

**Certified Clinical Nutritionists (CCN)**  
**Exam Candidate Handbook**  
for  
**Post Graduate Studies in Clinical Nutrition**  
and  
**The CCN Examination**



**The Clinical Nutrition Certification Board**

# CLINICAL NUTRITION CERTIFICATION BOARD (CNCB)

Certified Clinical Nutritionist (CCN)  
**Exam Candidate Handbook**

*for*  
*THE POST GRADUATE STUDIES IN CLINICAL NUTRITION*  
and  
THE CCN EXAMINATION

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The materials in this Handbook are designed for educational purposes only.

The information outlined in this Handbook is for education only and if administered, should be by trained, certified or licensed health care practitioners who are aware of the efficacy of nutrients, herbals, and homeopathics to maintain a health environment within the individual body chemistry.

The use of any product or laboratory test should always be according to the manufacturer's instructions or lab directions.

CNCB is a non-profit 501 (c) (3) tax exempt certification agency which provides professional education training, examining and certifying for alternative or complementary medical, clinical nutrition, health care professions, specialty credentialing programs and state license/certification examinations. CNCB is experienced in the provision and oversight of training programs leading to a national/international certification/license.

While the information in this educational Handbook is thought to be accurate, CNCB assumes no responsibility for the use of any nutrient, herbal, homeopathic remedy or laboratory test mentioned herein.

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# CLINICAL NUTRITION CERTIFICATION BOARD

<b>Certification Board:</b>	Clinical Nutrition Certification Board
<b>Acronym:</b>	CNCB
<b>Credentials:</b>	Certified Clinical Nutritionist(CCN)
<b>Year Founded:</b>	1990-91, Dallas, Texas
<b>Mailing Address:</b>	15280 Addison Road, Suite 130 Addison, TX 75001 (972) 250-2829 Fax: (972) 250-0233
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<b>Publications:</b>	<i>CCN Continuing Education Handbook</i> <i>CCN Code of Ethics and Disciplinary Procedures</i> <i>CCN Examination Study Guide</i> <i>CNCB Post Graduate Studies in Clinical Nutrition and CCN Examination Handbook</i>

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<b>Membership Organization for CCN &amp; ACN Credentials:</b>	International and American Associations of Clinical Nutritionists (IAACN)
<b>Founded:</b>	1983, Orlando, Florida
<b>Memberships:</b>	Professional Members (CCN's) Professional Associate Members (eligible doctors without CCN) Associate Members (eligible nutritional consultants working toward CCN)
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***The Journal of Applied Nutrition*** (quarterly by subscription)  
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# PREFACE

## **The Discipline and Profession of Human Clinical Nutrition**

Taber's Medical Dictionary defines nutrition as the "sum total of the processes involved in the taking in and utilization of food substances by which growth, repair and maintenance of activities in the body as a whole or in any of its parts are accomplished, includes ingestion, digestion, absorption, and metabolism".<sup>1</sup>

The discipline of Human Clinical Nutrition applies principles derived from current biochemical and physiological scientific knowledge for the purpose of promoting optimal health. Optimal health is at risk when there is nutritional deficiency. Deficiency leads to biochemical and metabolic imbalances, to cellular malnutrition and degeneration. Organ and gland dysfunction result and eventually cause nutrition-related diseases. "Nutrition must be for real people of all ages and genetic backgrounds, including both the weak and the robust. Because of the facts of biochemical individuality, each person's nutrition is characteristically unique, and it is possible that disease often develops as a result of inadequate nutritional adjustments to unusual needs."<sup>2</sup>

"Nutrition is a universal biological process. Like humans, all other organisms on earth subsist, when necessary, on imperfect nutrition, and the state of their health and the degree of their welfare depends on the quality of the nutrition they get. Since entirely different kinds of organisms - plants, animals, bacteria, etc. - have similar fundamental

needs, organisms generally feed on each other. We people commonly get the 40 or more essential nutrients .....from the tissues of plants and animals. If we try to live on sugars, starch, alcohol and refined fats, we fail because these do not contain the fundamental ABC's of nutrition. We improve our nutrition when we get a better balance between the ABCs and when we minimize the use of those things like sugar and alcohol which are completely devoid of the ABC essentials."<sup>3</sup>

"Medicine will enjoy far greater success when it learns how to use as remedial agents those chemical substances that belong naturally in the human body rather than those which are wholly foreign to it,"<sup>4</sup> Clinical nutrition is the discipline which exemplifies this principle.

