

The logo for Prime Diagnostic Institute features a stylized, semi-circular graphic composed of several concentric, overlapping curved lines that resemble an ultrasound wave or a fan shape. The text "Prime Diagnostic Institute" is centered over this graphic in a serif font.

Prime Diagnostic Institute

ULTRASOUND TRAINING PROGRAM

Prime Diagnostic Institute Inc.

3075 Veterans Memorial Highway

Ronkonkoma, New York 11779

Suite 160

(631) 648-8860 Office

(631) 648-8859 Fax

COURSE CATALOG

2009

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Welcome To Prime Diagnostic Institute

Prime Diagnostic Institute is a nationally accredited Continuing Medical Education (CME) provider for the **Society of Diagnostic Medical Sonographers**, (SDMS). We offer superior training programs in all disciplines of diagnostic ultrasound. Our introductory entry level programs are designed to meet the needs of the novice medical professional cross-training into the field of sonography.

Our goal at Prime Diagnostic Institute is to provide the highest quality of education to sonographers, physicians and other medical professionals. Joint and on-going efforts are made by our staff to identify the needs of the medical professional and to provide new and innovative teaching methods for enhancing your knowledge and professional growth.

It is our commitment that every student will receive current and advanced protocols, procedures and scanning techniques that are **utilized, recognized and accepted** by the most experienced technologist, established physicians and accredited medical institutions in the field of ultrasound today.

Every training course Prime Diagnostic Institute offers consists of **Hands-on Training, classroom lectures and case studies presentations**. We take great pride in our scanning labs. Our extensive Hands-on training and small student to teacher ratio allows our students the opportunity to become comfortable and confident in acquiring various views, imaging planes and measurements to complete a satisfactory and optimal ultrasound examination.

Weekly self –assessment examinations are provided by our staff to track your personal progress to assist you with identifying your individual strengths and limitations. Utilizing State of the art equipment and experienced registered sonographers in the field of ultrasound we are able to ensure that all your educational objectives will be met and exceeded. Our teaching faculty is of the highest quality and possesses extensive experience in ultrasound training and tutoring.

All lectures are given in **Microsoft Power Point** presentation format. No ultrasound text books are needed. All course curriculum material will be provided by Prime Diagnostic Imaging.

Sincerely,



Stephanie Moss, RLT, LPA

Dean of Students



Michael V. Moss, RDCS, RVT

Program Director

Registration and Refund Policy

Call first for space availability as our courses are in high demand. Complete the registration form and send it along with your payment to:

Prime Diagnostic Imaging Inc.

3075 Veterans Memorial Highway

Ronkonkoma, New York 11779

Suite 160

(631) 648-8860 Office

(631) 648-8859 Fax

Registration:

Registration is suggested at least 3 to 4 weeks prior to the program start date. Since class enrollments are limited in size, early registration is advised. Registration is confirmed on a first come first serve basis. A \$ 250.00 deposit is required, **AND NOT REFUNDABLE.**

Cancellation Policy:

A registration refund minus a \$50.00 administration fee will be given if cancellation is received 2 weeks prior to a scheduled program. However, the attendee can transfer to the next available program without a penalty. **PLEASE NOTE A TRANSFER IS ONLY ALLOWED ONCE.**

Special Note:

Registration will not be accepted without the deposit. You will receive written confirmation from our office when we receive your payment for a course. Until you receive this confirmation, please do not assume that you are registered for the course.

CARDIAC ULTRASOUND PROGRAM

ECH 101

ADULT ECHOCARDIOGRAHY

Our clinical ultrasound instructors will familiarize you with Cardiac Physics, Anatomy and Physiology of the **Adult Heart**. We will provide you with an opportunity to learn basic and advanced skills required to perform a thorough **Echocardiogram examination**. This course will include extensive **Hands-On** training utilizing 2D Harmonic Imaging, M-Mode, Doppler and Color Flow Imaging.

Course Topics include:

- **Cardiac Physics, Principles and Instrumentation**
- **Cardiac Scanning Protocols, Procedures and Scanning Techniques**
- **Principles of Pulse Wave Doppler**
- **Principles of Continuous Wave Doppler**
- **Cardiac Anatomy and Physiology**
- **Cardiac Hemodynamics**
- **Proper Doppler Measurement and Image Documentation**
- **The Cardiac Cycle**
- **Cardiac Chambers**
- **Cardiac Valves**
- **Great Vessels**
- **Coronary Artery Circulation**
- **Systemic Circulation**
- **Venous Circulation**
- **Cardiac Conduction System**
- **Cardiac Pathology**
- **Valvular Pathophysiology**
- **Imaging Capabilities and Limitations**
- **Normal and Abnormal Case Studies Presentations**

Course Objectives:

- To command a strong understanding of Cardiac Anatomy and Physiology.
- Identify and describe a normal vs. an abnormal Echocardiogram for interpretation.
- Each student must be able to perform a comprehensive Echocardiogram upon completion of this course, utilizing 2D Imaging, M-Mode Measurements, Valvular Doppler Interrogation, Cardiac Calculations and Color Flow Mapping.

