### NUMBER OF ITEMS (RANGE)

<table>
<thead>
<tr>
<th>BODY SYSTEM</th>
<th>Physical Therapy Data Collection</th>
<th>Diseases/Conditions that Impact Effective Treatment</th>
<th>Interventions</th>
<th>TOTAL PER SYSTEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiovascular &amp; Pulmonary Systems</td>
<td>5-8</td>
<td>7-9</td>
<td>8-10</td>
<td>20-27</td>
</tr>
<tr>
<td>Musculoskeletal System</td>
<td>9-12</td>
<td>10-13</td>
<td>12-15</td>
<td>31-40</td>
</tr>
<tr>
<td>Neuromuscular &amp; Nervous Systems</td>
<td>8-10</td>
<td>9-12</td>
<td>10-13</td>
<td>27-35</td>
</tr>
<tr>
<td>Integumentary System</td>
<td>1-2</td>
<td>1-3</td>
<td>1-3</td>
<td>3-8</td>
</tr>
<tr>
<td>Metabolic &amp; Endocrine Systems</td>
<td>–</td>
<td>2-3</td>
<td>2-3</td>
<td>4-6</td>
</tr>
<tr>
<td>Gastrointestinal System</td>
<td>–</td>
<td>0-2</td>
<td>0-2</td>
<td>0-4</td>
</tr>
<tr>
<td>Genitourinary System</td>
<td>–</td>
<td>0-2</td>
<td>0-2</td>
<td>0-4</td>
</tr>
<tr>
<td>Lymphatic System</td>
<td>0-2</td>
<td>1-2</td>
<td>1-2</td>
<td>2-6</td>
</tr>
<tr>
<td>System Interactions</td>
<td>–</td>
<td>5-7</td>
<td>–</td>
<td>5-7</td>
</tr>
<tr>
<td><strong>TOTAL ACROSS SYSTEMS</strong></td>
<td>23-34</td>
<td>35-53</td>
<td>34-50</td>
<td>–</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NONSYSTEM</th>
<th></th>
<th></th>
<th></th>
<th>TOTAL PER NONSYSTEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equipment, Devices, &amp; Technologies</td>
<td></td>
<td></td>
<td></td>
<td>8-10</td>
</tr>
<tr>
<td>Therapeutic Modalities</td>
<td></td>
<td></td>
<td></td>
<td>5-7</td>
</tr>
<tr>
<td>Safety &amp; Protection</td>
<td></td>
<td></td>
<td></td>
<td>6-8</td>
</tr>
<tr>
<td>Professional Responsibilities</td>
<td></td>
<td></td>
<td></td>
<td>2-4</td>
</tr>
<tr>
<td>Research &amp; Evidence-Based Practice</td>
<td></td>
<td></td>
<td></td>
<td>1-3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td>140</td>
</tr>
</tbody>
</table>

Note that this blueprint covers important entry-level knowledge areas that are reasonably tested using well-constructed multiple-choice items; some important areas are excluded because they cannot be adequately assessed in a multiple-choice format, are better assessed through other elements of the licensing process, are not specific to the scope of work of physical therapist assistants, or assess standards that might vary substantially across situations or practice locations. In addition, some important knowledge areas that are not linked to specific body systems and are not explicitly mentioned in the content outline (e.g., communication skills, teaching and learning techniques, provision of telehealth) are encompassed by multiple knowledge areas that are included in the content outline and are represented in test content to a greater extent than is apparent from this outline.
CARDIOVASCULAR & PULMONARY SYSTEMS

Physical Therapy Data Collection. This category refers to knowledge of the types and applications of cardiovascular & pulmonary systems tests/measures, including outcome measures, according to current best evidence. The category includes the reaction of the cardiovascular & pulmonary systems to tests/measures and the mechanics of body movement as related to the cardiovascular & pulmonary systems. Information covered in these areas supports appropriate and effective patient/client management for rehabilitation, health promotion, and performance across the lifespan.

- Cardiovascular & pulmonary systems tests/measures, including outcome measures, and their applications according to current best evidence
- Anatomy and physiology of the cardiovascular & pulmonary systems as related to tests/measures
- Movement analysis as related to the cardiovascular & pulmonary systems (e.g., rib cage excursion, breathing pattern)

Diseases/Conditions that Impact Effective Treatment. This category refers to foundational scientific principles and knowledge of diseases and conditions of the cardiovascular & pulmonary systems to support appropriate and effective patient/client management for rehabilitation, health promotion, and performance across the lifespan.