### **Who are clinical nutritionists?**

The very broad field of nutrition, which has come into mainstream understanding and acceptance, includes many varied and established levels of education, expertise, service, scope of practice and mode of practice. Clinical Nutritionists may be Masters, PhD and Doctors of Science graduates holding advanced degrees in clinical nutrition. In many cases, nutritionist practitioners are already licensed health care professionals in other disciplines. The field includes medical physicians, dentists, osteopaths, chiropractors, pharmacists, nurses, mental health professionals, podiatrists, optometrists and registered dietitians, as well as medical scientists in biochemistry, physiology, molecular biology, pathology, psychology, endocrinology and oncology. These are practitioners who have found that the addition of nutrition to the existing practice will in many cases, aid in rapid restoration to health.

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<sup>1</sup>Taber's Cyclopedic Medical Dictionary, 17<sup>th</sup> Edition Clayton L. Thomas, MD, MPH, Editor, p. 1337

<sup>2-6</sup>Williams, Roger J., Ph.D., D.Sc.

The Advancement of Nutrition, p. v,vi Clayton Foundation Biochemical Institute The University of Texas at Austin, 1982.

**CCNs Located in 40 States  
& 5 Foreign Countries**

ALASKA	MINNESOTA AR-
KANSAS	MISSOURI
ARIZONA	NEVADA
	AUSTRALIA NEW
HAMPSHIRE CALIFORNIA	NEW
JERSEY CANADANEW MEXICO	
CONNECTICUT NEW YORK COLO-	
RADO	OHIO
DC	OKLAHOMA DEL-
AWARE	OREGON FLORI-
DA	PENNSYLVANIA
GEORGIA	RHODE ISLAND
HAWAII	S. CAROLINA
IDAHO	S. DAKOTA
ILLINOIS	SWITZERLAND
INDIANA	TENNESSEE
IOWA	TEXAS
KANSAS	UTAH
LOUISIANA	VERMONT
MAINE	VIRGINIA
MARYLAND	WASHINGTON
MICHIGAN	WISCONSIN
MASSACHUSETTS	

**The goal of Clinical Nutritionists-  
to promote optimal health**

“The intricacies of nutrition mandate that the practitioner give patients sound, expert and dependable advice about the supplementation of their diets. The nutrification of foods (Baurenfeind) is a perfectly logical expedient involving supplementation and is widely used in the poultry, livestock and pet food industries.”<sup>5</sup>

“The ABCs of nutrition are the essential chemicals we use and live with and need to get from our environment. Besides oxygen and water, there are about 40 of these chemicals - minerals, amino acids and vitamins - which must be supplied by our food in reasonable proportions. From these we build our metabolic machinery that makes possible the burning of fuel from which we get energy. Because of these numerous needs and the difficulty of obtaining all the ABCs in the right amounts, people in the normal course of events subsist with nutritional environments that are mediocre or even poor. There is nothing unusual about imperfect environments; all other phases of our human environment - climatic, governmental, educational, religious, social, etc. - are likewise imperfect and subject to improvement. The improvement of our inner nutritional environments is the prime objective of nutritional study.”<sup>6</sup>

**Clinical Nutritionists’ Political  
Philosophy**

This profession speaks with a loud voice. of the oppression any group or legislation which would promote one singular representative professional group, to the exclusion of others. This type of oppression does great disservice to highly qualified professionals and to the multi-preferenced consumer public to be served.

A fair nutritionist bill in any state must provide for the professional practice of nutrition by any professional group who meet acceptable academic and practice standards for the field.

# INTRODUCTION

## **The Clinical Nutrition Certification Board (CNCB)**

CNCB is a non-profit, tax exempt 501(c)(3) certification agency which provides professional training, examining and certifying for alternative or complimentary medical, clinical nutrition and health care organizations, in addition to specialty credentialing programs and state license/certification examinations. A

certification board must maintain careful separate corporate stance from any of the professional entities which it serves, yet be closely involved with the individual special dynamics and needs of each council of educators with which it works.

CNCB functions under the direction of an elected Board of Directors and the services of a 24 to 33-member content-expert team Scientific Council, which writes examinations for several agencies and organizations. CNCB is able to oversee /provide training programs leading to a national/international certification and/or license, handle an extensive credential review process, and work with an organization's elite program and examination writing board. For ten years CNCB has been providing appropriate examination processes which have served the applicant organization, the examination candidate, and state or national legislative bodies.