(Scanning finals will be interpreted by a Board Certified Cardiologist)

VASCULAR TECHNOLOGY PROGRAM

VAS 101

CAROTID DUPLEX IMAGING

Our clinical ultrasound instructors will familiarize you with Vascular Physics, Anatomy and Physiology of the **Extracranial Cerebrovascular Circulatory System**. We will provide you with an opportunity to learn basic and advanced skills required to perform a complete and thorough **Carotid Artery Duplex examination**. This course will include extensive **Hands-On** training utilizing 2D Imaging, Doppler and Color Flow Imaging.

Course Topics include:

- **Vascular Physics, Principles and Instrumentation**
- **Carotid Scanning Protocols, Procedures and Scanning Techniques**
- **Principles of Pulse Wave Doppler**
- **Cerebrovascular Anatomy and Physiology**
- **Carotid Artery Hemodynamics**
- **Carotid Doppler Spectral Analysis**
- **Mechanisms of Disease**
- **Proper Doppler Measurement and Documentation**
- **Patient History and Risk Factors**
- **Carotid Artery Disease and Classification**
- **Imaging Capabilities and Limitations**
- **Normal and Abnormal Case Studies Presentations**

Course Objectives:

- To command a strong understanding of the anatomy and physiology pertaining to the anterior, posterior and intracranial cerebrovascular circulatory system.
- Identify and describe normal vs. abnormal carotid sonographic findings for interpretation.
- Each student must be able to perform a comprehensive Carotid Duplex Ultrasound upon completion of this course, utilizing 2D Imaging, Carotid Doppler Interrogation, Spectral Analysis Velocities Measurements and Color Flow Mapping.

(Scanning finals will be interpreted by a Board Certified Neuro-Radiologist)

Our clinical ultrasound instructors will familiarize you with Vascular Physics, Anatomy and Physiology of the **Lower Extremity Arterial Circulatory System**. We will provide you with an opportunity to learn basic and advanced skills required to perform a complete and thorough **Lower Extremity Arterial Duplex examination**. This course will include extensive **Hands-On** training utilizing 2D Imaging, Doppler and Color Flow Imaging.

Course Topics include:

- **Vascular Physics, Principles and Instrumentation**
- **Arterial Scanning Protocols, Procedures and Scanning Techniques**
- **Principles of Pulse Wave Doppler**
- **Lower Extremity Arterial Anatomy and Physiology**
- **Arterial Hemodynamics**
- **Arterial Doppler Spectral Analysis**
- **Proper Doppler Measurement and Documentation**
- **Mechanisms of Disease**
- **Patient History and Risk Factors**
- **Lower Extremity Arterial Disease and Classification**
- **Ankle-Brachial Index**
- **Imaging Capabilities and Limitations**
- **Normal and Abnormal Case Studies Presentations**

Course Objectives:

- To command a strong understanding of anatomy and physiology pertaining to the lower extremity arterial circulatory system.
- Identify and describe normal vs. abnormal arterial sonographic findings for interpretation.
- Each student must be able to perform a comprehensive Lower Extremity Arterial examination upon completion of this course, utilizing 2D Imaging, Arterial Doppler Interrogation, Velocity Measurements and Color Flow Mapping.

(Scanning finals will be interpreted by a Board Certified Neuro-Radiologist)

Our clinical ultrasound instructors will familiarize you with Vascular Physics, Anatomy and Physiology of the **Deep Lower Extremity Venous Circulatory System**. We will provide you with an opportunity to learn basic and advanced skills required to perform a complete and thorough **Deep Lower Extremity Venous Duplex examination**. This course will include extensive **Hands-On** training utilizing 2D Imaging, Doppler and Color Flow Imaging.

