## MARYLAND HIGHER EDUCATION COMMMISSION ACADEMIC PROGRAM PROPOSAL

## **PROPOSAL FOR:**

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## Maryland Higher Education Commission Proposal for New Instructional Program

## Doctorate in Naturopathic Medicine Maryland University of Integrative Health

Maryland University of Integrative Health (MUIH) proposes the creation of a new Doctorate in Naturopathic Medicine (ND), within their School of Naturopathic Medicine. This will be a four-year, in-residence program, effective Fall 2018.

## A. Centrality to Institutional Mission Statement and Planning Priorities

### 1. Program description and alignment with mission

The mission of Maryland University of Integrative Health (MUIH) is:

A distinctive community of scholars, researchers, practitioners, and advocates, Maryland University of Integrative Health promotes whole person, relationship-centered healthcare.

Through discovery and exploration, we deliver progressive educational programs, advance innovative clinical models, build mutually beneficial partnerships, and provide opportunities for fulfilling careers.

#### Our vision:

Serving as a leader in the global transformation of health and wellness, we integrate healing traditions and contemporary science, acknowledge the wisdom of the body and nature as a teacher, and focus on the interconnection of mind, body, and spirit.

Our work enables people to thrive through the cycles of life.

MUIH is the pre-eminent institution in the U.S. for the study of health and wellness. Its programs integrate healing traditions and contemporary science and acknowledge the wisdom of the body and nature as a teacher to educate diverse and erudite health-care professionals for today and tomorrow. In keeping with its mission and vision, MUIH currently offers graduate programs in areas related to natural medicine such as acupuncture, herbal medicine, health and wellness coaching, nutrition, and yoga therapy. MUIH has been a pioneer and driving force in the national movement toward wellness, disease prevention, and relationship-centered healthcare.

As an anchoring academic institution for the emerging wellness system in America, MUIH has trained over 2380 wellness professionals and has a current, annual enrollment of over 550 graduate students. Graduates not only help frame the healthcare options in the U.S. and abroad, but also are instrumental in encouraging people to switch to more natural lifestyle choices that improve their overall health and wellness. This proposal for a new

Doctorate in Naturopathic Medicine (ND) will continue to advance MUIH's leadership in the emerging wellness system.

The American Association of Naturopathic Physicians (AANP) defines naturopathic medicine as "a distinct primary health care profession, emphasizing prevention and treatment of acute and chronic illness, and restoration of optimal health. Naturopathic physicians employ therapeutic methods and substances that support the inherent self-healing process of nature and the body." Naturopathic doctors utilize clinical and laboratory diagnostic testing and employ therapeutic modalities in personalized treatment plans, including: clinical nutrition, botanical medicine, physical medicine, counseling, minor surgery, homeopathy, prescription medication, intravenous and injection therapies. Some jurisdictions allow for expanded practice with advanced training and certification, such as acupuncture and natural childbirth.

Naturopathic doctors have brought a holistic perspective to healthcare, emphasizing herbal, nutritional, homeopathic, and hands-on therapies that often provide a gentler alternative to conventional medicine. Trained as first-contact providers, NDs are well positioned to steer patients toward therapeutic interventions that empower the individual, address the whole person and are generally less invasive than most conventional treatments.

Some state statutes designate NDs as primary care providers. At present, NDs are not mandated to practice primary care medicine, and some choose to practice as specialists instead of primary care providers. The growth and evolution of naturopathic medicine have been accelerating, and today, naturopathic doctors can be found in private and integrative practices, primary care and specialty settings, hospitals, the natural products industry, laboratory testing and development, public health, corporate wellness, insurance, health policy, research institutes, think tanks, and academic institutions of all kinds.

The culture and philosophy of healing that form the foundation for MUIH programs offer a natural fit for a School of Naturopathic Medicine and will support the integrity of the program. The School of Naturopathic Medicine cultivates a student-centered, holistic approach to naturopathic medical education and facilitates the transformative experiences that define the path to becoming a healer. Instruction will focus on the clinical applications of the biomedical sciences, therapeutic modalities, and clinical sciences, in addition to development of effective communication and leadership skills. Medical technology, genomics, and bioinformatics are explored as students learn to navigate emerging healthcare trends. Healing presence, wellness, determinants of health, and health creation are emphasized throughout the program, and elements of contemplative education are incorporated into educational activities.

## 2. Priority and support of institutional strategic goals

Consistent with its mission, vision and five-year strategic plan, MUIH recently added doctoral programs in acupuncture, Oriental medicine, and clinical nutrition. The proposed

<sup>&</sup>lt;sup>1</sup> AANP House of Delegates Position Paper (adopted 1989, amended 2011), <a href="http://www.naturopathic.org/files/Committees/HOD/Position%20Paper%20Docs/Definition%20Naturopathic%20Medicine.pdf">http://www.naturopathic.org/files/Committees/HOD/Position%20Paper%20Docs/Definition%20Naturopathic%20Medicine.pdf</a>.

ND program will provide additional educational and career opportunities for healthcare professionals.

Since its founding, MUIH has positioned itself as a pioneer and advocate for a more natural and relationship-oriented approach to health and well-being. It has remained steadfast in helping to lead the transformation of our healthcare delivery system through behavioral changes in consumer self-care, teaching MUIH graduates to become partners in health by educating, facilitating and coaching.

MUIH's very existence and recent growth offer evidence that our nation's future model of healthcare will include more, rather than less, integrative health. At their foundation, nearly all of the University's academic and clinical programs, beginning with acupuncture, were intentionally developed to help alter the way healthcare is practiced. Initially, most of these fields lacked an identifiable and ready market both for students and for patients or clients. MUIH took on the challenge of creating both the demand for these academic programs and the consumer base to use the services of their graduates. Introduction of these and more recent market-centric academic offerings, including the new doctoral programs, has been quite successful.

The ND model, as with all of the disciplines at MUIH, is prevention- and education-oriented, nature-based, community-focused and relationship-centered. With their broad scope of practice, NDs can help to change the very manner in which healthcare is viewed, understood and practiced. The fact that NDs can already be found in leadership positions in organizations as diverse as think tanks, such as the RAND Corporation; research institutions, including the National Institutes of Health (NIH); hospitals and integrative care centers; accountable care organizations; and institutions of higher learning speaks to the value of their expertise and their role as change agents in the future of healthcare.

Further, the ND program affords MUIH an even greater leadership opportunity at the heart of the MUIH mission: it has the potential to positively influence the regional and national landscape of healthcare by offering a broader perspective of natural medicine. By adding the ND program to its academic portfolio, MUIH moves toward much more significant clinical partnerships with patients, as well as with the conventional medical community. Practitioners of integrative health and medicine — and specifically naturopathic doctors — by their very nature will be positioned to take a powerful stand to define, shape and lead the next iteration of healthcare. The ND program will educate graduates to be at the helm beside other healthcare providers and leaders.

As a leader in integrative healthcare, MUIH is well positioned and naturally suited to develop this program, before others do. There is a steadily evolving market for naturopathic medicine, including both prospective students eager to study in this field and patients demanding ND services. In addition to enhancing MUIH's national visibility and credibility, the ND program offers MUIH, and all its students and faculty, doctor-level practitioners and partners within the walls of the University. Its students and clinical interns will be visible in its research department, student teaching clinic, and the wellness policy and leadership initiatives that are emerging. The ND program expands and complements MUIH's curricular content and diversifies career options for graduates. It will help to enrich existing programs by offering curricular cross-pollination and opportunities for dual degrees, as well as for

interprofessional education, integrative clinical experiences, and collaborative research for all students.

## **B.** Adequacy of Curriculum Design and Delivery to Related Learning Outcomes

The ND program was constructed around a strategic vision calling for:

- A naturopathic medical program that is highly competitive, successful, and affordable
- An innovative curriculum that is in harmony with existing MUIH mission, vision, programs, and philosophy
- A curriculum delivery plan that is active and experiential to maximize student engagement and enhance learning
- Integration of existing content from other programs
- Interprofessional educational opportunities both in classroom and clinical settings
- A new standard for excellence in naturopathic medical education

In keeping with those principles, the mission and vision of the School of Naturopathic Medicine were defined:

Mission: To prepare graduates to be self-reflective leaders, practitioners, and change agents in whole person care, community health and wellness, research, and health policy.

**Vision:** We are leaders in the global transformation of health and wellness creation through innovation, collaboration, and the education of naturopathic doctors in the wise practice of medicine, cultivating healing presence and honoring the inherent wisdom of body and nature.

The resulting program design is for a four-year (11 trimesters), residence-based, graduate-level program in naturopathic medicine leading to a first professional Doctorate of Naturopathic Medicine (ND). Students will typically be on campus five days per week. A significant amount of course material will be available to students online, through recorded lectures, readings, simulations, animations, and videos. Using blended, flipped classroom, and other emergent digitally-enhanced pedagogies, face-to-face class time will largely be reserved for discussion, clarification of challenging concepts, integration, and experiential learning.

In December 2015, a consultant was hired to provide guidance on future facility needs and to prepare a presentation on the proposed School of Naturopathic Medicine for the Board of Trustees meeting on February 11, 2016, at which formation of the School was approved. In April 2016, the inaugural Dean of the school was hired full-time and began work on establishing a timeline, drafting a curriculum, and networking with prospective faculty and professional and educational partners. Licensed ND consultants were hired to assist with curriculum and course development. In August 2016, the Dean attended the biannual in-person meeting of the Council of Chief Academic and Clinical Officers, a subcommittee of the Association of Accredited Naturopathic Medical Colleges, to ascertain the most recent trends, competency development, opportunities, and challenges in naturopathic medical education. In subsequent months she met and consulted with key leadership and advisors in naturopathic education, accreditation, administration, and practice, as well as integrative health. Taken together, these individuals

#### included:

- Daniel Seitz, JD, EdD, Executive Director, Council on Naturopathic Medical Education
- JoAnn Yanez, ND, MPH, CAE, Executive Director, Association of Accredited Naturopathic Medical Colleges
- Christa Louise, PhD, Executive Director, North American Board of Naturopathic Examiners
- John Weeks, Consultant, Writer; Editor-in-Chief, Journal of Alternative and Complementary Medicine; Co-Founder and Past Executive Director, Academic Collaborative of Integrative Health
- David Schleich, PhD, President, National University of Natural Medicine (NUNM)
- Melanie Henriksen, MSOM, CNM, ND, Dean of Naturopathic Medicine, NUNM
- Carrie Baldwin-Sayer, ND, Associate Dean, Clinical Education, NUNM
- Leslie Fuller, ND, Associate Dean, Residency Program Director, NUNM
- John Brons, PhD, Professor, Biomedical Sciences, NUNM
- David Scotten, ND, Dean of Education, Boucher Institute for Naturopathic Medicine
- Joni Olehausen, ND, Associate Dean for Naturopathic Medicine, Bastyr University California
- Peter D'Adamo, ND, Director, Center of Excellence in Generative Medicine, University of Bridgeport
- Brad Lichtenstein, ND, BCB, Core Faculty, Bastyr University
- Christy Lee-Engel, ND, LAc, Past Director, Center for Spirituality, Science and Medicine, Bastyr University
- Abigail Aiyepola, ND, CPM, Consultant
- Mark Davis, ND, Consultant

The ND program was approved by the University Curriculum Committee including Faculty Senate representation on October 10, 2016, and by the Board of Trustees on October 19, 2016. Additional acquisition of faculty, development of program policies, and identification of opportunities for research and training with regional medical programs and community health centers are underway. Subject to program approval, the first applicants will be accepted in spring 2018, with classes beginning in September 2018.

## 1. Courses and program requirements

The curriculum for the ND program (258 credits) is aligned with the current understanding of best practices in medical education. It is grounded in professional standards including those established by the Council on Naturopathic Medical Education, Association of Accredited Naturopathic Medical Colleges (AANMC) and the AANMC's Council of Chief Academic and Clinical Officers, North American Board of Naturopathic Examiners, and the Academic Collaboration of Integrative Health. In addition, the ND program meets the criteria outlined in the regulations for licensed naturopathic doctors in Maryland, so that graduates will meet the educational qualifications for licensure under COMAR 10.32.21.02B(1).

Prospective students for the ND program will have completed an undergraduate degree and prerequisites that are essential to succeeding in the naturopathic program, including one year of biology, one year of general chemistry (with lab), two sequential courses in organic chemistry (one course of biochemistry may be substituted), one algebra- or calculus-based physics course, one general humanities course, one psychology course, and one English

composition course. Applicants must achieve a minimum GPA of 3.0 in prerequisite coursework, which must have been completed within the past seven years. Transfer credit and/or advanced standing may be granted to students who are transferring from other health professions programs or who hold other health professions or terminal degrees, provided that their coursework is sufficiently equivalent to that of the naturopathic medical curriculum.

Requirements for the ND program include:

•	Lecture Hours:	1841
٠	Tutorial Hours:	630
•	Lab Hours:	525
•	Clinic Hours:	1204
•	Total Hours:	4200
•	Total Credits:	258

Credits applicable for each type of course are determined as listed below:

1.	CREDIT HOUR PRACTICES ND PROGRAM	AND AND SHE	
Type of Course	Description	# Instructional <sup>a</sup> Hours Per Credit	# Non- Instructional <sup>b</sup> Hours Per Credit
Didactic (lecture/seminar)	Lecture credits: 1 hour lecture = 1 credit = 2 hours of work outside of class	14	. 28
Laboratory	Lab credits: 1 hour lab = 0.5 credit = minimal work outside of class	28	0
Clinical Observation	1 hour = 0.5 credit and minimal work outside of class	28	0
Clinical Practice	1 hour = 0.75 credit; One 4-hour shift = 3 credits = 3 contact hrs + 2 hrs independent work (42 hrs faculty contact + 28 hrs independent work/trimester)	42 hrs contact per 3 credits	28 hrs independent work per 3 credits
Field Experience <sup>c</sup>	Same as clinical observation	28	0

<sup>&</sup>lt;sup>a</sup>Instructional Hours: Course activities and/or assessments that are conducted under the supervision of a faculty member or other supervisor.

The program is structured around three domains: the didactic curriculum, the clinical practicum, and the development of the student as practitioner. The chart below summarizes

<sup>&</sup>lt;sup>b</sup>Non-Instructional Hours: Course activities and/or assessments that are completed by students without direct supervision and/or significant interaction with the faculty member.

activities within each of those domains throughout the four-year program.

Year	Didactic Curriculum	Clinical Practicum	Student Development
1	<ul> <li>Human Gross Anatomy</li> <li>Fundamentals of Biomedicine</li> <li>Spectrum of Health</li> <li>Public Health</li> <li>Determinants of Health</li> <li>Introduction to assessment and therapeutics</li> <li>Hydrotherapy</li> </ul>	<ul> <li>Clinical skills</li> <li>Community medicine</li> <li>Clinic Observation</li> <li>Fieldwork</li> <li>Training in HIPAA, OSHA, Blood-Borne Pathogens</li> <li>CPR certification and basic first aid</li> </ul>	<ul> <li>Exploration of relationship to the self as cornerstone of Relationship-Centered Care (RCC)</li> <li>Cultural competence</li> <li>Becoming a healing presence</li> <li>Naturopathic Retreat</li> </ul>
2	<ul> <li>Organ system blocks that incorporate pathology, assessment, therapeutics, and review of anatomy and physiology</li> <li>Environmental Medicine</li> <li>Emergency Medicine</li> <li>Manual medicine</li> <li>Research for the Clinician</li> </ul>	<ul> <li>Refresher training in HIPAA, OSHA, Blood-Borne Pathogens</li> <li>Group visits</li> <li>Hydrotherapy</li> <li>Community education</li> </ul>	<ul> <li>Doctor-patient relationship as the foundation of RCC</li> <li>Becoming a healing presence in patient care</li> </ul>
3	<ul> <li>Special populations         (women's/men's health,         pediatrics, geriatrics)</li> <li>Jurisprudence</li> <li>Minor surgery</li> <li>IV therapeutics</li> <li>Practice management</li> </ul>	<ul> <li>Clinic rotations</li> <li>Grand Rounds</li> <li>Transition to primary student clinician</li> <li>Interprofessional collaboration</li> <li>CPR recertification</li> <li>Refresher training in HIPAA, OSHA, Blood-Borne Pathogens</li> </ul>	<ul> <li>Relationship to Colleagues and Community as components of RCC</li> <li>Becoming a healing presence in relation to community</li> </ul>
4	<ul> <li>Special interests</li> <li>Research</li> <li>Practice management</li> </ul>	<ul> <li>Primary student clinician role</li> <li>Interprofessional collaboration</li> <li>Grand Rounds</li> <li>Refresher training in HIPAA, OSHA, Blood-Borne Pathogens</li> </ul>	<ul> <li>Relationship to healthcare systems</li> <li>Practice management</li> <li>Naturopathic Retreat</li> </ul>

The program is designed to foster critical thinking and clinical reasoning through self-directed and case-based learning, early exposure to the clinical setting, and mentored experiences. Students will have a clinical component to their studies beginning in the first trimester, and gradually increase their contact and responsibilities with regard to patient care in accordance with their growing knowledge and skills throughout the program. Opportunities for interprofessional education and integrative healthcare teams will be

provided in both classroom and clinic.

Topics are integrated and anchored by the tutorial sessions (Independent and Collaborative Critical Inquiry, or ICCI) that occur each trimester through the third year, and provide opportunities for case-based learning through independent and team-based projects, with topics cumulative throughout all three years in order to reinforce the application of biomedical sciences to clinical sciences and patient care. Concurrently, students explore the personal, professional, technical, and clinical skills, attitudes, and behaviors essential to becoming a competent, compassionate doctor in Practitioner's Journey, which runs every trimester through all four years. In the third and fourth year, Practitioner's Journey incorporates Grand Rounds, including an integrative Grand Rounds that allows interprofessional exploration of patient care with the other MUIH clinical programs. The concept of healing presence, a hallmark of all MUIH programs, is infused throughout the four years: emphasizing the power of relationships to heal and including elements of empathy, self-reflection, and mindfulness. Students complete a portfolio of their reflections on the various aspects of relationship-centered care, patient care, personal development, and a service learning project relevant to community medicine.

The curriculum is structured with a sequential flow that establishes a foundation in the fundamentals of biomedical sciences, naturopathic philosophy, and integrative therapeutics, in addition to incorporating emerging trends in genomics, bioinformatics, personalized medicine, and practice management. As students progress through the program, emphasis is placed on the clinical applications of the traditions, art, science, and practice of medicine and health creation, as well as the personal transformation of becoming an effective doctor, compassionate healer, and integral member of a patient-centered team.

Course descriptions and sequence for the ND program are provided in Appendix A.

