

Omega Diagnostics, LLC
One Saint Mary Place
Shreveport, LA 71101
An Affiliate of
LSUHSC School of Allied Health Professions
Department of Clinical Laboratory Science

URINALYSIS REQUIREMENTS

Attendance: Students should arrive at 07:00 AM everyday of this rotation unless you have been instructed to arrive late by your clinical instructor. If you will be late or you are ill and cannot attend that day, you must call (318) 681-4354 and have the associate notify the urinalysis department that you will be late or are ill. Also, you need to notify Stephanie Blackburn at (318) 813-2912 or Connie Watson at (318) 813-2910. You are not responsible for attending clinicals on holidays.

Expectations: When you are not performing assigned tasks in urinalysis, you are responsible for reviewing Kodachromes and notebook questions. Students are required to perform manual calculations.

REFERENCE BOOKS IN THE CLINICAL LABORATORY ARE NOT TO BE REMOVED OR TAKEN HOME.

ANSWERS to the questions in your notebook can be found in the following materials:

1. Your Notebook.
2. Textbook of Clinical Chemistry; Teitz.
3. Clinical Chemistry, Theory, Analysis, and Correlation; Kaplan, Pesce, and Kazmierczak.
4. Clinical Diagnosis and Management by Laboratory Methods; Henry.
5. Urinalysis and Body Fluids; Strasinger.

REQUIRED READING:

Clinical Chemistry, Theory, Analysis, and Correlation; Kaplan, Pesce, and Kazmierczak.
Read the chapter on "Sources and Control of Preanalytical Variation," pp. 64 - 82.

Any handouts your instructor may give you.

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LSU Health Sciences Center- SAHP
DEPARTMENT OF CLS

MTEC 4131 Clinical Microscopy Practicum

Course Component: Clinical Urinalysis/Microscopy

Course Instructor: Katy Vincent, MT(ASCP)
Education Coordinator: Karrie Hovis, MHS, MT(ASCP)
Omega Diagnostics Main Phone: (318) 681-4354

Required Syllabus:

A notebook containing course information, schedule, objectives evaluation forms, checklists and other pertinent information will be distributed to each student during the first day of the clinical rotation. This notebook should be brought to lab each day. The course notebook MTEC 4102, urinalysis, should also be used as a reference.

Required Textbook: None

For recommended textbooks and other references, refer to the corresponding preclinical (didactic) course:

MTEC 4102: Clinical Microscopy

The LSUHSC Library also has audiovisual aids, computer-assisted instruction and textbooks available for student use.

Recommended References:

McBride, L.J. Textbook of Urinalysis and Body Fluids, Lippincott, 1998.

Ringsrud, KM and JM Linne. Urinalysis and Body Fluids: A Colortext and Atlas, Mosby, 1995.

Clinical Chemistry, Theory, Analysis, and Correlation; Kaplan, Pesce, and Kazmierczak.

Clinical Diagnosis and Management by Laboratory Methods; Henry.

Strasinger, SK Urinalysis and Body Fluids, 4th edition, F.A. Davis Company, 2001

Course Description: The Urinalysis portion of this practicum consists of discussion, demonstration, observation and hands-on sessions designed to familiarize the student with the principles, procedures and interpretation of general and advanced techniques used in a urinalysis laboratory. Pre- analytical, analytical, and post-analytical components of the testing process will be emphasized. The course includes other body fluid analysis other

than urine. A primary focus of this rotation beyond processing and performing total urinalysis and other microscopy is organizational skills and departmental daily management. The course also includes principals of instrumentation and methods of laboratory quality control.

Course Goal: : It is expected that students will achieve understanding of the fundamental concepts of modern clinical urinalysis assessment (including preanalytical, analytical, and post-analytical components of the testing process). Students will apply this understanding, utilizing critical thinking and problem-solving skills, in diagnosis, treatment and monitoring of health and disease states and to the performance and evaluation of various body fluids.

This course is significant in the field of CLS as a complete urinalysis provides important clinical information in health and wellness assessment and a wide variety of disease states. Correlation of finding is urinalysis along with information from other sections (hematology, chemistry, serology, immunohematology and microbiology) are often critical to patient care.

