

# SAS Course List with Description

## [all courses are AANA approved Class A CE]

### COURSE #1 A&P OF SURGICAL PAIN

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Dr Thomas Baribeault CRNA discusses pain pathways, the peripheral and central nervous systems as well as neurotransmitter function. Chronic post-surgical pain is a process that starts perioperatively. This lecture will offer better understanding of the risk factors, and offer recommendations for prevention. This topic is valuable across all specialties and anesthetic locations. It is valued at 1 Class A CE and 1 Pharm CE.

### COURSE #2 ACID BASE MANAGEMENT

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Amin Azam CRNA describes the basics of acid-base physiology in terms of the respiratory system, the renal system and intracellular/extracellular buffers. He describes the conventional approach to arterial blood gas diagnosis and management using the Henderson-Hasselbalch method. Lastly, the physiochemical approach to acid-base management differs from the Henderson-Hasselbalch method and considerations regarding the potential benefits of using the physiochemical approach is explored. This course is valued at 1 Class A CE.

### COURSE #3 ANESTHESIA IN THE HIGHLY OPIOID TOLERANT PATIENT

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Thomas Baribeault DNAP, CRNA discusses the pathophysiology for highly opioid tolerant patients. He then recommends anesthesia plan related to patient condition through use of non-opioid anesthetics. This course is valued at 1 Class A CE.

### COURSE #4 ANESTHESIA IN RADIOLOGY

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Dr Dina Velocci CRNA identifies the unique anesthesia requirements needed for non-operating room anesthesia [NORA]. Analysis of the environmental challenges is a must in provision of anesthesia outside of the conventional operating room setting. The lecturer lists and explains various procedure types performed in interventional radiology and offers guidance for safe anesthesia administration in a range of anesthetizing locations. This course is valued at 1 Class A CE.

### COURSE #5 ANESTHESIA FOR MORBIDLY OBESE

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Dr Rebecca Sullivan CRNA discusses the challenges of anesthesia management for morbidly obese patients. This includes overview of comorbidities, anesthetic techniques, fluid and pharmacological calculations, as well as strategies for proper preoperative screening. This course is valued at 1 Class A CE.

### COURSE #6 ANESTHESIA & OB COMPLICATIONS

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Dr Michael DeBroeck CRNA reviews the anatomic and physiological changes that accompany pregnancy: cardiovascular, hematologic, respiratory, and gastrointestinal. He also covers pharmacological variances. Lastly, pathophysiology associated with anesthetic emergencies in pregnancy are discussed. This includes hypertensive disorders, hemorrhage, embolic events, prolapsed cords and post-delivery events. Recognition and treatment strategies are addressed in this robust lecture. Valued at 1 Class A CE.

## SAS Course List with Description

### COURSE #7 ANESTHESIA IN BREASTFEEDING PT

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Dr Rebecca Sullivan CRNA discusses the pharmacokinetics of anesthetic medications in relation to breastmilk transfer. Discussion regarding patient and infant outcomes, anesthetic recommendations, as well as implications to mother and child regarding "pump and dump" versus "mind clear, milk clear" philosophies. Including an in depth explanation regarding early and late milk as it relates to the transfer of anesthetic medications. Additionally, adjuvant medications and their possible effects on child as well as considerations for influence on the breast feeding mothers milk production. Learn how to discuss breast feeding status and anesthetic course options in this lecture hour. Valued at 1 Class A CE and 0.5 Pharm CE.

### COURSE #8 ANESTHESIA AND CANCER SURGERY

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Dr Brent Dunworth CRNA discusses the impact of anesthesia on cancer reoccurrence. The lecture begins with a review of the carcinogenesis model and the "two hit" hypothesis. Next, the lecturer reviews the principles for anesthesia care of the oncology patient. Lastly, Dr Dunworth describes the literature findings related to anesthetic agent choice and cancer recurrence.

### COURSE #9 ANESTHESIA IN THE MASS CASUALTY SETTING

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Dr Michael Debroeck CRNA discusses the role of anesthesia in a mass casualty setting. Triage, airway control, resuscitation as well as anesthesia administration. This course is valued at 1 Class A CE and 1 Pharm CE.

### COURSE #10 ANESTHESIA & SUD THERAPY

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Jack Stem (CRNA, retired) discusses anesthetic management of patients receiving medication assisted treatment for substance use disorder. Beginning with definitions of substance use disorders and recovery, the lecturer explores medications used in the treatment of alcohol use disorder, and opioid addiction. Discussion regarding perioperative and postoperative pain management of this patient population rounds up the hour. This lecture is valued at 1 Class A CE and 1 Pharm CE.

### COURSE #11 BARRIERS: INDEPENDENT PRACTICE

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Dr Gregory Collins CRNA defines and describes independent practice for the CRNA. Barriers to independent practice are identified at the local, state and national levels. Dr Collins proposes means to garner opportunities for independent nurse anesthesia practice. This lecture is valued at 1 Class A CE.

### COURSE #12 BIS MONITORING TECHNOLOGY

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Elizabeth Mahoney, CRNA helps the learner to understand Bispectral Index Monitoring (BIS) and processed EEG for various patient populations. She describes clinical impact of BIS in anesthesia, outlines measures to understand and troubleshoot processed EEG. Lastly, she discusses available tools for cognitive assessment used in monitoring anesthesia. Understanding emergence delirium and postoperative awareness are also discussed. Valued at 1 Class A CE.