While electives are not required, students will have the opportunity to pursue additional degrees, certificates, or courses in complementary areas offered at MUIH – including acupuncture and Oriental medicine, herbal medicine, clinical nutrition, health and wellness coaching, health promotion, yoga therapy, and research.

### 2. Educational objectives and student learning outcomes

Program objectives and learning outcomes for the ND program are based on the three primary domains, which guide the planning, development, instructional delivery, and assessment of the naturopathic medical program. In alignment with those domains, student learning outcomes delineate competencies in the areas of medical knowledge, skills and practice; communication and collaboration; and personal and professional development. Standards and competencies established by the Council on Naturopathic Medical Education<sup>2</sup> and Association of Accredited Naturopathic Medical Colleges (AANMC)<sup>3</sup>, respectively, are

<sup>&</sup>lt;sup>2</sup> CNME Handbook for Residency Programs,

http://www.cnme.org/resources/2012 cnme residency handbook.pdf.

<sup>&</sup>lt;sup>3</sup> AANMC, Professional Competency Profile, 2007,

http://www.naturopathic.org/Files/About\_Naturopathic\_Medicine/AANMC%20Competency%20Profile%203-31-08.pdf.

integrated with interprofessional competencies developed by the Academic Collaboration of Integrative Health (ACIH)<sup>4</sup>, as well as updated knowledge and skills needed in today's healthcare environment.

Graduates of the MUIH School of Naturopathic Medicine will demonstrate their competency as follows:

#### 1. Medical Knowledge, Skills, and Practice

Knowledge, skills, integration, and application of the biomedical and clinical sciences; the prevention, diagnosis, and treatment of disease; and health promotion and creation in the context of relationship-centered, whole person care.

- a) Describe the spectrum of health with regard to structure and function; molecular, biochemical, cellular, and genetic mechanisms; behavior, and determinants of health, and their relationship to the life cycle.
- b) Describe the scientific principles underlying diagnostic methods, preventive strategies, and treatment approaches to major conditions and diseases, and optimal health and wellness.
- c) Integrate naturopathic philosophy with the knowledge of biomedical and clinical sciences, health disparities, and social determinants of health to provide safe, ethical, culturally proficient, and compassionate whole-person, relationship-centered care.
- d) Perform comprehensive patient assessment that includes all relevant medical and biopsychosocial history, health screening, physical examination, diagnostic testing, and data analytics.
- e) Formulate an accurate medical diagnosis using critical thinking and clinical reasoning to synthesize medical history, physical examination, and assessment data.
- f) Manage acute and chronic conditions, and promote prevention, wellness, and health creation through healing presence, therapeutic alliance, and demonstrated proficiency in a broad range of evidence-informed therapeutic approaches utilized in personalized treatment.
- g) Consider safety, efficacy, contraindications, actions, and interactions of therapeutics and alternatives employed in patient management and facilitate informed decision—making by patients and the healthcare team.
- h) Recognize urgent conditions that require immediate emergency attention and facilitate appropriate resolution.
- i) Maintain accurate medical records that reflect all aspects of patient care and compliance with legal, institutional, and ethical requirements.

### 2. Communication and Collaboration

Interpersonal communication skills that facilitate productive interactions and collaborations with patients, caregivers, colleagues, and other healthcare providers.

a) Communicate effectively with patients, their significant others, families, caregivers, colleagues, and the healthcare team, as appropriate.

<sup>&</sup>lt;sup>4</sup>ACIH, Competencies for Optimal Practice in Integrated Environments, <a href="https://integrativehealth.org/competencies-integrated-practices/">https://integrativehealth.org/competencies-integrated-practices/</a>.

- b) Clearly communicate one's role and responsibilities to patients, families, caregivers, and other professionals, as appropriate.
- c) Demonstrate sensitive, respectful interactions with patients of diverse cultural identities, including age, gender, race, ethnicity, religion, disability, gender identity, sexual orientation, and socioeconomic status.
- d) Empower patients through education, engagement, partnership, and shared decision-making.
- e) Collaborate with health professionals to provide whole-person, patient-centered care, communicating effectively and respecting the unique culture, values, roles/responsibilities, and expertise of providers and their disciplines.
- f) Implement effective communication tools and techniques, including information systems and communication technologies, to facilitate discussions and interactions that enhance patient-centered and team-based care.
- g) Acknowledge limitations in knowledge, skills, and scope of practice by requesting consultation, referral, and/or co-management, when appropriate.

### 3. Personal and Professional Development

Personal attributes and professional development that reflect self-awareness, self-responsibility, integrity, advocacy, and respect for ethical, sustainable, informed practice, individually and within the frameworks of healthcare and healthcare systems.

- a) Demonstrate personal behaviors, self-awareness, and self-care practices that promote self-responsibility and optimal health and wellness.
- b) Implement the entrepreneurial, organizational, and management skills essential to a successful career, demonstrating integrity and respect for ethics, the law, and regulations in the jurisdiction of practice.
- c) Integrate outcomes assessment, patient values, and evidence-informed practice into clinical management decisions.
- d) Develop individual leadership style that facilitates effective teamwork, collaboration, and whole-person care.
- e) Incorporate self-assessment, peer review, and clinical outcomes to inform practice and guide ongoing education, research, and scholarly inquiry.
- f) Demonstrate proficiency in utilizing technology to enhance the delivery of healthcare and business operations.
- g) Promote environmental awareness, cost-effective health, and sustainable practice; and advocate for individual, community, and global health promotion and disease prevention.

A mapping of the program competencies to courses is provided in Appendix B.

## 3. General education requirements

Not applicable.

## 4. Specialized accreditation or graduate certification requirements

The Council on Naturopathic Medical Education (CNME) is the programmatic accreditor for naturopathic programs. The design and content of the new program conform to CNME standards. Subject to approval by MHEC, application will be made for CNME approval of the program in June 2017.

### 5. Contractual agreement with other institutions

MUIH utilizes a two-pronged approach to identifying and establishing contractual agreements with other institutions. The recently established Office of Strategic Partnerships functions on a global level to actively identify and pursue partnerships that could lead to multiple academic placements as well as opportunities for partnership in research and curriculum. Additionally, using a more focused approach, each academic department actively fields external solicitations for partnership and works in collaboration with the Office of Strategic Partnerships to ensure a streamlined process for formalizing placements. Once placements have been identified and vetted through MUIH's administrative and academic leadership, the placements are properly established via contractual agreements that outline the specifics of the placements.

Staffing that supports these placements includes:

- Gail Doerr, Vice President of University and Student Affairs
- Christina Sax, Provost and Vice President for Academic Affairs
- Louise Gussin, Vice President for Administration and General Counsel
- Alexandra York, Director for Strategic Partnerships
- Janet Padgett, Program Director for Acupuncture and Oriental Medicine Doctoral Programs
- Rhonda Sapp, Associate Director for Acupuncture and Oriental Medicine Programs
- Claudia Wingo, Program Director for Health Promotion Programs
- Michael Tims, Academic Director for Herbal Medicine
- Elizabeth Owens, Manager of Experiential Programs Nutrition and Integrative Health
- Aimee McBride, Clinic Coordinator, Yoga Therapy Program

A sample agreement that serves as a template for partnering with other institutions can be found in Appendix C.

<sup>&</sup>lt;sup>5</sup> CNME Handbook for Naturopathic Residency Programs, available at <a href="http://www.cnme.org/resources/2012">http://www.cnme.org/resources/2012</a> cnme residency handbook.pdf.

## C. Critical and Compelling Regional or Statewide Need as Identified in the State Plan

## 1. Demand and need for the program

The ND program will contribute to the advancement and evolution of knowledge and serve to meet needs for professionals in the emerging field of wellness and relationship-centered healthcare. Today, there is growing interest in moving the field of healthcare toward a system focused on patient satisfaction, outcomes (including cost containment), and population health. Medical silos are disintegrating and the newly emerging medical model is based on collaborative interdisciplinary care teams.

In this environment, the field of complementary and alternative medicine (CAM) is growing: the National Health Interview Survey in 2012 estimated out-of-pocket expenditures for purchases of CAM products and visits to CAM practitioners at \$30.2 billion per year. 

\*\*IBISWorld\*\* observes: "The Alternative Healthcare Providers industry is in growth stage of its life cycle. Through 2020, the value the industry adds to the overall economy is forecast to grow an average of 5.1% per year. This rate outpaces growth in US GDP, which IBISWorld projects will increase 2.2% annually on average during same period. The industry is benefiting from mounting acceptance of its safety and efficacy, which is encouraging more people to use industry (CAM) services." The Bureau of Labor Statistics projects "faster than average" growth in positions for naturopathic physicians — 9 to 13 percent during the period 2014-2024.8

To transform healthcare, "Naturopathic physicians are a huge part of the solution," says Tracy Gaudet, MD, Director of the Veterans Health Administration Office of Patient-Centered Care and Cultural Transformation. They are a "huge answer for the country, for practice, for patients" that is available "at a pivotal transformational moment" in healthcare. Graduates of MUIH's ND program will be at ease with integrative healthcare teams and will graduate with their network already developed. They can be change agents to help transform healthcare, research, and the health policy of the future; the program's clinical interns and graduates will have an advantage in the marketplace as valued partners in the system.

Naturopathic medicine is currently a small but growing portion of the healthcare system, with 406 graduates from five U.S. higher education institutions in 2015. In addition to Maryland, 21 other U.S. jurisdictions now regulate NDs – most recently, Massachusetts and Pennsylvania – and more are expected to be added in the near future.

The NDs that become licensed in these states will create, deepen and expand public awareness and practice opportunities for the field. As public awareness grows, more states

<sup>&</sup>lt;sup>6</sup> Nahin, Barnes, and Stussman, "Expenditures on Complementary Health Approaches: United States, 2012, National Health Statistics Reports," June 22, 2016, available at <a href="https://www.cdc.gov/nchs/data/nhsr/nhsr095.pdf">https://www.cdc.gov/nchs/data/nhsr/nhsr095.pdf</a>.

<sup>7</sup> IBISWorld, "Alternative Healthcare Providers in the US: Market Research Report," December 2015.

<sup>&</sup>lt;sup>8</sup> O\*Net, U.S. Department of Labor Employment and Training Administration; Occupational Outlook Handbook, U.S. Department of Labor Statistics; EMSI Labor Analyst.

<sup>&</sup>lt;sup>9</sup> "Naturopathic Medicine "An Answer for the Country,' States Health Care Leader," press release May 2016, <a href="http://www.naturopathic.org/content.asp?admin=Y&contentid=669">http://www.naturopathic.org/content.asp?admin=Y&contentid=669</a>.

<sup>&</sup>lt;sup>10</sup> IPEDS database 2003-2015, U.S. Department of Education, National Center for Education Statistics.

are also recognizing complementary and integrative modalities (e.g., acupuncture, massage) as eligible for insurance coverage, and some states are enacting non-discrimination language. Given this predicted expansion, MUIH could be positioned to become the East Coast leader in the field of naturopathic medical education; the only other East Coast university with an ND program, the University of Bridgeport, has not shown intentions for proactive outreach. As new markets open for direct-to-consumer practices by NDs, MUIH will be preparing the best and brightest practitioners.

MUIH has current collaborations with both medical systems and community clinics and will be pursuing open dialogues with its medical and health partners on how to best plan for the inclusion of NDs in patient care, particularly in relation to serving high-needs areas and the underserved. There is an opportunity to position the first students and clinical interns as part of a select vanguard group who are eager to collaborate and cooperate for the sake of greater vitality and health for all. Opportunities include strategic partnerships with regional hospitals, integrative medical practices, community clinics, and urgent care centers as well as collaborations with the Maryland Naturopathic Doctors Association to create preceptorships and residencies.

## 2. Consistency with the Maryland State Plan for Post-Secondary Education

The proposed program will serve the needs of the State of Maryland, consistent with the goals of the Maryland State Plan for Postsecondary Education (*Maryland Ready: The 2013-2017 Maryland State Plan for Postsecondary Education*).

#### **Quality and Effectiveness**

Goal 1 of the 2013-2017 Maryland State Plan for Postsecondary Education is to "enhance Maryland's array of postsecondary institutions and programs, which are recognized nationally and internationally for academic excellence, and more effectively fulfill the evolving educational needs of its students, the State, and the nation." As a pioneer and driving force for the emerging wellness system, MUIH is uniquely positioned to provide national leadership and training for the elite corps of health and wellness leaders, teachers, practitioners, and researchers that will be needed to support the future of healthcare and a national system of wellness. By offering the ND program, MUIH will add to its portfolio of visionary programs that position Maryland as the national leader in the healthcare industry.

MUIH has been an anchoring academic institution in the national movement toward wellness, disease prevention, and relationship-centered healthcare. In research and academia as well as professional practice, credentials are a prerequisite for teaching opportunities and employment. The creation of the ND program is aligned with the State's goal of helping citizens expand their knowledge and supporting their personal, professional, and intellectual advancement in this emerging field. Students will learn from faculty who are experts in their fields.

#### **Economic Growth and Vitality**

Goal 5 of the Maryland State Plan for Postsecondary Education is to "stimulate economic growth, innovation, and vitality by supporting a knowledge-based economy, especially

through increasing education and training and promoting the advancement and commercialization of research." As the State Plan observes, "An educated workforce that can adapt to changes in the global market is a vital resource in creating and attracting new businesses and in supporting a healthy, knowledge-based economy." This area is achieving increased public interest and has been identified as a high-growth area for employment over the next decade; this will continue as more and more jurisdictions regulate NDs. The proposed ND program meets the intent of this goal by preparing the educated workforce in this field, providing state-of-the-art curricula and a new level of academic credential in health and wellness. Graduates from the proposed program will help to fill leadership, policy, and teaching roles in this growing sector of the economy. While MUIH plans national recruitment campaigns for the ND program, there will be a specific emphasis on the mid-Atlantic region. Since NDs are licensed to practice in Maryland and since the students will begin their clinical practices and partnerships in the state, there is a strong possibility that the first several cohorts of students will remain Maryland residents.

## D. Quantifiable and Reliable Evidence and Documentation of Market Supply & Demand in the Region and State

#### 1. Market Demand

The North American market is growing and changing rapidly. There are 5000 NDs in North America, 3500 of whom are in the United States; the number of NDs has more than tripled over the last decade. <sup>11</sup> NDs are trained as primary care, first-contact providers, although they are not always licensed as such. Their full scope of practice can include areas such as prescriptive authority, office procedures, minor surgery, and IV therapy; the scope allowed varies by jurisdiction.

Currently, 22 U.S. jurisdictions license or regulate NDs:

Alaska	Maine	Pennsylvania
Arizona	Maryland	Puerto Rico
California	Massachusetts	Utah
Colorado	Minnesota	Vermont
Connecticut	Montana	U.S. Virgin Islands
District of Columbia	New Hampshire	Washington
Hawaii	North Dakota	
Kansas	Oregon	
	=	

Naturopathic doctors are required to graduate from a regionally- and programmatically-accredited four-year residential naturopathic medical school and pass a two-part board examination (Naturopathic Physicians Licensing Examination, or NPLEX) in order to qualify for licensure. Licensed naturopathic doctors must fulfill continuing education requirements annually, as specified by the jurisdiction in which they are licensed, and adhere to a scope of practice defined by their state's law. Other states expected to introduce legislation this year to license or regulate NDs include Illinois, New York, Michigan, North Carolina, New

<sup>&</sup>lt;sup>11</sup> AANMC survey, 2016.

Jersey, Idaho, and Mississippi. California, Washington, and Connecticut already license NDs but will be pursuing scope modernization in 2017.

Despite all this activity and interest, there are currently only five regionally- and programmatically-accredited institutions in the United States that offer ND programs:

- Bastyr University (BU): Kenmore, WA and San Diego, CA
- National University of Natural Medicine (NUNM): Portland, OR
- University of Bridgeport College of Naturopathic Medicine (UBCNM): Bridgeport, CT
- National University of Health Sciences (NUHS): Lombard, IL
- Southwest College of Naturopathic Medicine (SCNM): Tempe, AZ

An additional ND program is projected to open in 2018: Southern California University of Health Sciences (SCUHS). There are also two Canadian institutions offering Naturopathic Medicine programs: Boucher Institute of Naturopathic Medicine (BINM) and Canadian College of Naturopathic Medicine (CCNM).

Currently, then, most of the available U.S. programs are on the West Coast, and only one in the Eastern U.S. Yet a third of the licensing states are in the East and, with the exception of Rhode Island, all of New England now licenses NDs. This offers an opportunity for MUIH to take the lead in offering this educational opportunity to students on the East Coast, and across the country. As the chart below shows, MUIH will be in a strong competitive position in relation to these existing institutions; its cost, student hours, and cohort size will all be on the low end, offering the potential to attract students from a wide geographic area.

Cı	edits, S	ize, Graduat	es, Cost	
School	Hours	Students/ Cohort/Year	2015 Graduates	Total US\$
MUIH	4200	25 – year 1-2 cohorts 35 – year 3 cohort 40 – year 4 cohort		\$105,218
MUNM	4457	80-100	89	\$137,448
Bastyr	4500 (est.)	60 – CA 80-100 WA	94	\$135,584
SCNM	4410	70-80 – fall 20-30 – winter	171	\$134,640
Univ Bridgeport	4915	25-30	26	\$105,600
NUHS	4600 (est.)	20 each – fall, spring, summer	26	\$97,720
BINM	4800	36 each — fall, spring		\$72,756
CCNM	4350	80-100		\$67,762

In Maryland specifically, there is good evidence of growing demand. Maryland began issuing ND licenses in 2016, and there are already 28 licensees in the state. NDs are licensed by the

Maryland Board of Physicians, and represented by a Naturopathic Medicine Advisory Committee reporting to the board. In addition, the Maryland Naturopathic Doctors Association (MNDA) was formed in 1997 to meet the professional needs of NDs in the state. Unlike some states, Maryland NDs do not have a scope of practice that fully represents their breadth of training: they may order and perform laboratory and physical examinations; order diagnostic imaging studies and interpret their results; dispense and order natural medicines (e.g., botanical medicines, nutrients, enzymes); offer hydrotherapy, electromagnetic energy, and therapeutic exercise; provide nutrition and counseling, and perform naturopathic musculoskeletal mobilization. At present, however, Maryland NDs have no prescriptive authority, and they may not perform high-velocity low-amplitude manual adjustments or minor surgical procedures, nor may they administer IV or injection therapies, as per their training.

### 2. Educational and training needs, expected vacancies

The naturopathic profession has evolved significantly over the past 15-20 years, even more so in the past five years. Increasingly, conventional institutions are recognizing the value of naturopathic principles and practice, making NDs extremely relevant to the transforming landscape of healthcare. NDs have made significant inroads into areas traditionally held by conventional practitioners and are increasingly recognized as the experts in natural medicine and valuable team members in the integrative care setting.