CNCB currently provides services for the International and American Associations of Clinical Nutritionists (IAACN), for the American Chiropractic Association Council on Nutrition, and for several other professions and state licensing boards.

## **Clinical Nutritionist Credentialing**

In 1990, the Clinical Nutrition Certification Board (CNCB) established a voluntary program of professional credentialing designed to assist in assuring the competency of clinical nutritionists in all the health care professions. The International and American Associations of Clinical Nutritionists (IAACN) contracted with the Clinical Nutrition Certification Board, IAACN's selected credentialing agency, to administer the Certified Clinical Nutritionist (CCN) program. This program includes credential review, training, proctored examinations and certification.

## **Development of the National Certification for Clinical Nutritionists**

CNCB in conjunction with Columbia Assessment Services, Inc. (CAS) of Morrisville, North Carolina, a highly reputable, full-service testing company, has constructed a content-valid national examination for the profession of clinical nutrition. Over two years, a legal Scope of Practice was created for the already diverse clinical practitioners of nutrition. This document not only provided an operational guide for clinical nutritionists, but defined the various areas which would be covered by examination. This Scope of Practice was validated by some 2200 practitioners in the field. Under the guidance of CAS testing professionals, experts in the field of clinical nutrition banded together to form a Scientific Council charged with writing a quality

national examination which would conform to the validated scope of practice. The examination database work continues to be performed by teams of content experts meeting at least twice a year. Over ten years, with an average of five test administrations per year across the United States, the CCN Examination has become the benchmark of the field, growing each year in prestige and influence. In 1994 the first State Licensing Exam for Clinical Nutritionists was completed to be utilized by the state legislators to certify and license at the state level.

The prescribed activities of the CNCB are monitored annually by the CNCB Board of Directors. The examinations fulfill all content and statistical requirements. All policies and procedures of the CNCB are reviewed annually, and changes are made where required.

## **Benefits of the CCN Credential**

Name recognition and identification with the premier CCN credential which signifies excellence in the field of clinical nutrition.

- Access to the CCN Scope of Practice, which has become a legal standard for conduct in the practice of clinical nutrition.
- National Certification and 5-Year Recertification Program
- Quality Continuing Education applied for annually through the University of Toledo College of Pharmacy, various state agencies and professional association
- National Client Referral Services
- Multi-disciplinary networking, sharing, camaraderie at annual Scientific Symposiums.

- Product information and protocols from quality professional vendors of therapeutic product lines and laboratory services.
- Access to specialized training in laboratory testing.
- Certification Programs in IV and IM Clinical Nutrition Protocols and Order Writing.
- Phlebotomy Training Separate Certification.
- Access to significant journals and publications in the field.
- Licensing advocacy and credential representation.

## **Future Goals of the CNCB**

The CNCB plans to continue its activity to:

- Aid various professions to establish diplomate programs within the professions.
- Expand the creation of state license examinations so there will be licensure in clinical nutrition for credentialed practitioners.
- Become active at the college level, working with progressive nutrition departments to educate and interest graduates in a professional certification.
- Expand networking into other allied professional associations and consumer organizations by way of membership and support.

## Clinical Nutrition Today

Clearly the field of clinical nutrition is regulated with sufficiently high standards of academic eligibility, post-graduate study programs, course reviews, testing by examination on-site, quality on-going continuing education, and a five-year recertification program to assure the competence of its practitioners. Certified Clinical Nutritionists are highly motivated to invest in hundreds of hours of continuing education beyond the minimum annual requirements.

While the scope of practice remains largely predominant in the study and application of nutrients, the field was pre-positioned to include the study of herbology and homeopathy. Today's nutritionist is able to utilize several disciplines to achieve the express therapy required to support individual health.

Clinical Nutritionists are today highly trained to provide insightful intake, case history evaluation, appropriate testing recommendation and interpretation, with the optimum goal to achieve and maintain health. Competency in the use of biological medicine is sought after and prized. The intelligent support of the natural healing and healthrestorative powers inherent in the living organism becomes a lifelong quest.

Clinical Nutritionists are inquisitive and passionate students. While nutritionists are found in many work environments, the greater number of them is in private practice, working one-on-one to solve the multitudinous riddles of health. Others will be found in research or testing laboratories,

supplement companies, group practices, teaching, corporate consulting, writing and authoring books.

