



Neuro-APP Certificate Program

Participant Handbook

American Association of Neuroscience Nurses and
American Board of Neuroscience Nursing

June 2026

PROGRAM DESCRIPTION

The *Certificate Program for the Neuroscience Advanced Practice Provider (Neuro-APP)* is an assessment-based certificate program that uses instructional design principles to deliver an online self-paced educational course followed by a post-assessment. This course will equip participants with the tools to safely care for neuroscience patients as an Advanced Practice Provider, while providing quality care demanded by healthcare organizations, regulatory agencies, and patients. All participants will earn nursing CE contact hours and Category 1 CME credits through AAPA. Participants who are advanced practice providers will earn an American Board of Neuroscience Nursing (ABNN) certificate of added education that indicates attainment of knowledge upon successful completion of the course. Please see further information in the Course Requirements section about nursing CE contact hours, Category 1 CME credits, and the certificate of added education.

The primary purpose of this certificate program is to enhance foundational knowledge and promote the delivery of evidence-based care for neuroscience patients cared for by advanced practice providers.

The program consists of thirteen (13) online modules, presented sequentially with a post-test at the end of the program. A detailed course outline is available at the end of the handbook. Participants who purchase and complete the 13-module program will earn nursing CE contact hours and Category 1 CME credits. Participating APPs will also earn the certificate as a ***Neuroscience Advanced Practice Provider***.

- **Module I** – Foundations of Neuroscience
- **Module II** – Cerebrovascular
- **Module III** – Neurocritical Care
- **Module IV** – Neurotrauma Care
- **Module V** – Epilepsy and Seizure Disorders
- **Module VI** – Disorders of the Spine
- **Module VII** – Neuro-oncology
- **Module VIII** – General Neurology & Neurosurgery
- **Module IX** – Infectious and Immune-Related Disease
- **Module X** – Neuromuscular Disorders
- **Module XI** – Pediatric Neurology & Neurosurgery
- **Module XII** – Geriatric Neurology
- **Module XIII** – Advanced Practice, Ethical, and Legal Considerations

Participants will have access to the modules, course, and post-assessment for **six (6) months** from the time of purchase. There is no time limit to complete a module. Participants may navigate forward and backwards through the courses to review any content. Handouts are available for download once purchased. It is advisable to use these slides to enhance your learning. Please note the handouts follow the main points of the modules, but they are not an exact replica of the course due to the interactive nature of the modules.

Disclaimer: Unless otherwise specified, medication dosing discussed in this course is intended for adult patients. Pediatric dosing is not addressed in this program and should be determined using current pediatric-specific references, institutional policies, weight-based dosing standards, and applicable national guidelines. All medication doses and pharmacologic recommendations should be verified before prescribing or administering therapy, taking into account patient-specific factors and institutional protocols.

PROGRAM DEVELOPMENT/HISTORY

In 2022, the American Association of Neuroscience Nurses (AANN) and the American Board of Neuroscience Nursing (ABNN) identified the need for an educational course and assessment specific to advanced practice providers. The organizations approved the collaboration on the development of the Certificate Program for the Neuroscience Advanced Practice Provider. AANN is solely responsible for the development of educational content. ABNN is solely responsible for the development of the post-assessment and for issuing the certificate of added education.

The Co-Editors were identified as Subject Matter Experts (SMEs) to develop the content outline of the program using their expertise and knowledge in the field as a basis for development. Additional SMEs were selected as Contributors to re-validate that the content for the program was relevant, comprehensive, and inclusive for professionals working in the neuroscience advanced practice healthcare environment. AANN contributors developed the modules based on the content outline using current references to ensure that program covers all fundamental advanced practice care concepts.

Knowledge checks and the post-assessment were developed by ABNN item writers who were selected based on their expertise in writing items for the Certified Neuroscience Registered Nurse (CNRN) and Stroke Certified Registered Nurse (SCRN) examinations. All item writers were trained on evaluation principles as well as writing sound items. Once items were developed, they were reviewed to ensure content accuracy, proper citation for each item, and appropriate number of items based on the length of each module. Items were also evaluated for terminology, phrases, idioms, and language that may be sexist or racist, or may offend or discriminate against any legally protected subgroup in the candidate population.

