

**SOUTH DAKOTA STATE UNIVERSITY  
MEDICAL LABORATORY SCIENCE**

**MLS441: DIAGNOSTIC MICROBIOLOGY II  
FALL 2019**

**INSTRUCTOR:** STEPH JACOBSON, M.S. MLS (ASCP)<sup>CM</sup>  
UPWARD MOBILITY ONLINE INSTRUCTOR

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\*ALL EMAILS WILL BE RESPONDED TO WITHIN 24 BUSINESS HOURS

OFFICE HOURS: VIRTUAL OFFICE-ONLINE  
MONDAY-THURSDAY (10 AM-4 PM CST)  
FRIDAY (BY APPOINTMENT)

**COURSE DESCRIPTION:** MLS441- Focuses on the principles and methodologies for the recovery of fungal, parasitic, viral and bacterial agents from complex biological specimens, biochemical identification, and advanced principles in clinical sensitivity and specificity to determine the predictive values for technical methodologies.

**PRE-REQUISITE:**

1. Admission into the Medical Laboratory Science Professional Program or permission of the instructor.
2. Successful completion of MLS341: Diagnostic Microbiology I

**REQUIRED TEXTS:**

Bailey and Scott's Diagnostic Microbiology, Tille PM 14<sup>th</sup> Edition, 2016, Elsevier  
(ISBN: 978-0-323-35482-0)

**RECOMMENDED TEXTS:**

1. Mycology Benchtop Reference Author: CAP  
ISBN: 978-0-086466-03-7
2. Parasitology Benchtop Reference Author: CAP  
ISBN: 978-1-941096-19-2

**Additional Readings:** Please consult the specific lesson objectives for additional reading materials and assignments.

**LAPTOP and WEBCAM REQUIRED:**

MLS is a Cloud technology based program. All examinations will be completed utilizing computerized technology. In addition, various exercises are dispersed throughout the MLS program that require use of internet based, software based and interactive activities. Please note

abbreviations throughout schedule: LR- laptop (technology) required for activity, WA- web activity, IA- interactive virtual labs/videos/animation, ML-live microscopy

\*Webcam will be utilized for video assignment and Respondus Video Monitoring

**CLASS SCHEDULE:** ONLINE

**LOCATION:** ONLINE

**COURSE GOAL:**

Diagnostic Microbiology II expands on the facts, theories and principles presented in Diagnostic Microbiology I and introduces the basic facts, theories and principles of mycology, virology and parasitology. Using this information, the student is expected to achieve the following learning outcomes as applied to the content material within the appropriate cognitive, psychomotor and affective domain at the completion of this course.

**STUDENT LEARNING OUTCOMES (SLO):**

Upon completion of this course the Medical Laboratory Science student, will be able to:

SLO#1: Apply principles of management that include administrative methodologies of the application to curriculum design evaluation and assessment to clinical laboratory practice.

SLO#2: Apply principles of educational methodologies including objectives and learning outcomes, domains, Bloom's taxonomy and the applications to curriculum design evaluation and assessment to clinical laboratory practice.

SLO#3: Exercise independent judgement and critical thinking to correlate and recognize discrepancies associated with normal and abnormal test results using patient history, characteristics, and demographics.\*\*

SLO#4: Evaluate, demonstrate and perform best laboratory practices as outlined in the standard operating procedures to correctly and independently follow procedures and policies to perform laboratory test procedures.

SLO#5: Demonstrate effective oral or written communication with other students, faculty, patients, professional colleagues, physicians, other members of the health care team, and the public to effectively and efficiently transmit test results and instructions.

SLO #6: Proficiently construct and devise written documents that include method comparisons, statistical analytics of patient results and testing methods, quality control reports, summary reports, standard operating procedures, comprehensive patient case studies, and continual professional development.\*\*

SLO #7: Demonstrate and value professional conduct that includes compassion, concern, integrity and respect when dealing with patients, colleagues, faculty, students, physicians, other

members of the health care team and the public independent of race, sex, religion, ethnicity or diversity.\*\*

SLO #8: Practice and demonstrate the use of appropriate ethical standards in all matters related to medical information and patient care including strict adherence to patient confidentiality rights as mandated by the Health Insurance Portability and Accountability Act (HIPAA).\*\*

### **STUDENT RESPONSIBILITIES:**

#### **Academic MLS Program Essential Knowledge**

Pre-requisite course material and concurrent course material within the MLS program is considered essential knowledge in order for the student to progress and successfully pass the National ASCP Certification Exam. Therefore, this material may be utilized in assignments, quizzes, exams etc. within this course as deemed appropriate by the instructor.

