SECTION FOUR
NUTRITION AND HERBAL MEDICINE

Nutrition and Herbal Medicine Department
Master of Science in Nutrition and Integrative Health
Post-Master's Certificate in Nutrition and Integrative Health
Doctor of Clinical Nutrition
Post-Baccalaureate Certificate in Herbal Studies
Master of Science in Therapeutic Herbalism

Programs not currently enrolling:
Post-Baccalaureate Certificate in Medical Herbalism
Post-Master's Certificate in Clinical Herbalism

Administration
Nutrition and Integrative Health Programs
Kathleen Warner, Ph.D.
Academic Director

Liz Lipski, Ph.D.
Director, Academic Development

Eleonora Gafon, M.S.
Cooking Lab Manager

Elizabeth Owens, M.S.
Manager, Experiential Programs

Elizabeth Timmons
Program Administrator

Jennifer Swetz, M.S.
Nutrition Clinic Coordinator

Lindsey Brandenberg, M.S.
Academic Advisor

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MASTER OF SCIENCE IN NUTRITION AND INTEGRATIVE HEALTH

Program Overview
The Master of Science in Nutrition and Integrative Health offers students a distinctive program that emphasizes the vital and interrelated physiological, environmental, socio-cultural, and spiritual roles of food in our lives. Developed from MUIH’s mission and vision to integrate nature-based knowledge and traditional systems with transformational learning and contemporary scientific knowledge, the curriculum offers a broader evidence base for nutrition education than science, tradition, or empiricism alone. As one of the only integrative master’s degree programs in nutrition in the country, our faculty and scholars are the leading national authorities in this field of study. The program encourages students to question assumptions in the field of nutrition and to learn through critical thinking and personal transformation. Students apply nutrition theory through cooking labs, case studies, and clinical and biochemical assessments. In addition to building foundational skills in the sciences and introductory nutrition, students enhance the scope of their skills by selecting an area of concentration in Community Nutrition Education, Herbal Medicine, or Human Clinical Nutrition.

Students in the Human Clinical Nutrition and Herbal Medicine areas of concentration will complete supervised clinical experience. Students in the Community Nutrition Education area of concentration will have a choice of a supervised capstone project or community practicum.

The comprehensive and multifaceted program ensures that graduates are prepared for a variety of careers in the diverse field of nutrition, such as practicing nutritionists, consultants, educators, researchers, and writers. Graduates seeking board certification may wish to continue their supervised internship experience through the Internship in Nutrition and Integrative Health program.

Purpose
The mission of the Master of Science in Nutrition and Integrative Health at Maryland University of Integrative Health is to educate and develop skillful and compassionate nutrition practitioners who value the client-practitioner relationship. By exploring and developing innovative approaches to clinical nutrition, the program bridges traditional nutrition care processes with holistic and integrative perspectives in health. This serves the evolution of nutrition in the healthcare field and emphasizes the vital and interrelated physiological, psychological, environmental, socio-cultural, and spiritual roles of food in our lives. The Master of Science in Nutrition and Integrative Health is unique in integrating biochemical assessments, basic science, and applied nutrition coursework; applying nutrition theory through cooking labs; using practice coaching sessions to explain behavioral change; and employing case studies and client interviews to teach intervention strategies for a wide range of health challenges. The curriculum addresses the cognitive and physiological factors influencing the complex role of food and nutrition in human health.

Goals
The Master of Science in Nutrition and Integrative Health Program will:

- Teach students the principles, knowledge and application of integrative nutrition in the areas of physiology; nutritional biochemistry; biochemical individuality; macronutrients; micronutrients; role of whole foods; nutrition through the life cycle; food, drug, supplement and herbal interactions; use of clinical laboratory evaluations; clinical nutrition or community nutrition; food as medicine; and how personal values and culture affect food choices and eating behavior
- Prepare students to cook with whole foods to maintain health and management of disease
- Prepare students to educate others about holistic nutrition, lifestyle, wellness, and healthy living in clinical, community, and educational settings
- Teach students to apply the principles of interconnection, holism, transformation, diversity, and resilience in life and in the field of nutrition
- Prepare graduates to sit for national board certification exams

In addition to the educational objectives for all graduates, specific areas of concentration have the following objectives:

Community Nutrition Education:
- Prepare graduates to take leadership roles in the field of nutrition education and behavior change in a variety of settings including individual, community, and policy
- Prepare graduates to assess population needs, assets, and capacity for nutrition education
- Provide experiential training in a community setting

Herbal Medicine:
- Prepare graduates to take leadership roles as nutrition professionals with knowledge of the role of both foods and herbs in promoting human health
- Prepare students to work as nutritionists with an herbal background through comprehensive study of herbal pharmacology, herbal pharmacy (herbal preparation), and principles of herbal therapeutics
- Provide supervised clinical or research experience in clinical nutrition and herbalism
Human Clinical Nutrition:
- Prepare graduates to take leadership roles in the field of clinical nutrition
- Provide experiential training in a clinical setting
- Enable students to effectively position their services and offerings to clients, clinics, and other practitioners in order to earn a livelihood as a nutrition professional

Course of Study
Students complete the Master of Science in Nutrition and Integrative Health by completing core program credits and choosing one of three areas of concentration: Community Nutrition Education, Herbal Medicine, or Human Clinical Nutrition.

Core Credits

<table>
<thead>
<tr>
<th>Number</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>IHED 637</td>
<td>Principles and Practices of Health Behavior and Self-Care</td>
<td>1.5</td>
</tr>
<tr>
<td>ISCI 522</td>
<td>Foundations in Organic Chemistry</td>
<td>3.0</td>
</tr>
<tr>
<td>ISCI 547A</td>
<td>Physiology I: Healthy Function</td>
<td>3.0</td>
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<tr>
<td>ISCI 626</td>
<td>Nutritional Biochemistry</td>
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<tr>
<td>ISCI 631</td>
<td>Introduction to Complementary and Integrative Health</td>
<td>1.5</td>
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<tr>
<td>ISCI 647B</td>
<td>Physiology II: Movement Away from Health</td>
<td>3.0</td>
</tr>
<tr>
<td>ISCI 701</td>
<td>Introduction to Statistics, Research Design &amp; Information Literacy in Integrative Health</td>
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<tr>
<td>NUTR 601</td>
<td>Redefining Nutrition</td>
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<tr>
<td>NUTR 612</td>
<td>Human Nutrition II: Micronutrients</td>
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<td>NUTR 614</td>
<td>Human Nutrition I: Macronutrients</td>
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<td>NUTR 641</td>
<td>Life Cycle Nutrition</td>
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<td>NUTR 6EXI</td>
<td>Nutrition MSNIH Comprehensive Exam</td>
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<tr>
<td>MUIH 550</td>
<td>Academic Research &amp; Scholarship</td>
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Cooking Labs Required

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<th>Number</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>NUTR 681</td>
<td>Cooking with Whole Foods Lab I</td>
</tr>
<tr>
<td>NUTR 682</td>
<td>Cooking with Whole Foods Lab II</td>
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Cooking Labs Additional
(Choose 2 additional cooking labs from the following)

<table>
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<th>Course Title</th>
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<tbody>
<tr>
<td>NUTR 683</td>
<td>Cooking with Whole Foods Lab III</td>
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<tr>
<td>NUTR 684</td>
<td>Cooking with Whole Foods Lab IV</td>
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<td>NUTR 686</td>
<td>Cooking with Whole Foods Lab VI</td>
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<td>NUTR 687</td>
<td>Cooking with Whole Foods Lab VII</td>
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<tr>
<td>NUTR 688</td>
<td>Cooking with Whole Foods Lab VIII</td>
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Total Core Credits 29.0

Community Nutrition Education Area of Concentration
19 Required Credits + 2 Elective Credits