## SAS Course List with Description

### COURSE #13 BRACHIAL PLEXUS BLOCKS

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Dr Micheal DeBroeck CRNA opens the lecture hour with an indepth anatomy review. Interscalene, Supraclavicular, Infraclavicular and Axillary block techniques are described through landmark identification, block techniques risks and complications. Ultrasound guided techniques are reviewed in this lecture with detailed imaging. This course is valued at 1 Class A CE.

### COURSE #15 CARDIAC PHARMACOLOGY

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Dr Maribeth Massie, CRNA discusses cardiovascular effects of COVID-19, the action/pharmacologic response of cardiovascular drugs, and medication regimes utilized by patients for various cardiovascular disease states. The lecturer then explains the pharmacologic classes of cardiovascular drugs and characteristics of individual agents. The CRNA will receive guidance from Dr Massie regarding construction of a management plan for use of newer cardiovascular drugs. This lecture is valued at 1 Class A CE and 1 Pharm CE.

### COURSE #16 COVID 19 AND DEEP MAC SEDATION

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Dr Leah Gordon CRNA reviews the pathology of COVID-19 and as well as describing current recommendations for anesthetic techniques to minimize exposure to the patient care team under MAC anesthesia. The objectives includes description and general overview of COVID-19, risk and benefits of MAC versus GA during a pandemic and lastly, explanation of airway management strategies to reduce COVID-19 risk during deep MAC sedation. Valued at 1 Class A CE.

### COURSE #17 CPC RECERT CYCLE EXPLANATION

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Dr Rebecca Sullivan, CRNA, breaks down the NBCRNA CPC recertification cycle requirements for CRNAs. All elements are discussed in this 1 hour lecture including: Class A CE, Class B CE, Core Modules & CPC Assessment exam. This course is valued at 1 Class A CE.

### COURSE #18 CRNA SCOPE OF PRACTICE

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Dr Michael DeBroeck CRNA reviews: The AANA scope of practice document, barriers to CRNA full scope of practice, and the advantages to health care systems with CRNA full scope practice models. This lecture is valued at 1 Class A CE.

### COURSE #19 DASHBOARD AND PT OUTCOMES

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Dr Peter Strube, CRNA discusses how through analysis of your dashboard and metric measurements you can assess and improve your patient outcomes. This lecture, valued at 1 Class A CE, will help bridge the gap between leadership analysis techniques. Better understanding will assist the staff CRNAs with performance reviews. This course is valued at 1 Class A CE.

## SAS Course List with Description

### COURSE #20 DOGMA & TRADITIONS

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Dr Peter Strube CRNA takes a moment and asks the listeners "what is the evidence?". Through his myth busting review, this lecture hour [1 Class A CE] will help determine what in your practice is a tradition, versus evidence based practice.

### COURSE #21 E-CIGARETTES & VAPING

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Dr Leah Gordon CRNA delves into the impact of e-cigarettes and vaping on your patient and their anesthetic course. This lecture is also extremely educational for parents! She discusses actual vs perceived physiological impact of vaping. This course is valued at 1 Class A CE.

### COURSE #22 HEALTHCARE ECONOMICS

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Dr Maribeth Massie CRNA seeks to inform and inspire the anesthesia provider to tackle areas in their clinical practice that could benefit from evidence-based information to update performance. It will provide real-life examples of successes and failures and lessons learned by CRNAs in all practice settings. This presentation aims to be interactive with the audience. This is valued at 1 Class A CE.

### COURSE #23 EMOTIONAL INTELLIGENCE

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Dr Maribeth Massie discusses the importance of Emotional Intelligence [EI] in the clinical setting. Dr Massie explains the difference between EQ and Intelligence quotient [IQ]. The basic tenets of EI including the advantages of strengthening EI competencies in the anesthesia provider is covered. Strategies are described for clinical educators exist to instruct and mentor nurse anesthesia graduate students in the clinical setting. This is valued at 1 Class A CE.

### COURSE #24 ENDOSCOPY ANESTHESIA

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Dr Leah Gordon CRNA shares strategies and techniques for endoscopy CRNAs. Through description of anatomical and physiology which can have significant impact on anesthesia care delivery, the CRNA must plan appropriately for an outpatient EGD. Dr Gordon illustrates best patient care strategies for a safe native airway EGD. This lecture is valued at 1 Class A CE.

### COURSE #25 ERAS PROTOCOLS

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Dr Brent Dunworth, CRNA discusses development and benefits of Enhanced Recovery After Surgery [ERAS] protocols. This lecture identifies ERAS, describes the outcome objectives for ERAS and identifies proven ERAS protocols that can be replicated in any practice setting. This course is valued at 1 Class A CE and 1 Pharm CE.

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### COURSE #26 ERAS PHARMACOLOGY

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Dr Peter Strube CRNA discusses Enhanced Recovery After Surgery [ERAS] through explanation of various medications, techniques and strategies. This course is valued at 1 Class A CE and 1 Pharm CE.

### COURSE #27 ETHICAL DECISIONS IN ANESTHESIA

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Dr Michael DeBroeck CRNA begins the lecture defining the terms "law", "legal", "criminal", "civil", "ethics" and "morals". Differences between law and ethics in anesthesia practice are discussed. Ethical responsibility as well as personal responsibility are described. Lastly, review of competence and responsibility in professional practice round out the hour. The course is valued at 1 Class A CE.

