

Advanced Practitioner Certification in Clinical Nutrition Test Specifications	Percent of Exam
Section A - Nutrition Assessment	31%
Section B - Nutrition Diagnosis	10%
Section C - Nutrition Intervention	17%
Section D - Nutrition Monitoring and Evaluation	10%
Section E - Management of Systems of Nutrition Care	20%
Section F - Design/Development of Systems of Nutrition Care	5%
Section G - Research	7%

Advanced Practitioner Certification in Clinical Nutrition Credential for Dietitians in Clinical Practice Test Specifications – Detailed Outline

	Percent of Exam
Section A - Nutrition Assessment	31%
1 Interpret nutrition-related laboratory data in context with complex clinical findings	
2 Identify barriers to nutrient delivery	
3 Determine micronutrient requirements of patients/clients	
4 Identify and interpret the laboratory data that is most relevant for nutrition assessment of patients/clients	
5 Use components of a diet history that are most critical for the development of a nutrition diagnosis	
6 Select nutrition screening and assessment tools that are most appropriate for specific patient/client populations	
7 Interpret anthropometric and body composition measurements for specific patient/client conditions	
8 Select the most appropriate predictive method for estimating calorie and protein needs	
9 Conduct a detailed health and social history of a patient/client	
10 Identify the diagnostic tests and procedures that are most relevant for the nutrition assessment of a patient/client	
11 Evaluate a patient/client's medications to assess their potential impact on a nutrition diagnosis and nutrition outcomes	
12 Evaluate a patient/client's social environment and lifestyle to determine the resources and support mechanisms that are available	
13 Evaluate the interactions among medications, botanicals, and nutrients, and their potential impact on a patient/client's nutrition status and condition	
14 Conduct in-depth nutrition-focused physical examinations (NFPEs), using tools and equipment that provide the most appropriate diagnostic information	
15 Interpret in-depth nutrition-focused physical examination (NFPE) findings to develop nutrition diagnoses and nutrition interventions	
16 Evaluate a patient/client's psychosocial condition and other sources of stress that may impact nutrition status	
17 Adapt communication/interview style to optimize the effectiveness of interactions with a patient/client	

- 18 Evaluate a patient/client's feeding skills and abilities to determine the need for adaptive equipment
- 19 Assess a patient/client's compliance with a prescribed regimen

Section B - Nutrition Diagnosis

10%

- 1 Utilize the most appropriate resources to collect the information required to diagnose patients/clients who have limited ability to communicate
- 2 Diagnose nutrition problems based on signs and symptoms in the patient/client history and nutrition-focused physical examination (NFPE)
- 3 Prioritize nutrition diagnoses to optimize the nutrition intervention
- 4 Develop nutrition diagnosis based on comprehensive assessment of a patient/client's condition
- 5 Revise/adapt nutrition diagnosis to reflect changes in a patient/client's condition and/or response to nutrition interventions
- 6 Identify the etiologies of patient/client nutrition diagnosis populations

Section C - Nutrition Intervention

17%

- 1 Distinguish between the effects of the nutrition intervention and the effects of the disease process or the medical intervention
- 2 Recommend or refer for adaptive equipment based on a patient/client's feeding skills
- 3 Use customized, patient-centered education/counseling/coaching models
- 4 Guide patients/clients and their families in healthcare decision making and goal setting using patient-centered, evidence-based approach
- 5 Adapt nutritional intervention to reflect patient/client attitude, knowledge, and beliefs about food and nutrition practices
- 6 Align nutrition care with medical goals to impact the patient/client outcomes
- 2 Lead discussions regarding goals of care (including end-of-life nutrition-related decisions) with patient/client or surrogate decision maker
- 3 Arrange referrals to facilitate continuity of care (such as referrals to home care agencies or for community resources) as dictated by the patient/client's needs
- 4 Refer patient/client to appropriate nutrition/dietetics specialists
- 5 Refer patient/client to appropriate healthcare team members
- 6 Evaluate efficacy, safety, and effectiveness of unconventional approaches to nutrition care

Section D - Nutrition Monitoring and Evaluation

10%

- 1 Evaluate the nutrition implications of a patient/client's treatment plan and adjust as needed

- 2 Verify continuity of care (such as coordinating care with previous or future facilities and services)
- 3 Evaluate deviations from an expected outcome or established guideline/indicator for a given nutrition intervention for a patient/client
- 4 Identify measurable outcome indicators and clinically indicated time frames for a nutrition intervention using an evidence-based approach
- 5 Assess an intervention's effectiveness and/or adverse effects
- 6 Monitor patient/client acceptance of nutrition intervention and adjust plan of care accordingly

Section E - Management of Systems of Nutrition Care

20%

- 1 Lead an interprofessional team in designing nutrition-related services, programs, or protocols
- 2 Develop standards for nutrition care, such as protocols, guidelines, and practice tools
- 3 Direct continuous quality improvement programs
- 4 Evaluate the effectiveness of continuous quality improvement programs
- 5 Evaluate policies and procedures for patient/client care for cost, effectiveness, and value
- 6 Develop cost-effective methods, tools, and techniques for nutrition care
- 7 Analyze the safety aspects of practices and procedures in delivering nutrition services and products
- 8 Evaluate existing and innovative tools, technologies, and techniques for nutrition care and stakeholder acceptance
- 9 Ensure compliance with local, state, and national rules and regulations
- 10 Promote a culture of proactive, patient-centered care
- 11 Advocate for new (or modifications to) local, state, and national rules and regulations to improve nutrition care
- 12 Support the growth, development, and advancement of colleagues