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>IHED 620</td>
<td>Foundations of Health Behavior and Health Education</td>
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<table>
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<tr>
<th>Number</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>IHED 623</td>
<td>Health Education Program Evaluation</td>
<td>2.0</td>
</tr>
<tr>
<td>IHED 625</td>
<td>Research Methods in Health Education: Quantitative and Qualitative</td>
<td>3.0</td>
</tr>
<tr>
<td>IHED 626</td>
<td>Health Education Needs Assessment and Program Planning</td>
<td>3.0</td>
</tr>
<tr>
<td>NUTR 643</td>
<td>Public Health Nutrition</td>
<td>2.0</td>
</tr>
<tr>
<td>NUTR 664</td>
<td>Food Systems and Policy</td>
<td>2.0</td>
</tr>
<tr>
<td>NUTR 672</td>
<td>Mindful Eating and Nourishment</td>
<td>2.0</td>
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</tbody>
</table>

Choose 3.0 credits from the following sets:

NUTR 691C Practicum 1.5  
AND  
NUTR 691D Practicum 1.5  
OR  
NUTR 692C Capstone Project 1.5  
AND  
NUTR 692D Capstone Project 1.5

ELECTIVES
Choose 2.0 credits from the following:

<table>
<thead>
<tr>
<th>Number</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HRB 600</td>
<td>Fundamentals of Herbal Medicine</td>
<td>3.0</td>
</tr>
<tr>
<td>IHED 617</td>
<td>Health Education Leadership, Resource Development, and Management*</td>
<td>2.0</td>
</tr>
<tr>
<td>IHED 619</td>
<td>Transformative Communication Strategies*</td>
<td>2.0</td>
</tr>
<tr>
<td>IHED 629</td>
<td>Implementation of Community Health Education Programs*</td>
<td>2.0</td>
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<tr>
<td>IHM 620</td>
<td>Marketing for Health &amp; Wellness Professionals</td>
<td>1.0</td>
</tr>
<tr>
<td>IHM 665</td>
<td>Practice Management for Nutrition Professionals</td>
<td>1.0</td>
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<tr>
<td>NUTR 603A</td>
<td>Contemporary Topics in Nutrition</td>
<td>0.5</td>
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<tr>
<td>NUTR 603B</td>
<td>Contemporary Topics in Nutrition</td>
<td>1.0</td>
</tr>
<tr>
<td>NUTR 603C</td>
<td>Contemporary Topics in Nutrition</td>
<td>2.0</td>
</tr>
<tr>
<td>NUTR 622</td>
<td>Advanced Biochemistry, Pathophysiology, and Assessment **</td>
<td>3.0</td>
</tr>
<tr>
<td>NUTR 634</td>
<td>Diabetes Education: An Integrative Approach†</td>
<td>1.0</td>
</tr>
<tr>
<td>NUTR 635</td>
<td>Applied Clinical Nutrition I†</td>
<td>2.0</td>
</tr>
<tr>
<td>NUTR 636</td>
<td>Applied Clinical Nutrition II†</td>
<td>2.0</td>
</tr>
<tr>
<td>NUTR 651A</td>
<td>Clinical Skills I†</td>
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</tr>
<tr>
<td>NUTR 651B</td>
<td>Clinical Skills II†</td>
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</tr>
<tr>
<td>NUTR 671</td>
<td>Food and Culture</td>
<td>1.0</td>
</tr>
<tr>
<td>NUTR 673</td>
<td>Global Nutrition</td>
<td>2.0</td>
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</table>

* These courses are a requirement for CHES certification (IHED 629 is only required if Capstone Project is completed).
**This course is a requirement for BCNS certification.
† These courses are recommended for BCNS certification.

Total Program Credits with Community Nutrition Education Concentration 50.0
### Herbal Medicine Area of Concentration

29 Required Credits

<table>
<thead>
<tr>
<th>Number</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HRB 600</td>
<td>Fundamentals of Herbal Medicine</td>
<td>3.0</td>
</tr>
<tr>
<td>HRB 605</td>
<td>Materia Medica</td>
<td>3.0</td>
</tr>
<tr>
<td>HRB 620A</td>
<td>Herbal Therapeutics I</td>
<td>3.0</td>
</tr>
<tr>
<td>HRB 622</td>
<td>Herbal Pharmacy: Evaluating &amp; Manufacturing Quality Herbal Products</td>
<td>3.0</td>
</tr>
<tr>
<td>NUTR 622</td>
<td>Advanced Biochemistry, Pathophysiology, and Assessment</td>
<td>3.0</td>
</tr>
<tr>
<td>NUTR 635</td>
<td>Applied Clinical Nutrition I</td>
<td>2.0</td>
</tr>
<tr>
<td>NUTR 636</td>
<td>Applied Clinical Nutrition II</td>
<td>2.0</td>
</tr>
<tr>
<td>NUTR 651A</td>
<td>Clinical Skills I</td>
<td>2.0</td>
</tr>
<tr>
<td>NUTR 651B</td>
<td>Clinical Skills II</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Choose 3.0 of the following credits:

- HRB 620B Herbal Therapeutics II
- HRB 654B Herbal Pharmacology and Phytochemistry

Choose 3.0 credits from the following sets:

- NUTR 655C Nutrition/Herbal Therapeutics Clinic 1.5
- NUTR 655D Nutrition/Herbal Therapeutics Clinic 1.5

OR

- NUTR 656C Clinical Strategies in Nutrition Care 1.5
- NUTR 656D Clinical Strategies in Nutrition Care 1.5

### Total Program Credits with Herbal Medicine Concentration
58.0

### Human Clinical Nutrition Area of Concentration

16 Required Credits + 5 Elective Credits

<table>
<thead>
<tr>
<th>Number</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUTR 622</td>
<td>Advanced Biochemistry, Pathophysiology, and Assessment</td>
<td>3.0</td>
</tr>
<tr>
<td>NUTR 635</td>
<td>Applied Clinical Nutrition I</td>
<td>2.0</td>
</tr>
<tr>
<td>NUTR 636</td>
<td>Applied Clinical Nutrition II</td>
<td>2.0</td>
</tr>
<tr>
<td>NUTR 651A</td>
<td>Clinical Skills I</td>
<td>2.0</td>
</tr>
<tr>
<td>NUTR 651B</td>
<td>Clinical Skills II</td>
<td>2.0</td>
</tr>
<tr>
<td>NUTR 672</td>
<td>Mindful Eating and Nourishment</td>
<td>2.0</td>
</tr>
</tbody>
</table>

Choose 3.0 credits from the following sets:

- NUTR 654C Clinic 1.5
- NUTR 654D Clinic 1.5

OR

- NUTR 656C Clinical Strategies in Nutrition Care 1.5
- NUTR 656D Clinical Strategies in Nutrition Care 1.5

### Electives

Choose 5.0 of the following credits:

<table>
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<tr>
<th>Number</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>APP 607</td>
<td>Introduction to Healing Presence</td>
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<tr>
<td>HRB 600</td>
<td>Fundamentals of Herbal Medicine</td>
<td>3.0</td>
</tr>
<tr>
<td>HRB 605</td>
<td>Materia Medica</td>
<td>3.0</td>
</tr>
<tr>
<td>HRB 622</td>
<td>Herbal Pharmacy: Evaluating and Manufacturing Quality Herbal Products</td>
<td>3.0</td>
</tr>
<tr>
<td>HRB 633</td>
<td>Medicinal Plants and Cultures</td>
<td>2.0</td>
</tr>
<tr>
<td>IHED 617</td>
<td>Health Education Leadership, Resource Development and Management</td>
<td>2.0</td>
</tr>
<tr>
<td>IHED 619</td>
<td>Transformative Communication Strategies</td>
<td>2.0</td>
</tr>
<tr>
<td>IHED 620</td>
<td>Foundations of Health Behavior and Health Education</td>
<td>2.0</td>
</tr>
<tr>
<td>IHED 626</td>
<td>Health Education Needs Assessment and Program Planning</td>
<td>3.0</td>
</tr>
<tr>
<td>IHM 620</td>
<td>Marketing for Health &amp; Wellness Professionals</td>
<td>1.0</td>
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<tr>
<td>IHM 665</td>
<td>Practice Management for Nutrition Professionals</td>
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<tr>
<td>ISCI 615</td>
<td>Mind Body Science</td>
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<td>ISCI 630A</td>
<td>Survey of Complementary Health Approaches</td>
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<td>Contemporary Topics in Nutrition</td>
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<td>NUTR 603B</td>
<td>Contemporary Topics in Nutrition</td>
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<tr>
<td>NUTR 603C</td>
<td>Contemporary Topics in Nutrition</td>
<td>2.0</td>
</tr>
<tr>
<td>NUTR 625</td>
<td>Introduction to Nutritional Genomics</td>
<td>1.0</td>
</tr>
<tr>
<td>NUTR 634</td>
<td>Diabetes Education: An Integrative Approach</td>
<td>1.0</td>
</tr>
<tr>
<td>NUTR 637</td>
<td>Nutrition and Digestive Health</td>
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</tr>
<tr>
<td>NUTR 643</td>
<td>Public Health Nutrition</td>
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<td>NUTR 662</td>
<td>Energetics of Food</td>
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<td>Sports Nutrition</td>
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<tr>
<td>NUTR 664</td>
<td>Food Systems and Policy</td>
<td>2.0</td>
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<tr>
<td>NUTR 665</td>
<td>The Dynamics of Food and Healing</td>
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<td>NUTR 668</td>
<td>Culinary Herbs in the Kitchen and Beyond</td>
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<tr>
<td>NUTR 671</td>
<td>Food and Culture</td>
<td>1.0</td>
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<td>NUTR 673</td>
<td>Global Nutrition</td>
<td>2.0</td>
</tr>
<tr>
<td>NUTR 675</td>
<td>Chinese Nutrition Therapy</td>
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<td>NUTR 699A</td>
<td>Independent Study</td>
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<td>NUTR 699B</td>
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<td>NUTR 699C</td>
<td>Independent Study</td>
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<tr>
<td>NUTR 699D</td>
<td>Independent Study</td>
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</tr>
<tr>
<td>NUTR 722</td>
<td>Advanced Laboratory Assessment</td>
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</tr>
</tbody>
</table>

### Total Program Credits with Human Clinical Nutrition Concentration
50.0
Additional Program Requirements:

- Complete MUIH 550 Academic Research and Scholarship, a non-credit online training course on information literacy by the end of the first trimester.
- Complete the ServSafe™ Food Safety Manager Course from the National Restaurant Association. Certification must be obtained prior to graduation or before enrolling in NUTR 686 Cooking with Whole Foods Lab VI or NUTR 691C Practicum. Students are encouraged to obtain the certification sooner because the knowledge is helpful in all cooking labs. The course is offered by MUIH for local students as NUTR 001.
- Become a client of an integrative nutritionist in student’s area of residence or with a senior clinical nutrition intern at the MUIH Natural Care Center for at least three nutrition consultations before enrolling in the experiential courses
- Earn a passing grade on a comprehensive exam (NUTR 6EXI) at the end of the academic program.

Admission Requirements

To be considered for admission to all graduate academic programs applicants must have a bachelor’s degree from a regionally accredited institution.* Applicants must submit an official transcript from all post-secondary institutions attended.

Please refer to the Application Requirements section for a detailed list of required application materials.

* If the bachelor’s degree was not completed at a college or university accredited by a regional accrediting body recognized by the U.S. Department of Education, copies of the institution’s academic catalog and course syllabi may be requested. Please refer to the International Students section for additional information.

Additional Requirements

Applicants for the Master of Science in Nutrition and Integrative Health must hold a bachelor’s degree with a minimum overall 2.5 GPA in undergraduate coursework.

Health Requirements

Students in this program may have health requirements related to on-campus or off-campus clinical or practicum phases of the program. Requirements will vary by area of concentration and clinic, practicum, or capstone project course selections. For specific requirements, please refer to the Health, Training, and Other Requirements section of the catalog.

Advanced Standing

Maryland University of Integrative Health allows advanced standing for students who have completed the following programs.

Center for Mind-Body Medicine – Food as Medicine

Graduates of the Center for Mind-Body Medicine’s Food as Medicine program may be eligible for advanced standing (three elective credits) in MUIH’s Master of Science in Nutrition and Integrative Health. Candidates for this advanced standing should indicate this in their application essay, and must submit an academic paper on a topic approved by the Academic Director.

Natural Gourmet Institute – Chef’s Training Program

Graduates of the Chef’s Training Program at the Natural Gourmet Institute may be eligible for advanced standing in MUIH’s Master of Science in Nutrition and Integrative Health. Graduates may be exempt from taking some of the Cooking with Whole Foods Labs I-VIII. Candidates for this advanced standing should indicate this in their application essay and submit their official record of graduation from the Chef’s Training Program to the Office of Graduate Admissions office so that the Academic Director can evaluate eligibility.

Articulation Agreement

Institute for Integrative Nutrition (IIN)

Graduates of the Institute for Integrative Nutrition who hold a bachelor’s degree will be eligible for the following exemptions in MUIH’s Master of Science in Nutrition and Integrative Health based on an Articulation Agreement with IIN and approved by the Maryland Higher Education Commission.

HUMAN CLINICAL NUTRITION OR COMMUNITY NUTRITION EDUCATION AREA OF CONCENTRATION:

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<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>IHED 637</td>
<td>Principles and Practices of Health Behavior and Self-Care</td>
<td>1.5</td>
</tr>
<tr>
<td>NUTR 601</td>
<td>Redefining Nutrition</td>
<td>1.0</td>
</tr>
<tr>
<td>NUTR 672</td>
<td>Mindful Eating and Nourishment Electives</td>
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HERBAL MEDICINE AREA OF CONCENTRATION:

<table>
<thead>
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</tr>
<tr>
<td>NUTR 601</td>
<td>Redefining Nutrition</td>
<td>1.0</td>
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</table>

Candidates for this exemption must indicate graduation from the IIN program on their application for admission to MUIH.
Program Format
The Master of Science in Nutrition and Integrative Health is a flexible program designed to accommodate working professionals. It can be completed in as few as two years or as many as five years, in an on-campus, online, or hybrid format. The content of the program does not vary by format—only the delivery method of the course is different.

See the latest list of Program Start Dates to determine the availability of each format, available online at www.muih.edu in the Admissions section.

On-Campus Format
Coursework is completed on campus in this format. Only the area of concentration in Human Clinical Nutrition is available in this format. On-campus students are also welcome to take online courses, subject to availability.

The on-campus schedule consists of 15 to 19 weekends per year. Weekend class times are 5–9 p.m. on Fridays, and 8:30 a.m.–5:30 p.m. on Saturdays and Sundays. Format may vary during clinic and practicum phase. The time needed to complete the elective credits and clinic/practicum/capstone project is not included in this academic calendar.

Visit www.muih.edu for specific course schedules or contact the Office of Graduate Admissions.

Online Format
Coursework is completed online in this format. Although no residency is required, online students are welcome to take on-campus courses, subject to availability.

Online courses offer flexibility for the student. The syllabus for each course will provide details about weekly lessons and include expectations, due dates for assignments, and required participation. More information about MUIH’s online format is available on www.muih.edu.

Online courses run asynchronously throughout each trimester. For trimester start and end dates, see the Academic Calendar on www.muih.edu. Individual schedules may vary depending on course selection.

Hybrid Format
Coursework is completed through a combination of online and on-campus courses in this format. Students may choose the format of each course on a case-by-case basis, subject to availability. See descriptions above for details on online and on-campus formats. Contact the Office of Graduate Admissions for more information.

Additional Information
Licensure
Licensing requirements for nutritionists vary by state. To learn the most up-to-date laws and regulations, please refer to each state’s board of dietetic practice, or go to www.nutritionadvocacy.org.

Certification
The Master of Science in Nutrition and Integrative Health program is tailored to meet the eligibility requirements of several national board certifications. At the present time MUIH is in compliance with the requirements of each of the professional organizations listed below. However boards do change their eligibility requirements. Please contact the appropriate board with questions and review licensing laws by state for the most up to date information.

Board certification for nutrition often requires a supervised practice experience. To obtain the needed hours for certification, MUIH offers an optional six-month supervised internship program for those who hold an advanced degree (master’s or doctorate) in nutrition. See the Nutrition Internship Program in this section.

This program does not prepare students to sit for the Commission on Dietetics Registration dietetics exam.