- Cardiovascular & pulmonary systems diseases/conditions and their pathophysiology to carry out the established plan of care
- Nonpharmacological medical management of the cardiovascular & pulmonary systems (e.g., diagnostic imaging, laboratory test values, other medical tests, surgical procedures)
- The impact of pharmacology used to treat the cardiovascular & pulmonary system on physical therapy management

Interventions. This category refers to cardiovascular & pulmonary systems interventions (including types, applications, responses, and potential complications), according to current best evidence, as well as the impact on the cardiovascular & pulmonary systems of interventions performed on other systems in order to support appropriate and effective patient/client management for rehabilitation, health promotion, and performance across the lifespan.

- Cardiovascular & pulmonary systems physical therapy interventions and their applications for rehabilitation, health promotion, and performance according to current best evidence
- Anatomy and physiology of the cardiovascular & pulmonary systems as related to physical therapy interventions, daily activities, and environmental factors
- Adverse effects or complications on the cardiovascular & pulmonary systems from physical therapy interventions
- Adverse effects or complications on the cardiovascular & pulmonary systems from physical therapy interventions used on other systems
MUSCULOSKELETAL SYSTEM

Physical Therapy Data Collection. This category refers to knowledge of the types and applications of musculoskeletal system tests/measures, including outcome measures, according to current best evidence. The category includes the reaction of the musculoskeletal system to tests/measures and the mechanics of body movement as related to the musculoskeletal system. Information covered in these areas supports appropriate and effective patient/client management for rehabilitation, health promotion, and performance across the lifespan.

- Musculoskeletal system tests/measures, including outcome measures, and their applications according to current best evidence
- Anatomy and physiology of the musculoskeletal system as related to tests/measures
- Movement analysis as related to the musculoskeletal system
- Joint biomechanics and their applications

Diseases/Conditions that Impact Effective Treatment. This category refers to foundational scientific principles and knowledge of diseases and conditions of the musculoskeletal system to support appropriate and effective patient/client management for rehabilitation, health promotion, and performance across the lifespan.

- Musculoskeletal system diseases/conditions and their pathophysiology to carry out the established plan of care
- Nonpharmacological medical management of the musculoskeletal system (e.g., diagnostic imaging, laboratory test values, other medical tests, surgical procedures)
- The impact of pharmacology used to treat the musculoskeletal system on physical therapy management
- Connective tissue diseases/conditions and their pathophysiology to carry out the established plan of care

Interventions. This category refers to musculoskeletal system interventions (including types, applications, responses, and potential complications), according to current best evidence, as well as the impact on the musculoskeletal system of interventions performed on other systems in order to support appropriate and effective patient/client management for rehabilitation, health promotion, and performance across the lifespan.

- Musculoskeletal system physical therapy interventions and their applications for rehabilitation, health promotion, and performance according to current best evidence
- Anatomy and physiology of the musculoskeletal system as related to physical therapy interventions, daily activities, and environmental factors
- Adverse effects or complications on the musculoskeletal system from physical therapy interventions
- Adverse effects or complications on the musculoskeletal system from physical therapy interventions used on other systems
NEUROMUSCULAR & NERVOUS SYSTEMS

Physical Therapy Data Collection. This category refers to knowledge of the types and applications of neuromuscular & nervous systems tests/measures, including outcome measures, according to current best evidence. The category includes the reaction of the neuromuscular & nervous systems to tests/measures and the mechanics of body movement as related to the neuromuscular & nervous systems. Information covered in these areas supports appropriate and effective patient/client management for rehabilitation, health promotion, and performance across the lifespan.

- Neuromuscular & nervous systems tests/measures, including outcome measures, and their applications according to current best evidence
- Anatomy and physiology of the neuromuscular & nervous systems as related to tests/measures
- Movement analysis as related to the neuromuscular & nervous systems

Diseases/Conditions that Impact Effective Treatment. This category refers to foundational scientific principles and knowledge of diseases and conditions of the neuromuscular & nervous systems to support appropriate and effective patient/client management for rehabilitation, health promotion, and performance across the lifespan.

- Neuromuscular & nervous systems (CNS, PNS, ANS) diseases/conditions and their pathophysiology to carry out the established plan of care
- Nonpharmacological medical management of the neuromuscular & nervous systems (e.g., diagnostic imaging, laboratory test values, other medical tests, surgical procedures)
- The impact of pharmacology used to treat the neuromuscular and nervous systems on physical therapy management

Interventions. This category refers to neuromuscular & nervous systems interventions (including types, applications, responses, and potential complications), according to current best evidence, as well as the impact on the neuromuscular & nervous systems of interventions performed on other systems in order to support appropriate and effective patient/client management for rehabilitation, health promotion, and performance across the lifespan.

