**APPENDIX D: CERTIFICATION CONTENT OUTLINE**

For **Appendix D**, use the format example below to develop the subspecialty’s certification examination content outline. Other examples of subspecialty content outlines are available [on the UCNS website](https://www.ucns.org/Online/Online/Certification_Home.aspx?hkey=c7f37845-c035-4186-bd99-9eff677d6c90).

The purpose of the content outline is to provide the content areas of the certification examination for physicians interested in sitting for the examination, a guide for the examination committee to write the examination, and as a reference for training programs.

**Example: UCNS Neuro-oncology Certification Examination Content Outline**

The UCNS Neuro-Oncology examination committee was established to determine the level of competence for Neuro-Oncology specialists.

The following content outline is provided to examination candidates interested in the certification examination. The content outline consists of four primary categories followed by subcategories.

The written examination consists of 200 multiple choice questions.

**Content Area Percentage of Questions**

1. **Adult Primary Nervous System Tumors 35%**
2. **Pediatric Primary Nervous System Tumors 25%**
3. **Metastatic Cancer to the Nervous System 15%**
4. **Systematic Cancer-Related Neurologic Disorders 25%** 
   1. **Adult Primary Nervous System Tumors**
5. Diagnostic Methods
   * + 1. Clinical history and examination
       2. Laboratory
       3. Neuroimaging
       4. Neuropathologic
       5. Other neurodiagnostic procedures
6. Therapies
   * + 1. Standard and experimental
       2. Medical neuro-oncologic therapeutics
   1. **Pediatric Primary Nervous System Tumors**

A. Diagnostic Methods

* + - 1. Clinical history and examination
      2. Laboratory
      3. Neuroimaging
      4. Neuropathologic
      5. Other neurodiagnostic procedures

B. Therapies

1. Standard and experimental
2. Medical neuro-oncologic therapeutics
   1. **Metastatic Cancer to the Nervous System**
3. Metastases
4. Brain and spinal cord
5. Base of skull
6. Leptomeningeal
7. Epidural
8. Plexus and peripheral nerve
9. Spinal Cord Compression
   1. **Systemic Cancer-Related Neurologic Disorders**
10. Disease/Infections
11. Toxic, nutritional and metabolic encephalopathy
12. CNS and systemic infections
13. Cerebrovascular disease
14. Use of blood products and growth factor support
15. Paraneoplastic syndromes
16. Complications/Adverse Events
17. Adverse events and reactions to surgical, medical, and radiation treatment of neuro-oncology patients
18. Seizures
19. Increased intracranial pressure
20. Deep venous thromboembolism
21. Neutropenia, thrombocytopenia, anemia and related complications
22. Neuro-oncologic complications of bone marrow transplantation
23. Pain and headache management
24. Palliative and end-of-life care