With this recognition, naturopathic medicine is growing rapidly. There was a 92 percent increase in the number of adult annual visits to NDs between 2002 and 2012. O\*Net (Occupational Information Network, U.S. Department of Labor) identifies it as a new and emerging occupation in a high-growth industry. The job outlook is ranked as "excellent" by ExploreHealthCareers.org, and the Bureau of Labor Statistics (BLS) projects faster than average growth in positions for naturopathic physicians – 9 to 13 percent during the period 2014-2024. <sup>13</sup>

The ND degree is proving valuable in the evolving healthcare market. A 2015 alumni survey by the Association of Accredited Naturopathic Medical Colleges (AANMC)<sup>14</sup> found 92 percent of respondents using the ND degree in their careers, with 46 percent considering themselves primary care physicians and 31 percent positioned as adjunctive care/natural health specialists. Ninety percent of them passed their board exams on the first attempt, and 58 percent found employment within 3 months of graduation. The mean fulltime salary in the U.S. was \$89,392, double their annual pay prior to entering naturopathic medical school.

NDs have found their voice and the audience is growing. Career opportunities for students graduating from the ND program include, among others:

<sup>&</sup>lt;sup>12</sup> U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics, 2012.

<sup>&</sup>lt;sup>13</sup> O\*Net, U.S. Department of Labor Employment and Training Administration; Occupational Outlook Handbook, U.S. Department of Labor Statistics; EMSI Labor Analyst.

<sup>14</sup> https://aanmc.org/wp-content/uploads/2016/05/AANMC-2015-Alumni-Survey-Report FINAL-5.9.16.pdf.

- Private practice
- Multidisciplinary practices (integrative healthcare teams, medical homes, hospitals)
- Research institutions
- Natural products industry (sales, research, development)
- Laboratory testing and development
- Education
- Administration (higher education and educational nonprofits)
- Public health
- Insurance/third-party payers
- Corporate wellness

#### 3. Prospective graduates

Nationally, enrollment trends in ND programs are steady and increasing. The existing institutions report that they are meeting their targets, capped programs are full, and the larger institutions are taking in 80-100 students each fall, with small winter cohorts for some programs. The MUIH program has differentiating factors that will support its competitiveness in this positive market: its location; its grounding in MUIH's solid reputation and philosophy; cost and cohort size; and distinctive features of the program experience such as the focus on practitioner development, the tutorial and practitioner's journey courses, healing presence as a hallmark of all MUIH programs, integrative clinic teams and Grand Rounds, early patient experience, bioinformatics for clinicians, and the portfolio and service learning projects.

In 2015, there were 406 graduates from the five U.S. universities offering an ND degree. Yet the BLS reports that the 2015 job market included 2,672 new jobs for "other health diagnosing and treating practitioners," including NDs; and the 2026 projection is for 9,226. The "faster than average" growth projected by the BLS will include many opportunities for NDs, especially given the rapid growth in the number of states licensing NDs. MUIH is collaborating with the Maryland Naturopathic Doctors Association (MNDA) and regional naturopathic associations to build awareness of the program and identify key NDs to engage with the program (e.g., ambassadors, clinic sites, faculty, clinicians).

Given the solid growth in alternative and integrated healthcare in general, and in ND opportunities in particular, the following enrollment projections (based on expected completion of the program in four years) call for solid growth over the first five years.

#### **PROJECTED ENROLLMENTS FOR PROGRAM**

2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
25	. 48	80	116	129

## E. Reasonableness of Program Duplication

There are no other ND programs in Maryland. MUIH would be the only higher education institution in Maryland and in fact, in much of the surrounding region, to offer an ND program.

The next closest universities offering such a program are located in Connecticut and Illinois.

## F. Relevance to Historically Black Institutions (HBIs)

There are no ND programs in Maryland HBIs. The proposed program will have no potential impact on high-demand programs at the HBIs or on the uniqueness and institutional identities and missions of the HBIs.

## **G. Evidence of Principles of Good Practice if online**

The proposed program will not be offered online. However, since part of the program (approximately 35 percent) will be delivered in a blended format employing flipped and other emergent digitally enhanced pedagogies, MHEC's Principles of Good Practice for Distance Education are addressed here.

MUIH has successfully offered fully online courses and programs since 2013, as approved by both the Maryland Higher Education Commission and the Middle States Commission on Higher Education. Thus, MUIH is well versed in supporting teaching and learning via online and digitally enhanced modalities, and its principles and practices align with MHEC's Principles of Good Practice for Distance Education. At MUIH, online courses are considered to be those in which 100 percent of the teaching and learning process is conducted at a distance, while blended courses are those in which a significant portion of face-to-face instruction is replaced by online or other means of digitally enhanced teaching and learning.

Appendix D provides a full description of how this program and others at MUIH comply with the Principles of Good Practice for Distance Education.

## H. Adequacy of Faculty Resources

As with many health professions programs where the curriculum calls for expertise across a broad spectrum of theory and practice, and consistent with the model through which MUIH delivers all its programs, the ND program will rely on a combination of core salaried faculty and the use of part-time adjunct faculty. Salaried full-time faculty will be strategically placed to anchor the program and provide stability and continuity for students across the didactic and clinical education continuum. It is vital that faculty have practical, general experience, as well as specialization in discrete areas that will allow for expert instruction, supervision, and guidance. All faculty will hold advanced degrees, with at least the equivalent of a master's degree, and the majority of faculty will have a Ph.D., first professional degree, or other terminal degree in their field.

A number of potential faculty for this proposed program have already been teaching at MUIH for years. The senior academic leadership of the university has been involved in advising the development of the program and this proposal, and will continue to support the program once it has launched.

The current MUIH budget already accounts for the needed faculty, including twelve FTE faculty by year four. Approval of the proposed budget by the Board of Trustees occurred on October 19, 2016.

Criteria for faculty recruitment include:

- Terminal degree, such as Ph.D., or first professional degree, such as Doctorate in Naturopathic Medicine, Medical Doctor, Doctor of Osteopathy, or Doctor of Chiropractic, with clinical expertise and academic experience. Naturopathic Doctors are preferred and required for some courses. Master's level faculty with extensive experience and expertise may be considered for discrete areas of instruction.
- Doctors and allied health practitioners must hold a current Maryland license in their discipline.
- Qualified to teach graduate courses, and to advise and mentor students.
- Faculty experience in higher education and, in some cases, a clinical education environment.
- Experience developing and teaching courses related to the field.
- Demonstrated commitment to continuing education and professional development.
- Desire to engage in activities for a new program with a strong wellness philosophy at its foundation.
- Research publication and scholarship are preferred but not required.

Appendix E contains a list of representative faculty for the ND program: 21 percent of these are current ranked faculty, 17 percent are current academic administrators with additional teaching responsibilities, and the remaining 62 percent will serve as adjunct faculty (based on enrollment-driven needs).

## I. Adequacy of Library Resources

The Sherman Cohn Library at MUIH has a total collection of over 18,000 titles in health and wellness (13,000 physical holdings and 5,000 electronic). A current shelf analysis of in-house, print materials specifically in support of the naturopathic medicine program includes approximately 300 resources.

Electronic resources augment the number of health and wellness materials available. The Library's computerized systems and, where applicable, licensing agreements with vendors permit access to open-access journals and other free Internet resources, as well as selected journal articles from individual subscriptions and from the Library's EBSCO host databases.

The Library uses the National Library of Medicine's Docline service for document delivery. When the Library does not own an article, it can be obtained in a timely manner for faculty and students through the Library's use of Docline.

The Sherman Cohn Library at MUIH has and will continue to expand to support all modalities of teaching and learning, as well as moderate enrollment growth. In FY 2014, the University added online support for faculty and students with a newly purchased and

significantly enhanced integrated library system. All online courses contain a direct link to the Sherman Cohn Library at MUIH, prominently positioned in online classrooms. In 2016, the University opened a Quiet Study Room associated with Sherman Cohn Library that addressed students' expressed need for a place to work in silence. The Library is located in a single room and fosters an information commons environment.

To learn about the resources, space, and staff levels that might be needed in association with the ND program, the Library created and distributed a survey to six universities offering doctoral degrees in Naturopathic Medicine in October 2016. The survey collected data on the library user groups; nature of responsibility for resources used by students; supporting media and subscriptions; budget for program materials; consortia memberships; facilities for students such as study and work rooms, labs and academic support centers; supporting library staff; and specifics on critical resources. The results are being used to guide Library planning and budgeting for support of the ND program.

## J. Adequacy of Facilities, Infrastructure, and Equipment

MUIH's 12-acre campus contains a 32,500 square-foot, two-story building, herbal medicine teaching garden, parking for all students, and ample space for additional buildings to be built in order to accommodate growth. Over 300 people can be accommodated in the current building's large event space, which totals 2,750 square feet. The current building serves as the primary home for all of MUIH's programs, and includes:

- · Eight classrooms and a ninth, multipurpose space;
- An herbal dispensary;
- A library;
- A quiet study room;
- 22 clinical treatment rooms;
- Space for faculty offices;
- A faculty kitchen;
- · A student lounge with an adjacent kitchen;
- A bookstore/café that includes seating

All 22 clinical treatment rooms are assigned to the Student Teaching Clinic. These treatment rooms are used by students during the clinical phase of various programs, and will be shared with the ND program. Designated treatment rooms have already been configured to meet the needs of the ND program. All classrooms have access to voice and data communications and WiFi is available throughout the building. Two large, dividable classrooms are equipped with ceiling-mounted data projectors and screens, as well as an integrated sound system. A portable sound system, TV, laptops, and overhead and LCD projectors are available for use in classrooms as needed.

In addition, the university intends to lease and outfit a minimum of 19,000 square feet of new space in Howard County for classrooms, labs, offices, and student areas for the ND program. A number of possible venues have been identified and are under exploration. The university will purchase new instructional equipment for the classrooms, labs, and student areas to meet the specific needs of the ND program, as well as the furniture and technology needed to equip the office space which will be used by faculty and administration of the ND program. These

expenses are included in the budget approved by the Board of Trustees on October 19, 2016, and provided in this proposal. This space is sufficient to meet the needs of the program. Other offices for general administration of the university and faculty of other programs will continue to be located at the current campus locations.

New staff will be needed to launch the ND program, given that analogous programs do not already exist at MUIH and 129 new enrollments are projected over the first five years of the program (section D.3). As noted above, MUIH intends to acquire the needed space and equipment (section J) and Library resources (section I). New staff specific to the ND program will be hired in a phased-in approach during the first three years of the program, including an Associate Dean for Academics, an Associate Dean for Clinical Education, a Clinic Coordinator, and an Administrative Support staff member. Students enrolled in the early years of the ND program will be served by the current infrastructure including admissions, registrar, advising, student services, and academic support. Additional staff will be hired as needed as enrollments grow. In particular, the university intends to add staff in advising, admissions, library, student services, tutoring, instructional technology, information technology, and the Natural Care Center clinic during the first three years of the program. These new staff expenses are included in the budget approved by the Board of Trustees on October 19, 2016, and provided in this proposal.

## K. Adequacy of Financial Resources

#### Table 1: Resources

#### Reallocated funds

During the start-up phase of the program, the university will reallocate funds from general operation to support this new program. This reallocation of funds will not have an adverse impact on existing programs since the university operates with a net surplus sufficient to reallocate the necessary funds to the new program.

### Tuition and Fee Revenue

The intake assumptions for years 1 through 5 are 25, 25, 35, 40, and 40. Most ND programs throughout the country have annual intakes between 40 and 110 students. The projected intake is conservative to reflect the launch of a new program and a ramp up in the later years. The model also accounts for a modest level of attrition of students prior to completion of their program (average attrition rate of six percent for all students across the first five years of the program launch).

#### **Table 2: Expenditures**

#### New and/or renovated space

The university plans to lease new space for classrooms, labs, offices, and student areas. The university intends to lease at least 19,000 square feet in Howard County, which should be sufficient to meet the needs of this program.

## Other Expenses

Other expenses include faculty development, travel, memberships, office supplies, data processing and communications, maintenance, marketing, course development costs, and building operating costs.

## **Doctorate in Naturopathic Medicine Resources and Expenditures**

Resources				(F-2) (F-2)	
<b>Resource Categories</b>	Year 1	Year 2	Year 3	Year 4	Year 5
1. Reallocated Funds	725,000	300,000	10,000	0	0
2. Tuition/Fee Revenue (c + g)	668,175	1,282,896	2,138,160	2,904,292	3,251,703
a. # f/t Students	25	48	80	116	129
b. Annual tuition fee/rate	26,727	26,727	26,727	25,037	25,207
c. Credit Hours per student per year	,				
d. Total Tuition Revenue (a x b x c)	668,175	1,282,896	2,138,160	2,904,292	3,251,703
3. Grants, Contracts, & Other External					
Sources	0	0	0	0	0
4. Other Sources	0	0	0	0	0
TOTAL (Add 1 - 4)	1,393,175	1,582,896	2,148,160	2,904,292	3,251,703

Expenditures		ergalical resp			ka Maraja ka sa
Expenditure Categories	Year 1	Year 2	Year 3	Year 4	Year 5
<ol> <li>Total Faculty         Expenses         (b + c below)     </li> </ol>	183,100	344,200	491,024	510,849	537,882
a. #FTE	4	7	10	12	12
b. Total Salary (Adjunct faculty salary at average of \$7626 per 6-credit course) <sup>15</sup>	164,790	309,780	441,922	459,764	484,094
c. Total Benefits	18,310	34,420	49,102	51,085	53,788
2. Total Administrative Staff Expenses (b + c below)	250,000	289,750	477,336	496,431	516,290

a. # FTE	2	3	5	5	5
b. Total Salary	225,000	260,775	429,602	446,788	464,661
c. Total Benefits (26.5%)	25,000	28,975	47,734	49,643	51,629
3. Total Support Staff Expenses					
(b + c below)	101,000	117,540	312,000	324,480	337,460
a. # FTE	2	3	7	7	7
b. Total Salary	90,900	105,786	280,800	292,032	303,714
c. Total Benefits					
(26.5%)	10,100	11,754	31,200	32,448	33,746
4. Equipment	105,000	90,000	80,000	80,000	53,000
5. Library	47,500	54,500	79,000	89,000	98,000
6. New or Renovated Space	320,000	329,600	339,600	349,800	360,400
7. Other Expenses (Course development, marketing, overhead)	377,050	348,300	364,938	391,970	395,154
TOTAL (Add 1 - 7)	1,383,650	1,573,890	2,143,898	2,242,530	2,298,186

## L. Adequacy of provisions for evaluation of program

Since its establishment, MUIH has nurtured a culture of assessment and feedback. Expected student learning outcomes are clearly stated at the course and programmatic levels, and these outcomes are well designed to align with the University's Mission and the School of Naturopathic Medicine's Mission, as well as the standards established by the Council on Naturopathic Medical Education and the Association of Accredited Naturopathic Medical Colleges and higher education in general.

Learning outcomes assessment is multilevel and predominantly utilizes a 360-degree design. Course outcomes and measures are consistent with the specific subject matter, and the achievement of outcomes is documented from both the faculty and student perspectives. Programmatic outcomes that emerge from the integrated learning environment and are not course-specific are assessed through comprehensive exams and projects, clinical evaluations, portfolios, peer-to-peer evaluations, patient outcomes and feedback, licensure examinations, retention rates, and graduate surveys.

The academic departments, programs, and curriculum committees, subject matter experts (SMEs), and faculty responsible for designing, delivering, and assessing learning outcomes receive support from a 360-degree team. This team is led by the Learning Outcomes Assessment Team (LOAT), which serves as an umbrella committee to guide and facilitate academic assessment initiatives. Additional support is provided by the Assistant Provost for Academic Assessment and Accreditation, University Curriculum Committee, Student Affairs, Alumni Affairs, Natural Care Center clinic administration, and the Provost in gathering and

interpreting assessment results. The involvement of all of these groups in assessment practices demonstrates that MUIH invests necessary institutional resources and is committed to outcomes assessment.

In 2011, MUIH piloted and then adopted the IDEA Student Rating of Instruction tool as the system students would use to evaluate courses and faculty. IDEA is a nonprofit organization whose mission has been to provide assessment and feedback systems to improve learning in higher education. The IDEA tool meets the needed and desired criteria for a sustainable course evaluation system that was previously identified by the LOAT Committee. Further, the IDEA system is based on 26 years of research and allows the institution to compare faculty performance within similar disciplines and among over 400 other universities. In 2016, MUIH shifted its use of the IDEA tool to the Campus Labs online platform, allowing for use of this tool by students in face-to-face, blended, and online classes alike.

The proposed ND program will utilize comprehensive assessments to evaluate cumulative understanding at key transition points throughout didactic and clinical education, as summarized below. In addition, a student portfolio will begin in Year One and be assessed periodically throughout the program, with a service-learning capstone project assessed in the final year.

#### Year One:

- Comprehensive basic sciences exam to assess student knowledge and understanding of biomedical sciences
- Portfolio assessment of student self-awareness, self-care practices, reflections, and critical thinking
- Clinical Skills Exam (CSE), a practical exam to assess entry-level clinical encounter skills, including patient intake, assessment, differential diagnosis, and physical examination
- CSE Student Self-Evaluation

#### Year Two:

- Clinic Readiness Exam (CRE), a written exam to assess student knowledge and understanding of biomedical sciences, medical ethics, clinic procedures, standardized regulations associated with clinical practice, and medical coding
- CRE Student Self-Evaluation
- Naturopathic Physicians Licensing Exam Part I
- Portfolio assessment of student self-awareness, self-care practices, reflections, and critical thinking

#### Year Three:

- Clinic Promotion Exam (CPE), an assessment of clinical encounter skills, including patient intake, clinical reasoning, assessment, differential diagnosis, therapeutics, comprehensive physical examination, and charting
- CPE Student Self-Evaluation
- CPE Standardized Patient Evaluation of Student
- Portfolio assessment of student self-awareness, self-care practices, reflections, critical thinking, and clinical reasoning

#### Year Four:

- Clinic Exit Exam (CEE), a comprehensive written and practical assessment of clinical encounter skills, including patient intake, clinical reasoning, assessment, differential diagnosis, therapeutics, physical examination, charting, and interprofessional collaboration and referral practices
- CEE Student Self-Evaluation
- CEE Standardized Patient Evaluation of Student
- Service-learning project assessing student integration of determinants of health, cultural competence, bioinformatics, and naturopathic medicine in the community healthcare setting
- Final portfolio assessment of student self-awareness, self-care practices, reflections, critical thinking, clinical reasoning, and professionalism

#### Post Graduation:

- Naturopathic Physicians Licensing Examination Part II
- Alumni Survey

Outcomes assessment in the didactic portion of the curriculum is ongoing and based on the academic performance of students, as well as communication, collaboration, and leadership qualities and behaviors assessed by peers in tutorial sessions and the clinical setting. Outcomes assessment in the MUIH student clinics is multifactorial and will include ongoing assessment by Clinical Supervisors, standardized patients, and clinic staff; self-assessment, patient outcomes assessment, and standardized clinical assessments. Clinical Supervisors in the proposed ND program will complete written, standardized reports utilizing direct and indirect measurements of students' clinical skills, clinical reasoning, patient management, peer and interprofessional collaboration, and participation in case discussions.