- Neuromuscular & nervous systems physical therapy interventions and their applications for rehabilitation, health promotion, and performance according to current best evidence
- Anatomy and physiology of the neuromuscular & nervous systems as related to physical therapy interventions, daily activities, and environmental factors
- Adverse effects or complications on the neuromuscular & nervous systems from physical therapy interventions
- Adverse effects or complications on the neuromuscular & nervous systems from physical therapy interventions used on other systems
- Motor control as related to neuromuscular & nervous systems physical therapy interventions
- Motor learning as related to neuromuscular & nervous systems physical therapy interventions
INTEGUMENTARY SYSTEM

Physical Therapy Data Collection. This category refers to knowledge of the types and applications of integumentary system tests/measures, including outcome measures, according to current best evidence. The category includes the reaction of the integumentary system to tests/measures and the mechanics of body movement as related to the integumentary system. Information covered in these areas supports appropriate and effective patient/client management for rehabilitation, health promotion, and performance across the lifespan.

- Integumentary system tests/measures, including outcome measures, and their applications according to current best evidence
- Anatomy and physiology of the integumentary system as related to tests/measures
- Movement analysis as related to the integumentary system (e.g., friction, shear, pressure, and scar mobility)

Diseases/Conditions that Impact Effective Treatment. This category refers to foundational scientific principles and knowledge of diseases and conditions of the integumentary system to support appropriate and effective patient/client management for rehabilitation, health promotion, and performance across the lifespan.

- Integumentary system diseases/conditions and their pathophysiology to carry out the established plan of care
- Nonpharmacological medical management of the integumentary system (e.g., diagnostic imaging, laboratory test values, other medical tests, surgical procedures)
- The impact of pharmacology used to treat the integumentary system on physical therapy management

Interventions. This category refers to integumentary system interventions (including types, applications, responses, and potential complications), according to current best evidence, as well as the impact on the integumentary system of interventions performed on other systems in order to support appropriate and effective patient/client management for rehabilitation, health promotion, and performance across the lifespan.

- Integumentary system physical therapy interventions and their applications for rehabilitation, health promotion, and performance according to current best evidence
- Anatomy and physiology of the integumentary system as related to physical therapy interventions, daily activities, and environmental factors
- Adverse effects or complications on the integumentary system from physical therapy and medical/surgical interventions
- Adverse effects or complications on the integumentary system from physical therapy interventions used on other systems
METABOLIC & ENDOCRINE SYSTEMS

Diseases/Conditions that Impact Effective Treatment. This category refers to foundational scientific principles and knowledge of diseases and conditions of the metabolic & endocrine systems to support appropriate and effective patient/client management for rehabilitation, health promotion, and performance across the lifespan.

- Metabolic & endocrine systems diseases/conditions and their pathophysiology to carry out the established plan of care
- Nonpharmacological medical management of the metabolic & endocrine systems (e.g., diagnostic imaging, laboratory test values, other medical tests, surgical procedures)
- The impact of pharmacology used to treat the metabolic and endocrine systems on physical therapy management

Interventions. This category refers to metabolic & endocrine systems interventions (including types, applications, responses, and potential complications), according to current best evidence, as well as the impact on the metabolic & endocrine systems of interventions performed on other systems in order to support appropriate and effective patient/client management for rehabilitation, health promotion, and performance across the lifespan.

- Metabolic & endocrine systems physical therapy interventions and their applications for rehabilitation, health promotion, and performance according to current best evidence
- Anatomy and physiology of the metabolic & endocrine systems as related to physical therapy interventions, daily activities, and environmental factors
- Adverse effects or complications on the metabolic & endocrine systems from physical therapy interventions
- Adverse effects or complications on the metabolic & endocrine systems from physical therapy interventions used on other systems
GASTROINTESTINAL SYSTEM

Diseases/Conditions that Impact Effective Treatment. This category refers to foundational scientific principles and knowledge of diseases and conditions of the gastrointestinal system to support appropriate and effective patient/client management for rehabilitation, health promotion, and performance across the lifespan.

