



## Student Learning Outcomes for HTEC 81

*Clinical Urinalysis Laboratory*

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### Team Members:

**Team Leader:**

Debbie Wagner (8790) in HTEC

**Other members:**

1. Doris Spanggord (x8341) BIOL

**Additional team members/notes about team:**

Margaret Yamada

**Additional Notes:**

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### Outcomes:

**Outcome 1 Phase I: Statement**

Practice proper application of OSHA standards.

**Outcome 1 Phase II: Assessment Strategy Used:**

Assessment Quarter: Fall 2009

Assessors: Debbie Wagner

Assessment Tools: •

Sections being assessed: 01

**Outcome 1 Phase III: Reflect & Enhance**

**Number of people involved in Phase III:** 1

**Changes:****Methods:**

Exam I; Students were observed and documented for their use of universal precautions during the exam

**Findings and Conclusions:**

Students scored 100% on this assessment. This is a mandatory requirement for anyone participating in our MLT laboratory courses, but also for anyone preparing for a career in this field.

**Enhancement (Planned Actions)****Part I:**

This student learning outcome evaluates the student's ability to follow safety guidelines while performing laboratory testing. It is expected that student's achieve a 100% score in this area.

**Part II:**

N/A

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**Outcome 2 Phase I: Statement**

Perform routine urinalysis on a minimum of 2 normal urine samples with 100% accuracy to include both physical and chemical analysis.

**Outcome 2 Phase II: Assessment Strategy Used:**

Assessment Quarter: Fall 2010

Assessors: Debbie Wagner

Assessment Tools:

Sections being assessed: 01

**Outcome 2 Phase III: Reflect & Enhance**

**Number of people involved in Phase III:** 2

**Changes:**

**Methods:**

Exam I and Final exam: Students were given 2 normal urines on Exam I and 1 normal urine on the final exam and asked to perform physical and chemical analysis on each.

**Findings and Conclusions:**

Exam I class mean score = 75% Final exam class mean score = 100% Students preparing for a career in the area of clinical laboratory medicine need to score higher than 75% on performing this task. After accessing the outcomes after Exam 1 students were given more time to practice throughout the quarter and then given another normal urine on the final exam. The class scored 100% on that task which is an acceptable score for this for this SLO and demonstrates adequate technical ability for performing normal urinalysis to include both physical and chemical analysis.

**Enhancement (Planned Actions)****Part I:**

Based on the assessment of this SLO, it is evident that in order for the students to demonstrate adequate technical ability in performing physical and chemical testing on a normal urine specimen, they will need additional time to practice this skill. Planned course

enhancements include: 1. demonstration of this skill to a small group of students instead of the entire class 2. additional opportunities to practice this skill "hands on" 3. learning objectives are being developed that will demonstrate this skill and be available to students in an online format

**Part II:**

The planned course enhancements that require additional resource allocations include: providing students with the opportunity to practice this laboratory skill "hands on". This enhancement would require establishing an MLT skills laboratory, much like those available for our nursing and biology students where students could come and practice these laboratory skills. Instrumentation, testing supplies and a technician would be necessary additional resources to accomplish this enhancement.

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**Outcome 3 Phase I: Statement**

Identify abnormal urinalysis results and correlate these results with possible causes.

**Outcome 3 Phase II: Assessment Strategy Used:**

Assessment Quarter: Fall 2010

Assessors: Debbie Wagner

Assessment Tools: *No tools assigned.*

Sections being assessed: 01

**Outcome 3 Phase III: Reflect & Enhance**

**Number of people involved in Phase III:** 2

**Changes:**

**Methods:**

Exam I: Students were asked to identify abnormal urine results and match them with possible causes  
Final Exam: Students were given urinalysis results and asked to identify the abnormal results and relate them to possible causes.

**Findings and Conclusions:**

The mean class score on Exam 1 questions regarding identifying abnormal urine results and matching them with possible causes was 75%. The students scored 95% on identifying abnormal urinalysis results, but scored lower on relating those results to possible causes. These questions were reviewed in class, more practice was given on correlating abnormal results to disease states and then similar questions were given on the final exam in hopes of seeing a higher percentage of students getting the correct answer. On the final exam, the students mean score = 95% on identifying abnormal urinalysis results, but scored only 76% on relating those results to possible causes. This score does not demonstrate an adequate understanding of this SLO.

**Enhancement (Planned Actions)****Part I:**

Course enhancements to increase the mean student course score for this SLO will

concentrate on relating abnormal urinalysis results to possible causes (technical and disease related). More emphasis will be placed on case studies as a means of relating test results to possible causes. This will be done in small group exercises and classroom discussions.

**Part II:**

There is no need for additional resources to accomplish this course enhancement.

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