### COURSE #28 FASCIAL PLANE NERVE BLOCKS

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Dr Thomas Baribeault CRNA describes fascial plane anatomy and block techniques for PEC I & II, TAP blocks, rectus sheath, quadratus lumborum, erector spinae, fascia iliaca, PENG, Ipack/LIA. Ultrasound guidance images complement the lecture. Local anesthetic selection, dosing and contraindications for regional anesthesia are also covered by Dr Baribeault in this course. This course is valued at 1 Class A CE.

### COURSE#29 FATIGUE IN ANESTHESIA

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Dr Garalynn Tomas describes contributory factors related to anesthesia provider fatigue, focusing on the implications for patients, staff and providers. She addresses how work force schedules impact anesthesia providers performance. Through differentiation of terminology related to fatigue and the health care, the effects of fatigue on individual anesthesia providers is explored. This course is valued at 1 Class A CE.

### COURSE #30 FLUID MANAGEMENT

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Dr Thomas Baribeault CRNA defines liberal, traditional, restrictive, zero balance and goal directed fluid management techniques. Normal saline vs balanced crystalloid solutions are reviewed. This lecture is valued at 1 Class A CE.

### COURSE #31 FORENSICS OF ANESTHESIA

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Dr Peter Strube tackles the topic "Forensic Anesthesia: What Went Wrong?". Avoidable medical errors, PONV strategies, allergies and antidotes, This lecture makes you think! Why do we do what we do? Is there another way? Engaging and informative.... this lecture is valued at 1 Class A CE.

## SAS Course List with Description

### COURSE #32 GADGETS & GIZMOS

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Dr Peter Strube CRNA dives into the topic of technology in healthcare. Merit based incentive [MIPS] discussion, SCIP compliance and risk management are covered in this lecture. Improved patient outcomes through the use of available technology is also highlighted. This lecture is valued at 1 Class A CE.

### COURSE #33 GERIATRIC PATIENTS & POCD

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Brian Berry CRNA, MBA discusses "Geriatrics; Postoperative Cognitive Dysfunction" [POCD] in this lecture hour. His comprehensive review of effects of age on various body systems aids the CRNA in recognition of possible anesthetic influence on our geriatric population. Strategies and techniques for minimization of POCD is discussed. This lecture is valued at 1 Class A CE.

### COURSE # 34 HEALTH & WELLNESS FOR THE CRNA

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Terri Baker MHS, CRNA discusses strategies for the CRNA to be successful in self-care.. With focus on the Blue Zones, she breaks down techniques and lifestyle choices to impact our longevity. This lecture is valued at 1 Class A CE.

### COURSE #35 HEALTHCARE INFORMATICS

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Dr Rebecca Sullivan, CRNA delves into the world of medical reimbursement and electronic medical records [EMR]. This lecture helps the Anesthetist to understand how their thorough documentation of patient care as well as protocol adherence impacts reimbursement for their health care system. Understanding the big picture and minimizing patient poor outcomes through risk management strategies is also a focus of this lecture. The course is valued at 1 Class A CE.

### COURSE #36 MASSIVE TRANSFUSION

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Dr. Greg Collins CRNA reviews the pathophysiology of large volume blood loss and large volume blood replacement. He examines current practices in blood replacement and massive transfusion. Lastly, the lecture will explore evidence of emerging products and procedures related to blood replacement. Valued at 1 Class A CE

### COURSE #37 HERBAL MEDS & ANESTHESIA

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Dr Peter Strube CRNA discusses the possible impact of herbal medications on your patients anesthetic course. A thorough review and breakdown of perioperative recommendations are covered in this lecture. Valued at 1 Class A CE and 1 Pharm CE.

## SAS Course List with Description

### COURSE #38 HISTORY OF TRAUMA

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Dr Ashley Davis CRNA reviews the evolution of trauma resuscitation. Where we were... and where we are now. Current trauma practices and protocols assist the audience in understanding where resuscitation and care of traumatic injury are heading in the future. This course is valued at 1 Class A CE.

### COURSE #39 ANESTHESIA: RESPIRATORY ISSUES

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Brian Berry CRNA, MBA discusses respiratory strategies that are commonly used in the operating suite aimed at improving patient outcomes. The advantages and disadvantages of oxygen, PEEP, low tidal volume and pressure-volume loops are covered in this lecture. This course is valued at 1 Class A CE.

### COURSE #40 ILLEGAL DRUGS AND ANESTHESIA

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Dr Peter Strube CRNA reviews illegal drugs and their influence on the human body. He then discusses how the patients anesthetic course can be altered related to drug influence. Techniques and perioperative strategies are included in this lecture hour. Valued at 1 Class A CE and 1 Pharm CE.

### COURSE #41 IMPAIRED PROVIDER

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Jack Stem [CRNA, retired] discusses his personal journey with substance use disorder. He describes the signs and symptoms of the impaired provider, discusses steps to take in approaching a provider that may be impaired and discusses how fear, denial and compulsion prevent and individual from seeking treatment. Available resources through the AANA and re-entry protocols finish out the lecture. This course is valued at 2 Class A CE.

### COURSE #42 INCIVILITY IN THE OR

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Dr Lewis Bennett CRNA will define disruptive behavior, and describe what disruptive behavior looks like in the workplace. Dr Bennett will then provide strategies to address disruptive behavior and a hostile work environment. This lecture is valued at 1 Class A CE.

### COURSE #43 INDEPENDENT CRNA PRACTICE

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Dr Michael DeBroeck CRNA discusses the hallmarks of independent practice including: 1. Extensive knowledge base, 2. technical proficiency, 3. professionalism, 4. integrity and 5. confidence. This lecture is valued at 1 Class A CE.

