CNS Supervised Practice Experience Competencies

The following are the competencies to be addressed by the supervised practice experience. Although in-depth experience is not expected for each competency, candidates should have a basic understanding of the application of each in practice. The level of supervision should be adequate to enable the supervisor to attest to these competencies.

1. Category A: Nutrition Assessment (Min. 200 Hours Required)

   **Definition:** Nutrition assessment is an ongoing, dynamic process that incorporates a systematic approach to collect, record, and interpret relevant data regarding a client’s health status and lifestyle. The nutrition assessment is used to identify existing nutritional health issues to enable effective treatment and prevention strategies and monitor improvements.

   **Competencies:**
   a. Health history. Know how to elicit a patient-appropriate health history, including data such as:
      i. Current health concerns, past and present health history, and family health history
      ii. Body weight history and recent weight changes
      iii. Psychosocial history, including access to food, occupation, living situation, smoking, drug and alcohol use
      iv. Medication and supplement use
      v. Review of body systems
      vi. Mastication and swallowing difficulty, appetite and bowel function
      vii. Pregnancy history and/or desired pregnancy
      viii. Sleep patterns, stress level
   b. Diet and lifestyle history
      i. Obtain a focused nutrition history via multi-day food record, a food frequency record and a 24-hour recall
      ii. Identify limitations of food records, food frequency questionnaires, and recalls and understand the appropriate use of these tools
      iii. Determine suboptimal dietary intake or status of nutrients
      iv. Evaluate eating patterns, stress eating tendencies and disordered eating behaviors
      v. Identify dietary avoidance behaviors
      vi. Identify allergies and sensitivities to foods and dietary supplement ingredients based on history and symptoms reports
      vii. Physical activity, identifying frequency, intensity, type and limitations to exercise
      viii. Identify stages of change for making dietary and other lifestyle modifications
   c. Biochemical and laboratory assessment
      i. Evaluate signs of vitamin and mineral deficiencies or toxicities
      ii. Interpret laboratory data as it applies to nutrition-related conditions and systemic imbalances
      iii. Monitor growth, weight and BMI
      iv. Identify hormonal and neurotransmitter imbalances based on laboratory assessment
      v. Identify personalized and biochemical laboratory value ranges as compared to normal reference value ranges
d. Genetic/genomic factors
   i. Demonstrate understanding of the basics of gene expression, transcription and translation
   ii. Demonstrate understanding of genetic disorders in nutrient metabolism
   iii. Evaluate family health history as it relates to current health status and risk factors

e. Anthropometrics
   i. Be familiar with the following anthropometric measurements: mid-arm circumference, triceps skin-fold and mid-arm muscle circumference
   ii. Be familiar with bioelectric impedance
   iii. Be familiar with waist to hip ratio measurements
   iv. Be familiar with emerging tools of anthropometrics (ultrasound, DEXA, MRI, CT scanning, and air displacement plethysmography)

f. Assessment of diet impact on health status
   i. Be familiar with computerized analysis of food intake
   ii. Determine individual micro- and macro-nutrient requirements using guidelines and recommendations customizing them according to the individual’s age, sex, body type, reproductive status, activity level and metabolism

g. Identification of clinical status
   i. Identify symptoms that require medical referral
   ii. Correlate constellations of symptoms for the most effective and efficient treatment protocols
2. **Category B: Nutrition Intervention, Education, Counseling or Management (Min. 200 hours Required)**

**Definition:** A nutrition intervention consists of planned actions designed to change nutrition-related or lifestyle-related behaviors for the purpose of resolving health issues or optimizing health. It may involve any of the following activities: research related to treatment plan, development of medical nutrition therapy interventions, client education, counseling and management of individuals or groups, food preparation instruction, shopping, sustainability practices, and behavioral/motivational counseling.