- Gastrointestinal system diseases/conditions and their pathophysiology to carry out the established plan of care
- Nonpharmacological medical management of the gastrointestinal system (e.g., surgical procedures, diagnostic imaging, laboratory test values, other medical tests)

Interventions. This category refers to gastrointestinal system interventions (including types, applications, responses, and potential complications), according to current best evidence, as well as the impact on the gastrointestinal system of interventions performed on other systems in order to support appropriate and effective patient/client management for rehabilitation, health promotion, and performance across the lifespan.

- Gastrointestinal system physical therapy interventions and their applications for rehabilitation, health promotion, and performance according to current best evidence (e.g., positioning for reflux prevention, bowel programs)
- Anatomy and physiology of the gastrointestinal system as related to physical therapy interventions, daily activities, and environmental factors
- Adverse effects or complications on the gastrointestinal system from physical therapy interventions
- Adverse effects or complications on the gastrointestinal system from physical therapy interventions used on other systems
GENITOURINARY SYSTEM

Diseases/Conditions that Impact Effective Treatment. This category refers to foundational scientific principles and knowledge of diseases and conditions of the genitourinary system to support appropriate and effective patient/client management for rehabilitation, health promotion, and performance across the lifespan.

- Genitourinary system diseases/conditions and their pathophysiology to carry out the established plan of care
- Nonpharmacological medical management of the genitourinary system (e.g., surgical procedures, diagnostic imaging, laboratory test values, other medical tests)

Interventions. This category refers to genitourinary system interventions (including types, applications, responses, and potential complications), according to current best evidence, as well as the impact on the genitourinary system of interventions performed on other systems in order to support appropriate and effective patient/client management for rehabilitation, health promotion, and performance across the lifespan.

- Genitourinary system physical therapy interventions and their applications for rehabilitation, health promotion, and performance according to current best evidence (e.g., bladder programs, biofeedback, pelvic floor retraining)
- Anatomy and physiology of the genitourinary system as related to physical therapy interventions, daily activities, and environmental factors
- Adverse effects or complications on the genitourinary system from physical therapy interventions
- Adverse effects or complications on the genitourinary system from physical therapy interventions used on other systems
LYMPHATIC SYSTEM

Physical Therapy Data Collection. This category refers to knowledge of the types and applications of lymphatic system tests/measures, including outcome measures, according to current best evidence. The category includes the reaction of the lymphatic system to tests/measures and the mechanics of body movement as related to the lymphatic system. Information covered in these areas supports appropriate and effective patient/client management for rehabilitation, health promotion, and performance across the lifespan.

- Lymphatic system tests/measures, including outcome measures, and their applications according to current best evidence
- Anatomy and physiology of the lymphatic system as related to tests/measures
- Movement analysis as related to the lymphatic system (e.g., compensatory movement, extremity range of motion)

Diseases/Conditions that Impact Effective Treatment. This category refers to foundational scientific principles and knowledge of diseases and conditions of the lymphatic system to support appropriate and effective patient/client management for rehabilitation, health promotion, and performance across the lifespan.

- Lymphatic system diseases/conditions and their pathophysiology to carry out the established plan of care

Interventions. This category refers to lymphatic system interventions (including types, applications, responses, and potential complications), according to current best evidence, as well as the impact on the lymphatic system of interventions performed on other systems in order to support appropriate and effective patient/client management for rehabilitation, health promotion, and performance across the lifespan.

- Lymphatic system physical therapy interventions and their applications for rehabilitation, health promotion, and performance according to current best evidence
- Anatomy and physiology of the lymphatic system as related to physical therapy interventions, daily activities, and environmental factors
- Adverse effects or complications on the lymphatic system from physical therapy interventions
- Adverse effects or complications on the lymphatic system from physical therapy interventions used on other systems
SYSTEM INTERACTIONS
Diseases/Conditions that Impact Effective Treatment. This category refers to foundational scientific principles and knowledge of diseases and conditions involving system interactions to support appropriate and effective patient/client management for rehabilitation, health promotion, and performance across the lifespan.

- Diseases/conditions where the primary impact is on more than one system (e.g., cancer, multitrauma, sarcoidosis, autoimmune disorders, pregnancy) to carry out the established plan of care
- Nonpharmacological medical management of multiple systems (e.g., diagnostic imaging, other medical tests, surgical procedures)
- The impact of pharmacology used to treat multiple systems, including polypharmacy, on physical therapy management
- Impact of comorbidities/coexisting conditions on patient/client management (e.g., diabetes and hypertension; obesity and arthritis; dementia and hip fracture)
- Psychological and psychiatric conditions that impact patient/client management (e.g., grief, depression, schizophrenia)
- Dimensions of pain (acute or persistent) that impact patient/client management (e.g., psychological, social, physiological, neurological, mechanical)

EQUIPMENT, DEVICES, & TECHNOLOGIES
This category refers to the different types of equipment, devices, & technologies, use requirements, and/or contextual determinants, according to current best evidence, as well as any other influencing factors involved in the application of equipment, devices, & technologies, in order to support appropriate and effective patient/client management for rehabilitation, health promotion, and performance across the lifespan.

