

CONTENT IN TERMS OF SPECIFIC BODY OF KNOWLEDGE:

- I. Introduction to Laboratory Skills
 - A. Use in Diagnosis, Treatment and Prognosis
 - B. Use and Care of Special Equipment: Microscopes
 - C. Laboratory Safety
 - 1.) OSHA Regulations
 - 2.) Blood-borne Pathogens
 - 3.) CLIA

- II. Urinalysis
 - A. Structure and Function of the Urinary System
 - B. Composition of Urine
 - C. Collection Methods
 - 1.) Random Voided Specimen
 - 2.) Clean Catch Midstream Urine
 - 3.) Catheterized Specimen
 - D. Physical examination
 - 1.) Color and Clarity
 - 2.) Specific Gravity
 - E. Chemical Tests
 - 1.) pH
 - 2.) Glucose
 - 3.) Protein
 - 4.) Bilirubin
 - 5.) Urobilinogen
 - 6.) Ketones
 - 7.) Blood
 - 8.) Nitrites
 - F. Microscopic Exam
 - 1.) Red Blood Cells
 - 2.) White Blood Cells
 - 3.) Epithelial Cells
 - 4.) Casts
 - 5.) Crystals
 - 6.) Miscellaneous Structures
 - G. Miscellaneous Tests (e.g. , Pregnancy)

- III. Hematology
 - A. Formation, Functions and Composition of Blood
 - 1.) Hematopoietic System
 - 2.) Description of Formed Elements and Their Functions
 - 3.) Plasma Constituents and Functions
 - B. Collection of Blood Specimens
 - 1.) Preparation of Equipment
 - 2.) Capillary Puncture Sites and Techniques
 - 3.) Venipuncture Method
 - C. Hematological Tests, Techniques and Normal Values
 - 1.) Microhematocrit
 - 2.) Hemoglobin
 - 3.) Differential White Count
 - 4.) Red and White Cell Counts
 - 5.) Sedimentation Rate
 - 6.) Blood Glucose Tests
 - 7.) Groups and Typing
 - 8.) Abnormal Results and Their Indications

 - D. Blood Chemistries
 - 1.) Tests Requiring Whole Blood
 - (a) Blood Chemistries

- (b) Amounts and Handling
- (c) Anticoagulants
- 2.) Tests Requiring Serum
 - (a) Handling
 - (b) Storage
- E. Preparation and Forwarding of Blood to Laboratory
 - 1.) General Precautions
 - 2.) Proper Labeling and Information

IV. Microbiology and Disease

- A. Normal Flora
- B. Infection Cycle
- C. Classifications of Bacteria
 - 1.) Shapes
 - 2.) Gram Staining Characteristics
 - 3.) Ability to Produce Disease
- D. Viruses
- E. Yeast and Molds
- F. Protozoa and Parasites
- G. Modes of Transmission of Disease
- H. Bacteriological Tests
 - 1.) Specimen Collection (Transudates, Exudates, etc.)
 - 2.) Handling and Transportation
 - 3.) Specific Procedures
 - (a) Throat Cultures
 - (b) Urine Cultures
 - (c) Wound Cultures
 - (d) Sensitivity Testing
 - (e) Smears and Stains
- I. Disposal of Specimens
- J. Prevention and Control of Infectious Diseases
 - 1.) Asepsis and Hygiene
 - 2.) Immunization

V. Electrocardiography

- A. Anatomy and Functions of the Heart
- B. Conduction System
- C. Cardiac Cycle and Waves of the E.C.G.
- D. Recording
 - 1.) Equipment (Burdick 350 & Burdick 10)
 - 2.) Preparation of Patient
 - 3.) Procedure
 - 4.) Care of Equipment
- E. Artifacts
 - 1.) Causes
 - 2.) Reducing Artifacts
- F. Mounting the Electrocardiogram
- G. Measuring Heart Rate and Specific Intervals and Segments

VI. Handling Emergencies

- A. Cardiac Arrest and Cardiopulmonary Resuscitation
- B. Emotional Crisis
- C. Acute Abdomen
- D. Shock and Hemorrhage
- E. Choking - Heimlich Maneuver
- F. Anaphylaxis
- G. Respiratory Distress

REQUIRED READING:

Bonewit, K. Clinical Procedures for Medical Assistants. 5th Edition. Philadelphia: W. B. Saunders, Co., 2000.

Bonewit, K. Student Manual for Clinical Procedures for Medical Assistants. 5th Edition. Philadelphia: W. B. Saunders, Co., 2000.

SUGGESTED READING:

Birmingham, J. Medical Terminology: A Self Learning Text. St Louis: C. V. Mosby, 1990.

Flight, M. Law, Liability and Ethics for Medical Office Personnel. 2nd Edition. Albany: Delmar, 1993.