## **Program Objectives and Student Learning Outcomes**

Medical Knowledge, Skills, and Practice
Knowledge, skills, integration, and application of the
biomedical and clinical sciences; the prevention,
diagnosis, and treatment of disease; and health
promotion and creation in the context of
relationship-centered, whole person care.

- Describe the spectrum of health with regard to structure and function; molecular, biochemical, cellular, and genetic mechanisms; behavior, and determinants of health, and their relationship to the life cycle.
- Describe the scientific principles underlying diagnostic methods, preventive strategies, and treatment approaches to major conditions and diseases, and optimal health and wellness.
- Integrate naturopathic philosophy with the knowledge of biomedical and clinical sciences,

#### **Assessment Measures**

- Academic performance
- Comprehensive basic sciences exam to assess student knowledge and understanding of biomedical sciences
- Naturopathic Physicians Licensing Exam Part I
- Clinical Skills Exam (CSE) to assess entry-level clinical encounter skills, including patient intake, assessment, differential diagnosis, and physical examination
- Clinic Readiness Exam (CRE), a written exam to assess student knowledge and understanding of biomedical ethics, procedures, and regulations associated with clinical practice
- Clinic Promotion Exam (CPE), an assessment of clinical encounter skills, including patient intake, clinical reasoning, assessment,

- health disparities, and social determinants of health to provide safe, ethical, culturally proficient, and compassionate whole-person, relationship-centered care.
- Perform comprehensive patient assessment that includes all relevant medical and biopsychosocial history, health screening, physical examination, diagnostic testing, and data analytics.
- Formulate an accurate medical diagnosis using critical thinking and clinical reasoning to synthesize medical history, physical examination, and assessment data.
- Manage acute and chronic conditions, and promote prevention, wellness, and health creation through healing presence, therapeutic alliance, and demonstrated proficiency in a broad range of evidence-informed therapeutic approaches utilized in personalized treatment.
- Consider safety, efficacy, contraindications, actions, and interactions of therapeutics and alternatives employed in patient management and facilitate informed decision-making by patients and the healthcare team.
- Recognize urgent conditions that require immediate emergency attention and facilitate appropriate resolution.
- Maintain accurate medical records that reflect all aspects of patient care and compliance with legal, institutional, and ethical requirements.

- differential diagnosis, therapeutics, and comprehensive physical examination
- CPE Standardized Patient Evaluation of Student
- Clinic Exit Exam (CEE), a comprehensive written and practical assessment of clinical encounter skills, including patient intake, clinical reasoning, assessment, differential diagnosis, therapeutics, and physical examination
- CEE Standardized Patient Evaluation of Student
- Portfolio Assessments
- Service-Learning Project

#### Communication and Collaboration

Interpersonal communication skills that facilitate productive interactions and collaborations with patients, caregivers, colleagues, and other healthcare providers.

- Communicate effectively with patients, their significant others, families, caregivers, colleagues, and the healthcare team, as appropriate.
- Clearly communicate one's role and responsibilities to patients, families, caregivers, and other professionals, as appropriate.
- Demonstrate sensitive, respectful interactions with patients of diverse cultural identities, including age, gender, race, ethnicity, religion, disability, gender identity, sexual orientation, and socioeconomic status.
- Empower patients through education, engagement, partnership, and shared decisionmaking.
- Collaborate with health professionals to provide whole-person, patient-centered care,

- Peer-to-peer assessment
- Clinical Skills Exam (CSE) to assess entrylevel clinical encounter skills, including patient intake, assessment, differential diagnosis, and physical examination
- Clinic Promotion Exam (CPE), an assessment of clinical encounter skills, including patient intake, clinical reasoning, assessment, differential diagnosis, therapeutics, and comprehensive physical examination.
- CPE Standardized Patient Evaluation of Student
- Clinic Exit Exam (CEE), a comprehensive written and practical assessment of clinical encounter skills, including patient intake, clinical reasoning, assessment, differential diagnosis, therapeutics, physical examination, and interprofessional collaboration and referral practices
- CEE Standardized Patient Evaluation of Student
- Clinic evaluations

- communicating effectively and respecting the unique culture, values, roles/responsibilities, and expertise of providers and their disciplines.
- Implement effective communication tools and techniques, including information systems and communication technologies, to facilitate discussions and interactions that enhance patient-centered and team-based care.
- Acknowledge limitations in knowledge, skills, and scope of practice by requesting consultation, referral, and/or co-management, when appropriate.

Personal and Professional Development
Personal attributes and professional development
that reflect self-awareness, self-responsibility,
integrity, advocacy, and respect for ethical,
sustainable, informed practice, individually and
within the frameworks of healthcare and healthcare
systems.

- Demonstrate personal behaviors, selfawareness, and self-care practices that promote self-responsibility and optimal health and wellness.
- Implement the entrepreneurial, organizational, and management skills essential to a successful career, demonstrating integrity and respect for ethics, the law, and regulations in the jurisdiction of practice.
- Integrate outcomes assessment, patient values, and evidence-informed practice into clinical management decisions.
- Develop individual leadership style that facilitates effective teamwork, collaboration, and whole-person care.
- Incorporate self-assessment, peer review, and clinical outcomes to inform practice and guide ongoing education, research, and scholarly inquiry.
- Demonstrate proficiency in utilizing technology to enhance the delivery of healthcare and business operations.
- Promote environmental awareness, costeffective health, and sustainable practice; and advocate for individual, community, and global health promotion and disease prevention.

- · Peer-to-peer assessment
- CSE Student Self-Evaluation
- CRE Student Self-Evaluation
- CPE Student Self-Evaluation
- CEE Student Self-Evaluation
- Portfolio assessments
- Service-Learning Project
- Clinic evaluations

## M. Consistency with the State's minority student achievement goals

MUIH seeks qualified applicants who have the maturity, commitment, and preparation necessary to take full advantage of the specialized studies offered in each of its programs of study. MUIH is committed to being, communicating, and educating in ways that recognize and honor the full range of human diversity. Each student, faculty, staff, and board member strives to use language and manifest behavior that promotes inclusiveness and cultivates a positive learning community. Further, each student and faculty, staff, and board member is responsible for creating an atmosphere that supports all in growth and movement toward inclusiveness and the appreciation of diversity. MUIH is committed to broadening the diversity of student body, staff, administration, and board members.

MUIH is an equal opportunity institution. Applicants for admission, employment, and financial aid are considered based on individual merit. No person is excluded from participation in, denied the benefits of, or subject to discrimination in any program or activity of MUIH on the basis of race, color, national or ethnic origin, gender, gender identity, sexual orientation, marital status, pregnancy, age, religion, disability, or any other characteristic protected by law.

MUIH does not specifically recruit or advertise to any race, color, national or ethnic origin, gender, gender identity, sexual orientation, marital status, pregnancy, age, religion, or disability group; however, we find that the nature of our programs draws students from all races and backgrounds and countries.

N. Relationship to low productivity programs identified by the Commission

Not applicable.

# **Appendix A**Course Descriptions

YEAR ONE	ung perik dapata denta dabah bebah dari Kanada bisar da sempa dari da dalah	Abdens to a recognise their of the first to the second section by
Course Code	Course Title	Course Description
NMAT501	Human Anatomy	This course provides students with a foundational knowledge of human gross anatomy, using lecture, radiographic imaging, digital media, textual guides, clinical correlates, and problem-based learning. Upon completion of this course, students will be able to identify, describe, and draw the structures of the human body, and explain their functions.
NMAT501L	Anatomy Lab	In this experiential course, students explore cadavers, virtual models, and supervised, hands-on palpation as an aid to understanding human gross anatomy.
NMBS503	Fundamentals of Biomedicine I: Biochemistry	Fundamentals of Biomedicine is a 3-course series that explores the basics of biochemistry, microbiology, immunology, genetics and embryology in the context of systems biology. In Fundamentals I, students will learn the essentials of biochemistry relevant to human physiology, health, and disease, including the biosynthesis, degradation, and role of macromolecules; hormonal regulation and interrelationships; fuel metabolism, major metabolic pathways, and intermediary metabolism.
NMBS507	Spectrum of Health: Systems I	Spectrum of Health is a 3-course series in which students will learn to identify and describe normal and pathological anatomy, histology, and physiology of the human body in the context of systems. Variants between diverse individuals and populations will be explored. In Systems I, students are introduced to cell and membrane biology and begin organ systems physiology, with an emphasis on musculoskeletal, neurological, and integumentary systems. The focus topic for this course is the integumentary system, with an in-depth exploration of pathology and clinical assessment.

NM	1BS507L	Systems I Lab	The Systems Labs series are the experiential companion courses to the Spectrum of Health series. Students will utilize microscopy, physiological function tests, computer simulation, and physical exam to aid their understanding of normal and pathological anatomy, histology, and physiology. Systems I Lab focuses on the musculoskeletal, neurological, and integumentary systems.
NP	4CI509	Independent and Collaborative Critical Inquiry (ICCI - 1)	Independent and Collaborative Critical Inquiry (ICCI) is a companion course to the biomedical and clinical science classes. Throughout this series, students will synthesize biomedical, clinical, and philosophical concepts gained from coursework into case-based learning and other experiential activities. Students will become adept at constructing clinical questions, obtaining and analyzing relevant evidence, reflecting on assumptions and biases, and communicating and applying conclusions to enhance the informed practice of naturopathic medicine. Students will learn to approach patient care through an equity lens by increasing awareness of personal, societal, political, and institutional biases and their impact on patient health and well-being. In ICCI-1, students will be introduced to the concepts of Journal Club and experiential learning as they investigate introductory topics in naturopathic principles and determinants of health. Students will integrate knowledge of cellular and molecular biology with the structure and function of musculoskeletal, neurological, and integumentary systems and explore clinical correlations. Clinical presentation, assessment, and differential diagnosis for acute and chronic conditions of the integumentary system will be explored. Critical thinking, reasoning, skillful communication, effective teamwork, and developing cultural competence and research literacy will be emphasized.
NM	4IH505	Evolution of Medicine	Upon completion of this course, students will be able to describe the historical, global, cross-cultural, and political development of naturopathic medical theory, ethics and practice, describe historical and current interprofessional relationships, and explain how social and environmental justice issues impact naturopathic practice, policy, education and research.

NMPP501	Practitioner's Journey I	Practitioner's Journey is a series that spans the entire curriculum as students explore the personal, professional, technical, and clinical skills, behaviors, and attitudes associated with becoming a compassionate and competent doctor. Topics include practitioner development, communication, cultural competency, relationship-centered care, interprofessional collaboration, and all aspects of the clinical encounter. This series prepares students for clinic entry and provides a forum for the discussion, exploration, and assimilation of the transformative student practitioner experience. Practitioner's Journey VI through XI will incorporate Grand Rounds, with presentations from peers, practitioners, and specialists in the community. In Practitioner's Journey I, students begin developing observational skills; mindfulness, self-awareness, and self-care practices; healing presence; physical and clinical assessment; and introductory training in HIPAA, OSHA, and Blood-Borne Pathogen regulations. Basic counseling skills and relationship to self as the cornerstone of relationship-centered care will be introduced, as well as teaching and learning styles relevant to patient education (Docere) and professional, legal, and ethical behaviors.
NMCO501	Clinic Observation I	In this two-part series, students will be placed under the mentorship of licensed healthcare providers to observe routine clinical experiences, including the doctor-patient relationship, diagnosis and treatment, application or administration of therapeutic modalities, and general clinic procedures.
NMPP520	Naturopathic Medicine Retreat I	In this one-day retreat, students discuss and experience nature-cure assessment and therapies as self-care practices, develop professional leadership skills, and explore naturopathic philosophy in a natural setting. Students prepare for the program that will transform them into naturopathic doctors.
NMCE500	Fieldwork	Fieldwork provides students with the opportunity to observe experienced healthcare providers in their private clinical practices. Observation hours will be completed in the first two years, allowing students to gain early experience before entering clinic.

NMBS512	Fundamentals of Biomedicine II: Microbiology & Immunology	In this continuation of the Fundamentals of Biomedicine series, students will learn the essentials of microbiology and immunology as relevant to human physiology, health, and disease. Students will become familiar with the cellular, molecular, and biochemical aspects of the immune system and explore basic principles of immunity. Students will identify and examine microorganisms associated with human disease, including epidemiology, modes of transmission, virulence, general pathology of bacteria, viruses, parasites, and fungi, and the basics of the immune response.
NMBS515	Spectrum of Health: Systems II	Spectrum of Health: Systems II focuses on the normal and pathological anatomy, histology, and physiology of the cardiovascular, pulmonary, HEENT, and renal systems. Students will learn the molecular, biochemical, and cellular mechanisms that enable the cardiovascular, pulmonary, and renal systems to maintain the body's homeostasis, and the senses of the HEENT system to perceive stimuli. Variants between diverse individuals and populations will be explored.
NMBS515L	Systems II Lab	In Systems II Lab, students utilize microscopy, physiological function tests, computer simulation, and physical exam to aid their understanding of normal and pathological anatomy, histology, and physiology of the cardiovascular, pulmonary, HEENT, and renal systems.
NMCI510	Independent and Collaborative Critical Inquiry (ICCI - 2)	In ICCI-2, students will continue with Journal Club and deepen their research literacy through the examination of research design and fundamental statistical analysis. Drawing from public data, students will be introduced to population health outcomes and assessment in the context of the determinants of health. Students will integrate knowledge of cellular and molecular biology with the structure and function of cardiovascular, pulmonary, HEENT, and renal systems, and will explore clinical correlations. Cellular mechanisms as they related to infectious disease and the immune response will be explored. Critical thinking, reasoning, skillful communication, effective teamwork, and developing cultural competence and research literacy will be emphasized.

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NMIH510	Public Health	In this course, students learn to apply the principles of epidemiology to identify key factors affecting the health of populations; define and describe various determinants of health, health disparities, and culturally sensitive/competent ways of delivering healthcare; identify and differentiate between the role of the government, community, medical provider and the individual in population health; compare and critique various healthcare delivery models, and demonstrate planetary/environmental awareness in healthcare.
NMIH514	Determinants of Health I	Determinants of Health is a three-course series in which students learn how social, emotional, economic, political, genetic and epigenetic, constitutional, environmental and ecologic factors affect health, well-being, and outcomes, and how to expand patient assessment to address these factors. Determinants of Health I focuses on assessment of inborn determinants of health including genetics and personal history.
NMTH510	Intro to Therapeutics I	Intro to Therapeutics is a two-class series in which students explore the history and wise practice of medicine, including mechanisms of action of and indications and contraindications for naturopathic therapeutics. In Intro to Therapeutics I, students will begin establishing a foundation in homeopathy, botanical medicine, and phytopharmacognosy and will have the opportunity to prepare oral and topical homeopathic, botanical, and nutritive medicines.
NMPP512	Practitioner's Journey II	In Practitioner's Journey II, students are introduced to factors common to psychological well-being, the therapeutic alliance, and counseling skills fundamental to the patient interview. Students will learn how to conduct a basic patient interview and chart findings. Students will continue developing observational skills; mindfulness, self-awareness, and self-care practices; healing presence; teaching and learning strategies for patient education (Docere); physical and clinical assessment (emphasis on cardiovascular, pulmonary, renal, and HEENT systems); and complete training in CPR and basic first aid.

NMCO511	Clinic Observation II	In this second of two observational clinic experiences, students will continue to be mentored by licensed healthcare providers and observe routine clinical experiences, including the doctor-patient relationship, diagnosis and treatment, application or administration of therapeutic modalities, and general clinic procedures.
NMBS523	Fundamentals of Biomedicine III: Genetics and Embryology	In Fundamentals of Biomedicine III, students will learn the essentials of embryology, human genetic concepts, and clinical disorders with an underlying genetic component, as relevant to human physiology, pathogenesis, treatment, and health maintenance. Students will gain an understanding of the relationship between embryonic development and underlying genetic mechanisms of congenital abnormalities, and their impact on health.
NMBS525	Spectrum of Health: Systems III	Systems III focuses on the normal and pathological anatomy, histology, and physiology of the gastroenterological, reproductive, endocrine, metabolic, hematologic systems and oncology. The focus topics for this course are the endocrine and metabolic systems, with an in-depth exploration of pathology and clinical assessment. Variants between diverse individuals and populations will be explored.
NMBS525L	Systems III Lab	In Systems III Lab, students will utilize microscopy, physiological function tests, computer simulation, and physical exam to aid their understanding of normal and pathological anatomy, histology, and physiology of the gastroenterological, reproductive, endocrine, metabolic, hematologic systems and oncology.
NMIH520	Constitutional Assessment	In this course, students will learn to enhance their skills of observation and assessment by drawing from traditional healing disciplines. Students will compare, contrast and select between various integrative medical diagnostic and assessment strategies, and communicate their applications in the context of naturopathic philosophy.

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NMIH525	Bioinformatics I	Bioinformatics is a two-class series in which students learn to utilize genetic and microbial bioinformatics data, assess and utilize medical data technology, and understand current use of medical data and computationally assisted medicine.
NMCI521	Independent and Collaborative Critical Inquiry (ICCI - 3)	In ICCI-3, students will continue with Journal Club, developing skills to critically appraise clinical and epidemiological research. Students will investigate how the determinants of health, sociopolitical justice, and health disparities are reflected in clinical and epidemiological research, and their relationship to naturopathic principles and the therapeutic order. Students will integrate knowledge of cellular and molecular biology with the structure and function of gastroenterological, reproductive, endocrine, metabolic and hematologic systems and oncology, and explore clinical correlations. Students will learn clinical presentation, assessment, and differential diagnosis for acute and chronic conditions of the endocrine and metabolic systems. Critical thinking, reasoning, skillful communication, effective teamwork, and developing cultural competence and research literacy will be emphasized.
NMTH523	Intro to Therapeutics II	In this second part of Intro to Therapeutics, students will explore the history and mechanisms of action of and indications and contraindications for clinical nutrition, pharmacology, and hard and soft tissue manipulation and movement therapies. Students will learn and practice orthopedic exams.
NMTH525	Hydrotherapy	Upon completion of this course, students will be able to describe the history, mechanisms of action, philosophical foundation, indications, contraindications, evidence grade for and appropriate techniques to deliver hydrotherapy. Students will practice performing hydrotherapy techniques and procedures.