Course Topics include:

- **Vascular Physics, Principles and Instrumentation**
- **Venous Scanning Protocols, Procedures and Scanning Techniques**
- **Principles of Pulse Wave Doppler**
- **Lower Extremity Venous Anatomy and Physiology**
- **Venous Hemodynamics**
- **Venous Doppler Spectral Analysis**
- **Proper Doppler Documentation**
- **Mechanisms of Disease**
- **Patient History and Risk Factors**
- **Lower Extremity Venous Disease (Deep Venous Thrombosis/Venous Reflux)**
- **Imaging Capabilities and Limitations**
- **Normal and Abnormal Case Studies Presentations**

Course Objectives:

- To command a strong understanding of anatomy and physiology pertaining to the lower extremity venous circulatory system.
- Identify and describe normal vs. abnormal venous sonographic findings for interpretation.
- Each student must be able to perform a comprehensive Deep Lower Extremity Venous examination upon completion of this course, utilizing 2D Imaging, Venous Doppler Interrogation and Color Flow Mapping.

(Scanning finals will be interpreted by a Board Certified Neuro-Radiologist)

GENERAL ULTRASOND PROGRAM

GEN 101

ABDOMINAL ULTRASOUND

Our clinical ultrasound instructors will familiarize you with General Ultrasound Physics, Anatomy and Physiology of the **Abdominal Organs**. We will provide you with an opportunity to learn basic and advanced skills required to perform a complete and thorough **Abdominal Ultrasound examination**. This course will include extensive **Hands-On** training utilizing 2D and Color Flow Imaging.

Course Topics include:

- **General Ultrasound Physics, Principals and Instrumentation**
- **Abdominal Scanning Protocols, Procedures and Scanning Techniques**
- **Anatomical Scanning Planes and Position**
- **Sonographic Abdominal Organ Appearances (normal and abnormal)**
- **Anatomy and Physiology of the Abdominal Organs**
- **Liver**
- **Kidneys**
- **Pancreas**
- **Spleen**
- **Aorta and IVC**
- **Gallbladder**
- **Biliary and Portal System**
- **Image Optimization**
- **Abdominal Vasculature**
- **Proper Organ Measurement and Documentation**
- **Abdominal Organ Pathologies**
- **Imaging Capabilities and Limitations**
- **Normal and Abnormal Case Studies Presentations**

Course Objectives:

- To command a strong understanding of the abdominal anatomy and physiology.
- Identify and describe normal vs. abnormal abdominal sonographic findings for interpretation.
- Each student must be able to perform a comprehensive Abdominal examination upon completion of this course, utilizing 2D Imaging and Color Flow Mapping.

(Scanning finals will be interpreted by a Board Certified Neuro-Radiologist)

Our clinical ultrasound instructors will familiarize you with General Ultrasound Physics, Anatomy and Physiology of the male and female **Pelvic Organs**. We will provide you with an opportunity to learn basic and advanced skills required to perform a complete and thorough **Pelvic Ultrasound examination**. This course will include extensive **Hands-On** training utilizing 2D and Color Flow Imaging.

Course Topics include:

- **General Ultrasound Physics, Principals and Instrumentation**
- **Pelvic Scanning Protocols, Procedures and Scanning Techniques (male and female)**
- **Anatomical Scanning Planes and Position**
- **Sonographic Pelvic Organ Appearances (normal and abnormal)**
- **Anatomy and Physiology of the male and female Pelvic Organs**
- **Sonographic Organ appearance (normal vs. abnormal)**
- **Urinary Bladder**
- **Uterus**
- **Ovaries**
- **Cervix**
- **Prostate**
- **Post Volume Residual (PVR's)**
- **Image Optimization**
- **Pelvic Vasculature**
- **Proper Organ Measurement and Documentation**
- **Pelvic Organ Pathologies**
- **Imaging Capabilities and Limitations**
- **Normal and Abnormal Case Studies Presentations**

Course Objectives:

- To command a strong understanding of the male and female pelvic anatomy and physiology.
- Identify and describe normal vs. abnormal male and female pelvic sonographic findings for interpretation.
- Each student must be able to perform a comprehensive Pelvic examination upon completion of this course, utilizing 2D Imaging and Color Flow Mapping.

(Scanning finals will be interpreted by a Board Certified Neuro-Radiologist)

Our clinical ultrasound instructors will familiarize you with General Ultrasound Physics, Anatomy and Physiology of the **Thyroid Gland**. We will provide you with an opportunity to learn basic and advanced skills required to perform a complete and thorough **Thyroid Ultrasound examination**. This course will include extensive **Hands-On** training utilizing 2D and Color Flow Imaging.

