# MEDICAL TECHNOLOGY (MTE)

**MTE 412 Clinical Lab Science Theory, Applications and Correlation Credits: 5**
**Typically Offered:** Fall, Spring, Summer.
**Course Description:** This course includes the application, evaluation, and correlation of laboratory procedures used in the diagnosis and treatment of common disease states. Opportunities for building critical thinking, problem solving, leadership, oral communication, professionalism, and teamwork skills are provided in small group clinical case discussions and presentations. **Prerequisite(s):** Acceptance into Affiliate Clinical Lab Science Training Program.

**MTE 413 Applications of Chemistry for Clinical Lab Science Credits: 1**
**Typically Offered:** Fall, Spring, Summer.
**Course Description:** This course incorporates advanced theory, practical application, and evaluation of clinical chemistry laboratory procedures. Correlation of clinical laboratory data with the diagnosis and treatment of endocrine disorders, toxicology disturbances and the therapeutic drug monitoring is emphasized. **Prerequisite(s):** Acceptance into Affiliate Clinical Lab Science Training Program.

**MTE 430 Clinical Microbiology Credits: 4-8**
**Typically Offered:** Fall, Spring, Summer.
**Course Description:** The theory and laboratory study of pathogenic bacteria, viruses, rickettsiae, fungi, and parasites; includes specimen handling, methods of isolation, cultivation, diagnostic procedures, asepsis, environmental monitoring, medical significance, and quality control. **Prerequisite(s):** Acceptance into Affiliate Clinical Lab Science Training Program.

**MTE 432 Clinical Chemistry Credits: 6-10**
**Typically Offered:** Fall, Spring, Summer.
**Course Description:** Identification and quantitation of specific chemical substances in blood and body fluids by various analytical techniques; clinical correlation with diagnosis and treatment of disease; principles of instrumentation; toxicology; and quality control. **Prerequisite(s):** Acceptance into Affiliate Clinical Lab Science Training Program.

**MTE 434 Clinical Hematology Credits: 3-7**
**Typically Offered:** Fall, Spring, Summer.
**Course Description:** Theory of blood cell formation; morphology of cellular constituents; disease states; hemostatis; and coagulation testing; includes techniques and instrumentation used to determine major hematological and clotting parameters and quality control procedures. **Prerequisite(s):** Acceptance into Affiliate Clinical Lab Science Training Program.

**MTE 436 Clinical Immunohematology Credits: 3-7**
**Typically Offered:** Fall, Spring, Summer.
**Course Description:** Studies the common blood group systems; principles and procedure for antigen-antibody detection; cross-matching; blood collection and preservation; processing; the evaluation of transfusion reaction; and quality control procedures. **Prerequisite(s):** Acceptance into Affiliate Clinical Lab Science Training Program.

**MTE 438 Clinical Immunology Credits: 1-6**
**Typically Offered:** Fall, Spring, Summer.
**Course Description:** Characteristics of antigen/antibody function and interaction; principles and procedures of humoral and cellular immune responses; performance of serological procedures; clinical correlation of abnormalities; and quality control. **Prerequisite(s):** Acceptance into Affiliate Clinical Lab Science Training Program.

**MTE 440 Clinical Urinalysis Credits: 1-3**
**Typically Offered:** Fall, Spring, Summer.
**Course Description:** Studies renal physiology and function in health and disease states; includes chemical and microscopic examination of urine, other excreta, and body fluids in relation to disease processes, along with quality control procedures. **Prerequisite(s):** Acceptance into Affiliate Clinical Lab Science Training Program.

**MTE 442 Topics in Medical Technology Credits: 1-4**
**Typically Offered:** Fall, Spring, Summer.
**Course Description:** Subject matter may include the following: hospital orientation, laboratory management, radioisotope techniques, quality control procedures, laboratory safety, special projects, special techniques, and seminars on various subjects deemed necessary by hospital personnel. **Prerequisite(s):** Acceptance into Affiliate Clinical Lab Science Training Program.