### COURSE #44 KETAMINE RECIPES

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Dr Michael DeBroeck CRNA describes the mechanism of action, effects, dosing, metabolism, and adverse effects of Ketamine. New applications, precautions and his personal ketamine "cookbook" rounds out the hour. This course is valued at 1 Class A CE and 1 Pharm CE.

## SAS Course List with Description

### COURSE #45 PROVIDER PTSD & VICARIOUS TRAUMA

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Tracy Traut MS, LCAC describes Post-traumatic Stress Disorder (PTSD) and vicarious trauma. She describes the impact PTSD and vicarious trauma have on daily functioning. This lecture will assist the CRNA in understanding the signs and symptoms of PTSD and vicarious trauma as well as offer strategies to mitigate them. This lecture is valued at 1 Class A CE.

### COURSE #46 EMOTIONAL INTELLIGENCE

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Brian Berry CRNA, MBA discusses Emotional Intelligence [EI] and its impact on your professional career. Through description of characteristics associated with success in business and leadership, Mr Berry helps the learner understand current metrics that influence top performance appraisals. This course is valued at 1 Class A CE.

### COURSE #47 LEGAL IMPLICATIONS OF NURSE ANESTHESIA

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Dr Garalynn Tomas CRNA discusses "Legal Implications of Nurse Anesthesia". The objectives include: understanding the importance of anesthesia-related liability, factors that may contribute to medical liability, recognizing the changing profile of liability, understanding the importance of communication, understanding informed consent, acknowledge self and organizational limitations and expectations, review of the EMR and documentation, and understanding anesthesia billing relating to liability and awareness of social media pitfalls. This course is valued at 1 Class A CE.

### COURSE #48 LIPOSUCTION ANESTHESIA

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Dr Rebecca Sullivan CRNA reviews anesthesia techniques for liposuction procedures. A comprehensive review of tumescent solution [components and dosing maximums] as well as implications for patient perioperative course. in relation to fluid management, risk of local anesthesia systemic toxicity [LAST] and potential complications. This course is valued at 1 Class A CE and 0.5 Pharm Credits.

### COURSE #49 LOCAL ANESTHETICS

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Dr Rebecca Sullivan CRNA reviews the pharmacokinetics of local anesthetics, maximal dosing and recognition and treatment of Local Anesthesia Systemic Toxicity [LAST]. This course is valued at 1 Class A CE and 1 Pharm credit.

### COURSE #50 LOCAL ANESTHETIC TOXICITY

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Dr Tom Baribeault CRNA describes the function of local anesthetics, recognition and treatment of Local Anesthetic Systemic Toxicity [LAST], allergic reactions, and side effects/complications of local anesthesia administration. This lecture is valued at 1 Class A CE and 1 Pharm CE.

## SAS Course List with Description

### COURSE #51 LOWER EXTREMITY BLOCKS

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Dr Michael DeBroeck CRNA discusses femoral nerve, sciatic, popliteal, ankle and adductor canal blocks. Techniques for ultrasound guided lower extremity blocks are described and demonstrated with detailed images, landmarks and ultrasound imaging. Local anesthetics choices are reviewed including dosing recommendations. This lecture is valued at 1 Class A CE.

### COURSE #52 MH PLANNING IN THE OUTPATIENT CENTER

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Dr Leah Gordon CRNA reviews MHAUS protocols to assist the CRNA in proper Malignant Hyperthermia [MH] preparation in an outpatient surgical center. Through examples and images her comprehensive review assists other CRNAs to be properly prepared for this lifethreatening crisis. Valued at 1 Class A CE and 1 Pharm Credit.

### COURSE #53 MATERNAL MORTALITY & MORBIDITY

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Dr Greg Collins CRNA identifies incidence and causes of maternal morbidity & mortality. Dr Collins reviews the anesthetic considerations for these events & conditions. The lecture finishes with discussion of the contribution of COVID-19 to morbidity & mortality. This lecture is valued at 1 Class A CE.

### COURSE #54 MEDICAL MARIJUANA & CBD ANESTHESIA IMPLICATIONS

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Dr Garalynn Tomas CRNA reviews the distinctions between cannabis and CBD oil on the human body. She discusses the endocannabinoid system and both cannabis and CBDs influence on the patients anesthetic course. This lecture is valued at 1 Class A CE and 1 Pharm CE.

### COURSE #55 NEURAXIAL ANESTHESIA IN OB SUITE

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Dr John Borza CRNA, MBA discusses strategies and techniques for regional anesthesia in the obstetrical suite [OB]. Medication dosing and insertion techniques are covered in this course valued at 1 Class A CE.

### COURSE #56 NMJ & THE NERVE STIMULATOR

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Dr Rebecca Sullivan CRNA reviews the anatomy of the Neuromuscular Junction [NMJ], action of neuromuscular blocking agents and mechanism of reversal agents. A thorough discussion of neuromuscular recovery and use of the nerve stimulator is also reviewed in this course. Valued at 1 Class A CE this lecture is impactful and applicable to CRNAs across the board!

## SAS Course List with Description

### COURSE #57 NEUROPROTECTION

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Eric "Jake" Lindstrom CRNA discusses normal neurophysiology, pathophysiology and anesthetic strategies for neuroanesthesia. This course is valued at 1 Class A CE.

### COURSE #58 OBSTRUCTIVE SLEEP APNEA TRENDS

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Dr Leah Gordon CRNA reviews Obstructive Sleep Apnea and its influence on anesthetic course and patient outcomes. This course is valued at 1 Class A CE.

