

mobile applications. Students will learn industrial relevant skills including how to: operate, install, analyze performance, and design basic transmission systems using chains, v-belts, spur gears, bearings, and couplings. Vibration analysis will be used to determine when to perform maintenance of power transmission components. Prerequisites: IPOP 165. Corequisites: MECH-236, MECH-237, MECH-261, MECH-262. Offered: Fall. Faculty Permission Required.

MECH-236 Lubrication 1 cr.

This course teaches the technical skills needed to operate, install, tune, maintain and troubleshoot automatic lubrication systems. Lubrication concepts, setup and tuning, pneumatic pumps, series progressive valve systems and microprocessor based lubrication controllers will be covered. Prerequisites: TAKE IPOP-165. Corequisites: MECH-235, MECH-237, MECH-261, MECH-262 Offered: Fall. Faculty Permission Required.

MECH-237 Hydraulics I 2 cr.

This course teaches fundamentals of hydraulic systems used in industry mobile applications. Students learn industry-relevant skills including how to operate, install, analyze performance, and design basic hydraulic systems. This course will teach intermediate hydraulic components and system applications. Prerequisites: TAKE IPOP-165. Corequisites: MECH-235, MECH-236, MECH-261, MECH-262 Offered: Fall. Faculty Permission Required.

MECH-261 Pumps I 4 cr.

This course teaches how to select, operate, install, maintain and repair the many types of pumps used by industry. Prerequisites: TAKE IPOP-165. Corequisites: MECH-235, MECH-236, MECH-237, MECH-262. Offered: Fall. Faculty Permission Required.

MECH-262 Piping Systems 2 cr.

This course teaches how to install, maintain and trouble fluid systems. Prerequisites: TAKE IPOP-165. Corequisites: MECH-235, MECH-236, MECH-237, MECH-261. Offered: Fall. Faculty Permission Required.

MECH-263 Mechanical Drives II 4 cr.

This course will build on MECH 235 and will focus on bearings and gears used in heavy-duty mechanical transmission systems. This course will emphasize linear axis drives, clutches, and brakes. Prerequisites: MECH-262. Corequisites: MECH-264, MECH-265, MECH-266, MECH-267. Offered: Spring. Faculty Permission Required.

MECH-264 Rigging 2 cr.

This course teaches how to safely move loads of different shapes and sizes using a variety of methods. Students will use hoists, slings, ropes, and fittings to learn how to safely lift a wide variety of loads. Prerequisites: TAKE MECH-262. Corequisites: MECH-263, MECH-265, MECH-266, MECH-267. Offered: Spring. Faculty Permission Required.

MECH-265 Hydraulics II 2 cr.

This course builds on the concepts learned in MECH 237 and teaches advanced hydraulic systems. Students will learn operation of advanced hydraulic systems application, equipment installation,

performance analysis of motors and pumps, accumulators, control, relief and check valves, equipment maintenance, and system design. Prerequisites: MECH-262. Corequisites: MECH-263, MECH-264, MECH-266, MECH-267. Offered: Spring. Faculty Permission Required.

MECH-266 Pumps II 2 cr.

This course builds around the concepts learned in MECH 261. Disassembly, inspection and reassembly of centrifugal and positive displacement pumps will be covered. Prerequisites: TAKE MECH-262. Corequisites: MECH-263, MECH-264, MECH-265, MECH-267. Offered: Spring. Faculty Permission Required.

MECH-267 Maintenance Project 2 cr.

This course is the final project in the AAS.MECH program. Students will utilize what they've learned in previous MECH courses to complete the project. Prerequisites: TAKE MECH-262. Corequisites: MECH-263, MECH-264, MECH-265, MECH-266. Offered: Spring. Faculty Permission Required.

MEDICAL LABORATORY TECHNICIAN

MLTS-110 Medical Laboratory - Providing 2 cr.

Overview of medical terminology and survey of specialty areas within the profession. Selected laboratory sessions will be related to health maintenance. Offered: Fall & Spring. Faculty Permission Required.

MLTS-120 Intro to Medical Laboratory Sc 3 cr.

Introduces the student to the scope of practice of the laboratory professional. Students will use or apply basic concepts used in the medical laboratory including terminology, instrumentation, safety, basic statistics, physician office settings and quality assurance. Selected areas of laboratory practice will be presented. Prerequisites: Completion of ENGL-099, RDNG-113, and MATH-095 or appropriate English, Math, and Reading Accuplacer scores. Offered: Fall.

MLTS-160 Theory of Phlebotomy 2 cr.

Introduction to blood specimen collection and processing. Content areas include related body system anatomy and function, site selection, equipment and supplies, anticoagulants, specimen processing, safety, universal precautions, professionalism, ethics and review of the health care delivery system. Minimum grade required: C Offered: All.

MLTS-161 Phlebotomy Practice 2 cr.

100 clock hours of applied phlebotomy experience with a minimum of 100 documented blood procurements. Successful completion of MLTS 160 and MLTS 161 enable the student to sit for a national certification examination. Practice times to be arranged at selected clinical affiliates by the Program Director. Minimum grade required: C. Prerequisites: MLTS-160 with a grade of C or higher. Offered: All.

MLTS-210 Clinical Hematology 4 cr.

Introduction to theory and practice of hematology. Topics include principles of cell production, function, cell counting, classification, and morphology. Manual and automated instrumentation methods and correlation of results with pathophysiology are covered. Minimum grade required: C. Prerequisites: MLTS-120 and MLTS-160. Admission into MLT program required. Offered: Spring.