NMPP523	Practitioner's Journey III	This course introduces students to the concept of Informed Consent, as well as counseling skills and ethical and legal issues related to delivering sensitive information. Electronic health records, ICD-10 and CPT codes are introduced. Students will practice the patient interview, focusing on First Do No Harm ( <i>primum non nocere</i> ) and physical and clinical assessment (emphasis on gastroenterological, reproductive, endocrine, metabolic, hematologic systems, and oncology). Transformational language, intention, listening skills, and their impact on rapport, relationships and health will be explored.
NMCO521	Clinic Entry	In Clinic Entry, students are oriented to the teaching clinic, including front desk operations, dispensary, lab, and electronic health records. Students will complete a written and practical exam to determine clinic readiness.
YEAR TWO		
Course Code	Course Title	Course Description
NMCS601	Brain and Behavior	In this course, students will explore the anatomy and physiology of the human nervous system and learn how specific components of the nervous system give rise to distinctive behaviors and how pathological changes within the nervous system contribute to neurological and psychiatric disorders. Students will study clinically relevant structures, pathways, and circuits within the brain and spinal cord; determine vascular relationships; and discuss topics such as consciousness, language, memory, dementia, stroke, addiction, and other common disorders. Students will integrate naturopathic philosophy and biomedical knowledge with an understanding of neurological and psychological development and pathology to optimize health of, assess, prevent, diagnose and treat conditions within these systems and consult and/or refer when appropriate. Students will learn counseling techniques to address neuropsychobehavioral conditions, and practice clinical history taking and specialized clinical (including DSM), physical, and laboratory assessment of common neurological and psychological disorders.

NMCS605	Musculoskeletal and Neurology	In this course, students will review anatomy and physiology as they relate to the health, function, dysfunction, and disease states of the musculoskeletal and peripheral nervous systems. Upon completion of this course students will be expected to integrate naturopathic philosophy with biomedical knowledge of the musculoskeletal and peripheral nervous systems to optimize health of, assess, prevent, diagnose and treat conditions within these systems and consult and/or refer when appropriate. Students will learn strategies for educating patients about prevention, health, and wellness relative to their musculoskeletal and peripheral nervous systems and will practice clinical history intake and specialized physical and laboratory diagnostic assessment of these systems.
NMTH601	Physiotherapy Lab	Upon completion of this course, students will be able to describe the history, mechanisms of action, philosophical foundations, indications, contraindications, evidence grade for and appropriate techniques to deliver physiotherapeutic interventions. Students will practice performing physiotherapy techniques and procedures.
NMCS609	Hematology/Oncology	Upon completion of this course, students will be able to integrate naturopathic philosophy with biomedical knowledge of the hematologic system and oncology to optimize health of, assess, prevent, diagnose and treat conditions within these systems and consult and/or refer when appropriate. Students will learn to educate patients on the health of their hematologic system and oncological risk factors and will practice clinical history intake and specialized physical and laboratory diagnostic assessment of the hematologic system and oncology.
NMCI601	Independent and Collaborative Critical Inquiry (ICCI - 4)	In ICCI-4, students will continue with Journal Club, critically appraising the medical literature, applying evidence related to risk factors, determinants of health, prevention, case management and therapeutic considerations for acute and chronic conditions related to advanced topics in neurology, musculoskeletal, and hematological systems, as well as oncology and behaviors that create or compromise health and wellbeing. Students will integrate naturopathic philosophy with biomedical knowledge and evidence. Critical thinking, reasoning, skillful communication, effective teamwork, and developing cultural competence and research literacy will be emphasized.

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NMPP601	Practitioner's Journey IV	In Practitioner's Journey IV, students develop skills in lab techniques, such as phlebotomy; and learn to perform laboratory procedures common to clinical practice. Relationship to Other (i.e., the patient) as the foundation of Relationship-Centered Care, and legal and ethical issues related to general patient care and end-of-life issues will be explored.
NMIH605	Research for the Clinician	This course builds upon students' growing research literacy to provide clinically relevant applications. Upon completion of this course, students will be able to relate the principles of evidence-informed medicine to naturopathic medicine. They will learn to deepen their analysis of published medical research, formulate clinically answerable questions, select appropriate study design, and use study results with real-life patients. Outcomes assessment as it relates to clinical practice will be emphasized.
NMCE601	Clinic Practicum I	In Clinic Practicum I, students begin performing hydrotherapy and practicing their patient education strategies in the clinical setting with an emphasis on listening skills and prevention (praevenire). Students will practice their developing skills, including charting, basic assessment and examination, patient education, and the therapeutic relationship.
NMCS614	Cardiology and Pulmonology	Upon completion of this course students will be able to integrate naturopathic philosophy with biomedical knowledge of the cardiovascular and pulmonary systems to optimize health of, assess, prevent, diagnose and treat conditions within these systems and consult and/or refer when appropriate. Students will learn to educate patients on the health of their cardiovascular and pulmonary systems and will practice clinical history intake and specialized physical and laboratory diagnostic assessment of these systems.
NMCS618	Gastroenterology/Proctology	Upon completion of this course students will be able to integrate naturopathic philosophy with biomedical knowledge of the gastroenterologic system to optimize health of, assess, prevent, diagnose and treat conditions within these systems and consult and/or refer when appropriate. Students will learn to educate patients on the health of their gastroenterologic system and will practice clinical history intake and specialized physical and laboratory diagnostic assessment of this system.

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NMCS620	Environmental Medicine	Environmental medicine explores the relationship of individuals and populations with their immediate environment and the natural world. Students will learn to assess environmental factors and exposures that impact health. Upon completion of this course students will be able to describe the history and various theories of environmental medicine, educate patients and health professionals about interactions between humans and their environment and the effects the natural world has on the human organism in the context of naturopathic philosophy; identify and discuss adverse reactions to toxic exposures, and formulate naturopathic medical assessment, diagnosis and treatment plans using conventional and integrative environmental medicine tools and perspectives.
NMIH614	Determinants of Health II	Determinants of Health II focuses on assessment of environmental determinants of health, including environmental exposures, occupational health, social equity and lifestyle issues.
NMCI612	Independent and Collaborative Critical Inquiry (ICCI - 5)	In ICCI-5, students will continue with Journal Club, critically appraising the medical literature, and applying evidence related to risk factors, determinants of health, prevention, management, and therapeutic considerations for acute and chronic conditions related to advanced topics in cardiology, pulmonology, gastroenterology, proctology, and environmental medicine. Critical thinking, reasoning, skillful communication, effective teamwork, and developing cultural competence and research literacy will be emphasized.
NMPM610	Practice Management I	Practice Management is a five-course series in which students learn about the naturopathic professional landscape (including employment opportunities, politics, economic and quality of life metrics), budgets, bookkeeping and accounting, practice management protocols and technologies, medical environmental challenges, and marketing. Students assemble a practice management binder, write a business plan and curriculum vitae, prepare practice paperwork and complete a leadership project which they present to their peers. In Practice Management I, students will describe the current professional landscape for naturopathic doctors, identify various professional opportunities available to naturopathic doctors, construct a professional curriculum vitae, and assemble a practice management binder.

NMPP612	Practitioner's Journey V	This course draws on research and contemplative practices to help students understand the impact of emotions on healing presence. Students will explore the role of emotional qualities such as empathy, trust, service, and resilience in the therapeutic relationship.
NMCE611	Clinic Practicum II	In Clinic Practicum II, students will perform hydrotherapy and support other students and staff in the NCC with various clinical duties, including patient vitals, intake, and education; and assisting in the lab, dispensary, and front desk. Students will practice their developing skills in the clinical setting, including charting, basic assessment and examination, patient education, and the therapeutic relationship.
NMCS621	Genitourinary	Upon completion of this course students will be able to integrate naturopathic philosophy with biomedical knowledge of the genitourinary system to optimize health of, assess, prevent, diagnose and treat conditions within these systems and consult and/or refer when appropriate. Students will learn to educate patients on the health of their genitourinary system and will practice clinical history intake and specialized physical and laboratory diagnostic assessment of the genitourinary system.
NMCS627	Emergency Medicine	Upon completion of this course students will be able to integrate naturopathic philosophy with biomedical knowledge of the human body to assess, diagnose, triage, treat and refer emergency medicine conditions. Students will learn to communicate with patients and provider about emergency medical conditions and practice clinical history intake and specialized physical and laboratory diagnostic assessment pertinent to outpatient emergency medicine.
NMTH621	Physical Medicine	Upon completion of this course, students will be able to describe the history, mechanisms of action, philosophical underpinnings, indications, contraindications, evidence grade for and appropriate techniques to deliver physical medicine. Students will practice performing physical medicine and experience it themselves.

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NMCS629	Endocrinology	Upon completion of this course students will be able to integrate naturopathic philosophy with biomedical knowledge of the endocrine system to optimize health of, assess, prevent, diagnose and treat conditions relevant to endocrinology, and consult and/or refer when appropriate. Students will learn to educate patients on the health of their endocrine system and will practice clinical history intake and specialized physical and laboratory diagnostic assessment.
NMCI622	Independent and Collaborative Critical Inquiry (ICCI - 6)	In ICCI-6, students will continue with Journal Club, critically appraising the medical literature, and applying evidence related to risk factors, determinants of health, prevention, management, and therapeutic considerations for acute and chronic conditions related to advanced topics in genitourinary and emergency medicine. Critical thinking, reasoning, skillful communication, effective teamwork, and developing cultural competence and research literacy will be emphasized.
NMPP623	Practitioner's Journey VI	In Practitioner's Journey VI, students will continue to explore the doctor-patient relationship, focusing on the patient's wider circle of support, including family members, caregivers, and other healthcare providers. Students will investigate their personal strengths, challenges, and biases in the context of cultural competence.
NMCE621	Clinic Rotation I	Clinic Rotation I-VI is a series in which students integrate multiple aspects of medical education into practice in a supervised, team-based, clinical setting. Students take clinical histories, perform physical exams, order and interpret laboratory and imaging studies, formulate a naturopathic clinical impression, establish medical diagnoses, generate naturopathic and integrative treatment plans and communicate with patients and other healthcare professionals about them. Students will be able to identify low and high risk conditions and determine indications for patient consultation and/or referral. In Clinic Rotation I, students assist in the delivery and documentation of patient care and observe and participate in discrete aspects of the clinical encounter as directed by the senior team member.

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Course Code	Course Title	Course Description
NMCS703	Women's Health	Upon completion of this course students will be able to integrate naturopathic philosophy with biomedical knowledge of the gynecologic and female reproductive systems to optimize health of, assess, prevent, diagnose and treat conditions within these systems and consult and/or refer when appropriate. Students will learn to educate patients on the health of their gynecologic and female reproductive systems and will practice clinical history intake and specialized physical and laboratory diagnostic assessment of the female reproductive system.
NMCS707	Men's Health	Upon completion of this course students will be able to integrate naturopathic philosophy with biomedical knowledge of the male reproductive system to optimize health of, assess, prevent, diagnose and treat conditions within these systems and consult and/or refer when appropriate. Students will learn to educate patients on the health of their male reproductive system and will practice clinical history intake and specialized physical and laboratory diagnostic assessment of the male reproductive system.
NMCS709	EENT	Upon completion of this course students will be able to integrate naturopathic philosophy with biomedical knowledge of the ophthalmic and otolaryngic systems to optimize health of, assess, prevent, diagnose and treat conditions within these systems and consult and/or refer when appropriate. Students will learn to educate patients on the health of their ophthalmic and otolaryngic systems and will practice clinical history intake and specialized physical and laboratory diagnostic assessment of the ophthalmic and otolaryngic systems.

NMCI703	Independent and Collaborative Critical Inquiry (ICCI - 7)	In ICCI-7, students will continue with Journal Club, critically appraising the medical literature, and applying evidence related to risk factors, determinants of health, prevention, management, and therapeutic considerations for acute and chronic conditions related to advanced topics in women's and men's health and EENT system. Students will learn to perform physical exams relevant to men's and women's reproductive systems. Critical thinking, reasoning, skillful communication, effective teamwork, and developing cultural competence and research literacy will be emphasized. Students will incorporate relevant cases from clinical experiences.
NMPP701	Practitioner's Journey VII	This course introduces students to the concept of Relationship to Colleagues and Community as aspects of relationship-centered care. Students will explore their roles as team members in the integrative care setting and larger community. Presentations during the Grand Rounds portion of this course will introduce students to the expertise and experience of community practitioners and specialists. Clinical case discussion will focus on the application of naturopathic principles to patient care, and assessing and promoting behavioral change.
NMCE701	Clinic Rotation II	In Clinic Rotation II, students participate in the delivery and documentation of patient care and observe and participate in discrete aspects of the clinical encounter as directed by the senior team member. Students will be able to identify low and high risk conditions and determine indications for patient consultation and/or referral.
NMCS711	Obstetrics/Pediatrics	Upon completion of this course students will be able to integrate naturopathic philosophy with biomedical knowledge of pregnant and pediatric patient populations to optimize health of, assess, prevent, diagnose and treat conditions within these systems and consult and/or refer when appropriate. Students will learn to educate pregnant and pediatric patients and will practice clinical history intake and specialized physical and laboratory diagnostic assessment of the pregnant and pediatric patient populations.

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NMTH719	IV Therapeutics	Upon completion of this course, students will be able to describe the history, mechanisms of action, philosophical underpinnings, indications, contraindications, evidence grade for and appropriate techniques to deliver IV therapy. Students will practice performing IV therapy on classmates, and experience it themselves.
NMCS717	Dermatology and Minor Surgery	Upon completion of this course students will be able to integrate naturopathic philosophy with biomedical knowledge of the dermatologic system to optimize health of, assess, prevent, diagnose and treat conditions within these systems and consult and/or refer when appropriate. Students will learn to educate patients on the health of their dermatologic system and will practice clinical history intake and specialized physical and laboratory diagnostic assessment of the dermatologic system.
NMCI715	Independent and Collaborative Critical Inquiry (ICCI - 8)	In ICCI-8, students will continue with Journal Club, critically appraising the medical literature, and applying evidence related to risk factors, determinants of health, prevention, management, and therapeutic considerations for acute and chronic conditions related to advanced topics in pediatrics, obstetrics and geriatrics. Critical thinking, reasoning, skillful communication, effective teamwork, and developing cultural competence and research literacy will be emphasized. Students will incorporate relevant cases from clinical experiences.
NMIH714	Determinants of Health III	Determinants of Health III focuses on assessment of social determinants of health, including population behaviors, community resources, health policies, public funding, and disparities and social justice in healthcare access and delivery.
NMPM715	Practice Management II (Financials)	In Practice Management II, students will continue to solidify their business foundation by understanding the basics of small-business accounting, generate hypothetical business and a real-life personal budgets, and create a business plan to open a private practice.

NMPP712	Practitioner's Journey VIII	In Practitioner's Journey VIII, students will discuss professionalism, communication, ethics, and performance in the integrative care setting and investigate strategies for enhancing continuity and safety in patient-centered care.
NMCE713	Clinic Rotation III	In Clinic Rotation III, students gradually take on a more active role in the clinical encounter, performing entire components of the clinical encounter, formulating treatment plans and projecting short- and long-term management, and transitioning into a primary role in the care team. Students must satisfactorily complete the Clinic Promotion Exam in order to proceed as primary student clinician.
NMCS722	Geriatrics	Upon completion of this course students will be able to integrate naturopathic philosophy with biomedical knowledge of the geriatric patient population to optimize health of, assess, prevent, diagnose and treat conditions within these patients and consult and/or refer when appropriate. Students will learn to educate geriatric patients on their health and will practice clinical history intake and specialized physical and laboratory diagnostic assessment of the geriatric patient population.
NMCS726	Rheumatology/Clinical Immunology	Upon completion of this course students will be able to integrate naturopathic philosophy with biomedical knowledge of the immune system to optimize health of, assess, prevent, diagnose and treat conditions within this system and consult and/or refer when appropriate. Students will learn to educate patients on the health of their immune system and will practice clinical history intake and specialized physical and laboratory diagnostic assessment of the immune system.
NMCI723	Independent and Collaborative Critical Inquiry (ICCI - 9)	In ICCI-9, students will continue with Journal Club, critically appraising the medical literature, and reporting on evidence related to risk factors, determinants of health, prevention, management, and therapeutic considerations for acute and chronic conditions related to advanced topics in dermatology, minor surgery, immunology and rheumatology. Critical thinking, reasoning, skillful communication, effective teamwork, and developing cultural competence and research literacy will be emphasized. Students will incorporate relevant cases from clinical experiences.

NMIH727	Bioinformatics II	In Bioinformatics II, students learn to apply bioinformatics to health and disease, and utilize clinical modeling to facilitate improved clinical decision making.
NMPM721	Practice Management III (Logistics)	In Practice Management III, students will demonstrate understanding of basic duties of clinic management and operations, distinguish between various technological practice tools, and describe challenges to maintaining environmental sustainability in a naturopathic medical practice and outline possible solutions.
NMPM726	Jurisprudence	Upon completion of this course, students will be able to identify and demonstrate how to engage with legal issues that naturopathic doctors may encounter, including licensure, privacy and health communication, malpractice and insurance, and business law.
NMPP723	Practitioner's Journey IX	In this course, students will explore the relationship between patient decision-making in the context of interprofessional collaboration and relationship-centered care. Students will deepen their skills in conflict resolution, negotiation, and evaluating effectiveness through ongoing assessment of patient outcomes.
NMCE723	Clinic Rotation IV	In Clinic Rotation IV, students take on more responsibility in the clinical encounter, formulating treatment plans and projecting short- and long-term management, and transitioning into a primary role in the care team. Students must satisfactorily complete the Clinic Promotion Exam in order to proceed as primary student clinician.
YEAR FOUR		
Course Code	Course Title	Course Description
NMPM801	Practice Management IV (Personalizing your Practice)	In Practice Management IV, students will select and personalize practice paperwork, understand the relationship between medical outcomes and financial goals, and create tentative work schedules which include these and other clinical and management duties.

