MLSCI 420 – Emerging Trends in Medical Laboratory Science

Overview / General information

This course will examine the evolution of the Medical Laboratory Science (MLS) field from its inception to its current position within a complex healthcare system, focusing on the Canadian context. After exploring the origins of the profession and the social and political forces that have shaped it, the focus will shift to the present day and possible future directions, drawing on examples and learnings from current literature. As well, contemporary topics relevant to the greater healthcare system will be considered through a laboratory lens.

Policy about course outlines can be found in Course Requirements, Evaluation Procedures and Grading of the University Calendar. [http://calendar.ualberta.ca/content.php?catoid=6&navoid=806#course-requirements,-evaluation-procedures-and-grading-a](http://calendar.ualberta.ca/content.php?catoid=6&navoid=806#course-requirements,-evaluation-procedures-and-grading-a)

The University of Alberta is committed to the highest standards of academic integrity and honesty. Students are expected to be familiar with these standards regarding academic honesty and to uphold the policies of the University in this respect. Students are particularly urged to familiarize themselves with the provisions of the Code of Student Behaviour (online at [www.governance.ualberta.ca](http://www.governance.ualberta.ca)) and avoid any behaviour which could potentially result in suspicions of cheating, plagiarism, misrepresentation of facts and/or participation in an offence. Academic dishonesty is a serious offence and can result in suspension or expulsion from the University.

Audio or video recording, digital or otherwise, of lectures, labs, seminars or any other teaching environment by students is allowed only with the prior written consent of the instructor or as a part of an approved accommodation plan. Student or instructor content, digital or otherwise, created and/or used within the context of the course is to be used solely for personal study, and is not to be used or distributed for any other purpose without prior written consent from the content author(s).

Course Coordinator / Instructor(s)

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Course Competencies

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<th>A.</th>
<th>Understand the concept of professionalization and how this has occurred in MLS and other health professions.</th>
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| B. | Learn about the history of MLS in Canada with a focus on Alberta  
a. Read literature about the impacts of the restructuring that occurred in the 1990s |
| C. | Learn about the practice of MLS globally using case examples from selected countries |
| D. | Gain an appreciation for how political forces have impacted MLS  
a. Learn about the Health Professions Act and other legislation |
| E. | Learn about selected technological advances and new analytes that may be introduced into the clinical laboratory  
a. Discuss the impacts that increased automation may have in the laboratory workflow and workforce |
| F. | Understand the relationship between the laboratory and patient safety, including the concept of a ‘just culture’ |
| G. | Discuss recent literature focusing on laboratory test utilization and the challenges of resource allocation |
| H. | Explore recent literature focusing on expanding the role of the Medical Laboratory Technologist |
| I. | Gain an appreciation for the impact of human factors on quality within the laboratory |
| J. | Facilitate an interactive session about a contemporary topic relevant to MLS  
a. Choose an appropriate topic and develop learning objectives  
b. Be able to teach peers about the content related to the chosen topic |
Methods of Instruction

A variety of methods will be used to deliver course content, but the focus will be on interactive activities and providing opportunity for peer learning. Each topic will have a set of readings to complete, which will consist mainly of recent literature.

Distribution of Marks

MLSCI 420

- Participation 40%
- Student-Run Session 40%
- Term Paper 20%

Evaluation – Specifics

Participation refers to both preparation and in-class discussion. Readings are assigned weekly, along with a set of questions. These questions will be given in advance of the class so the students have time to prepare their responses. These questions will aid in guiding the discussion. Participation will be assessed by the following rubric, and will also consider self-assessment by the student during the midterm evaluation (adapted from The Teaching Professor, March 2005).

<table>
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<tr>
<th>A (90-100%)</th>
<th>B (75-89%)</th>
<th>C (60-74%)</th>
<th>D/F (&lt;60%)</th>
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<td>Peer interaction</td>
<td>Actively supports, engages, and listens to peers. Does not dominate the discussion.</td>
<td>Makes a sincere effort to interact with peers in a positive way.</td>
<td>Limited interaction with peers</td>
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<td>Preparation</td>
<td>Arrives fully prepared to every session</td>
<td>Arrives mostly, if not fully, prepared</td>
<td>Preparation is inconsistent</td>
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<td>Participation</td>
<td>Plays an active role in discussions. Builds upon the contributions of peers</td>
<td>Participates constructively in discussions.</td>
<td>When prepared, participates constructively in discussions</td>
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<td>Contribution</td>
<td>Comments advance level and depth of dialogue</td>
<td>Relevant comments are based on assigned material</td>
<td>When prepared, relevant comments are based on assignments</td>
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Student-Run Session refers to the planning and facilitation of one 75-minute seminar on a contemporary topic of the student’s choice. Mandatory activities include developing learning objectives, identifying and assigning appropriate pre-reading materials, making discussion questions, and determining what background theory need to be delivered. A potential topic list as well as further details will be provided in class. The topic choice is due February 14, 2014.

Term Paper refers to a written composition that is due 2 weeks after the last session (April 17, 2014), the format of which will be described more fully in class.
Attendance

Seminar attendance is mandatory. An absence is missing more than 10 minutes of any class period. Any unexcused absences decreases the grade earned by one. For example, if you completed the assignments to earn a B but had an unexcused absence, you would receive a grade of B-. Three or more unexcused absences will result in a failing grade. To discuss obtaining an excused absence, contact the course coordinator before the class.