CERTIFIED NUTRITION SPECIALIST (CNS)
Graduates from the Clinical Nutrition and Herbal Medicine areas of concentration in the Master of Science in Nutrition and Integrative Health meet the educational requirements to sit for the CNS exam. Students in the Community Nutrition Education area of concentration must take additional courses to meet the academic requirements to sit for the CNS exam. The Board for Certification of Nutrition Specialists (BCNS) also requires that applicants complete 1000 hours of supervised practice experience and pass the BCNS Certifying exam. The board reviews each applicant individually to determine eligibility.

Coursework in the Master of Science in Nutrition and Integrative Health program includes some supervised practice experience depending on the electives a student chooses. MUIH offers the Nutrition Internship Program to complete the remaining supervised clinical practice hours.

MUIH is not responsible for changes to CNS certification requirements. Requirements listed are current as of catalog publication date. For the most recent CNS requirements, contact BCNS.

Board for Certification of Nutrition Specialists
4707 Willow Springs Rd, Suite 207
La Grange, IL 60525
202-903-0267
www.nutritionspecialists.org
CERTIFIED CLINICAL NUTRITIONIST (CCN)
Graduates of the Master of Science in Nutrition and Integrative Health program are exempt from taking the post-graduate training offered through the Clinical Nutrition Certification Board before sitting for the exam. CNCB reviews each applicant individually. They review all transcripts to determine eligibility.

Clinical Nutrition Certification Board
15280 Addison Road, Suite 130
Addison, TX 75001
972-250-2829
www.cncb.org

CERTIFIED HEALTH EDUCATION SPECIALIST (CHES)
With the appropriate choice of courses, graduates from the Community Nutrition Education area of concentration are eligible to sit for the Certified Health Education Specialist (CHES) exam.

MUIH is not responsible for changes to CHES certification requirements. Requirements listed are current as of catalog publication date. For the most recent CHES requirements, contact the National Commission for Health Education Credentialing.

National Commission for Health Education Credentialing
1541 Alta Drive, Suite 303
Whitehall, PA 18052
(484) 223-0770
www.nchec.org

BOARD CERTIFIED IN HOLISTIC NUTRITION®
Graduates of the Master of Science in Nutrition and Integrative Health program are eligible to sit for this certification exam. The requirements for this exam include at least one herbal elective course.

Holistic Nutrition Credentialing Board
P.O. Box 1884
Rancho Cordova, CA 95741-1884
800-342-8037
www.nanp.org/hncb

SOCIETY FOR NUTRITION EDUCATION AND BEHAVIOR
Graduates from the Community Nutrition Education area of concentration may become members of the Society for Nutrition Education and Behavior (SNEB).

Society for Nutrition Education and Behavior
9100 Purdue Road, Suite 200
Indianapolis, IN 46268
800-235-6690
www.sneb.org
POST-MASTER’S CERTIFICATE IN NUTRITION AND INTEGRATIVE HEALTH

Program Overview
The Post-Master’s Certificate in Nutrition and Integrative Health offers health professionals and those with advanced science training an opportunity to learn core competencies in the field of holistic nutrition in an online format. As the nation’s only Post-Master’s Certificate in Nutrition and Integrative Health, MUIH’s program provides evidence-based nutrition training specifically for health professionals and those with advanced science training, including: physicians, physician assistants, registered nurses, nurse practitioners, acupuncturists, herbalists, physical therapists, occupational therapists, dentists, pharmacists, osteopaths, and chiropractors. Our program will set graduates apart from their peers by broadening their expertise and client reach in this rapidly growing field.

Students will integrate a biochemical and molecular understanding of nutrition into a broader context of whole food healing and whole person health and wellness care. Of the 15 credits required for this program, students take 11 core credits and four elective credits. Students can opt to take their elective courses in a variety of areas including sports nutrition, mindful eating, whole food preparation, diabetes education, or eastern nutrition philosophy. Graduates may be eligible for board certification in the field of nutrition and can advance their career in health care with specialized training in holistic nutrition.

Purpose
The Post-Master’s Certificate in Nutrition and Integrative Health will provide health professionals with skills and knowledge in the field of nutrition to address patient health concerns and educate patients with whole foods, nutrition supplementation, and other specialized tools and techniques. The program has been designed within the context of MUIH’s mission and vision, giving students a contextualized understanding of nutritional science and biochemistry, through exploration of traditional dietary practices and a critical evaluation of current paradigms of nutrition, food, and health.

Goals
Students who complete this program will:
• Integrate core nutrition competencies into current clinical practice and/or professional work
• Incorporate knowledge of human nutrition and treatments strategies into clinical practice and tailor research projects to develop the evidence-base for integrative nutrition
• Demonstrate an integrated knowledge of nutrition that incorporates biochemical, physiological, environmental, and traditional perspectives
• Demonstrate an understanding of the relationship between nutrients and biochemical/physiological processes in health and disease
• Demonstrate an understanding of the various synergistic, antagonistic effects of various nutrients
• Demonstrate a nature-based understanding of whole foods, energetic properties of foods, and effects on mind, body, and spirit
• Demonstrate knowledge of various modern and traditional diets and their effect human health

Course of Study
11 Required Credits + 4 Elective Credits

<table>
<thead>
<tr>
<th>Number</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISCI 626</td>
<td>Nutritional Biochemistry</td>
<td>3.0</td>
</tr>
<tr>
<td>NUTR 601</td>
<td>Redefining Nutrition</td>
<td>1.0</td>
</tr>
<tr>
<td>NUTR 613</td>
<td>Human Nutrition: Macronutrients and Micronutrients</td>
<td>3.0</td>
</tr>
<tr>
<td>NUTR 633</td>
<td>Integrative Client Care: Nutrition Assessment, Applied Biochemistry, and Treatment Planning</td>
<td>4.0</td>
</tr>
</tbody>
</table>

Electives
Choose 4.0 credits of electives. Sample electives include:
NUTR 622 Advanced Biochemistry, Pathophysiology, and Assessment 3.0
NUTR 634 Diabetes Education: An Integrative Approach 1.0
NUTR 641 Life Cycle Nutrition 3.0
NUTR 662 Energetics of Food 1.0
NUTR 663 Sports Nutrition 1.0
NUTR 664 Food Systems and Policies 2.0
NUTR 665 Dynamics of Food and Healing 1.0
NUTR 671 Food and Culture 1.0
NUTR 672 Mindful Eating and Nourishment 2.0
NUTR 681 Whole Foods Cooking Lab I 0.5
NUTR 682 Whole Foods Cooking Lab II 0.5
NUTR 683 Whole Foods Cooking Lab III 0.5
NUTR 684 Whole Foods Cooking Lab IV 0.5
Total Program Credits 15.0
Program Format
This program is delivered in an online format within a cohort of peers. The program can be completed in one year if five credits are taken each trimester.

Online courses offer flexibility for the student. The syllabus for each course will provide details about weekly lessons and include expectations, due dates for assignments, and required participation. For more information about MUIH’s online format, see www.muih.edu.

Online courses run asynchronously throughout each trimester. For trimester start and end dates, see the Academic Calendar. Individual students may choose to create a different schedule of courses that meet their needs and preferences.

Admission Requirements
In addition to the general admissions requirements listed under the Application Requirements section of this catalog, applicants to the Post-Master’s Certificate in Nutrition and Integrative Health must:
- Have earned a minimum of a master’s degree from an accredited educational institution
- Submit official transcripts of all coursework taken to verify degree completion, along with copies of any licenses or certifications in the field of health care
- Demonstrate completion of the following prerequisite requirements (eligibility to test out or be exempt from the prerequisite requirements is at the discretion of the Academic Director):
  - 3 semester credits of Organic/Biological Chemistry
  - 4 semester credits of Physiology and/or Pathophysiology
- OR
- Submit a copy of official transcripts to verify degree completion along with a copy of license to practice in one of the following fields:
  - Nutrition/Dietetics
  - Medicine
  - Chiropractic Medicine
  - Nurse Practitioner
  - Physician Assistant
  - Dentistry
  - Osteopathic Medicine
  - Nursing
  - Physical Therapy
  - Occupational Therapy
  - Acupuncture
  - Pharmacy
  - Other licensed healthcare professionals

Additional Information
Licensure
Licensing requirements for nutritionists vary by state. To learn the most up-to-date laws and regulations, please refer to each state’s board of dietetic practice, or go to www.nutritionadvocacy.org.