Fong, E., L. Grover-Lakomia, and E. Ferris. Microbiology for Health Careers. 5th Edition. Albany: Delmar Publishers, Inc., 1994.

Frew, M., D. Frew, and K. Lane. Competencies For Administrative and Clinical Practice. 3rd Edition. Philadelphia: F. A. Davis, 1995.

Fuller, J. R. Surgical Technology Principles and Practice. 2nd Edition. Philadelphia: W. B. Saunders Company, 1986.

Kinn, M., and M. Woods. The Medical Office Assistant: Administrative and Clinical. 8th Edition. Philadelphia: W. B. Saunders Company, 1999.

Lewis, M.A. and C.D. Tamparo. Medical Law, Ethics & Bioethics for Ambulatory Care. 5th Edition. F.A. Davis Co., Philadelphia, PA., 2002.

Lindh, W.Q., Pooler, M.S., Tamparo, C.D. and J.U. Cerrato. Delmar's Comprehensive Medical Assisting: Administrative and Clinical Competencies. 2nd Edition. New York: Delmar Publishers, 2002.

Miles Laboratories. Modern Urine Chemistry. Elkhart: Miles Laboratories, 1991.

Miller, B.F. and C. Keane. Encyclopedia and Dictionary of Medicine, Nursing and Allied Health. 8th Edition. Philadelphia: W. B. Saunders Company, 1999.

Palko, T., and H. Palko. Q and A Review Medical Assistant. 6th Edition. New Jersey: Prentice Hall, 2001.

Physician Desk Reference. 54th Edition. Ordell: Medical Economics, 2000.

Walter, J.B. An Introduction to the Principals of Disease. Philadelphia: W. B. Saunders Company, 1992.

Wedding, C. and M. Toenjes. Medical Laboratory Procedures. Philadelphia: F.A. Davis Co., 1992.

Woods, M. The Clinical Medical Assistant. 1st Edition. Philadelphia, PA: W.B. Saunders Company, 1994.

REQUIRED WRITING:

Essay questions of one or more paragraphs will be included in each major exam. Responses in student manual frequently require answers of one or more paragraphs.

OUTSIDE ASSIGNMENTS:

Students are expected to spend a minimum of three hours per unit per week in class and on outside assignments, prorated for short-term classes.

Text and lecture note review, visits to physician's office and laboratory when appropriate.
Internet assignments regarding latest regulations for OSHA and Guidelines Center for Disease Control.

INSTRUCTIONAL METHODOLOGY:

Check all that apply:

- lecture
- laboratory
- lecture-laboratory combination
- directed study

Includes lecture, laboratory, demonstrations, return demonstrations, skills practice followed by performance testing. Learning facilitated through use of videotapes, films and film strips, charts, models and hands-on experience with medical office supplies and equipment.

DISTANCE LEARNING:

This course may be offered as a distance learning course and meets Title 5 regulations 55370, 55372, 55374, 55376, 55378, and 55380.

Yes No

If yes, check all that apply:

- Television Course (Video one-way, e.g. ITV, video cassette, etc.)
- Online Course (Text one-way, e.g. newspaper, correspondence, electronic file, etc.)
- Two-Way Video Conferencing (Two-way interactive video and audio)
- One-Way Video Conferencing (One-way interactive video and two-way interactive audio)
- Computer Assisted Instruction (A specialized form of mediated instruction relying primarily on student access to information and prepared lessons or teaching materials through a computer terminal, but not under immediate supervision of a qualified instructor.)

GRADING POLICY AND STANDARDS (include methods of determining whether the stated objectives have been met by students):

Written exams include multiple choice, short answer, true and false questions as well as essay questions. Lab practica in which students must recognize, name, state usage and describe proper maintenance of medical supplies and instrumentation are given.

Performance exams (of aforementioned skills) are evaluated as "C" competent when 85% or higher is scored by student.

Performances are evaluated as "C" (competent), or "I" (incompetent). All performances must be rated as competent or the student will receive a course grade below "C" to demonstrate unsuccessful course completion.

A student who is deficient in one or more skills may elect to receive an "I" (incomplete) until he/she can demonstrate competency in deficient areas. Skills thus competently performed within one year of course completion will result in grade change to indicate successful course completion of "C" or higher in accordance with total points system.

Total points of all objective tests, quizzes and lab practices will be assigned letter grades based on the following:

Written Tests and Quizzes:	60%
Lab Practica:	20%
Performance Exams:	<u>20%</u>
TOTAL	100%

IS COURSE REPEATABLE FOR REASON(S) OTHER THAN DEFICIENT GRADE?

Yes ____ No Number of times course may be taken for credit: 1

If yes, identify specific provision of Title 5 Division 2 section(s), 55761-55763 and 58161 which qualifies course as repeatable:

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SIGNATURES ON FILE