MLTS-211 Clinical Hemostasis 1 cr.

Introduction to theory and practice of hemostasis. Explores mechanisms of coagulation disorders. Manual and automated instrumentation methods and correlation of results with pathophysiology are covered. Minimum grade required: C. Prerequisite: Admission into the MLT Program required. Offered: Spring.

MLTS-212 Urinalysis and Body Fluids 1 cr.

Physical, chemical and microscopic study of urine with emphasis on the changes exhibited in disease with related renal anatomy and physiology. Current instrumentation will be covered. Analysis of other body fluids as spinal and pleural fluid will be included. Prerequisites: MLTS 120, MLTS 160, admission into MLT program. Offered: Spring.

MLTS-213 Clinical Chemistry Diagnostics 4 cr.

Lecture and laboratory experience in clinical chemistry techniques and instrumentation utilized to determine state of health, diagnose disease and determine treatment effectiveness. Correlation of test results with pathophysiology will be covered. Minimum grade required: C. Prerequisites: MLTS-110 and MLTS-160. Admission into MTL program required. Offered: Spring.

MLTS-214 Immunohematology 2 cr.

Study of basic theory of blood group systems, antibody detection and identification, compatibility testing and investigation of hemolytic disease of the newborn. Topics of blood collection, processing, component preparation and storage also included. Minimum grade required: C. Prerequisites: MLTS-120 and MLTS-160. Admission into MLT program required. Offered: Spring.

MLTS-215 Immunology Concepts 1 cr.

Fundamentals of clinical immunology, including cell mediated and antibody mediated immunity. Molecular aspects and theories of testing concepts will be discussed. Correlation of laboratory test results with clinical disease states is covered. Minimum grade required: C. Prerequisites: MLTS-120 and MLTS-160. Admission into the MLT program is required. Offered: Spring.

MLTS-216 Clinical Microbiology 4 cr.

Emphasis on the theoretical foundations and methodologies used in a medical microbiology laboratory. Topics include cultivation, isolation, microscopy, and antibiotic susceptibility testing. Morphological, biochemical, and immunological characteristics employed for identification. Epidemiology and pathogenicity of microorganisms of medical importance are covered. Minimum grade required: C. Prerequisites: MLTS-120 and MLTS-160. Admission into MLT program required. Offered: Spring.

MLTS-217 Molecular Diagnostics & Special Testing 2 cr.

Introduction to principles and application of DNA technology and other special testing in the clinical laboratory. Clinical laboratory experiences in molecular diagnostic techniques and instrumentation will be included. Minimum grade required: C. Prerequisites: MLTS-120 and MLTS-160. Admission into the MLT program is required. Offered: Fall and Summer.

MLTS-220 Clinical Hematology & Hemostasis 4 cr.

Clinical laboratory experience in basic hematology techniques

and instrumentation to evaluate hematopoietic elements as well as practice in blood coagulation methodologies and at a clinical affiliate site as assigned by the program director. Minimum grade required: C. Prerequisites: MLTS-210-216. Offered: Fall.

MLTS-221 Clinical Chemistry Practicum 3 cr.

Clinical laboratory experience using basic and advanced chemical techniques and instrumentation to evaluate state of health, diagnose disease and determine treatment effectiveness at a clinical affiliate site as assigned by the program director. Minimum grade required: C. Prerequisites: MLTS 210-216. Admission into MLT program required. Offered: Fall.

MLTS-222 Clinical Microbiology Practicum 3 cr.

Clinical laboratory experience in basic and advanced study of normal flora and pathogenic microorganisms having medical importance. Includes methods for obtaining and handling specimens for culture as well as principles of current instrumentation at a clinical affiliate site as assigned by the program director. Minimum grade required: C. Prerequisites: MLTS 210 – 216. Admission into MLT program is required. Offered: Fall.

MLTS-223 Immunology & Immunoematology 2 cr.

Clinical laboratory experience in basic practice of techniques used in the immunology and experience developing problem solving abilities as applied to blood group antigens, antibodies, and compatibility testing at a clinical affiliate site as assigned by the program director. Minimum grade required: C. Prerequisites: MLTS-210 – 216. Admission to MLT program required. Corequisites: MLTS-220. Offered: Fall.

MLTS-230 Career Success Seminar 2 cr.

This course covers various strategies for career success including analysis of the learning style needs for self and others for training in the clinical laboratory setting, teamwork building, organizational models, resume preparation, and review for the national certification examination. Minimum grade required: C. Prerequisites: MLTS 210 - 216. Admission into MLT program required. Offered: Fall.

MUSIC**MUSI-110 Introduction to Music 3 cr.**

Elementary music theory and study of music history by period, composer, and composition. [NM Common Course Number MUSI 1013, Area V: Humanities/Fine Arts Core]. Prerequisites: Completion of ENGL-099 or appropriate English Accuplacer score. Offered: Fall & Spring.

MUSI-111 Music History 3 cr.

Exploration of the classical music of western society from its earliest origins through the late 20th century innovations. [NM Common Course Number MUSI 1313, Area V: Humanities/Fine Arts Core]. Prerequisites: Completion of ENGL-099 or appropriate English Accuplacer score. Offered: Fall.

MUSI-112 World Music 3 cr.

World Music highlights social and musical aspects of each culture. Music of India, China, Japan, Indonesia, Africa, Latin America, and Native Americans is studied. [NM Common Course Number