Course Topics include:

- **General Ultrasound Physics, Principals and Instrumentation**
- **Thyroid Scanning Protocols, Procedures and Scanning Techniques**
- **Anatomical Scanning Planes and Position**
- **Sonographic Thyroid Gland Appearances (normal and abnormal)**
- **Anatomy and Physiology of the Thyroid Gland**
- **Image Optimization**
- **Thyroid Gland Vasculature**
- **Thyroid Gland Pathologies**
- **Proper Thyroid Gland Measurement and Documentation**
- **Imaging Capabilities and Limitations**
- **Normal and Abnormal Case Studies Presentations**

Course Objectives:

- To command a strong understanding of the thyroid gland anatomy and physiology.
- Identify and describe normal vs. abnormal abdominal sonographic findings for interpretation.
- Each student must be able to perform a comprehensive Thyroid Ultrasound examination upon completion of this course, utilizing 2D Imaging and Color Flow Mapping.

(Scanning finals will be interpreted by a Board Certified Neuro-Radiologist)

SMP 102

TESTICULAR IMAGING

Our clinical ultrasound instructors will familiarize you with General Ultrasound Physics, Anatomy and Physiology of the **Testicles**. We will provide you with an opportunity to learn basic and advanced skills required to perform a complete and thorough **Testicular Ultrasound examination**. This course will include extensive **Hands-On** training utilizing 2D and Color Flow Imaging.

Course Topics include:

- **General Ultrasound Physics, Principals and Instrumentation**
- **Testicular Scanning Protocols, Procedures and Scanning Techniques**
- **Anatomical Scanning Planes and Position**
- **Sonographic Testicular Appearances (normal and abnormal)**
- **Anatomy and Physiology of the Testicles**
- **Image Optimization**
- **Testicular Vasculature**
- **Proper Testicular Measurement and Documentation**
- **Testicular Pathologies**
- **Imaging Capabilities and Limitations**
- **Normal and Abnormal Case Studies Presentations**

Course Objectives:

- To command a strong understanding of the testicular anatomy and physiology.
- Identify and describe normal vs. abnormal abdominal sonographic findings for interpretation.
- Each student must be able to perform a comprehensive Testicular Ultrasound examination upon completion of this course, utilizing 2D Imaging and Color Flow Mapping.

(Scanning finals will be interpreted by a Board Certified Neuro-Radiologist)

Our clinical ultrasound instructors will familiarize you with General Ultrasound Physics, Anatomy and Physiology of the **Breast**. We will provide you with an opportunity to learn basic and advanced skills required to perform a complete and thorough **Breast Ultrasound examination**. This course will include extensive **Hands-On** training utilizing 2D and Color Flow Imaging.

Course Topics include:

- **General Ultrasound Physics, Principals and Instrumentation**
- **Breast Scanning Protocols, Procedures and Scanning Techniques**
- **Anatomical Scanning Planes and Position**
- **Sonographic Breast Appearances (normal and abnormal)**
- **Anatomy and Physiology of the Breast**
- **Image Optimization**
- **Breast Vasculature**
- **Breast Pathologies**
- **Proper Image Documentation**
- **Imaging Capabilities and Limitations**
- **Normal and Abnormal Case Studies Presentations**

Course Objectives:

- To command a strong understanding of the breast anatomy and physiology.
- Identify and describe normal vs. abnormal abdominal sonographic findings for interpretation.
- Each student must be able to perform a comprehensive Breast Ultrasound examination upon completion of this course, utilizing 2D Imaging and Color Flow Mapping.

(Scanning finals will be interpreted by a Board Certified Neuro-Radiologist)

VASCULAR SPECIALTY PROGRAM

SPV 101

RENAL/AORTA DUPLEX IMAGING

Our clinical ultrasound instructors will familiarize you with Vascular Physics, Anatomy and Physiology of the **Kidneys, Renal Arteries and Renal Veins**. We will provide you with an opportunity to learn basic and advanced skills required to perform a complete and thorough **Renal Duplex examination**. This course will include extensive **Hands-On** training utilizing 2D Imaging, Doppler and Color Flow Imaging.

Course Topics include:

- **Vascular Physics, Principles and Instrumentation**
- **Renal/Aorta Duplex Scanning Protocols, Procedures and Scanning Techniques**
- **Principles of Pulse Wave Doppler**
- **Renal/Aorta Anatomy and Physiology**
- **Renal Artery and Venous Hemodynamics**
- **Renal/Aorta Doppler Spectral Analysis**
- **Mechanisms of Disease**
- **Patient History and Risk Factors**
- **Renal Artery Ratio (RAR)**
- **Resistive Index**
- **Renal/Aorta Duplex Pathologies**
- **Proper Image Documentation**
- **Imaging Capabilities and Limitations**
- **Normal and Abnormal Case Studies Presentations**

Course Objectives:

- To command a strong understanding of anatomy and physiology pertaining to the aorta, renal arteries and veins.
- Identify and describe normal vs. abnormal renal/aorta duplex sonographic findings for interpretation.
- Each student must be able to perform a comprehensive Renal/Aorta Duplex examination upon completion of this course, utilizing 2D Imaging, Doppler Interrogation and Color Flow Mapping.