Certification
Graduates of the Post-Master’s Certificate in Nutrition and Integrative Health may meet the eligibility requirements of several national nutrition boards. Eligibility will be contingent upon prerequisite courses completed prior to entry into the Post-Master’s Certificate program. Please contact the appropriate board with questions, and review licensing laws by state for the most up to date information.

CERTIFIED NUTRITION SPECIALIST (CNS)
Depending upon a student’s prior clinical training, the Post-Master’s Certificate in Nutrition may complete the educational requirements needed for graduates to sit for the CNS exam. The Board for Certification of Nutrition Specialists (BCNS) also requires that applicants complete 1000 hours of supervised practice experience and pass the BCNS Certifying exam. The board reviews each applicant individually to determine eligibility.

Board for Certification of Nutrition Specialists
4707 Willow Springs Rd, Suite 207
La Grange, IL 60525
202-903-0267
www.nutritionspecialists.org

CERTIFIED CLINICAL NUTRITIONIST (CCN)
CNCB reviews each applicant individually. They review all transcripts to determine eligibility.

Clinical Nutrition Certification Board
15280 Addison Road, Suite 130
Addison, TX 75001
972-250-2829
www.cncb.org

BOARD CERTIFIED IN HOLISTIC NUTRITION®
Requires at least one herbal elective course.

Holistic Nutrition Credentialing Board
P.O. Box 1884
Rancho Cordova, CA 95741-1884
800-342-8037
exam@hncb.org
www.nanp.org/hncb
DOCTOR OF CLINICAL NUTRITION

Program Overview
Students entering the Doctor of Clinical Nutrition will receive advanced education in clinical nutrition to enhance their clinical skills, contribute to the current literature in the field, and take leadership roles in this emerging field. The program is geared toward practicing nutritionists, dietitians, and other healthcare professionals who are seeking to deepen their clinical nutrition skills.

Cumulative knowledge will be demonstrated by completion of a comprehensive exam, preparation of a manuscript for publication in a peer-reviewed journal, and completion of a clinical residency that includes a research project.

There are two pathways to the DCN degree: one for those who have a master’s degree and a background in nutrition, and one for those who hold a bachelor’s degree with a strong science focus.

Purpose
The program will educate clinicians, educators, and researchers in integrative and functional nutrition by using a systems biology approach. DCN students will acquire a clinical skill set and knowledge base that prepares them to work with individuals by creating respectful, personalized plans that move people towards health. Additionally, students will publish original clinical nutrition manuscripts in peer-reviewed journals. The program outcomes are supported by a curriculum that includes core courses in functional nutrition, courses in research and publication, as well as courses on clinical nutrition client assessment and care plans for a wide range of health concerns and medical issues.

Goals
The Doctor of Clinical Nutrition will:

- Provide training in advanced clinical nutrition for graduates to work in health care organizations; as educators in communities, schools and universities; in government and/or policy settings; and to be leaders in the emerging field of integrative and functional nutrition
- Foster an environment which enables students to focus on areas of special clinical interest
- Provide students with an in-depth study of integrative and functional nutrition in the areas of gastrointestinal, immune, cardio-metabolic, neurological, energy metabolism, and endocrine health drawing from contemporary science, and traditional wisdom
- Synthesize didactic, clinical, and culinary training, and translate this into personalized nutrition care plans
- Apply principles of research methodology, health informatics, bioethics, academic journal writing, and case studies in practice and research settings
- Prepare graduates to promote health of medically complex clients through clinical residencies and special projects in clinical nutrition
- Prepare graduates to collaborate with other members of the healthcare team, industry, and academia as the nutrition expert

Course of Study
Master’s Degree Pathway

<table>
<thead>
<tr>
<th>Number</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISCI 801</td>
<td>Designing Research in Clinical Practice</td>
<td>3.0</td>
</tr>
<tr>
<td>ISCI 802</td>
<td>Designing Research in Clinical Practice II</td>
<td>3.0</td>
</tr>
<tr>
<td>MUIH 550</td>
<td>Academic Research &amp; Scholarship</td>
<td>0.0</td>
</tr>
<tr>
<td>NUTR 800</td>
<td>Graduate Colloquium</td>
<td>1.5</td>
</tr>
<tr>
<td>NUTR 801</td>
<td>Principles of Integrative &amp; Functional Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td>NUTR 802</td>
<td>Nutritional Approaches to Detoxification</td>
<td>3.0</td>
</tr>
<tr>
<td>NUTR 810</td>
<td>Special Topics in Nutrition I</td>
<td>1.5</td>
</tr>
<tr>
<td>NUTR 811</td>
<td>Special Topics in Nutrition II</td>
<td>1.5</td>
</tr>
<tr>
<td>NUTR 821</td>
<td>Bioethics in Clinical Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td>NUTR 822</td>
<td>Epigenetics &amp; Nutritional Genomics</td>
<td>3.0</td>
</tr>
<tr>
<td>NUTR 831</td>
<td>Integrative and Functional Nutrition in Gastrointestinal Health</td>
<td>3.0</td>
</tr>
<tr>
<td>NUTR 832</td>
<td>Integrative and Functional Nutrition in Immune Health</td>
<td>3.0</td>
</tr>
<tr>
<td>NUTR 833</td>
<td>Integrative and Functional Nutrition in Cardio-Metabolic Health</td>
<td>3.0</td>
</tr>
<tr>
<td>NUTR 834</td>
<td>Integrative and Functional Nutrition in Neurological Health</td>
<td>3.0</td>
</tr>
<tr>
<td>NUTR 835</td>
<td>Integrative and Functional Nutrition in Endocrine and Energy Health</td>
<td>3.0</td>
</tr>
<tr>
<td>NUTR 836</td>
<td>Case Reports in Functional Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td>NUTR 850</td>
<td>Nutrition Focused Physical Exam</td>
<td>1.5</td>
</tr>
<tr>
<td>NUTR 8EXI</td>
<td>Comprehensive Exam (Case-Study Based)</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td><strong>Total Program Credits for Master’s Degree Pathway</strong></td>
<td>48.0</td>
</tr>
</tbody>
</table>

Choose 3.0 of the following credits:

<table>
<thead>
<tr>
<th>Number</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUTR 900</td>
<td>Advanced Clinical Nutrition Residency &amp; Research Project I</td>
<td>3.0</td>
</tr>
<tr>
<td>NUTR 902</td>
<td>Advanced Clinical Strategies in Nutrition I*</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Choose 3.0 of the following credits:

<table>
<thead>
<tr>
<th>Number</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUTR 901</td>
<td>Advanced Clinical Nutrition Residency &amp; Research Project II</td>
<td>3.0</td>
</tr>
<tr>
<td>NUTR 903</td>
<td>Advanced Clinical Strategies in Nutrition II*</td>
<td>3.0</td>
</tr>
</tbody>
</table>

* Course alternatives for students who live in states with internship restrictions.
Bachelor’s Degree Pathway
In addition to the courses listed above in the Master’s Degree Pathway, students who enter the Bachelor’s Degree Pathway will complete the following coursework.