Section F - Design/Development of Systems of Nutrition Care

5%

- 1 Develop programs or systems of care, such as support groups and educational programs, that address the needs of target populations
- 2 Develop and implement new tools, techniques, and programs for nutrition care
- 3 Create or grow programs to expand services, add value, and/or generate revenue
- 4 Design and develop continuous quality improvement programs

Section G - Research

7%

- 1 Assess the validity, rigor, and bias of research studies
- 2 Analyze data from nutrition care research

3 Communicate research findings

4 Evaluate published research using an evidence-based approach to determine applicability to a clinical nutrition practice setting

5 Utilize systematic methods to obtain published evidence to answer clinical nutrition questions and inform decisions

KSAs

Knowledge of drug-drug, drug-nutrient, drug-food interactions and depletions

Knowledge of interrelationship of laboratory data

Knowledge of interviewing techniques and theories

Knowledge of nutrigenomics (how genetic information affects the client/patient nutritional state)

Knowledge of pathophysiology

Knowledge of pharmacology

Knowledge of research study design

Knowledge of sources of applicable rules and regulations

Knowledge of strategic planning concepts and processes

Knowledge of the concepts of patient/client-centered nutrition care

Knowledge of the expected timeframe and limitations of an intervention to affect change

Knowledge of the language/tasks of non-clinical professionals (such as information technology professionals, management professionals and insurance professionals)

Knowledge of when to perform an in-depth NFPE

Skill in discussing sensitive issues (such as end-of-life) with patient/clients with empathy

Ability to advocate for patient-centered care

Ability to anticipate and measure the outcome of a nutrition intervention

Ability to apply anthropometric and body composition results to develop the nutrition interventions

Ability to apply appropriate predictive equations

Ability to assess enteral and parenteral nutrition formulary during shortages and/or adverse events

Ability to assess external resources that may be lacking in a community/system

Ability to assess financial allocations and resources

Ability to assess information about medications, botanicals and supplements

Ability to assess institutional/community level research including protocols, guidelines, practice tools, etc.

Ability to assess laboratory data in the context of the disease process/treatment

Ability to assess laboratory data in the context of the patient's functional/psychosocial/economic status

Ability to assess medication availability, efficacy and quality during shortages and/or adverse events

Ability to assess the most practical, safe and effective alternative for a given patient situation

Ability to assess the patient/client's functional ability in relation to food acquisition and feeding

Ability to assess the strengths and limitations of technologies and equipment

Ability to assess the validity of a test for a given client/patient condition

Ability to assess the validity of laboratory results (including the process used to collect and analyze the specimen)

Ability to assimilate evidence-based research into practice

Ability to assimilate knowledge of food composition, human physiology and metabolism, and nutrient metabolism in relation to health and disease

Ability to autonomously implement appropriate tests, referrals and consults

Ability to benchmark current practice with best practices

Ability to communicate complex health care issues to non-health care professionals

Ability to conduct systematic literature searches

Ability to create specific, measurable, attainable, realistic, timed goals

Ability to critically appraise research studies for validity, strengths and gaps

Ability to determine appropriate micronutrient supplementation, repletion and duration of therapy

Ability to determine the best source of information to assess the diet history

Ability to determine the most important actionable nutrition intervention

Ability to determine whether research is evidence-based

Ability to determine whether there is additional information needed to assess the social environment and the availability of resources

Ability to differentiate normal from abnormal findings in a NFPE

Ability to direct continuity of nutrition care

Ability to discern data required to efficiently and accurately determine the most appropriate nutrition diagnoses

Ability to disseminate results of research to other professionals

Ability to effectively use patient/client interviewing and counseling techniques

Ability to efficiently and accurately assess the appropriateness of potential nutritional interventions

Ability to efficiently and accurately determine data/trends that require nutrition intervention for a given patient condition

Ability to evaluate lab values over time

Ability to evaluate outcomes and identify opportunities for improvements

Ability to evaluate the effectiveness of patient care monitoring plans/programs by comparing audit outcomes to evidence based goals/guidelines

Ability to identify and address the goals of care with patient/client or surrogate decision maker

Ability to identify and assess clinical patterns with minimal information

Ability to identify and define data required to measure clinical outcomes associated with patient/client goals

Ability to identify and differentiate causes of nutrition problems

Ability to identify micronutrient deficiencies and toxicities

Ability to incorporate nutrition programs in local, national or global health care initiatives

Ability to interpret and apply rules and regulations and/or policies and procedures

Ability to interpret statistical data from research

Ability to organize and lead interprofessional teams

Ability to perform a cost-benefit analysis

Ability to perform a needs assessment/environmental scan

Ability to perform an in-depth nutrition-focused physical examination (NFPE) efficiently

Ability to recognize and overcome barriers to successful outcomes

Ability to recognize non-apparent patient/client centric facts, history or beliefs that may impede outcomes

Ability to recognize when lab values may be abnormal due to pathophysiological reasons, medications or other factors

Ability to reevaluate nutrition interventions based on new information

Ability to use a standardized evidence analysis process to evaluate published research

Ability to use clinical information systems (databases) for the collection of data to support initiatives to improve patient care

Ability to use efficient, tailored patient-centered counseling skills to set nutrition-related goals and outcomes

Ability to write proposals for funding