(Scanning finals will be interpreted by a Board Certified Neuro-Radiologist)

Our clinical ultrasound instructors will familiarize you with Vascular Physics, Anatomy and Physiology of the **Intracranial Cerebrovascular Circulatory System**. We will provide you with an opportunity to learn basic and advanced skills required to perform a complete and thorough **Transcranial Doppler examination**. This course will include extensive **Hands-On** training utilizing 2D Imaging, Doppler and Color Flow Imaging.

Course Topics include:

- **Vascular Physics, Principles and Instrumentation**
- **Intracranial Arterial Scanning Protocols, Procedures and Scanning Techniques**
- **Principles of Pulse Wave Doppler**
- **Circle of Willis Anatomy and Physiology**
- **Circle of Willis Doppler Interrogation**
- **Intracranial Cerebrovascular Hemodynamics**
- **Transcranial Doppler Spectral Analysis**
- **Mechanisms of Disease**
- **Proper Doppler Measurement and Documentation**
- **Patient History and Risk Factors**
- **Intracranial Arterial Disease and Classification**
- **Imaging Capabilities and Limitations**
- **Normal and Abnormal Case Studies Presentations**

Course Objectives:

- To command a strong understanding of the anatomy and physiology pertaining to the Circle of Willis and intracranial cerebrovascular circulatory system.
- Identify and describe normal vs. abnormal Transcranial Doppler findings for interpretation.
- Each student must be able to perform a comprehensive Transcranial Doppler upon completion of this course, utilizing Arterial Doppler Interrogation, Spectral Analysis Velocities Measurements and Arterial Flow Mapping.

(Scanning finals will be interpreted by a Board Certified Neuro-Radiologist)

Our clinical ultrasound instructors will familiarize you with Vascular Physics, Anatomy and Physiology of the **Superficial Lower Extremity Venous Circulatory System**. We will provide you with an opportunity to learn basic and advanced skills required to perform a complete and thorough **Superficial Lower Extremity Venous Duplex examination**. This course will include extensive **Hands-On** training utilizing 2D Imaging, Doppler and Color Flow Imaging.

Course Topics include:

- **Vascular Physics, Principles and Instrumentation**
- **Venous Scanning Protocols, Procedures and Scanning Techniques**
- **Principles of Pulse Wave Doppler**
- **Superficial Lower Extremity Venous Anatomy and Physiology**
- **Venous Hemodynamics**
- **Saphenous Vein Mapping**
- **EVLV Screening Protocol**
- **Ultrasound Guided Radio Frequency Venous Closure**
- **Venous Doppler Spectral Analysis**
- **Proper Doppler Documentation**
- **Mechanisms of Disease**
- **Patient History and Risk Factors**
- **Lower Extremity Venous Disease (Superficial Thrombophlebitis/ Venous Reflux)**
- **Imaging Capabilities and Limitations**
- **Normal and Abnormal Case Studies Presentations**

Course Objectives:

- To command a strong understanding of anatomy and physiology pertaining to the superficial lower extremity venous circulatory system.
- Identify and describe normal vs. abnormal venous sonographic findings for interpretation.
- Each student must be able to perform a comprehensive superficial lower extremity venous examination upon completion of this course, utilizing 2D Imaging, Venous Doppler Interrogation and Color Flow Mapping.

(Scanning finals will be interpreted by a Board Certified Neuro-Radiologist)

REGISTRATION FORM

Prime Diagnostic Institute Inc.

Last Name: _____ First Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Daytime phone# _____ Evening phone# _____

E-mail: _____ Fax #: _____

Facility or Institution Name: _____

Credentials: RDMS RDCS RVT RCS RVS RN LPN RT MD MA EMT Other

Courses: Please check the courses that you are interested in taking.

- Cardiac Ultrasound Program**
- Vascular Technology Program**
- General Ultrasound Program**
- Vascular Specialty Courses**

Please remit payment along with registration form to:

**Prime Diagnostic Imaging Inc.
3075 Veterans Memorial Highway
Ronkonkoma, New York 11779
Suite 160**

Enclosed is my check for \$ _____ Payable to Prime Diagnostic Imaging Inc.

Credit Card Information:

Card Type MASTER CARD _____ VISA _____ AMEX _____ DISCOVER _____

DINERS CLUB _____ OTHER _____ (We Accept Most Credit/Debit cards)

CARD NUMBER _____ Ex Date _____

SIGNATURE OF CARD HOLDER _____

DATE SIGNED _____