Clinical Nutritionists today will often specialize in working with certain populations, preferring to work with children or women, geriatrics, pain management, detoxification, or in the world of sports nutrition and fitness. Many times the work of clinical nutrition is added to a current primary profession such as medicine, dentistry, chiropractic, pharmacy, dietition or nursing. And today, clinical nutritionists are involved in certain broad community programs that relate to specific disease state management such as diabetes and cardiovascular care. Some are gaining separate certificates and certifications in IV and IM Nutrition Protocol Selection and Order Writing, and some take training in Phlebotomy. The oppor-

As the enlightened consumer public continues to voice a strong preference for the right to take responsibility for their own health, they will seek the guidance of Certified Clinical Nutritionists who have the academic background, post-graduate training, national certification and eventual state license to meet their needs. The challenge of the new millennium will require readiness and dedication. The Clinical Nutrition Certification Board provides eligible applicants the resources to make such a commitment. **Will you be ready to meet that challenge? Begin Today for your Career of Tomorrow!**

# ***POST GRADUATE STUDIES IN CLINICAL NUTRITION***

## **The Rationale**

In answer to a substantial need to literally transform the practice capability of the new alternative health care practitioner, a practice intensive program was created. Preliminary sessions began in 1995 and in 1997 CNCB completed pilot programs for “***Post Graduate Studies in Clinical Nutrition***” (PGSCN) in Illinois and Connecticut under the sponsorship of the University of Toledo School of Pharmacy. In Connecticut the program was at the invitation of the Connecticut State Commissioner of Pharmacy.

***The PGSCN Program*** is a component of the CCN Certification Process. Qualifying college graduates with a Master degree, PhD or DSc in Human Nutrition from a regionally accredited college or university. Certain licensed health care professionals with substantial backgrounds in science are eligible. Licensed professionals are approved individually through the CNCB Credentials Office.

***The PGSCN Program*** is technically focused toward specific current research and practice protocols that are not normally found at the university level. The PGSCN Program creates an equivalency opportunity for interested already licensed health care practitioners who lack academic nutrition hours to approach the CCN national certification.

## ***Post Graduate Studies in Clinical Nutrition (PGSCN) Format***

The Post Graduate program consists of **Four Training Sessions**: Four 14-hour seminars (56 total hours). The courses include multiple syllabi and multiple textbooks. Instructor availability may change from year to year. Session Instructors are announced at the beginning of a year.

## ***PGSCN Eligibility*** (see core requirements at [www.cncb.org](http://www.cncb.org))

General Eligibility may fall into the following classifications:

- **Masters Degree, Ph.D., or D.Sc. in Clinical Nutrition individually evaluated.**
- **Certain licensed Health Care Professionals including but not limited to:**

Medical Physicians  
Dentists  
Chiropractors  
Osteopaths  
Psychologists  
Pharmacists  
Nurses with a 4 year degree  
Physician’s Assistants  
Registered Dietitians

- **Special Group Contracts** whereby portions of the program may be taught to licensed professionals, some of whom will not become exam candidates.
- **Possible Exceptions/PGSCN:** Masters Degree, Ph.D., or D.Sc. in Clinical Nutrition individually evaluated.

## CNCB PUBLIC POLICY

In accordance with state and federal law, this nonprofit does not discriminate because of race, disability, age, national origin, ancestry, citizenship, or veteran status in eligibility, training, or Examination Candidacy.

**Successful Completion of the *Post Graduate Studies in Clinical Nutrition* Program establishes approval for Examination Candidacy.**

1. PGSCN Sessions 1, 2, 3, 4
2. All **PGSCN** fees paid in full.
3. All Credential Review Materials (two copies each) turned in to the CNCB Credentials Office.

Completion of Items 1-3 and the **Credential Review Process** satisfies the CNCB requirement of approval and training prior to Examination Candidacy. This focused overview of practice intensive information in the field of clinical nutrition provides background training that is essential before Examination preparation can begin. The PGSCN Program also should provide the CCN practitioner with sufficient intellectual and protocol confidence necessary to begin a clinical nutrition practice.

