



MLT 126

Immunology and Serology

Department of Health Sciences

Medical Laboratory Technology

I have read and understand this syllabus. I will
follow all course requirements as indicated
within. (Sign and date)

Student Signature

Date

MLT 126 – Immunology and Serology
Department of Health Sciences
Fall 2017
K130/K146 Tuesdays and Thursdays
Lecture: 9-10:20
Lab T/Th: 1-3:50

Course Description

(2 credit hours)

Co-requisites:MLT110, MLT140

This course introduces the immune system, immune response and basic concepts of antigens, antibodies, and their reactions. Emphasis is placed on basic principles of immunologic and serodiagnostic techniques and concepts of cellular and humoral immunity in health and disease. Upon completion, students should be able to demonstrate theoretical comprehension and application in performing and interpreting routine immunologic and serodiagnostic procedures. Additionally, the student will be able to understand and apply principles of immunoassay performance.

Faculty Information

Professor: Candice Freeman, MLS(ASCP)BB, CQA(ASQ)
Office Location: 167 Kennedy Hall
Office Hours: Mondays and Wednesdays 10:00-12:00
Telephone: [REDACTED]
Email: [REDACTED]

Intended Learning Outcomes (Course Learning Goals)

Upon successful completion of the course, the student will be able to:

1. Recall and explain basic immunological terms, concepts, and processes as directly related to anatomy and physiology, immune complex formation, primary and secondary immune response, and diagnostic screening performance.
2. Apply terms and principles learned in order to effectively perform and interpret diagnostic testing protocols and procedures.
3. Analyze test results and determine acceptable test performance and result interpretation.
4. Evaluate quality control and patient tests results in order to aid in the diagnosis of specific disease states.

5. Synthesize and correlate various lab results in order to aid in the diagnosis of various autoimmune disease processes
6. Create learning tools that will enhance student ability to think critically, collaborative effectively, and communicate clearly.

More specific unit objectives for each unit of study will be distributed in class.

General Education

Students who are successful in this course will improve in problem solving, abstract and critical thinking, and will be able to successfully work in the immunology/serology department of a clinical laboratory.

Required/Suggested Course Materials

Required Textbooks

Immunology and Serology in Laboratory Medicine fifth edition. Author: Mary Louise Turgeon, EdD, MT(ASCP), CLS(NCA), 2013, Mosby Elsevier, Inc.

ISBN 978-0-323-04382-3

Recommended Text (This is FREE resource that will be used in this course):

<https://en.wikibooks.org/wiki/Immunology>

GRADING POLICIES

Grading Scale

90.0-100	A
83.0-89.9	B
76.0-82.9	C
≤76.0	F

Areas of Assessment

Your final course grade will be based upon the following weights for categories of assessments.

Unit Tests (4)	50%
Unit Projects, Discussions, Lab	25%
Final Exam	25%

Informal Quizzes

Quizzes in this course will be given weekly. Grades on these quizzes will not count against the student's overall course grade. Quizzes are meant to provide feedback to

both the instructor and student about the success of learning the material presented in class.

Affective Assessment

The student will be evaluated on work performance and professional behavior throughout the course. There will be no weighted points awarded for this assessment, as minimal standards of professional conduct and dedication to quality work performance are expectations of the profession and should not merit award. Students will be evaluated for their own personal improvement and continued self reflection.

Additional Course Grading Policies:

It is the **student's responsibility** to:

- obtain lecture materials and handouts from the instructor if he/she is absent from class
- notify the instructor via phone or email when he/she will miss a test or lab **prior** to the activity
- schedule the missed activity with the instructor immediately upon return to campus
 - Make up assignments will be determine at the instructor's discretion.

Academic Integrity

In addition to good academic performance, students should exhibit honesty and integrity. If there is any question that academic honesty and integrity are not honored, students may be required to redo assignments in the presence of an instructor-selected monitor. Proof of dishonesty, including plagiarism, will make students subject to disciplinary action. Please see the "████ Policy Statements" below for more information.

Access/Disability Policy

Please consult the "████ Policy Statements" below for more information.

Attendance Policies

Lecture and Labs:

Your final grade includes attendance and preparation in order to encourage everyone to attend every session and participate. Make every effort to do so. Each **unexcused** absence, after one (1) incident, will decrease your final grade by 5 points. **More than four unexcused absence will result in the student being dropped from the class. More than two incidences of tardiness (arrival after the class starts) will also count as an unexcused**

absence. This disrupts the class and is not considerate of other students that arrive to class on time.

Lab:

Because labs are extremely difficult to repeat, make-ups are allowed at the discretion of the instructor.

“Excused” absences are defined as:

- any sickness of the student which is documented with a doctor’s note
- any sickness of any dependent in the student’s immediate family which is documented with a doctor’s note
- death of any student’s immediate family member (first degree relatives)

“Unexcused” absences are defined as any absence not stated in the above list. As a gentle reminder, please schedule all appointments outside of scheduled class times. A prescheduled appointment is an unexcused absence, unless preapproved by the instructor.