#### **Professional MLS Program Standards**

The MLS learning environment requires professional behavior shown through respectful and responsible actions by all participants. Accountability is an expectation. **Students are responsible and accountable for their own learning and exhibit awareness of this by** the following examples: 1.) Punctual attendance at every class; 2.) Demonstration of a professional attitude and behavior (as per Student Handbook MLS Code of Conduct Guidelines); 3.) Assignments completed in a timely fashion; 4.) Cooperative group work; 5.) Demonstration of evidence of critical thinking; 6.) Sound decision-making; and 7.) Personal reflection in theory, laboratory technical competency and clinical applications; 8.) Participate actively and consistently in course discussions; 9.) Safely demonstrate independence, initiative and creativity in clinical applications and theory; 10.) Professional behavior in interactions with faculty, fellow students, and university personnel; 11.) Supervision sought when appropriate; 12.) Cell phones and any electronic device should not be on during any class without the consent of the instructor; 13.) Consideration of classmates by minimizing distractions with backpacks, books, drinking, eating and other distractions which may prevent hearing and concentrating during class.

Per item 10 above; Refer to SDSU Policy 2.16 Recording of Classroom Lectures and Distribution of Course Materials by Students

<https://www.sdstate.edu/sites/default/files/policies/upload/Recording-of-Classroom-Lectures.pdf>

#### **DIAGNOSTIC MICROBIOLOGY II OBJECTIVES:**

Detailed objectives for Diagnostic Microbiology II are indicated in specific objectives that are designed to support the SLO's. Specific lesson objectives are provided within course material.

#### **GENERAL OBJECTIVES AND OUTCOMES:**

Detailed objectives for professional performance and general laboratory practice and safety is expected in all courses within the MLS professional program. ***These objectives are utilized across the curriculum as noted in the Academic MLS Program Essential Knowledge, Student Responsibilities.***

### **STUDENT COURSE ATTENDANCE POLICY:**

Logging in daily to the course is expected. If a student is unable to complete an assigned activity according to the course schedule; it is the student's responsibility to contact the course instructor and the program director as outlined in the program handbook. If a student misses an exam, the student must obtain a doctor's note or documentation of emergency as approved by the MLS program director in order to make up the missed exam. *If the student fails to produce requested documentation, the student will receive a "0" for the missed exam.*

If a student misses an assignment or activity because of an illness or emergency, it is the student's responsibility to obtain notes and/or any materials missed. *If a student misses an assignment that is completed via electronic discussion or group interactions, that is an active learning activity requiring interaction with other professional MLS program students and faculty, the student cannot make up the missed assignment and will receive a "0" for the missed activity and/or graded item.* Student class attendance records will be kept and reviewed as a part of determining the professional portion of the student's evaluation. Every effort will be made to make reasonable accommodations for students missing activities due to extenuating circumstances

### **STUDENT ASSIGNMENT DUE DATES AND SUBMISSIONS:**

All assignments are due as assigned by the instructor. No late assignments will be accepted. If an assignment is not received as scheduled in the proper format by the instructor, the assignment will receive a grade of "0" or "F" and will be recorded as such.

The instructor will determine the method for submission of all assignments; i.e. quiz, discussion board, drop box or other means as outlined in the course schedule. It is the student's responsibility to print items needed for class and for submission as required by the course instructor.

Assignment reviews; all assignment submission reviews will be completed as designated by the assigned instructor. No further review or open submissions for these assignments will be available at the completion of the submission review as indicated in the assignment description, within the course syllabus or the course schedule.