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NMPP810	Practitioner's Journey X	In Practitioner's Journey X, students will explore the practitioner's role in relation to <i>community and systems</i> , assessing health disparities and social justice in community health systems. Students will deepen their understanding of the social, economic, and political context within which healthcare is delivered. Students will continue to explore interprofessional collaboration opportunities and referral skills through attendance and participation in Grand Round presentations from community practitioners and specialists.
NMCE805	Clinic Rotation V	In Clinic Rotation V, students take on a primary role within the care team and fully engage in the clinical encounter as the senior team member. Students will have assistance from junior students, and will show professionalism, sensitivity and leadership as they teach and model naturopathic medical care.
NMPP800	Naturopathic Medicine Retreat II	Naturopathic Medicine Retreat II is an experiential immersion in naturopathic philosophy, principles, theory, and practice at the culmination of the curriculum. Students will explore, share and reflect on their experiences during this pivotal transition between student and doctor.
NMPM813	Practice Management V (Marketing)	In Practice Management V, students will individualize their business knowledge by determining their target patient population, generating and testing marketing systems, proposing patient recruitment and retention schedules, and reviewing checklists of legal and logistical steps to prepare for clinical practice.
NMPP821	Practitioner's Journey XI	In this final Practitioner's Journey course, students will continue to deepen and solidify their counseling, learning, teaching and interprofessional collaboration and referral skills through attendance and participation in Grand Round presentations from community practitioners and specialists.

nentor secondary students, and demonstrate ompetence expected of entry-level naturopathic octors. Students will have assistance from junior tudents, and will show professionalism, sensitivity and eadership as they teach and model naturopathic nedical care. Students must successfully complete the omprehensive Clinic Exit Exam.
c (

#### Appendix B Curriculum Map

Introductory  Developmental																							
Mastery																							
Course	1a	1b	1c	1d	<u>1e</u>	1f	1g	1h	1]	2a	2b	2¢	2d	2e	2f	2g	3a	3b	3¢	3d	3e	31	3g
Y1 - Fleldwork	3.4		Х	Х	Х	X	X	Χ	X	X	X	X	X	χ	Х	Х	X	Х	X		χ	X	Х
Y1 - Human Anatomy	χ											X			1								
Y1 - Anatomy Lab	χ											X.					Х						
Y1 - Fundamentals of Biomedicine I	Х	X																					
Y1 - Spectrum of Health: Systems I	X	X		X	X		Π	X				X					-				Π		
Y1 - Systems I Lab	X	X		X	X							X											
Y1-ICCI-I	X	Χ	X	Γ	χ															Х		X	Х
Y1 - Evolution of Medicine		X	X						Π					X	X	Х		X			Х		Х
Y1 - Practitioner's Journey I	X	X	X.	X	Χ.	X		X	X	Х	X	X	Х		Х		X			X		Γ	
Y1 - Clinic Observation I	X	X	χ	Х	X	Х	X	Х	X	Х	Х	X	Х		Π							X	
Y1 - Naturopathic Medicine Retreat (	3		X				Π	1	·			Х			Ī		X			X			X
Y1 - Fundamentals of Biomedicine II	X	Х														Ι.		П				Π	П
Y1 - Spectrum of Health: Systems II	X	Х		X	X											Г							
Y1 - Systems II Lab	X	Х		X	X.							X				Τ.							
Y1- CC -	X	X	X	Γ	X				Ī	Х	χ	X		Х	Х				Х	Х	X		X
Y1 - Public Health	Х	X	X	X		χ					X	Х	Χ.	X	Х				X			Π	X
Y1 - Determinants of Health I			X	Х	X								Х	Х		Х			Х				
Y1 - Intro to Therapeutics I	X	Х	X	X	Х	X	X		X				Х		Γ	Π							П
Y1 - Practitioner's Journey II	X	X	X	X	X	Х		X	Х	X	Х	X			X		X	Х		Х			X
Y1 - Clinic Observation II	X	Х	Х	X	X	X	X.	Х	X	X.	X.	X	Х			T						Х	
Y1 - Fundamentals of Biomedicine III	Х	Х	Г										T		1								
Y1 - Spectrum of Health: Systems III	X	X		X	X																		П
Y1 - Systems III Lab	Х	Χ		Х	X							X											
Y1 -  ÇC  -	X	X	X		X	X	X	X	X	X	X	X		X	X			X	X	X	X		X
Y1 - Constitutional Assessment			X	X	X	X				Х	X	X	X	X		X			Х				Х
Y1 - Bioinformatics I	Х			X			X									χ			X		X	X	3
Y1 - Intro to Therapeutics II	X	Х	X.	X	X	X	X						Х										X

Y1 - Hydrotherapy	X	X	X	X	X	X	X			X	X	X	X			X		X	X			Π	
Y1 - Practitioner's Journey III		1	П	X	X		Γ	X	X	Х	X	X			X		X	X		X	Г		Х
Y1 - Clinic Entry			Π				Г	X	X	X	X	X			X			X		Π		X	X
Y2 - Brain and Behavior	X	X	χ	X	X	X	X	X	X	Х	X	X	X	X	X	X	X		X				
Y2 - Musculoskeletal and Neurology	χ	X	X	X	X	X	X	X	Χ	Х	X	X	X	X	X	X	X		X				
Y2 - Physiotherapy Lab		X	X	X	X	X	X	X	X	χ	X.	X	X	X	X	X	X		X				
Y2 - Hematology/Oncology	X	X	X	X	X	X	X	X	Х	X	X	X	X	X	X	X	X		X				
Y2 - ICCI - IV			X		X	X	X	X		X	X	X	X	X	X	X		X	X	X			X
Y2 - Practitioner's Journey IV				X	X				X			X			Ŷ	X		X	X		-		X
Y2 - Research for the Clinician	Х	X	ideada				X	T .				П	T					X	X		X	X	
Y2 - Clinic Practicum I		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X
Y2 - Cardiology and Pulmonology	X	Х	X	X	X	X	Χ.	X	X	X	X	X	X	X	X	X	X		X				
Y2 - Gastroenterology/Proctology	Х	X	X	X	X	X	X	X	X	Х	X	X	X	X	X	X	X		X				
Y2 - Environmental medicine		X	X	X	X	X	X	X	X	100		Ī											
Y2 - Determinants of Health II			X	X	X							Π	X	X		X			X				
Y2 -  CC  - V		1	X		X	X	X	X		X	X	X	X	X	X	X			X	X			X
Y2 - Practice Management I			Π						X	50004		X			X			X				Χ.	
Y2 - Practitioner's Journey V			X	X	X				X	X	X	X	X	X	X	X	X		X				X
Y2 - Clinic Practicum II		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X
Y2 - Genitourinary	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X				
Y2 - Emergency Medicine		Ī		X	X		X	X	X	X	X	X	X	X	X	X			X	X	X		
Y2 - Physical Medicine	X	X	X	X	X	X	X			X	X	X	X			X	Ī		X				П
Y2 - Endocrinology	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X				T
Y2 - ICCI - VI	X	X	X	6	X	X	X	X		X	X	X	X	X	X	χ			X	X			X
Y2 - Practitioner's Journey VI	X	X	X	X	X	1		Π	X	X	X	X	X	X	X	X	X		X				X
Y2 - Clinic Rotation I	X	X							X	Х	X	X	X	X	X	X	X	Χ	X	χ	Χ	X	X
Y3 - Women's Health	X	X	X	X	X	X	X	Х	X	X	X	X	X	Χ.	X	Х	X		X				$\Box$
Y3 - Men's Health	X	X	X	X	X	X	X	X	Х	X	X	X	X	X	X	Х	X		X	Π			Γ
Y3 - EENT	X	X	Х	X	X	X	X	X	X	Х	X	Х	Х	Х	X	Х	X		Х				
Y3 - ICCI - VII	X		X		X	X	X	X		X	X	X	X	X	X	X			X	X	Г		X
Y3 - Practitioner's Journey VII	X		X	X	X				χ	χ	X	X	X	X	X	X	X		X			T	Χ

Y3 - Clinic Rotation II	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X
Y3 - Obstetrics/Pediatrics	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X				
Y4 - IV Therapeutics	X	X	X	X	Х	X	X			X	X	Х	Х			X			X				
Y3 - Dermatology and Minor Surgery	X	X	X	X	Х	X	X	X	X			<u> </u>											
Y3 - ICCI - VIII	X		X	X	X	X	X	X		X	X	X	Х	X	X	X			X	X			X
Y3 - Determinants of Health III			X	X	X								X	X		X			X			<u> </u>	<u> </u>
Y3 - Practice Management II																		X		X_		χ	
Y2 - Practitioner's Journey VIII	X	X	X	X	X			ŀ	X	X	X	X	X	X	X	X	X		X				X
Y3 - Clinic Rotation III	X	X	X	X	X	X	X	X.	X	X.	X	X	X.	X	X	X		X	X	X	X	X	X
Y3 - Gerlatrics	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X.	X		X				<u>.                                    </u>
Y3 - Rheumatology/Clinical Immunology	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X.		X				
Y3 - ICCI - IX	X		X	of the same	X	X	X	X.		X	X	X	X	X	X	X			X	X			X
Y3 - Bioinformatics II	X	X	Xerosas				X									X	o diliponi		X		X	X	
Y3 - Practice Management III									X	X	X	X						X		X		X	X
Y3 - Jurisprudence							X	X	X			X		X	X	X		X					
Y3 - Practitioner's Journey IX	X	X	X	X	X	X			X	X	X	X	χ.	X	X		X		X				X
Y4 - Clinic Rotation IV	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X
Y4 - Practice Management IV									X	X	X	X						X		X	X	X	
Y4 - Practitioner's Journey X	X	X	X	X	X	X	X	X	100	X	X	X	X	X	X	X			X	X			X
Y4 - Clinic Rotation V	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X_	X	X	X
Y4 - Naturopathic Medicine Retreat II	The same		X									X	0000				X			X			X
Y4 - Practice Management V					Ŀ					X	X	X						X		X		X	
Y4 - Practitioner's Journey XI	X	X	X	X	X	X.	X	X		X	X	X	X.	X	X	X	X		X	X			X
Y4 - Clinic Rotation VI	X	X	X	X	X	X	X	X	X	X	X	X	X	X.	X	χ	X	X	Х	X	X	X	X

### Appendix C Sample Agreement with Partnering Institutions

#### **MEMORANDUM OF AGREEMENT BETWEEN**

#### Maryland University of Integrative Health Laurel, MD 20723 AND

This Agreement is made this day of	, 20, between Maryland University of
Integrative Health, Inc. (the "University") and	(the "Provider") (sometimes
collectively referred to as the "Parties").	

WHEREAS, the University desires to offer its students the opportunity to learn to practice in a collaborative environment, including the opportunity to collaborate with physicians, nurses, and other allopathic health providers in an integrative healthcare setting at Provider's facilities.

WHEREAS, the Provider recognizes the need for providing the community, which it undertakes to serve, with adequate staff in all allied health areas at Provider's facilities, and,

WHEREAS, the Parties are desirous of cooperating to furnish educational experiences to students of the University, based on the terms and conditions contained in this Agreement,

NOW THEREFORE, it is mutually agreed by and between parties, to wit:

#### 1. Definitions.

- 1.1 "Student Clinical Intern" shall mean a student enrolled in an academic program at the University who provides acupuncture treatments, yoga therapy, health and wellness coaching, nutritional counseling, or other services as mutually agreed to by the parties, to Provider's patients or provides any of these therapies in an educational series at Provider's facilities, under the supervision of a Faculty Supervisor (as defined below).
- 1.2 "Student Educator" shall mean a student enrolled in an academic program at the University who may provide patient and/or staff education and or the demonstration of a therapy on a patient and or staff member under the Supervision of a Faculty Education Supervisor, in the following areas: acupuncture treatments, yoga therapy, health and wellness coaching, or one-to-one nutritional counseling to Provider's patients.
- 1.3 "Faculty Supervisor" shall mean a faculty member employed by the University who will provide supervision to Student Clinical Interns.
- 1.4 "Faculty Education Supervisor" shall mean a faculty member employed by the University who may provide patient and/or staff education and who will provide supervision to Student Educators demonstrating therapies in any education series, but who will not provide supervision to Student Clinical Interns. The Student Clinical Interns and Student Educators may collectively be referred herein as "Students" and the Faculty Supervisors and Faculty Education Supervisors may collectively be referred herein as "Faculty Members".

### Scope of Agreement. Patient and Staff Education.

- 2.1.1. The Provider and the University shall collaborate on the University's offering patient and staff education regarding a variety of topics pertaining to integrative healthcare, including but not limited to, acupuncture, yoga therapy, nutrition, and health and wellness coaching.
- 2.1.2 Each education session shall be conducted by Faculty Education Supervisors and/or Student Educators, provided however that any education session in which a Student Educator will be demonstrating a therapy shall be supervised by a Faculty Education Supervisor. The content and the method of supervision for each discipline or during the delivery of a particular modality shall be in the sole discretion of the University. The faculty-to-student ratio is in the sole discretion of the University, in accordance with the University's accreditation, insurance requirements and regulatory requirements.
- 2.1.3 The University will ensure that all participating patients and staff are provided with the appropriate education and information and that they execute all necessary consent forms prior to the provision of any services contemplated under this Agreement. The Provider agrees to permit the University to use the University's unique patient information and consent forms that are required and approved by the University's professional liability insurance carrier. The University shall submit the information and consent forms to the Provider for review in advance of usage.
- 2.1.4 The Provider shall be responsible for communicating the availability of services by the University under this Agreement to its patients at Provider's facilities. Provider shall submit all such patient communication materials to the University for its approval prior to distribution. The University shall be permitted to publicize the availability of its services at the Provider's facilities to Provider's patients and staff provided however that any such communications and or publications shall be subject to Provider's standard vendor marketing policies and procedures. The University shall submit all such communication materials to Provider for its approval prior to distribution.

#### 2.2 Clinical Experience.

2.2.1. The Parties will work together to develop a clinical internship program at Provider's facilities for the Student Clinical Interns in the University's various academic programs with the understanding that that the University is ultimately responsible for the academic clinical content of the internship. As of the effective date of this Agreement, the academic programs which shall be included under this Agreement include acupuncture, yoga therapy, nutritional counseling, and health and wellness coaching, and any other additional academic program mutually agreed by the parties. The clinical experience shall afford Student Clinical Interns with the opportunity to provide treatment to the Provider's patients under the supervision of a Faculty Supervisor. During the clinical experience, the Provider shall permit Student Clinical Interns with the opportunity to observe treatments provided by other Student Clinical Interns. The Provider retains the right to restrict any services provided hereunder, including patient care activities, at its sole discretion. In addition to providing treatment to Provider's

patients, at the request of the Provider and subject to all applicable consent requirements, the University shall allow

the Student Clinical Interns to treat Provider's staff in order to educate them on the specific therapies so that they may be better equipped to discuss treatment options with patients.

#### 3. Faculty Supervisors' Qualifications.

The University shall identify Faculty Members who will provide supervision of Students consistent with the requirements of appropriate licensing boards, accrediting bodies, and the University's professional and general liability insurance carriers. The Provider shall not require any Faculty Members in the University's Acupuncture and Oriental Medicine programs to hold NCCAOM certification or any Faculty Member to have specialized or advanced training regarding caring for Patients with any particular condition (including but not limited to cancer) at the time that the University identifies the Faculty Members. However, the Provider may require that the Faculty Members complete specialized patient care training prior to beginning work at the Provider's facility and Provider will provide such training. Notwithstanding the foregoing, it is the sole responsibility of the University to ensure that Students are supervised by competent and qualified Faculty Members, including any requirements under applicable laws and regulations and accreditation requirements.

#### 4. Patient Medical Records.

The Parties agree that all patient records shall be maintained in accordance with State and Federal law. All direct patient care provided by Student Clinical Interns will be documented in the patient's electronic medical record maintained by the Provider, in accordance with Provider's policies and procedures. The Parties agree that patient electronic records shall remain confidential and shall not be disclosed except as required or permitted by State or Federal law. The Provider acknowledges that the University may provide treatment record forms that are unique to the various treatment modalities provided by the Student Clinical Interns and shall permit usage of such forms. The University shall submit these forms to the Provider in advance of such usage to allow the Provider to determine whether and how such forms can be incorporated into the Provider's electronic recordkeeping system. In addition, the Provider agrees to permit the University to use the University's unique Patient information and consent forms that are required and approved by the University's professional liability insurance carrier. The University shall submit the information and consent forms to the Provider for review in advance of usage. The Provider shall permit Student Clinical Interns under the supervision of the Faculty Supervisor, to have access to patient medical records for treatment planning purposes in accordance with Provider's policies and procedures. The Student Clinical Interns shall also have access to patient medical records to prepare clinical tracking forms (treatment and patient contact hours) which are required to track Student Clinical Interns' academic progress and to satisfy accreditation standards. These clinical tracking forms shall only include de-identified patient information as that term is defined in the Health Insurance Portability and Accountability Act and or its implementing regulations as amended. The University agrees to execute as of the same date as this Agreement, the Provider's standard Business Associate Agreement.

#### 5. Supplies, Furniture, and Equipment.

Provider shall be responsible for the cost of all supplies, furniture, and equipment necessary for

the University's provision of services under this Agreement. For some services, the University will purchase supplies (for example, acupuncture needles) and the Provider will reimburse the University. For other services, the Provider will purchase supplies, furniture, and equipment directly (for example, yoga mats and straps). All supplies will be stored at Provider's facilities. When deemed necessary by the University, the Provider will provide a locked cabinet for storage of certain supplies (for example, for acupuncture needles).

#### 6. Patient Care and Supervision of Student Clinical Interns.

The Parties agree that the Provider shall retain complete control over patient care in accordance with clinical care guidelines, including cancer center practice guidelines, during the clinical experience except that the Faculty Supervisors shall provide supervision of and direct all treatments provided by the Student Clinical Interns. The method of supervision shall be mutually agreed upon by the parties, provided however that the supervision for each discipline or during the delivery of a particular modality shall be in the sole discretion of the University such that supervision of Student Clinical Interns may be either on-site (direct) or off-site (indirect), in accordance with the University's accreditation and insurance requirements, and regulatory requirements. The faculty-to-student ratio is in the sole discretion of the University, in accordance with the University's accreditation, insurance requirements and regulatory requirements, provided however that the University will provide this information to the Provider's Director of Education [or equivalent] in advance to the provision of services hereunder and will be willing to discuss any questions or concerns that the Director may have. The Faculty Supervisors shall approve all treatment records prepared by the Student Clinical Interns and submit the approved treatment records to Provider's team members who shall be responsible for incorporating the Student Clinical Interns' treatment records into the Patients' medical record.

#### 7. Provider's Policies and Procedures.

All Faculty Members and Students when onsite at Provider's facilities will comply with Provider's policies and procedures including, but not limited to, dress code requirements.