### COURSE #59 OFFICE BASED ANESTHESIA

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Katie Cooper CRNA discusses anesthetic strategies for outpatient office-based anesthesia. Office-based facility requirements, practitioners and staff, equipment, patient selection, protocols, policies and case examples are reviewed. AANA standards of anesthesia in the office-based setting is discussed as well as emergency management. The lecture finishes with recommendations for specialties: fertility, GI lab, vascular cases, dental surgery, pain procedures, and plastics. This course is valued at 1 Class A CE.

### COURSE #60 OFFSITE ANESTHESIA

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Dr Rebecca Sullivan CRNA reviews the responsibilities of the CRNA to administer a safe anesthetic out of the conventional operating room setting. Focus is placed on preparedness of the CRNA for patient and provider safety. This course is valued at 1 Class A CE.

### COURSE #61 OPIOID FREE ANESTHESIA

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Dr Thomas Baribeault CRNA, *President and founder of the Society of Opioid Free Anesthesia [SOFA]*, reviews opioid free anesthesia techniques. Increased availability of adjunct medications, knowledge of side effects of opioid medications, knowledge of pain mechanisms and regional anesthetic techniques assist the CRNA in providing an opioid free anesthetic with the goal of improved patient outcomes. This course is valued at 1 Class A CE and 1 Pharm CE.

### COURSE #62 OPIOID FREE ANESTHESIA

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In this lecture "Opioid Free Anesthesia: Are We Crazy or Bold?", Dr Peter Strube CRNA, MBA discusses multimodal therapies and their synergistic effects to optimize patient care. This course is valued at 1 Class A CE & 1 Pharm CE

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### COURSE #63 OPIOID FREE ANESTHESIA

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Dr. Rebecca Sullivan CRNA spends the lecture hour reviewing opioid sparing techniques to minimize patient side effects related to opioid administration. Review of medications, mechanism of action, dosing and timing is included in this lecture. Valued at 1 Class A CE & 1 Pharm credit.

### COURSE #64 OPIOID SPARING IN BARIATRICS

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Dr Gregory Collins CRNA discusses strategies to transfer opioid sparing techniques into the bariatric suite. This review focuses on the anesthetic concerns related to the morbidly obese. The CRNA will learn to form perioperative strategies & modalities for an opioid-free anesthetic plan in bariatrics. This course is valued at 1 Class A CE and 1 Pharm CE.

### COURSE #65 OPIOID SPARING IN OB

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Dr Gregory Collins CRNA discusses the use of opioid sparing techniques in obstetrics. Thorough review of the origins of Enhanced Recovery After Surgery [ERAS] and the history of ERAS strategies in OB surgery, Dr Collins will identify strategies to reduce opioid consumption after C-section. The lecturer will propose a means of evaluation and methods for implementing ERAS strategies. This course is valued at 1 Class A CE and 1 Pharm CE.

### COURSE # 66 PATIENT SELECTION FOR OUTPT SX AND ANESTHESIA

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Dr Rebecca Sullivan CRNA presents "Patient Selection for Outpatient Surgery and Anesthesia". Thorough review of patient medical records, lab values and physical exam in alignment with approved guidelines help the anesthesia provider to screen for appropriate outpatient population. This course is valued at 1 Class A CE.

### COURSE # 67 PEDIATRIC AIRWAY MANAGEMENT

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Dr Maribeth Massie CRNA describes the anatomical and physiological characteristics of the infant, pediatric and adult airway. Dr Massie reviews proper pediatric airway assessment technique, recognition of maldevelopment and congenital differences. Indications for advanced airway protections in children and strategies for managing anticipated and unanticipated difficult airways finish up the course. This lecture is valued at 1 Class A CE.

## SAS Course List with Description

### COURSE #68 PEDIATRICS FOR NON-PED CRNAS

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Dr Peter Strube CRNA delivers a "crash review course" on the staples of pediatric anesthesia to assist the CRNA with low volume/access to pediatric patients. Physiological differences between pediatric and adult populations is highlighted. NPO guidelines, airway assessments, allergy potential and medication guidelines are all discussed in this lecture hour. This course is valued at 1 Class A CE.

### COURSE # 69 PEDIATRIC UPDATE

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Dr Maribeth Massie CRNA discusses current literature relating to neurocognitive development and the effect of anesthesia on the developing brain. Emergence delirium, ambulatory adenotonsillectomies, and advantages/disadvantages of pediatric regional anesthesia under general anesthesia are covered in this lecture. Lastly, current ERAS protocols in pediatrics is reviewed. This course is valued at 1 Class A CE.

### COURSE # 70 PHARMACOGENETICS

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"Pharmacogenetics and Personalized Care" is presented by Dr Peter Strube CRNA, MBA. In this eye opening presentation myths are busted and biases revealed. Patient genetic predisposition can influence their response to anesthetics and adjacent medications in the perioperative periods. An astute CRNA should recognize and strategize alternative techniques for improved patient outcomes. Valued at 1 Class A CE and 1 Pharm CE.

### COURSE #71 W2 VERSUS 1099 CONTRACTING

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Christopher Hoeman CRNA breaks down the expectations in independent practice as well as income comparisons between W2 and 1099 employment for a CRNA. This course is valued at 1 Class A CE.