**Competencies:**

a. Nutrition relationship to disease or system (Medical Nutrition Therapy)
   Formulate applicable dietary and nutraceutical interventions for prevention, modulation, and management for the following chronic, systemic disorders such as:
   i. Obesity
   ii. Cardiovascular disease, dyslipidemias, and hypertension
   iii. Insulin resistance and non-insulin dependent diabetes
   iv. Endocrine disorders
   v. Autoimmune disorders
   vi. Gastrointestinal disorders (gastroesophageal reflux disease, peptic ulcer disease, dumping syndrome, irritable bowel syndrome, inflammatory bowel disease, short bowel syndrome, diverticulosis, and colorectal cancer)
   vii. Hematologic disorders
   viii. Bone disorders, such as osteopenia and osteoporosis
   ix. Hepatic disorders
   x. Pulmonary disorders
   xi. Renal disorders
   xii. Cognitive/neurological disorders
   xiii. Food allergies and intolerances
   xiv. Apply nutritional therapy in compromised individuals (those undergoing chemotherapy, radiation, surgical procedures, dialysis, bariatric surgery, or those who cannot masticate, swallow, or absorb nutrients due to medical interventional procedures or treatments)
   xv. Apply specific dietary and nutraceutical modifications as adjuvant therapy in immuno-compromised individuals (those with HIV-AIDS, cancer, tuberculosis)

b. Drug-nutrient/ drug-herb interactions
   i. Identify common drug-nutrient and drug-herb-interactions affecting glucoregulation, coagulation, and metabolism
   ii. Identify drug/herb action, duration of action, indication and dose of a patient’s current therapeutic regimen
   iii. Identify dietary factors that affect the actions of common drugs and the underlying mechanisms of action
   iv. Identify nutrient depletions which can occur related to commonly used drugs
   v. Identify interactions between drugs and foods (including herbs) and their constituents
   vi. Assess the interaction of nutrients with alcohol

c. Interactions between nutrients
i. Assess the synergistic effects and antagonistic interactions of nutrients in foods and supplements and how they may impact the health status of an individual

d. Dietary therapeutics and behavior optimization
   i. Assess the advantages and limitations of popular diets
   ii. Identify the therapeutic usefulness of specific foods
   iii. Apply scientific evidence and methods when developing specific dietary recommendations
   iv. Assess the link between behaviors learned in childhood and their impact on obesity and other chronic health issues in adulthood
   v. Apply psychological and motivational skills to enhance clinical outcomes
   vi. Gauge and optimize compliance with recommendations

e. Nutraceutical and supplement therapeutics
   i. Apply evidence-based dose and duration of use of nutraceuticals for common conditions
   ii. Develop working knowledge of good manufacturing practices and other markers of quality end-products

f. Eating behaviors and eating disorders
   i. Assess the effects of disordered eating patterns on nutritional status, body composition and function

g. Data comprehension and translation
   i. Assess individual patient data and compare with other data (national guidelines, policies, consensus statements, expert opinions and previous outcome experience) to develop nutritional therapeutic interventions

h. Botanical and related therapeutics
   i. Develop working knowledge of the effects of common botanical supplements and their indication for health promotion
   ii. Assess the safe use and potential toxicity of botanical supplements
3. Category C: Nutrition Monitoring or Evaluation (min 200 hours required)

**Definition:** Regular re-evaluation of treatment plan and goals in accordance with evaluation of improvements made based on symptoms and overall health status. Includes review of clinical research, standards of care, and other indirect contact.

**Competencies:** Included in Categories A and B above.

The following competencies are to be addressed within the above categories

a. **Professional Issues**
   i. Food quality and safety
      1. Develop working knowledge of the causes and preventive measures for the most common food borne illnesses
      2. Monitor current developments and outbreaks of food borne illnesses and translate media information into science-based evidence and patient recommendations
      3. Assess populations at risk for food safety issues
      4. Assess factors that may negatively affect food quality (pesticides, xenobiotics, GMO’s, hormones, food additives, PCB, heavy metals)
   ii. Cultural issues, ethical standards and boundaries
      1. Apply all HIPAA compliance requirements
      2. Refer clients to appropriate healthcare providers when their care requires services outside the scope of practice of a CNS
      3. Assess the impact of personal and cultural beliefs on dietary and lifestyle patterns and be able to address these beliefs when developing nutrition intervention plans

b. **Epidemiology and biostatistics**
   i. Apply the knowledge of basic epidemiology of nutrition into practice
   ii. Utilize knowledge from research studies to compare outcomes and translate them into science-based therapies for clients

Remaining hours may be in any of the above categories.