- 7.1. The University will abide by the Risk Management and Safety programs of the Provider. All Faculty Members and Students will report and complete an incident report for all incidents occurring on the premises of Provider's facilities as a result of their clinical experience and or education session, and will in addition, notify the Provider's Director of Education [or equivalent] of any incident that involves a Student and/or Faculty member. The Provider's clinical area Supervisor/Charge Nurse will complete an incident report upon notification by the Student or Faculty Member of an incident discovered by the Student or Faculty Member that occurred on the Provider's premises. Subject to applicable privacy laws, the Provider agrees to inform the University of all incidents in which Students or Faculty Members are involved in so that the University can provide all necessary reports to the University's professional and general liability insurance carriers.
- 7.2. Faculty Supervisors and Student Clinical Interns will wear a picture ID badge while on the premises of Provider's facilities. Provider will provide one picture badge to each Faculty Supervisor and Student Clinical Intern. In the event the badge is not with the individual on a particular day, a temporary Student Clinical Intern or Faculty Supervisor badge will be secured from the Provider's Education Department until a replacement badge is purchased by the individual at the cost of \$\_\_\_\_\_. A temporary badge may be used for one day only.

7.3 Faculty Members and Students shall have no access to the Provider's Medication Room.

#### 8. Removal of Students or Faculty Members.

The Parties agree that the Provider shall have the right, after consultation with the University, to require the immediate removal of a Student or Faculty Member from the clinical experience under this Agreement, at the facility of the Provider if, in the sole discretion of the Provider, the Student or Faculty Member is disruptive, disreputable or otherwise a risk to the operation of the facility or to patient care or if the Student or Faculty Member refuses to abide by the Provider's policies and procedures. Nothing under this paragraph shall prohibit the University from removing any Student or Faculty Member in its discretion. The University shall be solely responsible for promptly informing the Faculty Member and or Student regarding his/her removal, whether required by the Provider or the University.

#### 9. Provider's Dining Facilities.

Students and Faculty Members shall be permitted to use the Provider's dining facilities.

#### 10. Responsibilities of the University.

#### 10.1 University's Insurance,

The University shall maintain, throughout the term of this Agreement, professional and general liability insurance that covers the Students and Faculty Members under this Agreement. 10.1.2. The University agrees to carry professional liability insurance for Faculty Members and Students and will supply the Provider with a copy of the current insurance certificates immediately upon request. Professional and general liability insurance with minimum limits of \$1 million per occurrence or claim, \$3 million annual aggregate, as well as Workers Compensation Insurance that meets statutory requirements of the State of Maryland will be provided by the University. 10.1.3. The University shall promptly notify the Provider of any claim that has been filed against a Student or Faculty Member as a result of their participating in any clinical training under this Agreement.

#### 10.2 Health and Training Requirements.

Prior to participation of a Student Clinical Intern or Faculty Supervisor in the clinical experience onsite at Provider's facilities, the University shall:

- 10.2.1 Require each Student Clinical Intern and Faculty Supervisor to provide evidence, satisfactory to the Provider, that the Student Clinical Intern or Faculty Supervisor has had a PPD within one year of the Student Clinical Intern or Faculty Supervisor's participation in the clinical experience (chest x-ray every five years for history of a positive PPD);
- 10.2.2 Require each Student Clinical Intern and Faculty Supervisor to provide evidence, satisfactory to the Provider, that the Student Clinical Intern or Faculty Supervisor has had a seasonal flu shot or has signed the Provider's declination form prior to participation in the clinical experience;
- 10.2.3 Require each Student Clinical Intern and Faculty Supervisor to provide evidence, satisfactory to the Provider, that the Student Clinical Intern or Faculty Supervisor has received adequate immunizations for MMR and varicella/chicken pox (vaccinations and/or

positive titers);

- 10.2.4. Inform each Student Clinical Intern and Faculty Supervisor, in writing, of the risk of Hepatitis B and require each Student Clinical Intern or Faculty Supervisor to either (a) provide proof an adequate vaccination, or (b) sign a written proof of understanding of the risk of Hepatitis B and their decline of vaccination; and
- 10.2.5. Require that prior to commencement of the clinical experience, each Student Clinical Intern and Faculty Supervisor has completed a blood borne pathogen and tuberculosis education program, and HIPAA training which will be offered by the Provider;
- 10.2.6. Require each Student Clinical Intern and Faculty Supervisor to complete OSHA training that will be offered by the Provider.
- 10.2.7. This evidence must be on file at the University and available to the Provider upon request before any particular Student Clinical Intern may begin his/her clinical experience under this Agreement.

Each Student Clinical Intern and Faculty Supervisor must be approved in writing via email by the Provider's Director of Education [or equivalent] prior to participating under this Agreement, such approval acknowledging compliance with the above health and training requirements. The University shall forward to Provider's Director of Education [or equivalent] a letter verifying completion of the health requirements upon request.

#### 11. Indemnification by University.

The University shall indemnify and hold harmless the Provider, its directors, officers, agents and employees from any claims, injuries, losses or demands caused by the negligent or willful misconduct of Faculty Members or Students during the clinical experience under this Agreement and any attorney's fees associated with those claims, injuries, losses or demands. The indemnification obligation of the University includes the cost of any damage to the Provider's furniture or equipment caused by Faculty Members, Students or other agents and employees of the University during the clinical experience. Furthermore, it is understood and agreed that the University, by the terms of this Agreement, is not waiving or relinquishing in any manner any defenses that may be available to the University nor is the University relinquishing any defenses that may become available to it at any time during the term of this Agreement and that the University is free to assert all defenses that may be available to it. Provider will promptly notify the University of any claim for which it seeks indemnity under this Section.

#### 12. Legal Compliance.

The Parties shall perform their duties, responsibilities and obligations in compliance with all applicable federal, state, and local laws, rules, regulations and ordinances, as well as Joint Commission standards as applicable. The University represents that it has obtained all licenses and permits required by law to engage in the activities necessary to perform its duties, responsibilities and obligations under the terms of this Agreement.

#### 13. HIPAA Compliance.

13.1 Students and or Faculty Members assigned to work at Provider's premises may not

remove any patient information, including but not limited to information relating to treatment and or care provided to patients under this Agreement, from Provider's premises. The foregoing does not pertain to the clinical tracking forms that are maintained by the Student Clinical Interns as these clinical tracking forms only contain de- identified patient information.

- 13.2. Prior to beginning work at Provider's premises, each Student and Faculty Member will complete Provider's training module regarding the Health Insurance Portability and Accountability Act (HIPAA) and Provider's policies designed to promote compliance with that Act and its associated regulations, including execution of the confidentiality statement that is part of that training.
- 13.3 The Parties agree to execute Provider's standard Business Associate Agreement at the same time this Agreement is executed.
- 14. University's Accreditation. During the term of this Agreement, the University shall maintain full accreditation by Middle States Commission on Higher Education. Should the University lose accreditation, or should its accreditation change in any way that will negatively affect the University's ability to deliver services under this Agreement, it shall immediately notify the Provider. Such event shall be cause for the Provider to terminate this Agreement immediately.
- 15. Status of Students and Faculty Members. The Students and Faculty Members shall not be considered employees or agents of the Provider for any purpose including reimbursement for rendering services to patients during the term of this Agreement, or workers' compensation claims for injuries incurred while the Students or Faculty Members are onsite at Provider's facilities.
- **16. Use of a Party's Name and/or Logo.** The Parties shall not use each other's name and/or logo in connection with any publicity or advertisement regarding the clinical experience without the prior consent of the other. The University shall obtain written approval of the Provider prior to publication of any information related to Provider or the clinical experience under this Agreement.
- **17. Details for Each Academic Program.** The University and the Provider shall mutually agree on the hours, days, place of assignments with respect to the academic programs covered under this Agreement.
- **18. Qualifications of Students.** The University has sole responsibility for planning and determining the content and clinical education goals for each academic program, including the educational experience of the Students in theoretical background, basic skills, professional ethics, attitude, and behavior, and shall refer only those Students who have satisfactorily completed the prerequisite portions of the University's curriculum.
- **19. University's Curriculum and Clinical Education Goals.** Upon request, the University will provide the Provider with current information about its curriculum and clinical education goals.

**20. Parking at Provider's Facilities.** Faculty and Students will be provided a parking permit from the Director of Education [or equivalent] once approved. Faculty and Students must park in designated team member parking areas and the parking permit must be visible and displayed while on the Provider's property.

#### 21. Responsibilities of Provider. The Provider shall:

- 21.1 Appropriately inform and orient internal Provider employees about the Student Clinical Interns, their roles and responsibilities, access to patient records and other related activities. The Provider will not ask Student Clinical Interns to perform duties outside their scope of practice or to perform activities that were not included in the Agreement.
- 21.2 Work with the University to develop a plan to inform individuals that could benefit from the disciplines or modalities offered under this Agreement about upcoming educational events.
- 21.3 Identify a point of contact for the University who will serve as contact person for this project.
- 21.4. Accept Students for each clinical experience in the academic programs established under this Agreement.
- 21.5. Retain absolute control over its facilities and the care of its patients, except that Faculty Supervisors shall have responsibility for supervising Students as provided in this Agreement;
- 21.6 Provide the facilities and qualified personnel required for each clinical experience under this Agreement, including a designated team member who will be available to the Student Clinical Interns and Faculty Supervisors during the clinical experience;
- 21.7. If requested by the University, provide the University with input on the Student Clinical Interns' academic progress with regard to the clinical experience;
- 21.8 Inform the University of any changes to the services or operation of Provider's facilities that will affect the clinical experience;
- 21.9. Provide Students and Faculty with all necessary training and orientation regarding the Provider's policies, procedures, systems and tools for maintaining medical records, and risk management/safety; and
- 21.10. Provide emergency medical care to Students and Faculty for injuries that may occur while the Student or Faculty is participating in a clinical experience at Provider's facilities. The Faculty and Students will be covered by the Occupational Health Service policies on the same basis as Provider's team members. Health Service includes prophylaxis and exposure investigation follow-up for blood borne diseases following accidental exposure as defined in the Hospitals' Bloodborne Pathogen Exposure Control Plan. The Provider will not be responsible for payment for prophylaxis for the Students or Faculty Members.

#### 22. Provider's Insurance.

- 22.1 The Provider shall maintain, throughout the term of this Agreement, professional liability insurance that covers its officers, trustees, directors, agents and employees involved in the clinical experience.
- 22.2 The Provider agrees to carry professional liability insurance with minimum limits of one million dollars (\$1,000,000) per occurrence or claim, and three million dollars (\$3,000,000) annual aggregate and will supply the University with a copy of the current insurance certificates immediately upon request.
- 22.3 The Provider agrees to carry workers compensation insurance that meets statutory requirements of the State of Maryland.
- 22.4 The Provider shall promptly notify the University of any claim that has been filed against its employees or agents as a result of the University's Students or Faculty Members participating in any clinical training.

#### 23. Provider's Indemnification of University.

The Provider shall indemnify and hold harmless the University, its officers, trustees, directors, agents, employees, students and faculty from any claims, injuries, losses or demands caused by the negligent or willful misconduct of its employees or agents during the clinical training and any attorneys fees associated with those claims, injuries, losses or demands. The University will promptly notify the Provider of any claim for which it seeks indemnity under this Section.

#### 24. Term and Termination of Agreement.

24,1 This Agreement shall comme	ence on	, 20	_ and end on	
, 20 There	after, this Agreem	ent is auto	matically renewable	e for one-
year periods for up to 5 years after	er which time the	Agreement	: will terminate unle	ess
extended by the parties in writing	<b>[.</b>			

24.2. Either party upon sixty (60) calendar days notice may terminate this Agreement for any reason or no reason; provided, however, if notice of termination is given by the Provider during any of the University's academic trimesters and such notice is not provided as a result of a breach of this Agreement by the University, Student Clinical Interns currently assigned to the Provider's facilities for that trimester will be provided the opportunity to continue their clinical experience through the end of that trimester, subject to the requirements of this Agreement.

#### 25. Research Collaboration Opportunities.

Both parties will work together to identify, establish and support opportunities for research collaboration, where available. As an institution of higher education, the University is committed to advancing scholarship and building the evidence-base related to integrative practices. Ranked faculty members are obligated to engage in scholarship, and the University's students are increasingly interested in gaining research experience during their studies. Where research interests overlap between institutions, the formation of collaborative working groups can be

used to help identify appropriate mechanisms for evaluating the impact of integrated services. Where research infrastructure exists, it will be made available to individuals from both parties in order to foster greater efficiency and rigor. Both parties will also encourage guest lectures and presentations to students and other faculty in order to capitalize on the diverse expertise within each institution. Any publications resulting from collaborative scholarship with result in shared authorship between members of both institutions.

#### 26. Evaluation.

The parties agree to collaborate regarding establishing methods to evaluate the effectiveness of the education of patients and staff, the students' clinical experience, and the clinical services provided to patients, as well as the viability and sustainability of the education and clinical services.

#### 27. Miscellaneous.

- 27.1. Discrimination. Each Party warrants that it is an equal opportunity employer and does not discriminate with regard to race, color, gender, gender identity, sexual orientation, sexual identity, religion, creed, ancestry, age, marital status, pregnancy, citizenship, national or ethnic origin, genetic information, disability, or any other characteristic protected by law with regard to the provision of services, use of facilities, and/or assignment of personnel. Neither party shall discriminate with respect to acceptance of qualified Students or with respect to instruction of such Students during their clinical training. Receipt by either Party of evidence of such discrimination shall be cause for immediate termination of this Agreement. The Parties agree to maintain the privacy and security of personally identifiable education records and health information and to prevent disclosure in compliance with State and Federal laws.
- 27.2 The parties agree to report appropriate information (including but not limited to suspected child abuse and/or neglect, imminent threat of danger to self or others, and abuse of vulnerable adults) as mandated by applicable laws.
- 27.3. Policy Conflicts. Where areas of differences exist or occur in policies, procedures, rules, regulations or questions of clinical or medical practices (collectively, "Policies") of Hospital and University, Hospital's Policies shall prevail. In the event that a material conflict arises between the Parties' Policies, the Parties agree to discuss and determine whether either or both Parties' Policies may be appropriately modified to eliminate the conflict, any such modification to be made in the applicable Party's sole and absolute discretion.
- 27.4. No amendment or modification of or addendum to this Agreement shall be effective unless in writing and executed by authorized representatives of the parties hereto.
- 27.5. Governing Law. This Agreement shall be governed by, construed and interpreted in accordance with the laws of the State of Maryland.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their respective authorized officers as of the day, month, and year as stated in the first paragraph of this Agreement.

PROVIDER	
BY:	Date:
UNIVERSITY Maryland University of Integrative Maryland 20723	Health, Inc. 7750 Montpelier Road Laurel,
President and Chief Executive Officer	 Date:
P:\DIV 53 - Compliance\Legal\Contracts\00 - For Agreement_100215.doc 11	rms\Hospital Affiliations\FORM - Hospital Affiliation

# **Appendix D**MUIH and Principles of Good Practice for Distance Education

#### 1. Curriculum and Instruction

### (i) A distance education program shall be established and overseen by qualified faculty.

MUIH faculty have Master's, doctoral, or professional degrees and academic, clinical, or practical expertise in the content areas of the courses they are assigned to teach. Online and blended programs are established and overseen through a collaborative process that includes such qualified faculty. Each program is led by an Academic Director or Program Director, who is also a faculty member. Larger programs include faculty positions such as Director of Academic Development and Division Chair, who lead particular academic aspects of their programs. Curriculum committees composed of faculty members exist in each academic department to oversee courses and programs, including those that involve online and blended delivery methods.

A comprehensive program review of each program in the University is conducted every five years, involving program faculty and using internal and external experts. The University Curriculum Committee, which includes representation from the Faculty Senate, provides integrated and institutional oversight of courses and programs, including online or blended offerings.

## (ii) A program's curriculum shall be coherent, cohesive, and comparable in academic rigor to programs offered in traditional instructional formats.

MUIH's curricula, regardless of delivery format, are designed in consultation with experts in the field, MUIH's qualified faculty, and external environmental scanning and workforce needs analyses to ensure coherence, cohesiveness, and academic rigor. The curriculum, learning outcomes, and academic expectations of faculty and students of a program, regardless of the delivery format, are the same and are overseen and approved by the same program faculty and curriculum committees. They are also overseen by the same University bodies including the University Curriculum Committee, Faculty Senate, Executive Management Committee, and the Board of Trustees.

## (iii) A program shall result in learning outcomes appropriate to the rigor and breadth of the program.

Program learning outcomes are developed based on input from MUIH's qualified faculty and academic leaders, consultation with expert professionals in the field, and external environmental scanning and workforce needs analyses. The academic rigor and expectations of programs, regardless of their delivery format, are aligned with the nationally recognized standards specified by the Council of Graduate Schools and the Lumina Foundation's Degree Qualification Profile (DQP). The content, learning outcomes, rigor, depth, and breadth of programs, regardless of their delivery format, are also aligned with external program-specific accrediting and curriculum-guiding bodies, where available. These

include the Council on Naturopathic Medical Education (CNME), Council of Chief Academic and Clinical Officers of the Association of Accredited Naturopathic Medical Colleges (AANMC), Accreditation Commission for Acupuncture and Oriental Medicine (ACAOM), Accreditation Council for Nutrition Professional Education (ACNPE), Board for Certification of Nutrition Specialists (BCNS), International Coach Federation (ICF), National Consortium for Credentialing Health and Wellness Coaches (NCCHWC), Certified Health Education Specialist (CHES) examination of the National Commission for Health Education Credentialing (NCHEC), and International Association of Yoga Therapists (IAYT).

### (iv) A program shall provide for appropriate real-time or delayed interaction between faculty and students.

Online and blended courses and programs are delivered using the Canvas Learning Management System (LMS). This platform supports asynchronous interaction between faculty and students through a variety of embedded tools. Faculty and students also have the opportunity for synchronous interaction using the Big Blue Button web conferencing system, which can be directly accessed from the Canvas online classroom.

MUIH develops its online and blended courses according to the "master course philosophy." For each online and blended course, a master version is developed, with components and activities designed to foster ongoing engagement between faculty and students. These components include online asynchronous discussion forms and synchronous lectures, chats, and office hours. Appropriate asynchronous and synchronous interactions between faculty and students are designed and included in online and blended courses as guided by Standard 4 (Instructional Materials) and Standard 5 (Course Activities and Learner Engagement) of the Quality Matters Rubric.

# (v) Faculty members in appropriate disciplines in collaboration with other institutional personnel shall participate in the design of courses offered through a distance education program.

MUIH uses a collaborative team approach to develop its online and blended courses. Faculty subject matter experts (SMEs) design, develop and offer online and blended courses appropriate to the mission and objectives of the program. Faculty SMEs are selected based on their discipline expertise, professional and teaching experience, and their completion of onboarding and training activities for online and blended faculty. Academic and Program Directors, who are also faculty members, lead the course development teams and guide and collaborate with the faculty SMEs.