### COURSE #72 STRATEGIES TO AVOID POSTOPERATIVE PULMONARY COMPLICATION AVOIDANCE

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Joseph Herman CRNA digs into the topic of "Postoperative Pulmonary Complications: Anesthetic Strategies for Avoidance". Basic anatomy of the human respiratory system, ventilation volumes/capacities, and calculation of appropriate tidal volumes for intraoperative ventilation are reviewed. Post-op pulmonary complications (PPC) are discussed. Understanding ventilator modes, high risk populations and anesthesia provider intervention strategies to decrease PPCs. This course is valued at 1 Class A CE.

### COURSE #73 POSTPARTUM HEMMORHAGE AND TXA

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Dr Gregory Collins CRNA discusses the impact, incidence, and consequences of acute postpartum hemorrhage (PPH). Analysis of the pathophysiology of acute PPH and routes of potential intervention as well as mechanism of action for tranexamic acid (TXA) and the role of treatment of acute PPH. This course is valued at 1 Class A CE and 1 Pharm CE. .

## SAS Course List with Description

### COURSE #74 MINORITY REPRESENTATION AND INCLUSION IN ADVANCED PRACTICE NURSING

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Dr Kenecia Adams-Strong CRNA discusses the "Promotion of Minority Representation and Inclusion in Advanced Practice Nursing Specialties". This course defines diversity, minority, inclusion and representation. It discusses the history of discrimination as it relates to underrepresented minority groups in nursing professions. Discussion regarding current and projected US demographic trends, barriers and racial disparities as they relate to clinical nursing specialties and academia. Suggestions for changes and significance of mentorship to support the individuals striving toward a degree/career in nursing as the goal. Valued at 1 Class A CE.

### COURSE #75 PROVIDING CULTURALLY SENSITIVE CARE OF TRANSGENDER INDIVIDUALS

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Dr Leah Gordon CRNA tackles a timely subject "Providing Culturally Sensitive Care to Transgender Individuals". Gender dysphoria and theories are explored. Unique healthcare needs of the transgender population are described with guidance regarding anesthetic implications. This course is valued at 1 Class A CE.

### COURSE #76 PROCOAGULANTS

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Trevor Swedeen CRNA reviews the clotting cascade and the benefit of Tranexamic acid [TXA] in improving patient outcomes. This course is valued at 1 Class A CE and 1 Pharm CE.

### COURSE #77 VIRTUAL REALITY & THE FUTURE OF NURSE ANESTHESIA

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Peter Stallo CRNA describes how virtual simulation technology can assist the nurse anesthetist student to experience the "feel" of the OR and perform machine troubleshooting prior to clinical rotations. Valued at 1 Class A CE

### COURSE #78 PTSD: ANESTHETIC RECOMMENDATIONS

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Dr Peter Strube CRNA, MBA reviews current recommendations for anesthesia techniques in patients with Post Traumatic Stress Disorder [PTSD]. Valued at 1 Class A CE

### COURSE # 79 NERVE MONITORING IN ANESTHESIA

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Dr Brent Dunworth CRNA compares qualitative vs quantitative nerve monitoring intra-operatively, and its influence on positive patient outcomes through current evidence based practice. Valued at 1 Class A CE.

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### COURSE #80 RADIATION SAFETY IN ANESTHESIA

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Dr Rebecca Sullivan CRNA reviews radiation safety for the health care worker. Radiation dosing terms, types and sources of radiation, risks and biological effects, as well as occupational dose limits are defined. Fluoroscopy suite precautions, instructions for healthcare workers with radiation exposure, dosimeter monitoring and radiation protection methods are all covered in this comprehensive review geared toward the safety of the CRNA. This course is valued at 1 Class A CE.

### COURSE # 81 RECOGNITION & TX OF AMNIOTIC FLUID EMBOLISM

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Dr Gregory Collins lecture "Recognition and Management of Amniotic Fluid Embolism" is a comprehensive review of signs/symptoms, causes and treatments of Amniotic Fluid Embolisms. This course is valued at 1 Class A CE.

### COURSE #82 REMOTE ANESTHESIA

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Dr Peter Strube CRNA, MBA explores administration of anesthesia outside of our comfort zone [the OR]. Risk management prevention strategies, pain management options, fluid management, radiation exposure risks, patient satisfaction and interpersonal dynamics are discussed. This course is valued at 1 Class A CE.

### COURSE #83 RISK MANAGEMENT IN ANESTHESIA

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Dr Rebecca Sullivan CRNA discusses risk management definitions and examples. The importance in provision of safe anesthetic care and mitigation of risk/ poor outcomes to our patients is the focus of this lecture. This course is valued at 1 Class A CE.

### COURSE #84 RISK MANAGEMENT: WORK ENVIRONMENT INFLUENCES ON OUTCOME

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Dr Garalynn Tomas CRNA tackles the topic "Risk Management: How the Work Environment Influences Outcomes" A review of the contributing factors to patient injuries, adverse events and medical malpractice. Defining a safe culture as it relates to healthcare, as well as understanding the importance of pitfalls that contribute to patient injury and death. Lastly, the speaker reviews the anesthesia closed-claim data and incorporates an understanding of risk management and related outcomes. This course is valued at 1 Class A CE.

### COURSE #85 SAFETY ERA, CHALLENGES & PITFALLS

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Dr Peter Strube CRNA, MBA explores patient risks under anesthesia including: atelectasis, anaphylaxis, drug interactions and syndromes. This course is valued at 1 Class A CE.