All assignments should be completed by the assigned due dates. Late submission of course work will not be accepted and will result in a grade of 0 for the assignment.

Additional Information:

- The instructor reserves the right to modify the course schedule as needed.
- No cell phone usage during class. Cell phones must either be powered off or silenced during class.
- Closed toes shoes and a lab coat **MUST** be worn during lab. If either is not worn, the student will be asked to leave the lab. Make up will not be allowed.
- Disruptive behavior of any sort will not be tolerated. Disruptive students will be asked to leave the class for the remainder of the period. This will be counted as an unexcused absence.
- Based upon topic of instruction (scheduled lecture, presentations, quizzes or tests), students who are tardy may not be admitted to class.
- Students who are tardy or miss class on test days will receive either a comprehensive make up exam in the form of an essay test OR an oral/verbal examination. This will be chosen at the instructor’s discretion.
- Class begins promptly at 9am. Students who are not ready to begin class at 9am may forfeit the opportunity to attend lecture for that associated class day. The

teacher reserves the right to deny class entry of tardy students in order to prevent the disruption of students who are already in class and prepared to learn.

- **Adding and Dropping Courses:** A student may add a course with permission of the advisor through the second day of the semester. After that point, permission of the advisor and the instructor is needed in order to add a course. A student may drop a course at any time halfway through a summer session by completing an official drop form, obtaining the signatures of the advisor and the instructor, and filing the form with the registrar. Students who stop attending class without officially dropping the course may receive a failing grade in the course.
- **Withdrawal from a Course, Program, or the College:** Emergency situations may arise after the no-penalty drop period whereby students must leave involuntarily. In this case, the student may withdraw from the course by completing a withdrawal form. The student must secure the instructor's signature on the withdrawal form. This form must be completed and filed with the registrar. Students who are passing at the time of withdrawal may receive a grade of WP. Students who are failing at the time of withdrawal may receive a grade of FW. Students who stop attending class without officially withdrawing from the course may receive a failing grade in the course.
- **Instructor-Initiated Drop or Withdrawal:** An instructor may drop or withdraw a student from a course if the student stops attending class or fails to complete two consecutive assignments or the preliminary research paper assignments.

Community College Policy Statements

This page is a summary for students of various policies and services listed in the *College Catalog*.

- **Support for Student Learning and Progress**
 - Academic advising is available to all students in the Advising Center, which will assist in developing an educational plan consistent with life goals and objectives. Academic tutoring is available to all students on an individual or small group basis.
 - Students are encouraged to apply early in the semester for free Tutoring Service.
 - Boyd Library has a wealth of print and online resources. The Learning Resources Center in Boyd Library provides computer access as well as staff assistance with online research.
 - Counselors are available to assist students in coping with any concerns or difficulties they may experience while attending college.
 - Career counseling and job placement services are also readily available.
- **Accommodations for Students with Disabilities**

The college strives to provide an equal educational opportunity to all. In compliance with college policy and equal access laws, professors are available to discuss appropriate academic accommodations that may be required for a student with disabilities. Students requesting accommodations must contact the college disabilities coordinator in the Advising Center.
- **Classroom Conduct**

Faculty and students have the right to a classroom atmosphere that is conducive to study, thought, and full concentration on study topics. Behavior that threatens such an atmosphere, disrupts learning and teaching activities, or creates an atmosphere of fear and intimidation will not be tolerated.
- **Academic Honesty**

The college believes that the pursuit of knowledge requires honesty. Students are expected to act appropriately and deal honestly in all aspects of their interactions with the college and their academic work. The college will not tolerate dishonest acts such as copying the work of another; using unauthorized help, books, or notes on examinations or projects; or intentionally representing the work of another as one's own without proper reference (plagiarism). The consequences of academic dishonesty may vary according to circumstances. Actions that could be taken include, but are not limited to, the following: a failing grade for the work involved, failure in the course, or removal from the course.
- **Computer Use**

The college expects and requires ethical and responsible behavior of individuals using information resources, which include computers and the college network and Internet capabilities. Individuals using these resources must abide by the college's *Acceptable Use Policy*, which requires respecting intellectual property rights, protecting private information, refraining from accessing inappropriate or offensive information, and ensuring open access to available resources.

- **Student Grievance Procedure**

The college assures Sandhills students that their grievances will be considered fairly, rapidly, and in a non-threatening atmosphere. Any student who feels unfairly treated may follow the student grievance procedure, which is described in detail in the *College Catalog*.

- **Annual Security Report**

To comply with federal laws the college provides information about serious crimes that have occurred on campus during the last three years. Copies of the *Campus Crime Statistics Report and Annual Security Report* may be obtained by contacting the main campus switchboard [REDACTED] or the director of the [REDACTED] Center [REDACTED]. The information can also be found at [www.\[REDACTED\].edu/security](http://www.[REDACTED].edu/security).

Community College
Medical Laboratory Technology Program
Affective Assessment

Instructions to the student: The attached list is to be used as an evaluation tool. The student's grade will be derived in part from this evaluation. The purpose of the affective elements is to introduce to the student to acceptable and practiced professional behaviors.

