Clinical Training:  
**Basic Nerve Conduction Studies**

**Program Director:**  
James Lewis,  
R.N.C.S.T., CNCT

**About the Director:**  
Jim has been working in the nerve conduction industry as a clinician and educator for over 30 years. He taught the Nerve Conduction Studies section of the Electroneurodiagnostic Technology program at Minneapolis Community & Technical College. In 2009 the University of Minnesota Neurology Department awarded him the Kennedy Teaching Award “In the Spirit of Academic Excellence”. Jim is a past American Association of Electrodiagnostic Technologists President and past Education Committee Chairperson. In 2010 AAET named him a Distinguished Educator. Jim is currently a Clinical Applications Specialist at Natus Neurology and remains active in teaching and training technologists.

**Description & Intended Audience:**  
This course provides you with a basic understanding of Electromyograms (EMGs) and Nerve Conduction Studies (NCS) and how they are used in neurodiagnostic medicine. We will study and review basic electrical theory, instrumentation, peripheral nerve anatomy and physiology, recording methods, and waveforms recognition with clinical correlations. You will emphasize the safety of the patient. In the lab you will learn the basics of nerve and muscle stimulation and recording, using surface electrodes.

This is a combined lecture and lab course. Topics are presented by the instructor with student skill-based learning and practice, an essential part of the course. There will also be small group activities.

**Objectives:**  
1. Describe the basic principles of electricity and how they apply to nerve conduction studies  
2. Describe instrumentation and controls that aid in nerve conduction testing  
3. Demonstrate an understanding of peripheral nerve anatomy and physiology  
4. Describe the various measurements, calculations and test parameters vital in NCS testing  
5. Demonstrate the ability to record the most common studies of most labs  
6. Describe the Needle EMG and the role of the technologist  
7. Demonstrate an understanding of diseases and disorders of the peripheral nervous system

**When:**  
October 13-14, 2020  
8:30am – 5:00pm

**Where:**  
Natus Medical Incorporated  
3150 Pleasant View Rd  
Middleton, WI 53562  
Middleton is a suburb of Madison, WI

**Tuition:**  
2-Day Clinical Training: $132.00  
Price includes tuition and daily lunch  
Maximum number of participants: 15

**Registry deadline:** October 2, 2020

**Lodging:**  
Natus has negotiated rates at several of the local hotels. Hotel suggestions will be provided with your final class confirmation. Please ask for the Natus rate when making your reservations.

**Transportation:**  
Car rental is recommended as suggested hotels are approximately 1 mile from our facility. Rental cars are available at the airport. There are several restaurants adjacent to all suggested hotels. There are no hotel shuttle services provided to and from the airport or our facility.

15 NCS CEs
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Introduction to NCS/EMG – what it is and when it is used
Basic electricity – How it applies to NCS
Instrumentation in NCS – Controls, dials and software
Lab – Understanding the system
Peripheral Nerve Anatomy
Lab – Upper limb NCS
Peripheral Nerve Physiology
Lab – Lower limb NCS
NCS Basics
Lab – NCS Basics Exercises
Common Nerve Conduction Studies – Part 1
Lab – Perform common upper limb NCS/Waveform recognition
Common Nerve Conduction Studies – Part 2
Lab – Perform common upper limb NCS/Waveform recognition
Common Nerve Conduction Studies – Part 3
Lab – Perform common lower limb NCS/Waveform recognition
Wrapping it up – Diseases and Disorders of the Peripheral Nervous System