Course Name: Clinical Laboratory Immunology and Virology  
Course Prefix: MLS  
Course Number: 3312  
Submitted by: Janet Oja, janetoja@weber.edu

Current Date: 01/09/2015 College: Health Professions  
Department: Medical Laboratory Sciences  
From Term: Spring 2015

Substantive

new   
Current Course Subject: MLS  
Current Course Number: 3810

New/Revised Course Information:

Subject: MLS  
Course Number: 3312

Check all that apply: *This is for courses already approved for gen ed. Use a*[*different form*](http://documents.weber.edu/catalog/forms.htm)*for proposing a new gen ed designation.*

* DV
* CA
* HU
* LS
* PS
* SS
* EN
* AI
* QL
* TA
* TB
* TC
* TD
* TE

Course Title: Clinical Laboratory Immunology and Virology  
Abbreviated Course Title: Clin Lab Immunology & Virology  
Course Type: LEL  
Credit Hours: 4  
or if variable hours: to

Contact Hours: Lecture: 3  
Lab: 1  
Other:

Repeat Information: Limit: 0  
Max Hrs: 0  
Grading Mode: standard

This course is/will be:

a required course in a major program  
a required course in a minor program  
a required course in a 1- or 2- year program  
elective

Prerequisites/Co-requisites: Course requirements include acceptance into the MLS BS program.

Course description (exactly as it will appear in the catalog, including prerequisites):

MLS 3312 - Clinical Laboratory Immunology and Virology(4)

Campus - Sp.  
This course provides MLS students with clinical immunology theory and simulated laboratory experience necessary to prepare students for a career in a clinical laboratory setting. The course will be divided into four sections: basic concepts in immunology, clinical immunology techniques, immune related disease states, and diagnostic virology and will focus heavily on clinical immunology laboratory methods as well as in-depth clinical immunology techniques applicable for the clinical laboratory sciences student. Course requirements include acceptance into the MLS BS program.

Justification for the new course or for changes to an existing course. (Note: Justification should emphasize academic rationale for the change or new course. This is particularly important for courses requesting upper-division status.)This course will provide MLS students with clinical laboratory immunology theory and laboratory practices necessary for a career in clinical laboratory sciences. MLS graduates are required to pass a national certification exam in order to work in a clinical lab setting. Data pulled from 2007-2012 ASCP certification exam scores statistically show that WSU MLS BS students fall significantly below the national average for the laboratory immunology portion of the exam. The MLS department hired a clinical immunologist, Dr. Matthew Nicholaou in 2012. He created a 4 credit hour course, MLS 3810 Clinical Laboratory Immunology and Virology including a clinical laboratory section, with hopes of improving these scores. This course has been offered experimentally for the last 2 years and we have seen an increase in our overall certification scores and in student satisfaction evaluations. The clinical lab’s need for MLS graduates with a basic understanding and clinical application of such burgeoning techniques as flow cytometry, molecular diagnostics and in situ tissue testing requires clinical immunology expertise, which the MLS department now has with the hiring of Dr. Nicholaou. The majority of MLS programs across the country teach Immunology as part of their core curriculum, including the University of Utah and Brigham Young University, so the decision to add clinical immunology to Weber State University’s MLS BS program makes sense. The National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) is the WSU MLS department’s accrediting agency and is scheduling a re-accreditation site visit February 2015 under new guidelines. Immunology is a required course based on these NAACLS guidelines and is to include “principles and methodologies, performance of assays, problem-solving, troubleshooting techniques, interpretation of clinical procedures and results, statistical approaches to data evaluation, and continuous assessment of laboratory services for all major areas practices in the contemporary clinical laboratory.” (NAACLS Standard 22)

INFORMATION PAGE   
for substantive proposals only

1. Did this course receive unanimous approval within the Department? true If not, what are the major concerns raised by the opponents?

2. If this is a new course proposal, could you achieve the desired results by revising an existing course within your department or by requiring an existing course in another department? This course has been taught experimentally for two semesters as MLS 3810 and is a new MLS Immunology course designed to focus on the clinical laboratory applications of immunology and virology. There is a course offered by the WSU Microbiology Department, MICR 3203 – The Immune System in Health & Disease and MICR 3254 - Immunology, that does cover basic immunology theory. It does not provide clinical laboratory specific application or include a clinical laboratory component required for laboratory professional track MLS students. Pre-professional track MLS students will still be required to take either MICR 3203 or MICR 3254. This proposed course will focus on this clinical laboratory aspect of Immunology and Virology along with clinical case studies and hands-on laboratory applications.

3. How will the proposed course differ from similar offerings by other departments? Comment on any subject overlap between this course and topics generally taught by other departments, even if no similar courses are currently offered by the other departments. Explain any effects that this proposal will have on program requirements or enrollments in other department. Please forward letters (email communication is sufficient) from all departments that you have identified above stating their support or opposition to the proposed course. As explained above, the microbiology department offers MICR 3203 – The Immune System in Health & Disease and MICR 3254- Immunology. Based on a revision of the NAACLS standards, which states that all MLS disciplines taught (which is to include immunology) must include: "principles and methodologies, performance of assays, problem-solving, troubleshooting techniques, interpretation of clinical procedures and results, statistical approaches to data evaluation, and continuous assessment of laboratory services for all major areas practiced in the contemporary clinical laboratory." (NAACLS Standard 22), our current curriculum does not meet these requirements. The MICR 3203 and 3254 lack the clinical side of immunology and therefore do not fulfill the requirement either. That is why this new course is necessary for MLS students who will work in the clinical laboratory. The MLS department met with the microbiology department to discuss the MLS department's decision to implement a MLS specific Immunology course and remove the requirement for laboratory professional track MLS students to take MICR 3203 or MICR 3254. Pre-professional track MLS students will still be required to take either MICR 3203 or MICR 3254. Impact to the Microbiology department will be moderate and verbal support has been given and will be followed by a letter of support.

4. Is this course required for certification/accreditation of a program? yes

If so, a statement to that effect should appear in the justification and supporting documents should accompany this form.

For course proposals, e-mail a syllabus to [Faculty Senate](mailto:kbrown4@weber.edu) which should be sufficiently detailed that the committees can determine that the course is at the appropriate level and matches the description. There should be an indication of the amount and type of outside activity required in the course (projects, research papers, homework, etc.).