<table>
<thead>
<tr>
<th>Number</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISCI 626</td>
<td>Nutritional Biochemistry</td>
<td>3.0</td>
</tr>
<tr>
<td>ISCI 647B</td>
<td>Physiology II: Movement Away from Health</td>
<td>3.0</td>
</tr>
<tr>
<td>ISCI 701</td>
<td>Introduction to Statistics, Research Design &amp; Information Literacy in Integrative Health</td>
<td>3.0</td>
</tr>
<tr>
<td>NUTR 601</td>
<td>Redefining Nutrition</td>
<td>1.0</td>
</tr>
<tr>
<td>NUTR 604</td>
<td>Graduate Seminar</td>
<td>1.0</td>
</tr>
<tr>
<td>NUTR 612</td>
<td>Human Nutrition: Micronutrients</td>
<td>3.0</td>
</tr>
<tr>
<td>NUTR 614</td>
<td>Human Nutrition: Macronutrients</td>
<td>2.0</td>
</tr>
<tr>
<td>NUTR 635</td>
<td>Applied Clinical Nutrition I</td>
<td>2.0</td>
</tr>
<tr>
<td>NUTR 636</td>
<td>Applied Clinical Nutrition II</td>
<td>2.0</td>
</tr>
<tr>
<td>NUTR 641</td>
<td>Life Cycle Nutrition</td>
<td>3.0</td>
</tr>
<tr>
<td>NUTR 651A</td>
<td>Clinical Skills I</td>
<td>2.0</td>
</tr>
<tr>
<td>NUTR 651B</td>
<td>Clinical Skills II</td>
<td>2.0</td>
</tr>
<tr>
<td>NUTR 681</td>
<td>Cooking with Whole Foods Lab I</td>
<td>0.5</td>
</tr>
<tr>
<td>NUTR 682</td>
<td>Cooking with Whole Foods Lab II</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Choose 3.0 credits from the following sets:
- NUTR 654C Clinic
  - AND
  - NUTR 654D Clinic
- OR
- NUTR 656C Clinical Strategies in Nutrition Care
  - AND
  - NUTR 656D Clinical Strategies in Nutrition Care

Total Program Credits with Bachelor's Degree Pathway 79.0

Admission Requirements
In addition to the general admission requirements listed under the Application Requirements section of this catalog, applicants to the Doctor of Clinical Nutrition must meet the requirements for one of the following pathways:

Master’s Degree Pathway
- Have earned a minimum of a master’s degree from a regionally accredited educational institution
- Have a minimum overall 3.0 GPA in master’s level coursework, or if school uses a pass/no-pass system, passing grades in all coursework
- Submit official transcripts of all coursework taken to verify degree completion
- Submit two academic or professional letters of recommendation*
- Meet one of the following requirements:
  A. Hold one of the following credentials which is equivalent to the pre-admissions requirements:
     - Registered Dietitian Nutritionist (RDN) by the Commission on Dietetic Registration (CDR)
     - Certified Nutrition Specialist (CNS) by the Board of Certification of Nutrition Specialists (BCNS)
     - Certified Clinical Nutritionist (CCN) by the Clinical Nutrition Certification Board (CNCB)

OR
- B. Demonstrate the completion of the following prerequisite requirements from a regionally accredited college or university or complete missing coursework at MUIH under conditional acceptance to the doctoral program:
  - Nutrition (9 graduate level credits such as macronutrients, micronutrients, and life cycle nutrition)
  - Biochemistry (6 graduate level credits)
  - Physiology or Anatomy and Physiology (3 credits at graduate or bachelor’s level acceptable)
  - Clinical, Life, or Physical Sciences (12 credits – graduate or bachelor’s level acceptable; including 3 credits of graduate level statistics/research literacy. Typical courses include: biology, botany, micro-biology, nutrition science, pathophysiology, and organic or inorganic chemistry.)

Bachelor’s Degree Pathway
Admissions to the bachelor’s pathway is competitive and class size is limited.
- Have earned a minimum of a bachelor’s degree in a science-related major from a regionally accredited educational institution
- Have a minimum overall 3.2 GPA in bachelor’s level coursework, or if school uses a pass/no-pass system, passing grades in all coursework
- Submit official transcripts of all coursework taken to verify degree completion
- Submit two letters of recommendation:*  
  - One from a previous faculty member
  - One from someone in the nutritional field
- Interview
- Demonstrate the completion of the following prerequisite requirements from a regionally accredited college or university:
  - Biochemistry (3 credits)
  - Physiology or Anatomy and Physiology (3 credits)
  - Organic Chemistry (3 credits)
  - Life or Physical Science (3 credits)

*Must use MUIH-supplied Applicant Recommendation Form

Health Requirements
Students must meet certain health requirements to participate in the clinical phase of this program. For specific requirements, please refer to the Health, Training, and Other Requirements section of this catalog.
Advanced Standing
Institute for Functional Medicine
Institute for Functional Medicine (IFM) Certified Practitioners may be eligible for advanced standing and up to nine credits of course exemption in MUIH’s Doctor of Clinical Nutrition program. Candidates for this advanced standing should indicate IFM certification at the time of application for admission to MUIH and must provide documentation before approval for advanced standing.

Program Format
The Doctor of Clinical Nutrition is a hybrid program designed to be completed in as few as three years, depending on pathway. Coursework is completed through a combination of online and on-campus courses in this format.

Master’s Degree Pathway
Thirty-six of the 48 credits are completed through online courses. Online courses offer flexibility for the student. The syllabus for each course will provide details about weekly lessons and include expectations, due dates for assignments, and required participation. More information about MUIH’s online format is available on www.muih.edu. Online courses run asynchronously throughout each trimester. For trimester start and end dates, see the Academic Calendar on www.muih.edu. Individual schedules may vary depending on course selection. Students are required to complete six credits on campus, offered as four 1.5-credit courses offered on weekends. Weekend class times are typically 5–9 p.m. on Fridays, and 8:30 a.m.–5:30 p.m. on Saturdays and Sundays. Visit www.muih.edu for specific course schedules or contact the Office of Graduate Admissions.

The final six credits will require the completion of a clinical nutrition residency. The clinical residency may be completed where the student lives, or on the MUIH campus at the Natural Care Center. Students who live in states where MUIH does not have approval for distance learning internship/residency programs will complete special case study projects and presentations in lieu of residency.

Bachelor’s Degree Pathway
Students will complete 69 or 72 credits online, depending on course selection, and will be required to complete seven credits on campus, offered as weekend courses.

Six credits will require the completion of a clinical nutrition residency. The clinical residency may be completed where the student lives, or on the MUIH campus at the Natural Care Center. Students who live in states where MUIH does not have approval for distance learning internship/residency programs will complete special case study projects and presentations in lieu of residency. Three credits of clinical studies will be completed online or on campus in trimesters four and five.

Additional Information
Licensure
Licensing requirements for nutritionists vary by state. To learn the most up-to-date laws and regulations, please refer to each state’s board of dietetic practice, or go to www.nutritionadvocacy.org.

Certification
CERTIFIED NUTRITION SPECIALIST (CNS)
Depending upon a student’s prior clinical training, the Doctor of Clinical Nutrition may complete the educational requirements needed for graduates to sit for the CNS exam. The Board for Certification of Nutrition Specialists (BCNS) also requires that applicants complete 1000 hours of supervised practice experience and pass the BCNS Certifying exam. The board reviews each applicant individually to determine eligibility.

Board for Certification of Nutrition Specialists
4707 Willow Springs Road, Suite 207
La Grange, IL 60525
202-903-0267
www.nutritionspecialists.org

DIPLOMATE OF THE AMERICAN CLINICAL BOARD OF NUTRITION
Graduates of the Doctor of Clinical Nutrition are eligible to apply to become a Diplomate of the American Clinical Board of Nutrition. This board requires that applicants hold a professional doctorate and have at least 300 hours of nutrition education, a minimum of two years practice experience, and write an article or paper on a nutritional topic that could be published.

American Clinical Board of Nutrition
6885 Browntown Road
Front Royal, VA 22630
540-364-8844
www.acbn.org

CERTIFIED CLINICAL NUTRITIONIST (CCN)
CNCB reviews each applicant individually. They review all transcripts to determine eligibility.

Clinical Nutrition Certification Board
15280 Addison Road, Suite 130
Addison, TX 75001
972-250-2829
www.cncb.org
POST-BACCALAUREATE CERTIFICATE IN HERBAL STUDIES

Program Overview
This 12-credit Post-Baccalaureate Certificate in Herbal Studies provides the herbal enthusiast with a foundational knowledge of herbal sciences, as well as an understanding of wellness-based models of health care. An emphasis on practical skills ensures that students are familiar with the identification of local plants and have the ability to make medicinal food and herbal preparations. Combining modern, scientific knowledge with traditional wisdom, the coursework uses the cycles of nature to guide the integration of herbs into daily life. This program empowers the student with the knowledge and skills to support self-care through the safe and effective incorporation of herbs into daily life, using body care products, food preparations, and other herbal supplements.