COURSE REQUIREMENTS

This program is designed for advanced practice providers (APPs) with an interest in and foundational understanding of neuroscience patient care. The curriculum is comprehensive and builds upon core neuroscience concepts. APPs who successfully complete the program will earn a certificate of added education. **While other healthcare professionals will also benefit from the content and will receive continuing education credit for their participation, the certificate of added education is awarded exclusively to advanced practice providers.**

To be considered an APP, one must hold a registered, unencumbered APRN or PA license, complete a graduate-level nursing or PA program (master's or doctoral), and pass a national certification exam. APPs may include Nurse Practitioners (NPs), Clinical Nurse Specialists (CNSs), Physicians Associates (PAs), or any other medical provider with an advanced practice license. For verification purposes, **5% of all purchases will be audited every month to send in a copy of licensure or degree.** If chosen for the audit, the participant will be contacted by ABNN and subsequently must provide a copy of any of the following licenses for verification: APRN, NP, CNS, PA, CRNA, or CNM. If you have an APP license that is not listed, please inquire at info@aann.org to verify if it will be accepted.

LEARNING OBJECTIVES

At the completion of this activity, the participant will be able to:

- Demonstrate a comprehensive understanding of pathophysiology, clinical presentation, and management strategies for a broad range of neurological disorders
- Exhibit proficiency in the use of advanced diagnostic tools to diagnose neurologic conditions

- Coordinate comprehensive care for patients with neurologic disorders, integrating multidisciplinary approaches to address complex clinical needs in inpatient and outpatient settings
- Apply pharmacologic principles in the management of neurologic disorders, including appropriate selection and monitoring of therapies
- Exhibit leadership in ethical decision-making, informed consent, and end-of-life care planning

PROGRAM ADMINISTRATION

- Self-paced online program with downloadable PDF files of presentations
- Access to the course and post-assessment throughout a 6-month window
- Knowledge checks and interactions throughout each module to assess whether learning objectives have been met
- Final post-assessment when modules have been completed
- Final evaluation of the program upon completion

KNOWLEDGE CHECKS/POST-ASSESSMENT

Each module contains interactions or knowledge checks to assess if the learning objectives for the course have been met. There will be a final post-assessment once all modules have been completed. The post-assessment questions are multiple-choice, single answer. Participants must pass the post-assessment with a score of >80%. If the participant does not pass, they can access the modules again, going back to review materials and then test again. Participants will have three (3) chances to successfully pass the post-assessment. The post-assessment for those taking the program will be **80 items** in length and only include content related to those modules.

EXPECTED OUTCOMES

Upon completion of this activity, the participant will demonstrate knowledge of neuroscience advanced practice care and management by passing the post-assessments with a score of >80%. To receive nursing CE contact hours and Category 1 CME credits and, for advanced practice providers, the certificate of added education, participants must:

- Complete all of the course modules
- Successfully complete the post-assessment with a score of 80% or higher
- Submit the course evaluation

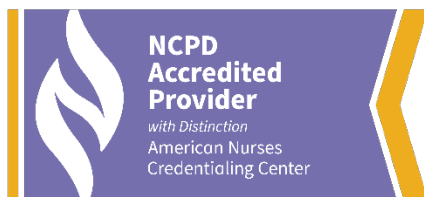
It is important to adhere to all aspects of the AANN Educational Integrity statement as well.

CERTIFICATE OF ADDED EDUCATION, CE, and CME

Advanced practice providers who complete the course and pass all assessments will earn a **certificate of added education** as a **Neuroscience Advanced Practice Provider**. The recipients of this credential may represent themselves as a “certificate holder as a Neuro-APP.”

Disclaimer: *This is a certificate of added education and does not confer a degree, specialty certification, licensure, or expanded scope of practice.*

All participants will also receive **20 nursing CE contact hours and Category 1 CME credits, and 5 pharmacology hours**, and a certificate of completion from AANN upon completion of the program. Credit for this activity will be awarded through July 28, 2029.



