.uky.edu/</a>

# 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**

Date	Lecture or Lab	Lecture Topic or Lab Procedure	Book Chapters	Study Questions
Date	OI Lab	Introduction to Immunology	Chapter 1	Quotiono
TBD	Lecture	Innate and Acquired Immunity	Chapter 2, 3	
TBD	Lab	Antigen and Antibody testing		
TBD	Lecture	Nature of Antigens	Chapter 4	
				Antigens and Antibodies (Due: TBD)
TBD	Lecture	Immunoglobulins and Cytokines	Chapters 5, 6	(עפו
TBD	Lab	Direct Antiglobulin Test	Observation 7	, ,
TBD	Lecture	Complement System	Chapter 7	
TBD		Exam 1 (Time: TBD, Location: TBD)		
TBD	Lecture	Precipitation Reactions	Chapter 9	
TBD	Lab	Various Strep Tests		
TBD	Lecture	Agglutination	Chapter 10	
TBD	Lab	Various Rheumatoid Factor Tests		
				Review of Techniques
TBD	Lecture	Labeled Immunoassays	Chapter 11	(Due: TBD)
TBD	Lab	hCG Testing		
TBD	Lecture	Molecular Techniques	Chapter 12	
TBD	Lab	RSV Testing	TBD	
TBD	·	Exam 2 (Time: TBD, Location: TBD)		
TBD	Lecture	Hypersensitivity	Chapter 13	
TBD	Lab	Cold Agglutinin Testing		
TBD	Lecture	Autoimmune Diseases	Chapter 14	
TBD	Lab	ANA Testing		
TBD	Lecture	Spirochete Diseases Streptococcal Serology	Chapter 19 Chapter 20	
TBD	Lab	RPR and VDRL Testing		
TBD	Lecture	Viral Infections	Chapters 21, 22	Review of Diseases (Due: TBD)
TBD	Lab	Mononucleosis Testing		
TBD	Lab	Rubella Testing		
TBD		Exam 3 (Time: TBD, Location: TBD)		
,		Transplants and Major		
TBD	Lecture	Histocompatiblity Complex	Chapters 17, 4	
TBD	Lab	Miscellaneous Testing and Open Lab		
TBD_	Lab	Lab Practical (Time: TBD, Location: TBD)		
TBD		Final Exam (Time: TBD, Location: TB	D)	