Nine to 12 credits in this certificate program can be applied to the Master of Science in Nutrition and Integrative Health and all 12 credits may be applied to the Master of Science in Therapeutic Herbalism.

Purpose
The Post-Baccalaureate Certificate in Herbal Studies program empowers the student by combining modern, scientific knowledge with traditional herbal wisdom, using the cycles of nature to guide the integration of herbs into daily life.

Goals
- Identify the principles of a wellness-based model of health care and apply these principles in a variety of personal and professional settings
- Identify and harvest local herbs in the field, recognize raw materials, and manufacture herbal and food preparations
- Describe the safe and appropriate use of a limited number of herbs as dietary supplements within the framework of a wellness-based model of health care
- Identify how life is intertwined with the surrounding environment, articulate the implications of the changing seasons, and be able to safely and effectively utilize herbs to support self-care throughout the year
- Incorporate herbs into food preparation as a way to provide daily wellness support

Curriculum Overview
During the certificate program students will begin their immersion in traditional and evidence-based knowledge. At the same time, a new model for integrative healthcare will be introduced, one that focuses on wellness and supporting human resilience. Students will deepen their knowledge of Materia Medica, or how to use plants for healing, and learn how to make quality herbal products for home use.

Course of Study
12 Required Credits

<table>
<thead>
<tr>
<th>Number</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRB 600</td>
<td>Fundamentals of Herbal Medicine</td>
<td>3.0</td>
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<tr>
<td>HRB 605</td>
<td>Materia Medica I</td>
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<td>HRB 622</td>
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<td>IHED 637</td>
<td>Principles and Practices of Health Behavior and Self-Care</td>
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</tr>
<tr>
<td>MUIH 550</td>
<td>Academic Research and Scholarship</td>
<td>0.0</td>
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</tbody>
</table>

Total Program Credits 12.0

Admission Requirements
To be considered for admission to all graduate academic programs, applicants must have a bachelor’s degree from a regionally accredited institution.* Applicants must submit an official transcript from all post-secondary institutions attended. Please refer to the Application Requirements section for a detailed list of required application materials.

* If the bachelor’s degree was not completed at a college or university accredited by a regional accrediting body recognized by the U.S. Department of Education, copies of the institution’s academic catalog and course syllabi may be requested. Please refer to the International Students section for additional information.
Program Format
The Post-Baccalaureate Certificate in Herbal Studies is designed to be completed in eight months and is offered online. Although no residency is required, online students are welcome to take on-campus courses, subject to availability.

Online courses offer flexibility for the student. The syllabus for each course will provide details about weekly lessons and include expectations, due dates for assignments, and required participation. For more information about MUIH’s online format, visit www.muih.edu.

Online courses run asynchronously throughout each trimester. For trimester start and end dates, see the Academic Calendar. Individual students may choose to create a different schedule of courses that meet their needs and preferences.

Additional Information
Resources
The Herbal Program at Maryland University of Integrative Health maintains an herbal dispensary and garden as experiential classrooms for students to acquire skills and engage in longer term research projects.
MASTER OF SCIENCE IN THERAPEUTIC HERBALISM

Program Overview
Maryland University of Integrative Health offers the only master’s degree in herbal therapeutics from a regionally-accredited university that offers students a comprehensive study of medicinal herbs and health and integrates modern scientific knowledge with traditional wisdom. Combining research with foundational theory, the program offers an in-depth education covering the principles of health and wellness; herb identification and harvesting; herbal pharmacy; herbal pharmacology and phytochemistry; integrative human physiology; Materia Medica; and herbal therapeutics.

Graduates are empowered with the critical thinking skills and health information literacy needed to be effective researchers, writers, educators, and consultants. The research training prepares students to join the herbal industry by helping them acquire skills in production, formulation, GMP compliance, communication, clinical training, and education.

Students may select one of two areas of concentration: Clinical Herbalism or Herbal Product Design.

Graduates of the Clinical Herbalism area of concentration will acquire the skills and knowledge to build a safe and effective clinical practice in herbalism. The curriculum educates students to apply a bio-psycho-social model of care to meet health and wellness goals. Students in this area of concentration have the opportunity to earn clinical hours by enrolling in an MUIH approved Supervisory Mentoring Program. Through this program, students will be mentored and supervised by American Herbalists Guild Registered Herbalists as they work with clients, either in person or through the use of technology. The experiences and hours then articulate into .5 to 1.5 academic credits (1 credit is required). Additionally, students see clients through group facilitation models and a case study course. The main emphasis of the program is on developing real world, clinical competence. Topics such as ethics, business, and legal issues in clinical herbalism are explored in order to facilitate the transition from student to working professional.

Graduates of the Herbal Product Design area of concentration will acquire the skillset and knowledge necessary to become thought leaders in the field of natural products, with an understanding of product development both broad and deep that allows them to participate in multiple sectors of the herbal supplement field from production to manufacturing to research to final product development with existing companies and as entrepreneurs.

Purpose
The Master of Science in Therapeutic Herbalism empowers students with a comprehensive knowledge of applied biomedicine, pharmacology, phytochemistry, herbal pharmacy, Materia Medica, and therapeutic theory.

Goals
- Understand the requirements for ensuring high quality herbal products
- Be able to advise and educate effectively to create a comprehensive wellness plan incorporating herbal, dietary, and lifestyle recommendations integrating self-awareness and lessons of nature
- Possess knowledge of traditional herbal systems as well as an understanding of the principles and practices of modern Western herbalism
- Have a foundational understanding of biomedicine, pharmacology, Materia Medica, herbal preparations, history, clinical assessment, safety, and plant identification, and wildcrafting
- Demonstrate the ability to critically analyze herbal research and contribute to the current body of herbal literature
- Know how to integrate knowledge of raw materials, formulation, and herbal pharmacy for product development purposes
- Know how to effectively educate individuals and groups about herbs
  - Be able to demonstrate basic skills in herb identification, harvesting, and preparation
  - Be able to address potential safety concerns including herb-drug interactions
  - Be able to grow personally and professionally and to participate actively in the field of herbalism through writing, research, public speaking, and/or professional affiliation

In addition to the educational objectives for all graduates, specific areas of concentration have the following outcomes:
Clinical Herbalism

- Students who complete this program will be able to:
  - Accurately gather information regarding past and current health status while differentiating between phenomena and the client’s interpretation of phenomena
  - Synthesize the above information to create a comprehensive assessment of health inputs and processes
  - Work with clients to develop individualized goals and a plan for health and wellness
  - Adjust the individualized plan and goals in response to the changing needs of the client.
  - Achieve and maintain rapport with clients, listen attentively, and practice with compassion
  - Have the skills to establish and maintain an effective herbal practice
  - Be able to assess and support clients within the context of a health and wellness paradigm
  - Be able to navigate the current healthcare environment, empower clients to make informed choices, and refer when appropriate
  - Be competent in the basic business skills necessary to build and maintain an herbal practice
  - Be able to collaborate with other healthcare providers in partnership
  - Be able to grow personally and professionally
  - Have the self-awareness to recognize external and internal cues, reflect upon feedback and adjust behavior accordingly
  - Be able to apply concepts of critical thinking and information literacy to individualized client care.