Course Objectives: Following successful completion of this course, the student will:

1. Select and use appropriate laboratory reagents, instruments, and quality control measures within the section.
2. State specimen collection, handling, storage and sample processing requirements, given a request for a specific test request.
3. Summarize the diagnostic utility of the various tests results obtained in this section.
4. Assess patient specimens for suitability of analysis, taking corrective actions to take when unacceptable samples are received.
5. Assemble necessary reagents and supplies to properly perform a given procedure.
6. Perform complete urinalysis on specimens received in the section using established laboratory procedures and achieving accurate results.
7. Demonstrate competency in tests performed in this section to the satisfaction of the instructor.
8. Correctly select and perform necessary quality control procedures.
9. Recognize and utilize established protocol in response to receipt of critical findings.
10. Evaluate quality control results and, when necessary, take appropriate corrective action.
11. Discuss the principle, procedure, interpretation and troubleshooting of those tests performed in this section.
12. Recognize limitations of testing, discrepancies between chemical finding, backup

methods and microscopic findings and potential sources of pre-, post-, and analytical error.

13. Choose additional testing when necessary for the complete evaluation of Urine/Body fluid analysis.
14. Correctly identify cells and formed elements microscopically and kodachromes.
15. Correctly perform any calculation necessary for reporting results.
16. Demonstrate organizational skills in specimen collection, handling, processing and analysis.
17. Follow written and verbal directions.
18. Prioritize specimen processing requests and work concurrently on at least two different tasks.
19. Correlate laboratory results with clinical conditions, providing a differential diagnosis where applicable.
20. Evaluate the functioning of the section and provide assistance.
21. Communicate effectively and professionally with those the laboratory serve.
22. Maintain alertness and concentration during the work day.
23. Recognize safety issues particular to this section.
24. Locate MSDS sheets and identify critical information.
25. Comply with universal precautions and all established safety guidelines and policies while performing work in the section.
26. Appreciate the need for privacy and confidentiality of laboratory results.
27. Appreciate the pre-analytical, analytical, and post-analytical specifications of the testing process as they apply to this section.
28. Demonstrate professionalism and respect for others while in this section.
29. Work independently and cooperatively with others under time constraints established by the instructor.
30. Describe the role of the CLS in the urinalysis lab.
31. Project an image of professionalism.
32. Communicate effectively with urinalysis/chemistry staff, clerical support staff, and other health care workers.

Students will meet these objectives by daily attendance and active participation in all aspects of the urinalysis/chemistry lab, completion of any assignments, and review of objectives, notes, lab procedures and supplementary material. Correlating information from corresponding lectures is beneficial to understanding hematology lab information.

Modes of Instruction: MTEC 4131 is a lab-based course. Lectures, discussions, demonstrations, and selected reading and on-line assignments are used to introduce/explain various procedures. Hands-on experience will provide the student with opportunity to apply and practice techniques needed for entry-level competency in this lab section. Audiovisual materials (videotapes, kodachromes, etc.) are available for student review and study.

Grades: The grade in this course will be generated from two sources:

- Hematology/Coagulation (to be performed at LSUHSC clinical laboratory): 80%
- Urinalysis: 20%
 - Written Exam 40%
 - Practical Exams 50%
 - Evaluation 10%

Written assignments and laboratory exercises must constitute original work and, unless otherwise directed, will be independent effort.

Copies of the evaluations are included in the notebook.

The grading scale used for this course is:

90 - 100:	A
80 - 89:	B
70 - 79:	C
60 - 69:	D
59 and below:	F

Attendance: Attendance is expected each day. Refer to the LSUHSC Orientation handout for specific requirements of students. Please notify the instructor in advance if you cannot attend. Due to the nature of this course, no makeup labs or practicals will be given in the event of an unexcused absence. Excessive absence, regardless of the cause thereof, maybe construed as sufficient reason for considering a student academically deficient and may necessitate make-up sessions. Determination of the number of absences which may be interpreted as excessive rests with the department and is subject to approval by the Dean.

Evaluation of Course and Instructor: Course and instructor are evaluated anonymously by each student following completion of this. The course coordinator and department head will receive a computerized print-out of the summation of the students' responses and typed comments so that all students' evaluations remain anonymous.

Academic Honesty (refer to LSUHSC catalog)

This syllabus is comprehensive and covers a lot of detail. Read it carefully and ask questions about anything you do not understand. Because of extenuating circumstances, this syllabus is subject to change.