## SAS Course List with Description

### COURSE #86 CONSTRUCTIVE FEEDBACK IN THE CLINICAL SETTING

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Dr Maribeth Massie CRNA describes the importance of the need for clinical preceptors to know the expectations of nurse anesthesia residents in different stages of training as well as the principles of providing effective feedback. This lecture is valued at 1 Class A CE.

### COURSE #87 TEAM STEPPS

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Dr Lewis Bennett CRNA discusses the benefits of teamwork and team structure. Multi-team system is explored with description of components and composition. This lecture is valued at 1 Class A CE.

### COURSE #88 TOMORROWS PHARMACOLOGY & BEYOND

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Dr Peter Strube CRNA, MBA lectures on "Tomorrow's Pharmacology and Beyond". Dr Strube focuses on strategies that take us outside of our "comfort zone" with enhanced patient outcomes as our end goal. This course is valued at 1 Class A CE.

### COURSE #89 TRAUMA UPDATE

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Dr Maribeth Massie CRNA discusses the epidemiology of traumatic injuries, as well as current evidence related to "damage control" of the trauma patient, Current protocols and evidence for fluid/blood administration, and pharmacologic agents used to stabilize the trauma patient are also covered in this review. Valued at 1 Class A CE.

### COURSE #90 ULTRASOUND BASICS

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Dr Thomas Baribeault discusses the physics, modes, views, and mechanics of ultrasound imaging. This course is valued at 1 Class A CE.

### COURSE #91 ULTRASOUND: THE VERY, VERY, VERY BASICS

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Dr Michael DeBroeck CRNA starts with the absolute basics on how to use and perform US guided nerve blocks. Through imaging and his laid back lecturing style, this is the course for a novice at regional anesthesia! Valued at 1 Class A CE.

### COURSE #92 "VALUE VS VOLUME" IN HEALTHCARE

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Brian Berry CRNA, MBA describes quality metrics that impact anesthesia as well as health care reimbursement. The value in the modern health care environment related to; bundled payments, accountable care organizations, patient satisfaction, value based purchasing and other key parameters are also described. Valued at 1 Class A CE.

### COURSE # 93 VENTILATION IN THE OPERATING ROOM

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Mark Haffey CRNA discusses respiratory physiology and ventilation. Ventilatory drive, V/Q mismatch, impact of patient positioning on ventilation, ventilator modes, goals for adequate ventilation, intra-operative ventilation strategies and undesirable consequences of mechanical ventilation are all covered in this informative lecture. This course is valued at 1 Class A CE.

## COURSE # 94 PACEMAKERS, ICDS AND LEAD EXTRACTIONS

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Alexandra Olinsky CRNA discusses pacemakers, internal defibrillator devices and lead extractions. Anesthetic techniques, considerations for offsite anesthesia, particularly on cardiac compromised patients is discussed during this cath lab procedure review. This course is valued at 1 Class A CE.

## COURSE # 95 ENT ANESTHESIA

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Mark Haffey MSN, CRNA starts with airway basics, ENT surgery risks and recommendations. Jet ventilation, airway management in the perioperative period. This course is valued at 1 Class A CE.

## COURSE # 96 POSTOP COGNITIVE DYSFUNCTION

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Mark Haffey MSN, CRNA defines Postoperative Cognitive Dysfunction [POCD]. He defines the physiology of POCD and identifies the differences between POCD and delirium. He also assists the learner in understanding the role of anesthesia in cognitive dysfunction and identification of ways to reduce it. This course is valued at 1 Class A CE.

## COURSE # 97 CRNA: PROFESSIONAL OR JUST A PROFESSION

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Mark Haffey MSN, CRNA discusses professionalism and offers strategies to succeed in the key elements including your actions both inside and outside of the operating room. This course is valued at 1 Class A CE.

## COURSE # 98 PEDIATRIC AMBULATORY SURGERY

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Mark Haffey MSN, CRNA reviews pediatric classifications, physiology, pharmacodynamics, and challenges. Pitfalls and difficult pediatric cases are also discussed in this 1 Class A CE course.

## COURSE # 99 ANESTHESIA FOR THE WATCHMAN PROCEDURE

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Amanda Kay MSN, CRNA reviews the watchman procedure. This alternative therapy for chronic atrial fibrillation patients is reviewed in this 1 Class A CE course. A procedure description, indications, anesthetic recommendations and associated risks are covered including detailed images to assist the CRNA in optimizing patient care and outcomes.

## COURSE # 100 OB ANESTHESIA

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Dr Lee Ranalli CRNA reviews the pharmacological considerations for a parturient that presents for a labor epidural and cesarean section. Recent technological advancements and anesthetic interventions to be considered during the management of a parturient are also discussed. He examines current literature regarding peripartum scenarios complicated by patient pathophysiology or previous surgical history. Valued at 1 Class A CE.

## COURSE # 101 DIFFICULT AIRWAY

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Dr Michael Debroeck, CRNA discusses preparation and care of patients with anticipated and unanticipated difficult airways. Valued at 1 Class A CE.

## COURSE # 102 AMBULATORY SURGERY UPDATE

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Dr Maribeth Massie CRNA discusses the most current criteria for patient selection for anesthesia in an ambulatory surgery center. She also discusses simulated emergency scenarios and best practice strategies for the ambulatory surgery setting. This course is valued at 1 Class A CE.

## COURSE # 103 ANTIDOTES, SYNDROMES, CHALLENGES & TREATMENTS

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Dr Peter Strube CRNA discusses evidence based pharmacology practice. Prevention and treatment of syndromes that are triggered by anesthesia are also discussed. Valued at 1 Class A CE.

