DIA

Dialysis Technician

DIA 101: Introduction to Dialysis Lec: 50/Lab: 14/Ext: 00 After completing this course, the student will be able to discuss how dialysis therapy is reimbursed in the US, list the quality standards for dialysis treatment, list the steps of the continuous quality improvement process, describe ways that dialysis technicians can demonstrate professional behavior when working with patients, and explain the certification process for dialysis technicians. OSHA rules and regulations will be reviewed in this course also. Prerequisites: None

DIA 102: The Person with Kidney Failure Lec: 40/Lab: 24/Ext: 00 After completing this course, the student will be able to identify the structure and function of the normal kidney, describe acute vs. chronic kidney disease, list five symptoms of uremia, describe the conditions that occur due to kidney failure, identify the members of the care team, discuss the communication skills that dialysis technicians use while working with patients, describe the goal of rehabilitation and the technicians role in it.

DIA 103: Principles of Dialysis Lec: 64/Lab: 00/Ext: 00 After completing this course, the student will be able to define the basic principles of diffusion, filtration, ultrafiltration, convection, and osmosis. The student will also be able to explain how diffusion, filtration, ultrafiltration, convection, and osmosis relate to solute transport and fluid movement during dialysis. In addition, the student will be able to describe the principles of fluid dynamics and how they relate to dialysis. OSHA rules and regulations will be reviewed in this course also.

DIA 104: Hemodialysis Devices Lec: 30/Lab: 10/Ext: 00 Risk analysis for medical devices is a crucial process to grant adequate levels of safety. Identification of device exposure-related hazards is one of the main objectives. Artificial detoxification devices currently under clinical evaluation include the Molecular Adsorbent Recirculation System (MARS), Single Pass Albumin Dialysis (SPAD) and the Prometheus system. Instruments are discussed and reviewed on the internet and catalogs for preparation of externship. To list a few Double-hose pump hemodialysis/hemofiltration device , double-hose pump hemodialysis/hemofiltration device, Simple and easy medical tourniquet Hemodialysis Artery Radial Compression Device.

DIA 105: Vascular Access Lec: 50/Lab: 14/Ext: 00 After completing this course, the student will be able to describe the three main types of vascular access, identify the predialysis assessments for all types of vascular access, describe the methods of needle insertion for AVFs and grafts, and describe the predialysis assessment, accessing procedure, exit site care, and monitoring of catheters.

DIA 106: Hemodialysis Procedures and Complications Lec: 50/Lab: 14/Ext: 00 Upon completing this course, the student should be able to do the following: Describe the predialysis set up of the hemodialysis machine and extracorporeal circuit, explain the start, monitoring, and end of a routine treatment, identify the vital signs that should be monitored before, during, and after treatments, discuss the basics of infection control, explain how to draw up and give intravenous

medication, describe how to draw a blood sample, discuss the importance of documenting patient care, and identify causes, signs and symptoms, and prevention of clinical and technical complications that may occur during dialysis. OSHA rules and regulations will be reviewed in this course also.

DIA 107: Dialyzer Reprocessing Lec: 40/Lab: 00/Ext: 00 After completing this course the student should be able to do the following: discuss the history of dialyzer reprocessing, list the reasons why dialysis centers reprocess dialyzers, explain the steps involved in dialyzer reprocessing, discuss the hazards to patients and staff that can occur with dialyzer reprocessing, and list the required documentation for dialyzer reprocessing.

DIA 108: Water Treatment Lec: 40/Lab: 00/Ext: 00 After completing this course, the student will be able to do the following: Discuss the purpose of water treatment for dialysis, list the components of a dialysis centers water treatment system, discuss the advantages and disadvantages of water softeners, carbon tanks, reverse osmosis, deionization, and ultraviolet irradiation in the treatment of water for dialysis, describe the method for microbiological testing of the water treatment system, and describe a typical water treatment monitoring schedule. OSHA rules and regulations will be reviewed in this course also.

DIA 109: Hemodialysis Technician Certification Review Lec: 32/Lab: 00/Ext: 00 This Dialysis Technician program will provide students with the knowledge and skills necessary to perform the duties required of Dialysis Technicians. Dialysis Technicians operate kidney dialysis machines, which filter normal water products and excess fluids from the blood of patients whose kidneys can no longer perform this function. The technicians are

responsible for direct patient care. Under the direction of senior technicians, nurses, and doctors, the Dialysis Technician plays a vital role as part of the dialysis team.

MAP 201: Medical Anatomy and Physiology Lec: 32/Lab: 00/Ext: 00 This course will provide students with a foundation to recognize medical terms using the four-word part approach (prefix, word root, suffix, combining vowel). Emphasis will be placed on improving written and oral communication skills pertaining to medical terminology. This course is designed to provide students with a fundamental understanding of basic anatomy, physiology and pathology for the major body systems. Students will be introduced to each of the major body systems; structure, function and disease of each system will be presented. Discussion about disease prevention, diagnostic procedures and treatment modalities will also be included. Prerequisites: None

PHL 101: Venipuncture Lec: 20/Lab: 36/Ext: 00 The course work covers phlebotomy-related topics including the history of phlebotomy, healthcare and laboratory structure, hospital staff and organization; Safety, Infection Control, Medical Terminology, Human Anatomy and Physiology with emphasis on the Circulatory, Lymphatic, and Immune System. This course covers the routine venipuncture procedure including the tools that are available, steps in the procedure, recommendations for venipuncture site choices as well as sites to avoid, pre-analytic errors, and safety issues. A blood test is only as good as the specimen that is collected.

CPR 101: BLS- CPR/AED & First Aid Training Lec: 04/Lab: 4/Ext: 00 This course covers core material such as adult, pediatric, and infant CPR, one and two rescuer scenarios, and use of bag valve mask, foreign body airway obstructions, AED, and barrier devices. The Heartsaver First Aid course teaches choking for adults and children. Students will also learn how to manage illnesses and injuries in the first few minutes before professional help arrives. Course completion cards are issued for successfully completing a written and skills exam. Following American Heart Association guidelines.

CAR 101: Career Development Lec: 8/Lab: 00/Ext: 00 The career preparation class ensures that all students have the academic background and technical skills essential to lead productive and successful lives as they enter the workforce. Students are prepared in the following areas: resume writing, interviewing skills, how to dress for an interview, and how to respond to interview questions.

EXT 101: Externship for Hemodialysis Technician Lec: 00/Lab: 00/Ext: 196 To provide the Dialysis Technician the basic hands-on training with various duties and skills. This experience can be taught during externship in a dialysis clinic, and or hospital setting. Clinical externships provide students with hands on training with actual patients in the above stated settings.