Course Inventory Change Request

Date Submitted: 02/02/15 4:48 pm

Viewing: MLS 2213: Clinical Chemistry II

Last edit: 02/10/15 8:13 am

Changes proposed by: v Hughes

Catalog Pages referencing this course

Course Prefix: MLS

Course Number: 2213

Effective Semester: Spring 2016

Associate of Applied Science in Medical Laboratory Science
Bachelor of Science in Medical Laboratory Science
<table>
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<tr>
<th><strong>Department:</strong></th>
<th>Medical Laboratory Science (MLS)</th>
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<tr>
<td><strong>School:</strong></td>
<td>School of Health Sciences</td>
</tr>
<tr>
<td><strong>Course Title:</strong></td>
<td>Clinical Chemistry II</td>
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<tr>
<td><strong>Short Course Title:</strong></td>
<td>Clinical Chemistry II</td>
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| **Credits:** | 5 |
| **Workload Factors:** | 6 |
| **Primary Grade Type:** | Standard Letter |
| **Secondary Grade Type:** | |
| **Instructor Permission Required:** | No |
| **Repeatable for Credit:** | No |
| **Schedule Type:** | Combined Lecture/Lab |
| **Hrs/Wk:** | 7 |

**Catalog Prerequisites:**

- Admission to the AAS Program in Medical Laboratory Science; AND MLS 2211.

**Grade Required on Prerequisite(s):**

- N/A

**Course/Lab Fee:** Yes

**Course/Lab Fee Amount:** 500-250

**Fee Deposit Index Code:** HEA320

**Fee Justification:**

Fee increase to cover significant increasing costs of laboratory reagents and test kits for course.

**Instruction Index Code:** HEA217
GE Status: No
Requested:

Catalog Description:
Students will be given lectures on proteins, lipids, enzymology, therapeutic drug monitoring, toxicology, and basic endocrinology. Laboratory section will facilitate student learning by students applying theory to laboratory assays.

Course Rotation:
Spring (every)

Justification for course/change:
Funds for lab kits, reagents, and supplies

Library Resources: Yes
Adequate:

Tech Resources: Yes
Adequate:

Course Learning Outcomes:
1. Evaluate and interpret clinical chemistry lab test data
2. Comply with established lab safety regulations
3. Perform total protein and albumin assays on at least two unknowns and controls with 95% accuracy
4. Interpret acid and alkaline gel electrophoresis
5. Explain what special sample preparation steps must be taken to perform urine protein electrophoresis and CSF protein electrophoresis
6. Describe the regulatory feedback mechanism for controlling the blood level of T3 and T4 hormones
7. Differentiate between the clinical goals and purposes of TDM as opposed to toxicology
8. Perform appropriate quality control measures for serum protein electrophoresis

How do your Course Learning Outcomes align to your Program Learning Outcomes?
Evaluate and interpret clinical chemistry lab test data aligns with PLO3 (evaluate and interpret lab test data while recognizing factors that affect procedures and correlating results to disease processes).
Comply with established lab safety regulations aligns with PLO1 (safely handle biological specimens and other substances for analysis adhering to standard precautions and regulatory guidelines).
Perform total protein and albumin assays on at least two unknowns and controls with 95% accuracy aligns with PLO2 (perform accurate lab testing of body fluids, cells, and other substances)

Interpret acid and alkaline gel electrophoresis aligns with PLO 3 (evaluate and interpret lab test data while recognizing factors that affect procedures and results correlating to disease processes)

Explain what special sample preparation steps must be taken to perform urine protein electrophoresis and CSF protein electrophoresis aligns with PLO 2 (perform accurate lab testing of body fluids).

Describe the regulatory feedback mechanism for controlling the blood level of T3 and T4 hormones aligns with PLO5 (demonstrate knowledge of clinical chemistry)

Differentiate between the clinical goals and purposes of TDM as opposed to toxicology aligns with PLO 5 (demonstrate knowledge of clinical chemistry)

Perform appropriate quality control measures for serum protein electrophoresis aligns with PLO6 (use quality assurance to monitor procedures, equipment, and assays).

Schedule of lesson activities that meet Course Learning Outcomes

- lectures, students labs, lecture exams, lab practicals, oral presentations

Assessment activities that provide evidence of student learning

- Three lecture exams and a final exam, two lab practicals, oral presentation

Course Reviewer Comments

dwade (02/02/15 11:39 am): Rollback: Virginia asked for rollback

hales (02/06/15 11:01 am): Rollback: Carole would like the Outcomes sections filled out

Key: 970