- Application and adjustments, indications, contraindications, and precautions of assistive and adaptive devices/technologies (e.g., walkers, wheelchairs, adaptive seating systems and positioning devices, mechanical lifts)
- Application and adjustments, indications, contraindications, and precautions of prosthetic devices/technologies (e.g., lower-extremity and upper-extremity prostheses)
- Application and adjustments, indications, contraindications, and precautions of protective, supportive, and orthotic devices/technologies (e.g., braces, helmets, compression garments, shoe inserts, splints)
THERAPEUTIC MODALITIES
This category refers to the different types of therapeutic modalities, use requirements, and/or contextual determinants, according to current best evidence, as well as any other influencing factors involved in the application of therapeutic modalities, in order to support appropriate and effective patient/client management for rehabilitation, health promotion, and performance across the lifespan.

- Applications, indications, contraindications, and precautions of thermal modalities
- Applications, indications, contraindications, and precautions of iontophoresis
- Applications, indications, contraindications, and precautions of electrotherapy modalities, excluding iontophoresis (e.g., neuromuscular electrical stimulation (NMES), transcutaneous electrical nerve stimulation (TENS), functional electrical stimulation (FES), interferential therapy, high-voltage pulsed current)
- Applications, indications, contraindications, and precautions of ultrasound modalities
- Applications, indications, contraindications, and precautions of mechanical modalities (e.g., mechanical motion devices, traction devices)
- Applications, indications, contraindications, and precautions of biofeedback
- Applications, indications, contraindications, and precautions of intermittent pneumatic compression

SAFETY & PROTECTION
This category refers to the critical issues involved in patient/client safety and protection and the responsibilities of health-care providers to ensure that patient/client management and health-care decisions take place in a secure environment.

- Factors influencing safety and injury prevention (e.g., safe patient handling, fall prevention, equipment maintenance, environmental safety)
- Function, implications, and related precautions of intravenous lines, tubes, catheters, monitoring devices, and mechanical ventilators/oxygen delivery devices
- Emergency preparedness (e.g., CPR, first aid, disaster response)
- Infection control procedures (e.g., standard/universal precautions, isolation techniques, sterile technique)
- Signs/symptoms of physical, sexual, and psychological abuse and neglect
PROFESSIONAL RESPONSIBILITIES
This category refers to the responsibilities of health-care providers to ensure that patient/client management and health-care decisions take place in a trustworthy environment.
- Standards of documentation
- Patient/client rights (e.g., ADA, IDEA, HIPAA, patient bill of rights)
- Human resource legal issues (e.g., OSHA, sexual harassment)
- Roles and responsibilities of the physical therapist, physical therapist assistant, other health-care professionals, and support staff
- Standards of professional ethics
- Standards of billing, coding, and reimbursement
- Obligations for reporting illegal, unethical, or unprofessional behaviors (e.g., fraud, abuse, neglect)
- State and federal laws, rules, regulations, and industry standards set by state and accrediting bodies (e.g., state licensing entities, Joint Commission, CARF, CMS)
- Risk management and quality assurance (e.g., policies and procedures, incident reports, peer chart review)
- Cultural factors and/or characteristics that affect patient/client management (e.g., language differences, disability, ethnicity, customs, demographics, religion, health literacy)
- Socioeconomic factors that affect patient/client management (e.g., social determinants of health)
- Applications and utilization of health information technology (e.g., electronic medical records)

RESEARCH & EVIDENCE-BASED PRACTICE
This category refers to the knowledge of basic research methods and data collection techniques necessary for interpretation of information sources and practice research to support patient/client management decisions fundamental to evidence-based practice.
- Research methodology and interpretation (e.g., qualitative, quantitative, levels of evidence)
- Data collection techniques (e.g., surveys, direct observation)
- Measurement science (e.g., reliability, validity)
- Techniques for accessing evidence (e.g., peer-reviewed publications, scientific proceedings, guidelines, clinical prediction rules)