Course Syllabus
MLAB 1331 - Parasitology/Mycology
Revision Date: October 28, 2014

Catalog Description: A study of taxonomy, morphology and pathogenesis of human parasites and fungi, including the practical application of laboratory procedures, quality control, quality assurance and safety. (5110040000)

Lecture hours = 3, Lab hours = 0

Prerequisites: Enrollment in this course and the Medical Laboratory Technology Program require department head approval and successful completion of the admissions process. Students must be accepted into the MLT Program.

Semester Credit Hours: 3
Lecture Hours per Week: 3
Lab Hours per Week: 1
Contact Hours per Semester: 96

State Approval Code: 5110040000

Instructional Goals and Purposes
Panola College's instructional goals include 1) creating an academic atmosphere in which students may develop their intellects and skills and 2) providing courses so students may receive a certificate/an associate degree or transfer to a senior institution that offers baccalaureate degrees.

Rationale/Introduction: Upon successful completion of this course, the student should be able to: examine and determine suitability of specimens for examination; prepare or preserve specimens for analysis; determine the presence of and identify human parasites and fungal forms; and demonstrate an understanding of the life cycle and pathogenicity of parasites and fungi.

Course Instructional Goals and Purposes:
By the end of this course the student should be able to:
• Apply principles of safety, quality assurance, and quality control
• Evaluate specimen acceptability
• Describe basic morphology and physiology of parasites and fungi
• Classify parasites and fungi
- Perform appropriate laboratory techniques used in the processing of specimens and identification of parasites and fungi
- Evaluate and correlate test results with patient condition(s)

**Specific Course Objectives (Includes SCANS Information)**

Recently the U.S. Department of Labor established the Secretary’s Commission on Achieving Necessary Skills (SCANS) to examine the demands of the workplace and whether the nation’s students are capable of meeting those demands. The Commission determined that today’s jobs generally require competencies in the following areas.

a. Resources: Identifies, organizes, plans, and allocates resources
b. Interpersonal: Works with others
c. Information: Acquires and uses information
d. Systems: Understands complex interrelationships
e. Technology: Works with a variety of technologies

The Texas Higher Education Coordinating Board is now requiring all degree plans in institutions of higher education incorporate these competencies and identify to the student how these competencies are achieved in course objectives.

Examples of SCANS competencies being incorporated are as follows:

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<tr>
<th>SCANS COMPETENCY</th>
<th>Clinical Competencies</th>
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<tbody>
<tr>
<td>Resources</td>
<td>Performs technical procedures such as reagent preparation, specimen collection, and processing of clinical specimens using a variety of standardized staining and concentration of techniques; performs macroscopic and microscopic examinations of processed specimens; detects and identifies stages of parasites present; organizes work and allocates materials and supplies in an efficient manner.</td>
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<tr>
<td>Interpersonal</td>
<td>Demonstrates an understanding of the profession of Medical Laboratory Technology while exhibiting professional and ethical behavior in dealing with patients and other medical professionals; maintains a professional demeanor and appearance.</td>
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<tr>
<td>Information</td>
<td>Evaluates quality control results ascertaining that results are within established parameters; reports out-of-range results to instructor; performs preventive maintenance on laboratory equipment; understands and practices</td>
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approved safety techniques including Universal Precautions in all laboratory procedures; reports any accident or harmful situation to instructor.

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<th>Systems</th>
<th>Understand and implements corrective action when quality control results fall outside expected parameters; uses problem solving skills to troubleshoot unexpected circumstances.</th>
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<tr>
<td>Technology</td>
<td>Operates basic laboratory equipment, understand the intended use, care, and mechanical function of various microscopes and centrifuges; is competent in the use of computers and common software.</td>
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**Student Course Objectives**

1. Collect and process biological specimens for analysis.
2. Apply principles of safety, quality assurance, and quality control.
3. Evaluate specimen acceptability.
4. Describe basic morphology and physiology of parasites and fungi.
5. Classify and identify common human parasites and fungi.
6. Perform and/or describe appropriate laboratory techniques used in processing of specimens.
7. Evaluate and correlate test results with patient conditions.

**Course Grade**

Lecture Grade = 2/3 of grade  
Lab Grade = 1/3 of grade

**Lecture**
- Major Exams: 50%
- Quizzes: 15%
- Homework Assignments: 20%
- Final Exam: 15%

**Laboratory**
- Pre-Lab Quizzes: 10%
- Case Assignments: 20%
- In-Lab Assignments: 20%
- Practicals: 50%

**Methods of Evaluation:**

This is a mainly online course so it will require a lot of outside proactive work by the student. The instructor will provide guidance as needed. The student will be evaluated by assignments, quizzes, cases, and exams as assigned by the instructor outside of the
classroom. The student will be required to come to a Panola College testing Center to take all major examinations. Laboratories will take place on three pre-determined Saturdays during the semester and will be mandatory. During the laboratories the students will be evaluated by case studies, in-lab assignments, and lab practicals as assigned by the instructor.

**Texts, Required Readings, Materials, and Supplies**

*Required:*
For current texts and materials, use the following link to access bookstore listings: [http://www.panolacollegestore.com](http://www.panolacollegestore.com)


White Laboratory Coat

*Suggested:*

Medical Dictionary

**More Information:**

**Laboratory Dress Code**
The student will be expected to attend class clean and neatly dressed in long pants or scrubs and wear closed-toe shoes. A laboratory coat will must be worn snapped or buttoned up during all laboratory sessions. Hair that is shoulder length or longer must be worn up or securely tied back. Gloves must be worn when handling biological materials.

**Behavioral Conduct**
While a student is representing Panola College as a Medical Laboratory Technology student, they will be expected to conduct themselves in such a manner as to reflect favorably on themselves and on the Program. If a student acts in such a manner as to reflect immature judgment or disrespect for others, the student will be called before the MLT Department Chair for determination of their status in the Program. Inappropriate conduct is grounds discipline and may be cause for immediate probation or dismissal from the Program.

**Academic Dishonesty**
Under no circumstances shall a student submit work that is not their own. Copying answers for study questions, cheating on exams and/or submitting laboratory results which are not your own are expressly prohibited.
Time Commitment
According to “Hints on How to Succeed in College Classes”
http://astrosociety.org/edu/resources/success.html you should budget your time per week for this three hour credit course as follows:
1. Reading assigned text 1 to 2 hours
2. Homework assignments 3 to 5 hours
3. Time for review and test preparation 2 hours
4. Total study time per week 6 to 9 hours PER WEEK

OTHER:
- For testing services, use the following link:
  http://www.panola.edu/elearning/testing.html
- If any student in this class has special classroom or testing needs because of a physical learning or emotional condition, please contact the ADA Student Coordinator in Support Services located in the Administration Building or go to http://www.panola.edu/student-success/disability-support-services/ for more information.
- Withdrawing from a course is the student’s responsibility. Students who do not attend class and who do not withdraw will receive the grade earned for the course.