Herbal Product Design

Students who complete this program will be able to:

- Demonstrate intermediate to advanced skills in:
  - Harvesting and processing of plant material
  - Rationale design, product preparation, and formulation of herbal products
  - Macroscopy and related botanical skills to confidently analyze botanical ingredients used in commercial products
  - Researching evidence-based literature to support the safe and efficacious development of a herbal supplement
  - Using traditional knowledge to bridge the knowledge gap of evidence-based data to make rational decisions in developing safe and effective herbal products

- Demonstrate an understanding of:
  - The impact of processing practices on the therapeutic value of herbs
  - How to work ethically in natural plant communities
  - How to appropriately gather and process plants in the field
  - How to extract and synthesize traditional, pharmacological, and clinical data to make an informed decision about the application of herbal formulas
  - How to link pharmacological concepts with the qualities of herbal medicine
  - How the traditional knowledge for use of medicinal plants from the local bioregion has been influenced by cultural, ecological, and medicinal values

- Demonstrate the competencies necessary to understand, design, and perform Good Manufacturing Practices (GMP) compliance measurements required for successful employment in:
  - The natural products industry as Quality Assessment and Quality Control (QA, QC) and GMP technicians; raw materials production, acquisition and wildcrafting; researcher, product designer, and formulator; educator for internal, as well as consumer constituencies
  - Academic institutions and related areas as researchers, educators, and writers
  - Federal regulatory roles assessing phytochemical profiles, safety concerns, structure function, and new ingredient claims

Course of Study

Core Credits

<table>
<thead>
<tr>
<th>Number</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
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<td>Fundamentals of Herbal Medicine</td>
<td>3.0</td>
</tr>
<tr>
<td>HRB 605</td>
<td>Materia Medica I</td>
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<tr>
<td>HRB 620A</td>
<td>Herbal Therapeutics I</td>
<td>3.0</td>
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<tr>
<td>HRB 620B</td>
<td>Herbal Therapeutics II</td>
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<tr>
<td>HRB 622</td>
<td>Herbal Pharmacy</td>
<td>3.0</td>
</tr>
<tr>
<td>HRB 654B</td>
<td>Herbal Pharmacy and Phytochemistry</td>
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</tr>
<tr>
<td>HRB 705</td>
<td>Materia Medica II</td>
<td>3.0</td>
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<td>HRB 790</td>
<td>E-Portfolio: Introduction</td>
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<tr>
<td>HRB 791</td>
<td>E-Portfolio: Final</td>
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<tr>
<td>IHED 637</td>
<td>Principles &amp; Practices of Health Behavior &amp; Self-Care</td>
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<td>ISCI 547A</td>
<td>Physiology I: Healthy Function</td>
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<tr>
<td>ISCI 610B</td>
<td>Introduction to Scientific Writing</td>
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<tr>
<td>ISCI 631</td>
<td>Introduction to Complementary and Integrative Health</td>
<td>1.5</td>
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<tr>
<td>ISCI 701</td>
<td>Intro Statistics, Research Design &amp; Info Literacy in Integrative Health</td>
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<tr>
<td>MUIH 550</td>
<td>Academic Research and Scholarship</td>
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Clinical Herbalism Concentration
19.5 Required Credits

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<tr>
<th>Number</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>APP 607</td>
<td>Introduction to Healing Presence</td>
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<tr>
<td>HRB 713B</td>
<td>Clinical Roundtable</td>
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<td>HRB 715</td>
<td>Orientation Retreat</td>
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<td>HRB 722</td>
<td>Faculty Supervised Clinic</td>
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<tr>
<td>HRB 722B</td>
<td>Faculty Supervised Clinic II</td>
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<tr>
<td>HRB 722C</td>
<td>Faculty Supervised Clinic III</td>
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<tr>
<td>HRB 723C</td>
<td>Applied Therapeutics: Clinical Assessment, Goals and Plans</td>
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<tr>
<td>HRB 735A</td>
<td>Clinical Theory in Practice I</td>
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<tr>
<td>HRB 735B</td>
<td>Clinical Theory in Practice II</td>
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<tr>
<td>HRB 740</td>
<td>Models of Herbal Practice</td>
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<tr>
<td>HRB 753B</td>
<td>Applied Therapeutics: Case Studies</td>
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<tr>
<td>HRB 780</td>
<td>Professional Project Elective*</td>
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<tr>
<td>IHM 664</td>
<td>Practice Management</td>
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<tr>
<td>ISCI 647B</td>
<td>Physiology II: Movement Away from Health</td>
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</tbody>
</table>

Choose 1.0 of the following credits:
- HRB 635A Field Trip/Nature Intensive 1.0
- HRB 635B Field Trip/Industry Intensive 1.0
- HRB 635C Field Botany for Herbalists 1.0

Total Program Credits with Clinical Herbalism Concentration 52.0

Herbal Product Design Concentration
9.5 Required Credits

<table>
<thead>
<tr>
<th>Number</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>HRB 650</td>
<td>Professional Career Trajectory</td>
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<tr>
<td>HRB 690</td>
<td>Internship</td>
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</tr>
<tr>
<td>HRB 793</td>
<td>Case Studies in Herb Product Design</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Choose 3.0 of the following credits:
- HRB 641 Safety of Botanical Medicine 3.0
- HRB 642 Dispensary Practices and Quality Assessment 3.0

Choose at least 2.0 credits:
- HRB 633 Medicinal Plants and Cultures 2.0
- HRB 635A Field Trip/Nature Intensive 1.0
- HRB 635B Field Trip/Industry Intensive 1.0
- HRB 635C Field Botany for Herbalists** 1.0

Total Program Credits with Herbal Product Design Concentration 42.0

*HRB 780 may be repeated in the final trimester.
**HRB 635C may only be completed once. If selected as part of the core credits, students in the Herbal Product Design concentration must make other course selections.

Admission Requirements
To be considered for admission to all graduate academic programs applicants must have a bachelor’s degree from a regionally accredited institution.* Applicants must submit an official transcript from all post-secondary institutions attended. Please refer to the Application Requirements section for a detailed list of required application materials.

* If the bachelor’s degree was not completed at a college or university accredited by a regional accrediting body recognized by the U.S. Department of Education, copies of the institution’s academic catalog and course syllabi may be requested. Please refer to the International Students section for additional information.

Additional Requirements
Applicants for the Master of Science in Therapeutic Herbalism must hold a bachelor's degree with a minimum overall 2.5 GPA in undergraduate coursework.

Health Requirements
Students may need to meet certain health requirements to participate in Clinical Herbalism concentration of program. For specific requirements, please refer to the Health, Training, and Other Requirements section of the catalog.

Program Format
The Master of Science in Therapeutic Herbalism is designed to be completed in two years in an online or hybrid format, depending on area of concentration.

Online Format
The Herbal Product Design concentration is offered in an online format. Although no residency is required, online students are welcome to take on-campus courses, subject to availability. Two courses offer optional face-to-face field trip opportunities, HRB 635A in summer trimesters and HRB 635B in fall trimesters. HRB 642 is offered onsite in the fall trimester as a 5-day intensive course. See the Schedule of Courses for more information.

Online courses offer flexibility for the student. The syllabus for each course will provide details about weekly lessons and include expectations, due dates for assignments, and required participation. For more information about MUIH’s online format, visit www.muih.edu.

Online courses run asynchronously throughout each trimester. For trimester start and end dates, see the Academic Calendar. Individual students may choose to create a different schedule of courses that meet their needs and preferences.
Hybrid Format
The Clinical Herbalism concentration is offered as a hybrid program with a blend of online coursework and clinical experience. The program requires a four-day orientation retreat in the Baltimore/Washington, DC region. Additional coursework may be offered on campus, and two courses offer option face-to-face field trip opportunities (HRB 635a and HRB 635b). See the Schedule of Courses for more information.

Additional Information
Certification
AMERICAN HERBALISTS GUILD REGISTERED HERBALIST
Herbal medicine remains an unlicensed field but does offer a recognized board certification through the American Herbalists Guild, a body of professional herbalists certifying a high level of knowledge and experience in botanical medicine. Graduates of the Master of Science in Therapeutic Herbalism are eligible to apply for this credential.

American Herbalists Guild
125 South Lexington Avenue, Suite 101
Asheville, NC 28801
617-520-4372
www.americanherbalistsguild.com

CERTIFIED NUTRITION SPECIALIST (CNS)
Graduates of the Clinical Herbalism area of concentration may pursue the Certified Nutrition Specialist (CNS) credential by taking 16 credits in nutrition and related topics. Contact your Academic Advisor for additional information, and see information about the CNS exam under the Master of Science in Nutrition and Integrative Health.

Board for Certification of Nutrition Specialists
4707 Willow Springs Rd, Suite 207
La Grange, IL 60525
202-903-0267
www.cbns.org