The American Association of Neuroscience Nurses (AANN) is accredited with distinction as a provider of nursing continuing professional development by the American Nurses Credentialing Center's Commission on Accreditation in Nursing Continuing Professional Development. The American Association of Neuroscience Nurses is accredited as a provider of continuing education by the California Board of Registered Nursing (CEP:13331)



This activity has been reviewed by the American Academy of Physician Associates Review Panel and is compliant with AAPA CME Criteria. This activity is designated for 20 AAPA Category 1 CME credits. Approval is valid from 7/29/2026 to 7/28/2027. PAs should only claim credit commensurate with the extent of their participation. AAPA reference number: CME-2015652.

RENEWAL

The Certificate for the Neuroscience Advanced Practice Provider must be renewed every **three (3) years** to ensure continued growth and maintenance of advanced neuroscience knowledge. To renew the certificate, the candidate must complete **at least 30 continuing education hours** related to advanced practice in neuroscience during the 3-year cycle. The renewal must be successfully completed by December 31st of your third (3rd) year. AANN and ABNN will provide renewal information in the middle of the year that the candidate is due to recertify; however, it is ultimately the responsibility of the candidate to complete the renewal process. The renewal process will not be available until June of your third (3rd) year.

FEES

Individual

AANN Member Price	Non-member Price
\$300.00	\$450.00

Facility/Group Purchases – Institutions are eligible for a 10% discount when you purchase 10 or more subscriptions to the Neuro-APP Certificate Program. All group purchasing prices are based off the AANN member rate of \$300.00.

Number of Subscriptions	% discount	Price per participant
10+	10% off	\$270.00

CANCELLATION/REFUND POLICY

Purchase of the Certificate Program for the Neuroscience Advanced Practice Provider (Neuro-APP) is intended for use only by the individual who purchased the course. Once the review course is purchased, no refunds will be issued.

COPYRIGHTED MATERIAL

All educational content and post-assessment questions are the copyrighted property of AANN and ABNN. All rights reserved. Any unauthorized reprint, use, distribution, or commercial exploitation of this material, in whole or in part, is strictly prohibited. No part of this publication or course may be stored, reproduced or transmitted in any form or by any means, electronic or mechanical, including copying, recording, or by any information storage and retrieval system

without express written permission from the author/publisher. Doing so may subject the participant to severe civil and criminal penalties. All post-assessment items are the copyrighted property of ABNN. It is forbidden under federal copyright law to copy, reproduce, distribute, or display these items by any means. Candidates are expected to take the post-assessments by themselves in a secure, private location. Any sharing of post-assessment items or answers will directly violate ABNN's policy and could potentially lead to revocation of the certificate. For information, contact the AANN and ABNN at 847-375-4733.

CONTACT

If there are any questions about the Certificate Program or the information provided in this handbook, please contact AANN at info@aann.org.

APP CERTIFICATE PROGRAM CONTENT OUTLINE

MODULE I – FOUNDATIONS OF NEUROSCIENCE (7 POST-ASSESSMENT ITEMS)

- A. Overview of Neuroanatomy and Neurophysiology
- B. Advanced Assessment
 - a. Correlation/Localization
- C. Advanced Diagnostics (indications and interpretations)
 - a. Neuroimaging (CT, MRI, PET)
 - b. Electrophysiologic Studies (EEG, EMG)
 - c. Other (Labs, X-ray)

MODULE II – CEREBROVASCULAR (11 POST-ASSESSMENT ITEMS)

- A. Ischemic Stroke
 - a. Hyperacute Care
 - b. Acute Care
 - c. Post-acute Care
- B. Hemorrhagic Stroke
 - a. Subarachnoid Hemorrhage
 - i. Surgical intervention (elective & emergent)
 - b. ICH/IPH/IVH
 - c. AVM & cavernous malformations
- C. Venous sinus stenosis
- D. Primary & Secondary Stroke Prevention

MODULE III – NEUROCRITICAL CARE (6 POST-ASSESSMENT ITEMS)

- A. Cerebral Edema
- B. ICP management
 - a. Intraparenchymal vs Intraventricular monitoring
 - i. Waveform analysis
 - b. Herniation Syndromes
- C. Coma & Brain Death
- D. Post-Cardiac Arrest
 - a. Evaluation
 - b. Targeted temperature management
- E. Other ICU management (encompasses other ICU concerns)
 - a. CRRT
 - b. ARDS
 - i. Airway management
 - c. ICU Prophylaxis (DVT, GI, ABCDEF, etc.)
 - d. Nutrition