## **STUDENT EVALUATION**

### **ACADEMIC STANDARDS:**

The junior and senior year curricula include both didactic and practical learning experiences. Medical Laboratory Science student progression standards are outlined in detail in the MLS program handbook.

### **GRADING SYSTEM:**

The student's final grade will include an evaluation of the professional behaviors, theoretical aspects and technical components as applicable.

Grading Scale;

A = 90.00 - 100.00

B	=	80.00 - 89.99
C	=	70.00 - 79.99
D	=	60.00 - 69.99

Percentage Scale: Total points/possible points

Quizzes, assignments, case studies, affective professional performance etc.	30%
Section Evaluations	30%
Final Evaluations	40%

Note: To insure uniform student evaluation, there shall be no extra credit questions, assignments or projects.

Grading Requirements:

Students will be evaluated by the academic and professional judgment of the individual faculty member(s) assigned to teach this course, based on requirements and performance standards approved by the Medical Laboratory Science Program. Students will receive periodic feedback throughout the course.

In order to successfully complete an MLS course the student must:

Achieve an exam average of 70.00% or higher. If a student does not achieve the minimum exam average, the student cannot receive a grade higher than D in the course.

**Major evaluations** are defined by the course instructor and may include but are not limited to, examinations both written or practical, papers or projects and may include individualized or group work. Students are required to attend all major evaluations as scheduled by the course instructor including the scheduled time for Final examinations for all courses independent of the evaluation type. (SDSU Policy 2:1)

<https://www.sdstate.edu/sites/default/files/policies/upload/Final-Examination.pdf>

Following the failure of any major evaluation or any unsafe or unacceptable professional performance **the student is responsible** to arrange a meeting (phone call/Zoom meeting) with the Instructor to identify needed changes or strategies to improve performance.

Exam Policy:

All Upward Mobility Medical Laboratory Science Program Exams including section exams, and comprehensive finals (independent of format) will be secured exams. Resources and personal items; such as cell phone, smart watches, tablet or any type of electronic device other than the student laptop and webcam will not be allowed during exams unless specified (ex: non-programmable calculators, scratch paper,). See the program handbook for additional restrictions. Exams will require the use of the D2L video monitoring software or approved proctor as well as the installation, download and use of the lockdown browser.

A student missing any major evaluation including exams must reschedule with the faculty member within 48 hours prior to the original scheduled date. The reschedule date will be determined by the instructor and whenever possible no longer than 7 days (one full week) from the original date. It is the student's responsibility to contact the instructor to reschedule. Failure

to notify the instructor prior to the scheduled exam date does not guarantee approval to be rescheduled.

#### Quiz and Exam Submission Review:

Initial reviews will be available immediately following the quiz/exam. Initial review will display only incorrectly answered questions with answers provided. Full/comprehensive exam reviews may be scheduled by contacting the instructor during office hours, directly during course-scheduled time or any method, as the instructor deems appropriate. Full/comprehensive reviews must be completed, within 72 hours (3 working days) of posting the grades for the exam. No exam will be open for review after the scheduled 72 hour review period or subsequently reviewed prior to final exams. If a student did not review the exam during the initial review period as noted, or requests a comprehensive review with instructor; the student forfeits reviewing the exam.

In order to respect the integrity and effectiveness of the online classroom environment, protect students' and faculty members' privacy, respect faculty and University rights in instructional materials and to comply with copyright laws the student may not replicate any content; including but not limited to video/audio recording or replication of content, taking photos/screenshots of assessments or submission reviews with any digital or electronic device. Refer to SDSU Policy 2.16 Recording of Classroom Lectures and Distribution of Course Materials by Students <https://www.sdstate.edu/sites/default/files/policies/upload/Recording-of-Classroom-Lectures.pdf>

#### Quizzes and Assignments:

NO late quizzes or assignments will be accepted. If the assignment is not completed as scheduled the student will receive a "0" or "F" failing grade **Students must do individual work**. Any student who does not work independently will be subject to disciplinary actions per the University academic integrity policy. Students are expected to submit all assignments on time as outlined in the course schedule.

