Faculty is required to have the outline submitted to the Academic Affairs Office. The course outline is the form used for approval of new courses by the Academic Affairs and Standards Council.

DEPT. MEDA  COURSE NUMBER: 1135

NUMBER OF CREDITS: 3

COURSE TITLE: Laboratory Skills

CATALOG DESCRIPTION: Focuses on the role of the medical assistant in the laboratory setting. CLIA-waived testing is studied and performed in the laboratory areas of urinalysis, immunology, hematology, chemistry and microbiology. Specimen collection, quality control and documentation of test results are included. Additional topics explored include electrocardiogram, respiratory testing and emergency preparedness. Also reinforces the fundamental laboratory skills of infection control, safety and phlebotomy taught in MDLT1100.

AUDIENCE: Medical Assistant and Phlebotomy students

FULFILLS MN TRANSFER CURRICULUM AREA(S) (Leave blank if not applicable)
Area: by meeting the following competencies:
Area: by meeting the following competencies:
Area: by meeting the following competencies:

PREREQUISITES OR NECESSARY ENTRY SKILLS/KNOWLEDGE: Prerequisite - MDLT1100 – Introduction to Laboratory Science

LENGTH OF COURSE: 2 lecture hours and 2 lab hours weekly for one semester

THIS COURSE IS USUALLY OFFERED:
Every other year ☐ fall ☐ spring ☑ summer ☐ undetermined ☐

Four goals are emphasized in course at Minnesota West Community & Technical College:

1) ACADEMIC CONTENT: The academic objectives of this course are to help students to achieve an advancing level of knowledge and skill necessary to function in the laboratory setting as a medical assistant or phlebotomist.
2) THINKING SKILLS: This course will help students improve the effectiveness of their thinking skills through continued opportunities to apply knowledge in classroom and laboratory situations.

3) COMMUNICATIONS SKILLS: This course will help students improve their oral and written communication skills through opportunities for interaction with the instructor and classmates in the laboratory setting. Students will also be given opportunities to accurately complete laboratory documents.

4) HUMAN DIVERSITY: This course will help students recognize, understand, and appreciate human diversity through exposure to a variety of situations in the laboratory setting that require them to demonstrate a nonjudgmental attitude toward patients and co-workers.

TOPICS TO BE COVERED: CLIA-waived testing in the areas of urinalysis, immunology, hematology, chemistry and microbiology; quality control, collection and preparation of specimens, screening test results, documentation in the laboratory, patient education regarding specimen collection, pulmonary function testing, electrocardiology, emergency preparedness.

LIST OF EXPECTED COURSE OUTCOMES:

1. Use a laboratory directory.
2. Complete a laboratory request form.
3. Describe & perform specimen collection.
4. Instruct patient on preparation for lab tests.
5. Describe specimen preparation, handling and storage.
6. Review a lab report.
7. Instruct a patient in clean catch midstream urine specimen collection.
8. Instruct a patient in 24 hour urine specimen collection.
9. Assess the color and appearance of a urine sample.
10. Measure the specific gravity of a urine sample.
11. Perform a chemical assessment of a urine sample.
12. Prepare a urine specimen for microscopic analysis.
13. Perform a urine culture test.
15. Perform a hemoglobin determination.
16. Perform a hematocrit determination.
17. Prepare a blood smear.
18. Perform an erythrocyte sedimentation rate.
19. Perform an automated blood cell count.
20. Stain a blood smear.
21. Perform blood chemistry testing.
22. Perform a fasting blood sugar using a glucose monitor.
23. Perform a rapid mononucleosis test.
24. Use a microscope.
25. Collect a throat swab.
26. Perform a rapid strep test.
27. Prepare a wet mount slide.
28. Prepare a microbiologic smear.
29. Perform a gram stain on a microbiologic smear.
30. Perform quality control.
31. Perform ABO slide typing.
32. Streak plates for bacterial isolation.
33. Compare bacterial media types.
34. Discuss bacterial pathogens.
35. Discuss Quality Assurance.
36. Understand the rationale for protocol followed when performing CLIA waived testing.
37. Discuss basic principles of pulmonary function testing.
38. Demonstrate accurate use of a peak flow meter.
39. Review anatomy & physiology of the heart, including cardiac electrophysiology and the cardiac cycle.
40. Understand the role of the electrocardiographer.
41. Identify basic differences between sinus rhythms, atrial arrhythmias and ventricular arrhythmias.
42. Describe ECG apparatus.
43. Accurately prepare the patient and perform a 12-lead ECG.
44. Identify artifacts on an ECG and problem-solve to eliminate.
45. Discuss the use of portable monitors for cardiac diagnostic testing.
46. Explore the role of the health professional in emergency preparedness.
47. Comply with safety signs, symbols & labels.
48. Evaluate the work environment to identify safe vs unsafe working conditions.
49. Develop a personal (patient and employee) safety plan.
50. Develop an environmental safety plan.
51. Demonstrate proper use of an eyewash station, fire extinguisher and sharps disposal container.
52. Participate in a mock environmental exposure event with documentation of steps taken.
53. Explain an evacuation plan for a physician’s office.
54. Demonstrate methods of fire prevention in the healthcare setting.
55. Maintain a current list of community resources for emergency preparedness.
56. Recognize the effects of stress on all persons involved in emergency situations.
57. Demonstrate self-awareness in responding to emergency situations.

LEARNING/TEACHING TECHNIQUES used in the course are:
X Collaborative Learning  X Problem Solving
☐ Student Presentations  X Interactive Lectures
☐ Creative Projects  X Individual Coaching
X Lecture  X Films/Videos/Slides
☐ Demonstrations  ☐ Other (describe below)
X Lab

ASSIGNMENTS AND ASSESSMENTS FOR THIS CLASS INCLUDE:
X Reading  X Tests  ☐ Individual Projects
☐ Oral Presentations  ☐ Worksheets  ☐ Collaborative Projects
X Textbook Problems  ☐ Papers  ☐ Portfolio
☐ Group Problems  ☐ Term Paper
☐ Other (describe below)
Performance Exams to test competency of skills

EXPECTED STUDENT LEARNING OUTCOMES: Students will master the role of the medical assistant or phlebotomist in the laboratory setting.

Veteran Services: Minnesota West is dedicated to assisting veterans and eligible family members in achieving their educational goals efficiently. Active duty and reserve/guard military members should advise their instructor of all regularly scheduled military appointments and duties that conflict with scheduled course requirements. Instructors will make every effort to work with the student to identify adjusted timelines. If you are a veteran, please contact the Minnesota West Veterans Service Office.

The information in this course outline is subject to revision

To receive reasonable accommodations for a documented disability, please contact the campus Student Services Advisor or campus Disability Coordinator as arrangements must be made in advance. In addition, students are encouraged to notify their instructor.

This document is available in alternative formats to individuals with disabilities by contacting the Student Services Advisor or by calling 800-658-2330 or via your preferred Telecommunications Relay Service.

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