MAJOR: CERTIFICATE PROGRAMS IN RADIATION TECHNOLOGY

Certificate programs are 3, 9 or 12 months (Medical Sonography two years) in length and cover the study of the principles and procedures and allow participation, under close supervision, in the clinical practice of the respective area.

MEDICAL DOSIMETRY: Dosimetrist plan optimal isodose distributions and treatment dose calculations for a variety of external beam and brachytherapy treatments. (For ARRT candidates the course will be 4 quarters in length. For BS candidates it will be 5 quarters long.). Students will either need to have: 1) ARRT registration in Radiation Therapy Technology with a minimum of two years post graduation clinical experience and College Algebra (within last three years) or 2) A baccalaureate degree in physics from an accredited university. Prerequisites: Anatomy and Physiology, Medical Terminology.

DIAGNOSTIC MEDICAL SONOGRAPHY/ECHOCARDIOGRAPHY: The Diagnostic Medical Sonographer, Ultrasound Technologist or Echocardiographer assists physicians in the use of high-frequency sound waves to obtain images of internal structure and body organs and in the examination of patients for physical anomalies or disease processes. Program begins in September and runs for either 12 months or two years. For each track, you will need to have completed any one of the following: 1) any two-year Allied Health degree, 2) Any A.S or A.A degree (science area preferred), or 3) Any Bachelor of Science degree. Prerequisites: Anatomy and Physiology with lab (sequence), Medical Terminology, College Algebra (within last five years), Introductory Physics and Patient Care Methods. Prerequisites must be taken within the last five years with a grade ‘C’ or higher. Applicants must also complete 8 hours of observation (volunteer/employee) in an Ultrasound department.

NUCLEAR MEDICINE TECHNOLOGY: The nuclear medicine technologist assists the physician in the use of radioactive tracers within the body to examine organ function and structure. Tasks include calibration of radiation detection equipment, measurement of radioactive tracers, and mathematical calculations to determine test results. Program begins in September and runs 12 months. To be eligible for admissions to the certificate program in nuclear medicine the applicant must meet one of the following requirements: 1) Be a graduate of an accredited radiologic technology program, 2) An ARRT registered radiologic technologist, 3) An ASCP certified medical technologist, 4) Be a registered nurse with at least a 2-year degree (AS degree), or 5) Have a 4-year baccalaureate degree in one of the natural sciences. Prerequisites: Human Anatomy and Physiology (complete sequence with lab), Intermediate Algebra (college or 2 years in high school, with grade C or above), Intro Chem/lab or Gen Chem/lab (one semester or one quarter), Gen Physics (highly recommended), Medical Terminology, and Patient Care Methods. Applicants must also have certification in CPR, Venipuncture and ECG/ EKG Interpretation prior to start of the program, and complete at least 24 hours of career observation in a Nuclear Medicine Department.

RADIATION THERAPY TECHNOLOGY: The radiation therapy technologist works closely with the physician in determining the proper methods of using radiation to treat various disease states. Responsibilities include accurate treatment records, calibrating equipment, and following prescribed treatment plans to ensure proper patient care and therapy safety. Program begins in September and runs 12 months. The applicant must fulfill one of the following requirements: 1) Be an ARRT registered radiologic technologist and/or graduate of an accredited radiologic technology program and have college credits in: College Algebra, Human A & P/lab (complete sequence), Radiation Protection, Patient Care Methods, Radiation Physics, and Intro to Computers or 2) Be a registered nurse or graduate of an accredited Allied Health program (2 years minimum training) and have college credits in: College Algebra (within the last three years), Human Anatomy & Physiology with lab (complete sequence), Medical Terminology, Patient Care Methods, Radiation Physics, Radiation Protection, Principles of Radiology, General Psychology, CPR Certification and complete at least 40 hours of career observation in Radiation Oncology Department.

COMPUTED TOMOGRAPHY & MAGNETIC RESONANCE IMAGING: The computed tomography and magnetic resonance imaging technologist works in a highly specialized field operating sophisticated computerized tomography equipment. This technology provides detailed cross-sectional images of the human body, assisting physicians with quality patient diagnosis and treatment. To be eligible for admissions to the certificate program in CT/ MRI, applicants must meet the following requirements: current ARRT & CRT license, current CPR card, a minimum GPA of 2.5, and complete 8 hours of observation in a CT department and 8 hours of observation in a MRI department. The CT track begins in Fall quarter. The MRI track begins in Winter quarter. The combined 9 month program begins in Fall quarter.

IMAGING INFORMATICS: The purpose of the program is to enable the learners to function as PACS Administrators (Picture Archiving Computer Systems). Applicants must be certified by the ARRT in Diagnostic Radiography. In addition applicants must have at least 2 years of experience with CR (computed radiography) or DR (direct radiography) or take a prerequisite CR/DR course (available online at LLU).