MODULE IV – NEUROTRAUMA CARE (8 POST-ASSESSMENT ITEMS)

- A. TBI (ICP concepts covered in neurocritical care)
 - a. SDH/EDH/tSAH
 - b. Surgical intervention & management
- B. Traumatic Spinal Cord Injuries (e.g. Anterior, Central, Posterior, Brown-Sequard, Cauda Equina, vertebral fractures)
 - a. Exam and care of the unstable spine

MODULE V – EPILEPSY AND SEIZURE DISORDERS (5 POST-ASSESSMENT ITEMS)

- A. Classification (e.g. Focal v. Generalized, Motor v. Nonmotor, Seizure v. Myoclonus, Status Epilepticus)
- B. Etiologies (e.g. epileptic, febrile, glycemic-related, psychogenic non-epileptic)
- C. Diagnosis and Management
 - a. Diagnostic Approach
 - b. Management
 - i. Pharmacologic (including pregnancy/birth-control considerations)
 - ii. Non-pharmacologic
 - iii. Surgical options

MODULE VI – DISORDERS OF THE SPINE (6 POST-ASSESSMENT ITEMS)

- A. Degenerative Disease (e.g. herniated disc, spinal stenosis, degenerative disc disease, spondylolisthesis)
- B. Spinal Deformities
- C. Pain control strategies (acute and chronic)
- D. Care of the postoperative patient

MODULE VII – NEURO-ONCOLOGY (3 POST-ASSESSMENT ITEMS)

- A. Primary tumors (e.g. glioblastoma, meningioma)
- B. Metastatic/Other tumors (lymphoma, leukemia, multiple myeloma)
- C. Treatment modalities (surgery, radiation, chemotherapy)
- D. Palliative Care in Neuro-Oncology

MODULE VIII – GENERAL NEUROLOGY & NEUROSURGERY (7 POST-ASSESSMENT ITEMS)

- A. Headache
- B. Pain
- C. Movement Disorders (e.g. Parkinson's, Huntington's ataxias, essential tremors)
- D. General Neurosurgery
 - a. NPH
 - b. Pseudotumor cerebri
 - c. DBS

MODULE IX – INFECTIOUS AND IMMUNE-RELATED DISEASE (5 POST-ASSESSMENT ITEMS)

- A. Infectious (e.g. Bacterial/Viral/Aseptic meningitis, encephalitis, transmissible spongiform encephalopathy, neurosyphilis)
- B. Immune (MS, transverse myelitis, vasculitis, neurosarcoidosis, optic neuritis)

MODULE X – NEUROMUSCULAR DISORDERS (6 POST-ASSESSMENT ITEMS)

- A. ALS, CIDP, CMT
- B. MG, GBS
- C. Peripheral neuropathy
- D. Muscular dystrophy

MODULE XI – PEDIATRIC NEUROLOGY & NEUROSURGERY (9 POST-ASSESSMENT ITEMS)

- A. Congenital Disorders (e.g. spina bifida, hydrocephalus)
- B. Developmental Disorders (e.g. cerebral palsy, autism spectrum)
- C. Pediatric Neurosurgical Interventions
 - a. Indications and Procedures
 - b. Postoperative Care and Long-term Management
- D. Pediatric Epilepsy (not duplicative of Epilepsy module)

MODULE XII – GERIATRIC NEUROLOGY (3 POST-ASSESSMENT ITEMS)

- A. Special considerations in geriatrics
- B. Cognitive disorders and delirium
- C. Neurodegenerative disease (e.g. Alzheimer's, Lewy Body)

MODULE XIII – ADVANCED PRACTICE, ETHICAL, AND LEGAL CONSIDERATIONS (4 POST-ASSESSMENT ITEMS)

- A. Policy Development and Evidence-Based Practice
- B. Consent and Capacity in Neurological Patients
- C. End-of-Life Care and Advanced Directives
- D. Ethical Dilemmas and Legal Framework

GLOSSARY

- Key terms
- Labs with normal for less common labs