# ***POST GRADUATE STUDIES IN CLINICAL NUTRITION COURSE***

## **I. On-Line Training**

### **Session 1 -Optimal Human Nutrition**

(14 Hours)

Biochemistry of Essential Vitamins  
Biochemistry of Essential Minerals  
Biochemistry of Essential Trace Minerals  
Biochemistry of Essential Amino Acids  
and Accessory Nutrients  
Optimal Human Nutrition  
Environmental Health Issues  
Drug Induced Nutritional Deficiencies

### **Session 2 - Cognition and Sensory Overload**

(14 Hours)

Free Radicals & Antioxidants  
Biochemistry of Fats and Oils  
The Human Microflora  
Cognitive Enhancing Drugs and Nutrients  
Alternative Cancer Therapies  
Women's Health Conditions  
Cardiovascular Disease  
Hyperinsulinemia  
Allergies and Asthma  
ADD and ADHD  
Health Assessment & Medical Symptom  
Questionnaires

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### **Session 3 - Detoxification, Herbol- ogy and Homeopathic Therapy**

(14 Hours)

Introduction to Human Toxicity  
Bowel Terrain  
Toxic Conditions, Allergies and  
Sensitivities  
Established Need for Detoxification  
Therapy Modality  
Homeopathy Phytotherapy  
Therapy modality  
Herbology  
Clinical Nutrition Counseling with  
Alternative Therapies

### **Session 4 - Laboratory Assessment (14 Hours)**

Rationale for Laboratory Assessment  
Vitamins - the Working "Hands" of  
Enzymes  
Minerals & Laboratory Testing  
Amino Acids & Laboratory Testing Fatty  
Acids & Laboratory Testing Organic  
Acids & Laboratory Testing  
Gastrointestinal Disorders & Laboratory  
Testing: Digestion & Absorption  
Microbial Flora  
Gastric and Pancreatic Function  
Intestinal Function & Permeability  
Leaky Gut Syndrome  
Dysbiosis  
Bacterial & Protozoal Markers  
Food Allergy & Test Results  
Detoxification Testing  
Urinary Markers  
Hormones & Laboratory Testing  
Aging and Oxidant Stress  
Urinary Metabolic Markers  
Case Reports and Case Outcomes

## **PGSCN COURSE TEXTBOOKS**

### **I.**

*Medical Nutrition from Marz,*

**Marz**

*Mind, Food & Smart Pills,*

**Pelton**

*Family Guide to Homeopathy,*

**Lockie**

*Repertory of the Homeopathic*

*Materia Medica,*

**Kent**

*The Basic 100,*

**Queen**

### **II. Estimated Average Length of**

**Completion** for the PGSCN Program is

6 months.

### **III. PGSCN On-Line Program-**

Fee \$4500.00

### **IV. CNCB Public Policy**

In accordance with state and federal law, the CNCB nonprofit does not discriminate because of race, disability, age, national origin, ancestry, citizenship or veteran status in eligibility training or Examination Candidacy.

## CCN Examination Texts for Examination Preparation

Review the *Study Guide for the Certified Clinical Nutritionist Examination* online and download **The Materials order information** from the CNCB website [www.cncb.org](http://www.cncb.org)

## Sample Examination Study Questions

Located in the *Study Guide for the Certified Clinical Nutritionist Examination* available online.

## Examination Candidate Fees

- CNCB Credential Review Fee (\$75.00 U.S. Degree; \$150.00 Foreign Degree)
- CCN Exam Fee (\$ 450.00)
- CCN Examination Study Guide* (online)
- CCN Exam Study Texts (List is in back of Study Guide available online).
- CCN Exam Materials Order information**-available online.

## Detailed Information Regarding the Examination

Review the *Study Guide for the Certified Clinical Nutritionist Examination* located online [www.cncb.org](http://www.cncb.org).

**Note:** The Credential Review Process leading to the Certified Clinical Nutritionist examination is a confidential and on-going process that may require individual help in the discovery of suitable personal options. The nutrition courses at the university level are not yet standardized and are not available in all locales. Personal consultations are available by appointment and are free of charge. The “appointment rule” requires that the following information be in the Credentials Office before the telephone appointment:

1. Completed Credential Review Form with fee.
2. Transcripts from all graduating universities.
3. Copies of Course Curriculum Manual pages from a college in the vicinity of the applicant, where available nutrition courses will be listed and discussed.

## MAINTAINING THE CERTIFICATION

The **CCN Credential** requires on-going maintenance to verify that the practitioner is continuing to update knowledge and skills:

1. Forty approved CE Hours every 2 years
2. Attendance at “two out of every three” IAACN Annual Scientific Symposiums.
3. Payment of Annual CNCB Maintenance Fee.
4. Recertification every fifth year via annual study textbooks with contracted Open Book Exam.

The Clinical Nutrition Certification Board  
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