#### Drop box:

Some assignments are required to be submitted electronically in the D2L course drop box. The student is responsible for insuring that the correct file is submitted and on time as outlined in the course schedule. Unless otherwise specified; **ALL ASSIGNMENTS MUST BE SUBMITTED USING MICROSOFT WORD**. Incorrect documents will not be considered a proper submission and the student will receive a "0" or "F" failing grade on the assignment. In addition, the student must keep the drop box email receipt for proof of submission, in the event of a failed submission based on technical problems. If the student is unable to produce the email receipt for proof of submission, the student will receive a "0" or "F" failing grade on the assignment.

#### Policy regarding answering questions regarding assignments, including exams etc.:

- a. Questions about an assignment including clarifications, due dates, content etc. will not be answered after 5 pm, the day prior to the due date.

- b. Students are expected to be proactive and if they fail to submit questions or ask them prior to that time, the faculty will not be expected to respond; either directly or via any electronic request.
- c. Discussion Board Question Section- **ALL** questions should be submitted on the discussion board course section. This will facilitate student to student resolution of common questions without requiring instructor facilitation.

Policy regarding answering questions on examinations, quizzes, etc.

- a. Questions should be answered using acceptable scientific terminology.
- b. Abbreviations will be acceptable when used in the correct context and when commonly used in the course by the instructor.
- c. Unless otherwise stated, always assume that your answer should be the most specific answer possible, e.g., all questions imply that specifics are required--not generalities.
- d. If your writing or printing cannot be deciphered (i.e scanned or photographed assignments), your answer will be marked wrong!

Policy regarding the formal review of questions and student evaluation.

- a. All questions concerning points and grades will be settled by the end of the third regular school day (72 hours) following the **posting of the grade**. After this time, the grades will become permanent.
- b. Students who wish to formally review and/or justify their answer that differs from the instructors answer key may do so **ONLY** by submitting in writing their reasoning why they feel their answer is correct. *Appropriate references should be included*. This does not pertain to clerical or mathematical errors. An **appropriate reference** includes required textbooks, and material provided by the instructor. Instructors will only base review on material that is used for instruction and required during the course. This is to insure that all students utilize the same educational material and that students are directly evaluated on material as presented; this is also due to practical variation in laboratory practices that may differ across laboratory facilities and/or types of health care settings.
- c. As a professional program, instructors will not tolerate argumentative challenge within the classroom or discussion board. Submission of written answers serves as a learning experience and provides a more detailed review of the knowledge and content of the material.

**IDEA Surveys**

The MLS Program has implemented the use of IDEa surveys to solicit student opinions of instruction in the courses offered by the department. As usual, your responses to the survey are anonymous, and responses will not be shared with instructors until final grades are issued for the course.

**AMERICANS WITH DISABILITY CONFORMITY**

ADA Statement: Any student who feels s/he may need an accommodation based on the impact of a disability should contact Nancy Hartenhoff-Crooks (or successor) Coordinator of Disability

Services (605-688-4504 or Fax, 605-688-4987) to privately discuss your specific needs. The Office of Disability Services is located in room 065, the University Student Union.

### **STUDENT ACADEMIC INTEGRITY AND APPEALS**

The University has a clear expectation for academic integrity and does not tolerate academic dishonesty. [University Policy 2.4](#) sets forth the definitions of academic dishonesty, which includes but is not limited to, cheating, plagiarism, fabrication, facilitating academic dishonesty, misrepresentation, and other forms of dishonesty relating to academics. The [Policy and its Procedures](#) also set forth how charges of academic dishonesty are handled at the University. Academic Dishonesty is strictly proscribed and if found may result in student discipline up to and including dismissal from the University.

### **FREEDOM IN LEARNING**

Freedom in Learning Statement: Students are responsible for learning the content of any course of study in which they are enrolled. Under Board of Regents and University policy, student academic performance shall be evaluated solely on an academic basis and students should be free to take reasoned exception to the data or views offered in any courses of study. Students who believe that an academic evaluation is unrelated to academic standards but is related instead to judgment of their personal opinion or conduct should first contact the instructor of the course. If the student remains unsatisfied, the student may contact the Program Director, the Dean, or both, of the college that offers the class to initiate a review of the evaluation.