Simulation Based Academic Fellowship in Advanced Pain Management

**Description**

This on-line program consists of four courses to be delivered sequentially over a one-year period. The concepts presented in each course will establish a framework of knowledge intended to impart the certified registered nurse anesthetist with the necessary background to understand and treat pain utilizing effective and relevant evidence based guidelines.

[**Read more about the Advance Pain Management Graduate Certificate**](http://www.usf.edu/innovative-education/graduate-certificates/programs/advanced-pain-management.aspx)

The curriculum in each course will address the concept of pain beyond the traditional views of interpretation and modulation of nociceptive impulses. Pain evolves not only from tissue damaging stimuli, but may also serve as a consequence of the way stress, sleep, and central autonomic nervous system tone affect brain function. Program faculty at University of South Florida, College of Nursing, propose that pain is a complex phenomenon mediated through mechanisms that involve more than the traditional view of tissue damage. Traditional views of aligning pain only with tissue damaging stimuli are limiting and may be the driving force behind economic costs associated with the treatment of pain to be estimated at 560-635 billion annually. In 2011, the Institute of Medicine (IOM) recommended the government support substantial improvements in patient and professional education regarding pain. This recommendation included both undergraduate and graduate curricula changes to improve pain management education for all health care professionals. CRNA's who enroll in the pain management program at the University of South Florida will be presented with a challenging curriculum intended to transform traditional views and provide the knowledge and skills necessary to vastly improve the treatment of pain.

**Course Location/Delivery**

The Certificate is online however attendance is required at a simulation/cadaver experience to be held at USF CAMLS.

**Admission Requirements**

Applicants must have a Masters or Doctoral degree from an accredited institution and be a licensed and practicing Certified Nurse Anesthetist.

**Application Process**

Please visit the [**application process page**](http://www.usf.edu/innovative-education/graduate-certificates/how-to-apply/application-process.aspx) to access the application. In addition, to the application forms please submit:

1. Official transcripts from applicant's nurse anesthesia program only
2. A curriculum vitae
3. Letter of Interest
4. Reference letter from a supervising clinician

\***Note:** Applications will be reviewed and students will be accepted until the maximum capacity for the graduate certificate program has been reached.

**Prerequisites**

Licensed and practicing Certified Nurse Anesthetist

**Requirements**

12 credit hours

NGR 6470 - Assessment and Psychology of Pain (online)   
Assessment and Psychology of Pain (NGR 6470) will be taught in the spring as part of the four-course sequence of the pain management program. The course is presented in eight separate modules.

[**HideView modules for NGR 6470**](http://www.usf.edu/innovative-education/graduate-certificates/programs/advanced-pain-management.aspx)

1. Advanced pain Physical Assessment: Performing an advanced pain assessment physical assessment  
2. Assessment and Interpretation of Diagnostic and Radiologic Studies  
3. Comprehending Psychiatric Pain Associated Co-morbidity and Addiction  
4. Prevention Strategies for the Reduction of Post-Surgical Pain  
5. Assessment Diagnosis and Treatment of Pain Associated with Musculoskeletal Conditions  
6. Assessment Diagnosis and Treatment of Headache and Facial Pain  
7. Assessment Diagnosis and Treatment of Pain Associated with Neuropathic Conditions  
8. Evaluating Pain Relief Measures in Clinical Practice

NGR 6471 - Concepts of Pain Pathophysiology (online)   
Concepts of Pain Pathophysiology (NGR 6471) will be taught in the fall as part of the four-course sequence of the pain management program. This course is presented in eight separate modules.

[**HideView modules for NGR 6471**](http://www.usf.edu/innovative-education/graduate-certificates/programs/advanced-pain-management.aspx)

1. Basic mechanisms of pain part I  
2. Basic mechanisms of pain part II  
3. Phases of pain  
4. Common neuropathic pain syndromes  
5. Commonly encountered painful conditions  
6. Genetics of pain  
7. Interdisciplinary pain management  
8. End of life care pain management

NGR 6472 - Pharmacology of Pain Management (online)  
Pharmacology of Pain Management (NGR 6472) will also be taught in the fall as part of the four-course sequence of the pain management program. The course is presented in eight separate modules.

[**HideView modules for NGR 6472**](http://www.usf.edu/innovative-education/graduate-certificates/programs/advanced-pain-management.aspx)

1. Pharmacology of pain management: Relationship of the neurophysiology of pain and appropriate pharmacological management for patients.  
2. Mechanisms of analgesia and clinical indications for the use of opioids in pain management  
3. Mechanisms of analgesia and clinical indications for the use of antipyretic analgesics, nonsteroidal anti-inflammatory drugs, cyclooxygenase inhibitors, and corticosteroids.  
4. Mechanisms of analgesia and clinical indications for the use of antidepressant, muscle relaxants and anticonvulsant medications for pain management  
5. Mechanisms of analgesia and clinical indications for the use of topical agents and local anesthetics for pain management  
6. Mechanisms of analgesia and clinical indications for the use of complementary and integrative pain management treatments  
7. Multimodal therapeutic regimens for pain management: Combining pharmaceutical agents with complimentary pain management strategies  
8. Wellness and professional responsibilities for the health care provider: Principles of opioid addiction and detoxification

NGR 6473\* – Interventional Procedures/Simulations in Pain Management (partially online; student must come to campus for a weekend simulation activity at the Center for Advanced Medical Learning and Simulation – CAMLS)

Interventional Procedures/Simulations in Pain Management (NGR6473) will be taught in the spring as part of the four-course sequence of the pain management program. The course is presented in eight modules.  
  
\*Student must have taken NGR 6470 & 6471 before enrolling in this class

[**HideView modules for NGR 6473\***](http://www.usf.edu/innovative-education/graduate-certificates/programs/advanced-pain-management.aspx)

1. Radiation Safety  
2. Transitioning from Evaluation to Intervention  
3. Performing Injections of Joints, Bursas, Muscle and Fascial Planes with and without Ultrasound  
4. Acute Pain Management with the Use of Ultrasound Guided Regional Anesthesia  
5. Interventional Procedures for Treating Pain in Cervical and Thoracic Spine  
6. Interventional Procedures for Treating Pain in the Lumbar Spine  
7. Interventional Procedures for Treating Pain in the Sacrum, Coccyx, and Pelvis.  
8. Common Pharmacological Agents Used in Interventional Procedures and Professional Aspects of Practice.

Most modules are divided into three sections to include an overview, content, and discussion. The overview includes a summary of activities to be presented. This is accomplished through a module activity plan, module description, and learning outcomes. The content section includes reading assignments, video presentations provided by USF faculty, and other resources in the form of on-line presentations aimed at reinforcing concepts and knowledge base. The discussion section provides thoughtful and critical questions that students must address in a discussion board format.

Grading for most courses will be as follows: Final exams, short papers, discussion boards, quizzes, and other assignments.

At the conclusion of the spring semester participants will attend a Simulation experience at The Center for Advanced Medical Learning and Simulation in Tampa.

**Time Limit for Completion of Certificate**

Two semesters

**Department Contacts**

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