Student's Name _____

Evaluator's Name _____

	Exceptional (5)	Commendable (4)	Acceptable (3)	Marginal (2)	Unacceptable (1)
Self-confidence Rating ____	Actively seeks to improve on weaknesses, seeks out opportunities to assist other classmates in developing their self-confidence.	Aware of strengths and weaknesses and seeks to improve, exercises good personal judgment and often serves as a mentor for classmates.	Demonstrates the ability to trust personal judgment, with an awareness of strengths and limitations, exercises good personal judgment.	Needs encouragement in trusting personal judgment, aware of strengths but does not readily recognize weaknesses, sometimes makes poor judgment.	Does not trust personal judgment, is unaware of strengths or weaknesses, and frequently exercises poor judgment.
Initiative Rating ____	Always completes assignments on time, seeks to improve or correct behavior, taking on and following through on tasks without constant supervision, showing enthusiasm for learning and improvement.	Occasionally does more than is required, completing and turning in assignments before scheduled deadline, volunteering for additional duties.	Always does only what is required.	Usually does what is required, making attempts to attain acceptable standards.	Consistently fails to meet established deadlines, and to improve even after corrective feedback has been provided by faculty, requiring constant supervision.
Efficiency Rating ____	Work is of high quality with rare errors.	Work is high quality with occasional errors.	Work is of average quality with few errors.	Sometimes below average quality with frequent errors.	Always below average quality with frequent errors.
Punctual Rating ____	Punctual (or early) nearly 100% of the time.	Consistent punctuality.	Seldom late to class, generally ready to begin class at the actual start time.	Occasionally late in arriving to class.	Often late to class, upon arrival needs additional time to be ready to begin
Time management Rating ____	Completes tasks and assignments prior to the due date, may assist instructor in reminding classmates about due dates.	Completes tasks and assignments by due date (and occasionally in advance of due date) with minimal need for reminders of due dates.	Completing tasks and assignments on time.	Occasionally late turning in assignments or requires being reminded about deadlines.	Frequently late in turning in assignments, requires constant reminders about due dates and will blame others if a due date is missed.
Cooperation Rating ____	Outstanding classmate; always effective with other students and faculty.	Good team worker; usually effective in dealing with other students and faculty.	Average team work; sometimes has difficulty with other students, and faculty.	A team worker; inconsiderate; has difficulty relating to other students, and faculty.	Causes friction and is antagonistic.

Affective Evaluation

Student Signature _____

date _____

Comments:

Evaluator's Signature _____

date _____

Comments:

MLT 126 IMMUNOLOGY AND SEROLOGY COURSE SCHEDULE

CLASS MEETING	TUESDAY, THURSDAY, 9-10:20AM	This is a tentative course outline and schedule. Alterations may be made based upon circumstances throughout the course session.
INSTRUCTOR	CANDICE FREEMAN	

UNIT	STARTING	ENDING	UNIT PROJECT	CHAPTER	UNIT TEST
BASICS OF IMMUNOLOGY	8.14.2017	8.31.2017	THURSDAY, 8/31/17	1-3; 4-5	8/31/17
PRINCIPLES AND PROCEDURES	9.4.2017	9.21.2017	THURSDAY, 9/21/17	10-14	9/21/17
DIAGNOSTIC IMMUNOLOGY	9.26.2017	11.2.2017	THURSDAY, 11/2/17	15;16;26-33	11/2/17
SEROLOGY	11.7.2017	12.5.2017	THURSDAY, 12/5/17	8;18-19; 21-25	12/5/17
FINAL REVIEW AND EXAM	12.5.2017	12.7.2017	FINAL, THURSDAY 12/7; 11:00		

Instructional Material by Date:

Date	Lecture	Date	Lecture
8/14/17	Introduction, Syllabus Review, A&P of Immune System (ONLINE)		Vector borne diseases
	Components of the Immune System, Ag/Ab Reactions and Complement		Vector borne diseases
	Components of the Immune System, Ag/Ab Reactions and Complement		Hepatitis
	Components of the Immune System, Ag/Ab Reactions and Complement		Hepatitis
	Components of the Immune System, Ag/Ab Reactions and Complement		Review
8/31/17	Project 1 and Test 1	12/5/17	Project 4 and Test 4
9/4/17	Agglutination		
	Agglutination		
	Immunoassay		
	Immunoassay		
	Electrophoresis		
	Electrophoresis		
	Molecular Diagnostics		
9/21/17	Project 2 and Test 2		
9/26/17	Immune Response		
	Immune Response		
	Immune Response		
	Vaccination		
	Autoimmune Conditions and Testing		
	Autoimmune Conditions and Testing		
	Immunoproliferative Disorders and Transplantation		
	Immunoproliferative Disorders and Transplantation		
11/2/17	Project 3 and Test 3		
11/7/17	RPR, MONO, CMV, MMR, HIV		
	RPR, MONO, CMV, MMR, HIV		

