HIBBING COMMUNITY COLLEGE
COURSE OUTLINE

COURSE NUMBER & TITLE: MLT 1408: Introduction to the Medical Laboratory
CREDITS: 1 (1 Lec/0 Lab)
PREREQUISITES: None

CATALOG DESCRIPTION:
Introduction to the Medical Laboratory is designed to provide students with an overview of the structure and organization of the current health care system and their role as future healthcare practitioners in an integrated system. Discussions will include such topics as general organization and operational activities of a clinical laboratory, career opportunities for MLT graduates, laboratory safety, laboratory regulation, ethical and professional conduct, relevant laboratory mathematics and significance of continued professional development, as well as functioning quality assurance and quality control programs. Students will be exposed to actual clinical settings and meet with practicing laboratory personnel.

OUTLINE OF MAJOR CONTENT AREAS:
I. Career Exploration/Credentialing
II. Professional Ethics and HIPAA
III. Safety Infection Control and Glassware
IV. Lab Organization and Structure
V. Medical Economics and Purchasing
VI. Laboratory Mathematics
VII. Quality Control and Quality Assurance

COURSE GOALS/OBJECTIVES/OUTCOMES:
Students will
1. explain the role of the clinical laboratory in the health care facility.
2. identify at least five potential employers for MLTs.
3. list the responsibilities of employer and employees in providing a safe workplace.
4. locate and demonstrate the proper use of emergency showers, eyewash fountains, and fire extinguishes.
5. discuss the proper procedure in the event of a chemical splash to the eyes and/or exposed skin.
6. outline the procedures for a hazardous chemical spill in the student laboratory.
7. discuss ways to reduce fire hazards in the lab.

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8. identify information contained in an MSDS.
9. locate answers to questions regarding a chemical on an MSDS.
10. differentiate the hazard meanings associated with colors on a chemical label.
11. define types, characteristics, generation, storage, and disposal of wastes generated in a clinical setting.
12. demonstrate proper clean-up procedures for biologic spills.
13. outline the steps required in the documentation of an accident or needlestick in the classroom or student laboratory.
14. discuss professional ethics and behavior regarding patient confidentiality in both the clinical laboratory and student laboratory.
15. ensure that patient information is handled confidentially at all times in this program.
16. state the penalties associated with any breach of HIPAA regulations.
17. recognize the Code of Ethics for the American Society of Clinical Laboratory Science.
18. identify behaviors and attitudes consistent with those of successful laboratory professionals.
19. discuss the significance of continued professional development.
20. describe the basic laboratory structure and set up.
21. explain the variables considered in lab purchases i.e. instrumentation reagents, equipment and personnel.
22. perform common laboratory mathematical calculations (conversion of temp from °F to °C and vice versa, % solutions, dilutions, molar concentrations, length and weight conversions, standard deviations and coefficient of variation).
23. be able to create, plot and interpret a Levy-Jennings graph for acceptable quality control interpretation.
24. discuss the importance and role of a functional quality assurance and quality control program in the laboratory setting.

MNTC GOALS AND COMPETENCIES MET:
N/A

HCC COMPETENCIES MET:
Working Productively and Cooperatively
Communicating Clearly and Effectively

STUDENT CONTRIBUTIONS:
Students are expected to participate in lectures, complete all labs and assignments on time, and spend the necessary study time to pass all quizzes and exams.

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STUDENT ASSESSMENT SHALL TAKE PLACE USING INSTRUMENTS SELECTED/DEVELOPED BY THE COURSE INSTRUCTOR.

SPECIAL INFORMATION: (SPECIAL FEES, DIRECTIVES ON HAZARDOUS MATERIALS, ETC.):

AASC APPROVAL DATE: February 10, 2016
REVIEW DATE: February 2021

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