## COURSE # 104 AIRWAY DISEASES AND ANESTHESIA

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Dr Michael Debroeck CRNA identifies the three basic obstructive airway diseases. Risk factors, signs & symptoms and anesthetic management for emphysema, chronic bronchitis and asthma are covered in this comprehensive lecture. This course is valued at 2 Class A CE.

## COURSE # 105 COVID-19 DISEASE COURSE AND IMPLICATIONS IN PEDIATRIC POPULATION

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Dr Maribeth Massie CRNA discusses epidemiological spread of Covid-19 virus in children. Clinical manifestations, Pediatric Multi system inflammatory syndrome (PMIS) and Kawasaki disease in children are also covered during this 1 Class A CE course.

## COURSE # 106 ADVANCED OB TECHNIQUES

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Dr Tom Baribeault describes the newest medications and technique for spinal and epidural anesthesia and analgesia. Discuss the use of point of care ultrasound in obstetrical anesthesia. Lastly new techniques for managing post-dural puncture headaches are discussed. Valued at 1 Class A CE.

## COURSE # 107 CARING FOR PATIENTS WITH SUBSTANCE USE DISORDER

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Dr Lee Ranalli discusses commonly used drugs for medication assisted treatment of substance use disorders, with emphasis on those used in opioid use disorder. Understanding the anesthetic implications for patients receiving MAT. Pain management alternatives in patients with SUD is also discussed. Valued at 1 Class A CE.

## COURSE # 108 COAGULATION AND TRAUMA

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Dr Greg Collins CRNA will describe the impact, incidence and consequences of trauma related hemorrhage. A review of the pathophysiology of acute blood loss and massive transfusion. Lastly, Dr Collins will identify the anesthetic implications and interventions of coagulopathy. This course is valued at 1 Class A CE.

## COURSE # 109 ERAS & GOAL DIRECTED FLUID THERAPY

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Dr Lee Ranalli examines evidence regarding the perioperative implications of adopting enhanced recovery after surgery [ERAS]. Additionally, a review of the anesthetic management surrounding intraoperative goal-directed fluid therapy and subsequent impact on patient morbidity and mortality. Valued at 1 Class A CE.

## COURSE # 110 IMPAIRED PROVIDER: CATCH ME IF YOU CAN

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Rigo Garcia CRNA will identify 5 common characteristics of the addicted professional. Upon completion of the course, you will be able to list early and late signs of an impaired health care professional. Lastly, you will be able to describe appropriate methods or interventions when managing a suspected impaired provider as well as description of risk factors and elements regarding work reentry programs. This course is valued at 1 Class A CE.

## COURSE # 111 LEADERSHIP FOR FOLKS WITH AND WITHOUT TITLES

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Brian Berry CRNA describes characteristics that have been associated with success in business and leadership. Through explanation, the learner will understand current metrics that influence top performance appraisals. Valued at 1 Class A CE.

## COURSE # 112 DIFFICULT AIRWAY;

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Dr Greg Collins CRNA will Interpret the 2022 ASA Practice Guidelines for Management of the Difficult Airway. Throught review of the terminology and concepts involved in difficult airway management and analysis of the algorithm provided for airway intervention. Dr Collins will also differentiate the management of anticipated versus unanticipated difficult airway scenerios. Valued at 1 Class A CE.

## COURSE # 113 NEUROMUSCULAR BLOCKADE & RESIDUAL PARALYSIS

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Dr Lee Ranalli reviews the physiology surrounding neuromuscular blockade and the neuromuscular junction. Discussion regarding pathophysiology which can complicate pharmacological management of neuromuscular blockade. Lastly, exploration of the evidence surrounding approaches to neuromuscular blockade monitoring and reversal. Valued at 1 Class A CE.

## COURSE # 114 NONDELIVERY SURGERY FOR PREGNANT PATIENTS

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Dr Lee Ranalli CRNA reviews the normal physiologic changes that occur with pregnancy. Discussion of the pharmacological considerations surrounding the care of the pregnant patient and their fetus. Dr Ranalli will examine the unique anesthetic management considerations when caring for a pregnant patient presenting for non-obstetric surgery. Valued at 1 Class A CE.

## COURSE # 115 RENAL SYSTEM & DIURETICS REVIEW

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Dr Garalynn Tomas CRNA reviews events related to acute and chronic renal failure and manage the anesthetic in accordance with evidence-based practices. A review of diuretics and their effects/actions in the renal system is included in this course as well. Valued at 1 Class A CE.

## COURSE # 116 HEART FAILURE AND VALVULAR DISORDERS

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John Shields CRNA reviews heart failure physiology and valvular disorders. Anesthetic implications and management strategies are reviewed. Valued at 1 Class A CE.

## COURSE # 117 THORACIC AND ABDOMINAL FASCIAL PLANE BLOCKS

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Dr Greg Collins CRNA examines the anatomy and innervation of the thoracic and abdominal muscle fascial planes. Review of the thoracic and abdominal dermatomes and expectations regarding block coverage. Dr Collins helps the learner develop strategies for incorporating regional anesthesia into the care of patients undergoing the thorax, abdomen or pelvis. This course is valued at 1 Class A CE.

## COURSE # 118 OUTPATIENT GASTROANESTHESIA

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Andrew Stoeber CRNA reviews the criteria, common anesthetic medications and strategies for emergency scenarios in outpatient gastroenterology anesthesia. Valued at 1 Class A CE.