Course Inventory Change Request

Date Submitted: 02/02/15 4:50 pm

Viewing: **MLS 2211: Clinical Chemistry I**

Last edit: 02/10/15 3:32 pm

Changes proposed by: vHughes

Catalog Pages referencing this course

In Workflow
1. MLS Chair
2. HSC Admin
3. HSC Dean
4. University Curriculum Committee Chair
5. Banner

Approval Path
1. 02/06/15 10:23 am
   Virginia Hughes (vHughes): Approved for MLS Chair
2. 02/06/15 11:00 am
   Colleen Hales (hales): Rollback to MLS Chair for HSC Admin
3. 02/10/15 3:25 pm
   Virginia Hughes (vHughes): Approved for MLS Chair
4. 02/10/15 3:27 pm
   Colleen Hales (hales): Approved for HSC Admin
5. 02/10/15 3:32 pm
   Carole Grady (grady): Approved for HSC Dean

Associate of Applied Science in Medical Laboratory Science
Bachelor of Science in Medical Laboratory Science

Other Courses referencing this course

In The Catalog Description:

**MLS 2213 : Clinical Chemistry II**

As A Banner Prerequisite:  
**MLS 2213 : Clinical Chemistry II**

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<th>Course Prefix:</th>
<th>MLS</th>
<th>Course Number:</th>
<th>2211</th>
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<td>Effective Semester:</td>
<td><strong>Fall 2015</strong></td>
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Catalog Prerequisites:  
Admission to the AAS Program in Medical Laboratory Science; AND MLS 1113 AND MLS 1123.  
Grade Required on Prerequisite(s): N/A  
Corequisites? | No  
Course/Lab Fee? | Yes

https://newcatalog.dixie.edu/courseleaf/courseleaf.cgi/?page=/courseadmin/968/index.html&step=tcadiff
Course/Lab Fee Amount: 500-250
Index Code: HEA320
Fee Deposit

Fee Justification:
Cover significant increasing costs of laboratory reagents and test kits for course.

Instruction Index Code: HEA217

GE Status Requested: No

Catalog Description
Basic concepts and techniques in clinical chemistry and quality control utilizing manual and automated laboratory procedures. Emphasis on blood and body fluid assessments of carbohydrates, bilirubin, non protein nitrogen testing and electrolyte acid/base balance. FA

Course Rotation:
Fall (every)

Justification for course/change:
increase lab fees

Library Resources Adequate: Yes

Tech Resources Adequate: Yes

Course Learning Outcomes:
1. Demonstrate the correct use of the analytical balance
2. Explain and demonstrate how to determine if lab glassware is Certified Type A
3. Explain and demonstrate the appropriate use of volumetric flasks, Erlenmeyer flasks, wide mouth beakers, graduated cylinders
4. Explain appropriate use of volumetric pipets, serological pipets, micropipettors, and parafilm
5. Prepare 100 mL of each of the following NaCl solutions (0.9% w/v, 0.308 N, 154 mEq/L)
6. Demonstrate how to correctly operate a manual single beam spectrophotometer
7. Construct a Shewchart or Levy-Jennings wall chart for quality control
8. Differentiate between a standard calibrator and a control
9. Perform colorimetric/spectrophotometric within run precision exercise with a CV less than 2%
10. Differentiate between Diabetes Mellitus and diabetes insipidus

How do your Course Learning Outcomes align to your Program Learning Outcomes?

- **Demonstrate the correct use of the analytical balance** aligns with PLO4 (operate equipment properly performing preventive maintenance identifying problems and taking corrective action)
- **Explain and demonstrate how to determine if lab glassware is Certified Type A** aligns with PLO5 (demonstrate knowledge of chemistry)
- **Explain and demonstrate the appropriate use of volumetric flasks, Erlenmeyer flasks, wide mouth beakers, graduated cylinders** aligns with PLO5 (demonstrate knowledge of chemistry)
- **Explain appropriate use of volumetric pipets, serological pipets, micropipettors, and parafilm** aligns with PLO5 (demonstrate knowledge of chemistry)
- **Prepare 100 mL of each of the following NaCl solutions (0.9% w/v, 0.308 N, 154 mEq/L)** aligns with PLO5 (demonstrate knowledge of chemistry)
- **Demonstrate how to correctly operate a manual single beam spectrophotometer** aligns with PLO4 (operate equipment properly performing preventive maintenance identifying problems and taking corrective action)
- **Construct a Shewchart or Levy-Jennings wall chart for quality control** aligns with PLO6 (use quality assurance to monitor procedures, equipment, assays and technical competence within predetermined limits)
- **Differentiate between a standard calibrator and a control** aligns with PLO5 (demonstrate knowledge of chemistry)
- **Perform colorimetric/spectrophotometric within run precision exercise with a CV less than 2%** aligns with PLO2 (perform accurate lab testing of body fluids, cells, and other substances)
- **Differentiate between Diabetes Mellitus and diabetes insipidus** aligns with PLO5 (demonstrate knowledge of chemistry)

Schedule of lesson activities that meet Course Learning Outcomes

- Lectures, student labs, oral presentation, lab practicals

Assessment activities that provide evidence of student learning

- Three lecture exams, one final exam, two lab practicals, one class presentation
Course Reviewer

Comments

dwade (02/02/15 11:39 am): Rollback: Virginia asked for rollback
hales (02/06/15 11:00 am): Rollback: Carole would like the Outcomes sections filled out