The Center for Teaching and Learning (CTL) supports the faculty SMEs and academic departments in online and blended course development, and in teaching and assessing the quality of online and blended learning. The Center's instructional designers, instructional technologists, digital learning specialists, multimedia specialists, and learning management system administrator are collaborative members of the online and blended course development teams. The Center's Assistant Provost provides oversight and guidance for the course development teams, who are also supported by the Assistant Provost for Academic Assessment and Accreditation.

The University develops its online and blended courses according to the "master course philosophy," developing and maintaining a master version of each online and blended course. The master version contains certain course components as determined by the University's academic leadership, including the learning outcomes, a syllabus, content learning modules, reading assignments, key learning objects, and key assessment tools, thus ensuring consistency of delivery of online and blended courses and allowing more precise assessment across various occurrences/sections of online and blended courses. Each instructor of online and blended courses receives a copy of the master course and reviews it to determine whether any edits are necessary. The faculty then make all appropriate edits to the master course, and each instructor supplements the master course with his/her unique teaching materials, including discussion forums and other activities.

#### 2. Role and Mission

### (i) A distance education program shall be consistent with the institution's mission.

MUIH's mission is ... "A distinctive community of scholars, researchers, practitioners, and advocates, Maryland University of Integrative Health promotes whole person, relationship-centered healthcare. Through discovery and exploration, we deliver progressive educational programs, advance innovative clinical models, build mutually beneficial partnerships, and provide opportunities for fulfilling careers." All of MUIH's programs, regardless of their delivery method, are aligned with this mission and emphasize innovative and progressive practices and philosophies in the emergent fields of integrative health.

While such programs constitute the foundation and core of MUIH's academic offerings, they are unique among other colleges and universities across Maryland, the Mid-Atlantic region, and the United States. To ensure consistency with the university's mission, new programs are developed according to a process flowchart that emphasizes cross-functional input at early and frequent decision points, from initial exploration to program launch. In addition to faculty, academic program leadership, the Faculty Senate, and program and university curriculum committees, the Executive Management Committee provides a further level of oversight with respect to institutional mission alignment and the impact and integration of the curriculum with student affairs, admissions, marketing, budget and finance, facilities and technology, and legal and compliance issues.

# (ii) Review and approval processes shall ensure the appropriateness of the technology being used to meet a program's objectives.

As part of the online and blended course development process, the development team conducts a review of technology needs and potential uses in the course and program. Technologies are selected for inclusion based on their ability to support the achievement of the course learning objectives, alignment with the discipline, and the principles of Standard 6 (Course Technology) and Standard 8 (Accessibility and Usability) of the Quality Matters Rubric.

All online and blended courses are designed with the support of instructional designers, instructional technologists, digital learning specialists, multimedia specialists, and learning management system administrators. These specialists assist faculty and the Academic and Program Directors in identifying and recommending the most effective learning technologies to facilitate and achieve the course's learning objectives. The Academic and Program Directors and the Assistant Provost of CTL use these recommendations to approve the inclusion of particular technologies in particular online and blended courses.

The adoption of new learning technologies across the curriculum is considered by the Academic Leadership Council (ALC) in collaboration with the Director of Information Technology. The ALC is composed of the Provost, all Associate and Assistant Provosts, and all of the Academic and Program Directors, who are faculty members.

#### 3. Faculty Support

(i.) An institution shall provide for training for faculty who teach with the use of technology in a distance education format, including training in the learning management system and the pedagogy of distance education.

Faculty developing and teaching online and blended courses are supported by CTL (The Center for Teaching and Learning), which provides both group and one-on-one support. CTL recognizes the central role of teaching and learning at MUIH and its deep commitment to academic excellence. Its activities and initiatives, designed to enhance students' learning experience and support faculty teaching excellence in all disciplines and formats, include: fostering quality and innovation in pedagogical approaches, the meaningful use of technology in teaching and learning, the role of assessment in teaching and learning, the scholarship of teaching and learning, and the application of learning science and research.

CTL comprises an integrated set of units: the digital learning team of instructional designers, instructional technologists, digital learning specialists, and multimedia specialists; the learning management system (LMS) administration team; the faculty onboarding and engagement team; and the faculty professional development team. It is led by an Assistant Provost, who provides oversight for all online and blended course developments and for faculty training and professional development.

Before beginning their first online or blended course development or teaching assignment, MUIH requires faculty to complete the Best Practices in Online/Blended training focused on online pedagogy/andragogy, the Canvas LMS training, Big Blue Button web conferencing training, and one-on-one consultation tailored to their individualized needs, all provided by CTL. These faculty are also provided the Quality Matters Rubric as a guiding resource and access to 24/7 support through the Canvas Help Desk. Faculty developing and teaching online and blended classes also have with ongoing opportunities for professional development through various face-to-face and online webinars, workshops, trainings, and conferences.

# (ii.) Principles of best practice for teaching in a distance education format shall be developed and maintained by the faculty.

MUIH's principles of best practice for developing and teaching online and blended courses are based on nationally recognized research-based standards, including those of Quality Matters, the Online Learning Consortium (OLC), EDUCAUSE, WICHE Cooperative for Educational Technologies (WCET), National University Technology Network (NUTN), the Middle States Commission on Higher Education, and the Council of Regional Accrediting Commissions (C-RAC). Ongoing opportunities for the dissemination of best practices in online and blended course development and teaching are coordinated jointly by CTL and the Faculty Development subcommittee of the Faculty Senate. Such opportunities include the Annual All Faculty Meeting, the Faculty Explorations Webinar Series, program-specific faculty meetings, and informal faculty peer review, shadowing, and mentoring activities. These activities highlight the best practices of MUIH's faculty teaching online and blended courses in areas such as differential pedagogies for face-to-face, online, blended, and digitally-enhanced teaching and learning; student learning outcomes assessment; strategies that foster student engagement; and the effective use of the Canvas LMS and other learning technologies.

### (iii.) An institution shall provide faculty support services specifically related to teaching through a distance education format.

Faculty who teach online and blended courses are provided the extensive training and support specifically related to online and blended teaching that are detailed in section 3.i. In addition, they have access to the same support services as faculty who teach face-to-face classes.

Through online and other digital means, CTL's faculty onboarding and engagement team provides support to online and blended course faculty through their transition from recruitment and hiring, to onboarding and orientation, to teaching and university engagement. Faculty teaching online and blended courses have online and other remote access to the university's library, student academic advising office, student academic support office, student information system, Registrar, academic program leadership and support staff, human resources office, and 24/7 Canvas support. Through online and other remote means, faculty teaching online and blended courses have the opportunity to participate in ongoing university activities such as the All Staff, Faculty Senate, and academic program meetings; faculty journal club; academic, administrative, and search committees and working groups; and trainings and professional development activities.

#### 4. Appropriate Learning Resources

An institution shall ensure that appropriate learning resources are available to students including appropriate and adequate library services and resources.

Students enrolled in online and blended courses have online and other remote access to the Library, Student Academic Support office, and Program Community Sites. The University

provides online support for faculty and students with an enhanced integrated and online library system, and the Library continues to expand to support all modalities of teaching and learning as well as enrollment growth. The Library's computerized systems and licensing agreements with vendors permit access to online and open-access journals and other free Internet resources, as well as selected journal articles from individual subscriptions and from the Library's EBSCO host databases. The Library uses the National Library of Medicine's Docline service for document delivery. When the Library does not own an article, it can be obtained in a timely manner for faculty and students through the Library's use of Docline. The Library also conducts the MUIH550 Academic Research and Scholarship noncredit course that required of all students during their first trimester at MUIH; this course is available online to all students.

All Canvas classrooms contain a direct link to the Library. In addition, each department maintains a Community Site in the Canvas LMS for all students enrolled in its programs. These sites contain learning resources that cut across the program, access to a selected online course learning modules, and resources that assist students in their study and practice for national licensing exams.

The Student Academic Support office conducts the online University Wide Orientation, which provides an introduction to academic resources. The office also provides individualized academic success support to students who are either self-directed or referred by faculty. Such services include writing and scientific tutoring, study skills, and academic success strategies and planning.

#### 5. Students and Student Services

(i.) A distance education program shall provide students with clear, complete, and timely information on the curriculum, course and degree requirements, nature of faculty/student interaction, assumptions about technology competence and skills, technical equipment requirements, learning management system, availability of academic support services and financial aid resources, and costs and payment policies.

MUIH's public website (<a href="www.muih.edu">www.muih.edu</a>) and password-protected portal (MyMUIH) provide all students with information regarding their curriculum, course and degree requirements, tuition and fees, payment policies and procedures, financial aid resources, academic advising and support services, and all university academic policies. The website and portal also provide information about online and blended course expectations, technical skills, hardware and software requirements for online and blended courses, and access to the Canvas LMS, tutorials, and 24/7 help desk. These aspects are also provided in the online University Wide Orientation and students' academic program online orientation, both of which are required for new online and blended learning students, as well as students' online Program Community Site. MUIH's online and blended courses are also designed to provide access to such information through the Syllabus and course information, as specified by Standard 1 (Course Overview and Introduction) and Standard 7 (Learner Support) of the Quality Matters Rubric.

### (ii.) Enrolled students shall have reasonable and adequate access to the range of student services to support their distance education activities.

MUIH's public website (www.muih.edu) and password-protected portal (MyMUIH) provide all students with information regarding student services including registration dates and processes, disability support services, student complaint and grievance processes, graduation and commencement application and review, textbook and instructional material purchasing, as well as all university administrative policies. This information and access are also provided in the online University Wide Orientation and students' academic program online orientation, both of which are required for new online and blended learning students, as well as students' online Program Community Site. MUIH's online and blended courses are also designed to provide access to such information through the Syllabus and course information, as specified by Standard 1 (Course Overview and Introduction) and Standard 7 (Learner Support) of the Quality Matters Rubric.

# (iii) Accepted students shall have the background, knowledge, and technical skills needed to undertake a distance education program.

The same admissions requirements and criteria apply to all students in a particular program, regardless of the program's delivery format. Prior to admission, prospective students are invited to participate in open houses, webinars, and interviews to learn about the nature of online and blended courses and to determine whether the online learning environmental is suitable to their circumstances and learning style. All new students are required to complete the online MUIH550 Academic Research and Scholarship non-credit course and the online University Wide Orientation, which includes an introduction to the university's academic resources, academic success and planning strategies, and strategies for being a successful online student.

### (iv) Advertising, recruiting, and admissions materials shall clearly and accurately represent the program and the services available.

All relevant program information is kept up-to-date on the university's public website (<a href="www.muih.edu">www.muih.edu</a>); print, online, social, and broadcast media; open house presentations and materials; online informational webinar presentations; campus visitation materials; and information tables at off-campus education fairs and conferences.

#### 6. Commitment to Support

## (i.) Policies for faculty evaluation shall include appropriate consideration of teaching and scholarly activities related to distance education programs.

The criteria for faculty appointment, evaluation, rank, and promotion are the same regardless of the delivery method in which the faculty member teaches. With respect to faculty workload and the number of credits taught annually, online or blended courses are weighted the same as face-to-face instruction. Faculty, including ranked faculty, who teach online or blended courses are eligible and encouraged to participate in scholarly activities, including those related to distance education.

# (ii.) An institution shall demonstrate a commitment to ongoing support, both financial and technical, and to continuation of a program for a period sufficient to enable students to complete a degree or certificate.

The University's five-year strategic plan includes innovative course and program delivery formats such as online, blended, and digitally-enhanced learning to provide flexible and accessible programs. The university's budget, directly linked to its strategic plan and approved annually by the Board of Trustees, outlines all resource requirements (financial, personnel, administrative, support, compliance, and technical) to maintain and grow. As part of its commitment to the sustainability of online and blended teaching and learning, MUIH maintains a rolling annual online and blended course development schedule. It adheres to the nationally recognized Hallmarks of the Excellence in Online Leadership specified by the University Professional and Continuing Education Association (UPCEA) and the Quality Scorecard: Criteria for Excellence in the Administration of Online Programs specified by the Online Learning Consortium (OLC).

In the event that the University decides to cease admitting students for an academic program, it will ensure that courses continue to be offered to allow students already enrolled in that program to complete their degree or certificate.

#### 7. Evaluation and Assessment

(i.) An institution shall evaluate a distance education program's educational effectiveness, including assessments of student learning outcomes, student retention, student and faculty satisfaction, and cost-effectiveness.

MUIH administers a standardized online student evaluation process at the end of each trimester for all courses, using the IDEA course evaluation tool and Campus Labs online platform. Individual faculty members may also add course-specific items to the standardized evaluation instrument. Faculty members have access to the results of their student course evaluation results. Academic and Program Directors also have access to the student course evaluation results of the faculty teaching courses in their department/program. The Directors review and discuss these results with faculty on an ongoing basis, and use these results to guide referrals of faculty for additional support, future staffing assignments, and recommendations for appointment, rank, and promotion.

When an online or blended course first launches, the design team continually monitors it, and consults with the instructors and Academic and Program Directors to make adjustments to the course as needed. Academic and Program Directors, in collaboration with faculty in their department/program, review the curriculum, learning objectives, and learning outcome results of all courses, regardless of the delivery format, on an annual basis. Any needed substantive curricular changes are reviewed and approved by the faculty, department curriculum committee, and University curriculum committee. Any needed changes to the online or blended course Syllabus, course structure, learning modules, activities, instructional materials, or assessments are reviewed with CTL, and placed on the university's annual online and blended course development schedule.

Enrollments and retention rates for all programs, specific to each delivery format, and their impact on the university's budget are tracked and analyzed on an ongoing basis by the university's Vice Presidents, Associate Vice President for Enrollment Management, and the Academic and Program Directors. The results of comprehensive exams and projects, clinical evaluations, portfolios, peer-to-peer evaluations, patient outcomes and feedback, licensure examinations, and graduate surveys for all programs, specific to each delivery format, are also tracked and analyzed. The results of all such reports are used to make adjustments as needed in online and blended courses and programs with respect to curriculum, course development, student and faculty support, staffing, library and technology resources, marketing, recruitment and admissions, tuition/fees and budget, new course and program development, and course and program discontinuation.

# (ii.) An institution shall demonstrate an evidence-based approach to best online teaching practices.

MUIH's principles of best practice for developing and teaching online and blended courses are based on nationally recognized research-based standards, including those of Quality Matters, the Online Learning Consortium (OLC), EDUCAUSE, WICHE Cooperative for Educational Technologies (WCET), National University Technology Network (NUTN), the Middle States Commission on Higher Education, and the Council of Regional Accrediting Commissions (C-RAC). CTL and the academic leadership continually participate in professional development activities to keep abreast of evidence-based approaches in online and blended teaching and learning practices. When appropriate, such opportunities are also provided to faculty. These online and blended teaching practices are then incorporated into faculty, student, and course development practices conducted by CTL, the Faculty Senate, and academic programs.

## (iii.) An institution shall provide for assessment and documentation of student achievement of learning outcomes in a distance education program.

Online and blended courses are included in the university's overarching academic assessment plan. Expected student learning outcomes are clearly stated centrally and in syllabi at the course and programmatic levels, and are the same for each course regardless of the delivery format of each section of the course. With MUIH's master course philosophy, consistent delivery of certain content and utilization of common key assessment tools allows more precise learning outcomes assessment across various occurrences or sections of the online course. As part of the standard online and blended course design process at MUIH, course assessments are required to be aligned with the stated course learning outcomes, as specified by Standard 2 (Learning Objectives/Competencies) and Standard 3 (Assessment and Measurement) of the Quality Matters Rubric.

The Academic and Program Directors, in collaboration with the Learning Outcomes Assessment Team (LOAT), Assistant Provost for Academic Assessment and Accreditation, and Assistant Provost of CTL compare attainment of course and programmatic learning objectives by students in online, blended, and face-to-face courses, reporting this data to the Provost to ensure its inclusion in continuous assessment of the University's courses and programs. Any needed changes to the online or blended courses, revealed by learning

outcome discrepancies with the face-to-face instances of the same course, are reviewed with CTL, and placed on the university's annual online and blended course development schedule.

# Appendix E Representative Faculty for the ND Program

#### **Academic Administrators with Teaching Responsibilities:**

Elizabeth Pimentel, ND

**Founding Dean, School of Naturopathic Medicine Possible Courses:** NMPP501, NMPP520, NMCE826

Dr. Pimentel is the founding Dean of MUIH's planned School of Naturopathic Medicine and has recently taken the lead on curriculum development, accreditation, state approval and faculty recruitment. Dr. Pimentel joined MUIH from University of Bridgeport College of Naturopathic Medicine (UBCNM), where she served as Clinical Assistant Professor, Associate Dean for Academic Affairs, and Dean of the College, serving to enhance program development, improve student learning, champion strategic initiatives within the community, and increase inter- and intra-institutional collaboration. She consulted with the Connecticut Department of Public Health on issues related to naturopathic practice, and advocated for modernization of the regulatory statutes relevant to the naturopathic profession in the state. Dr. Pimentel received her Doctorate of Naturopathic Medicine and Certificate in Midwifery from Bastyr University in 1995 and 1996, respectively. Her experience spans private and multidisciplinary integrative practice settings, community public health initiatives, interdisciplinary collaboration, legislative advocacy, and program development. Dr. Pimentel presently serves as Board Member on the North American Board of Naturopathic Examiners and on the Academic Collaborative for Integrative Health and is an Accreditation Evaluator for the Council on Naturopathic Medical Education.

Kathleen Warner, PhD Academic Director and Professor, MUIH Possible Courses: NMBS503

Dr. Warner is Academic Director of the Nutrition and Integrative Health program at Maryland University of Integrative Health (MUIH). Previously, she was associate dean of academic affairs and curricula in the Undergraduate School of University of Maryland University College (UMUC). She joined UMUC in 2002 as the assistant director of science and was named the director of science in 2004, and then served as the assistant dean of Social, Behavioral, Natural and Mathematical Sciences from 2007 to 2012, before becoming associate dean. At UMUC, she worked on university-wide assessment of science literacy and new course and program design. She also served as the principal investigator on an NSF-CCLI grant to construct a Virtual Chesapeake Bay Watershed Science Center, as the co-investigator for a Next Generation Learning Challenges grant with the Open University of the United Kingdom and Anne Arundel Community College, and as co-PI on a Carnegie Corporation grant to redesign three Open Learning Initiative courses for UMUC students. Prior to UMUC, she was a research fellow at the Uniformed Services University in Microbiology and Immunology, doing research on the molecular biology of the cell surface of gram-negative bacteria. She has been an adjunct faculty member at Marymount University, College of Southern Maryland and Montgomery College.

James Snow, MA, RH (AHG)

Assistant Provost for Academic Research and Academic Director, MUIH

Possible Courses: NMCI509, NMIH505

James Snow is Assistant Provost for Academic Research and Academic Director for Integrative Health Sciences at Maryland University of Integrative Health (MUIH). He has worked as a clinician and educator in the field of Western herbal medicine and has twenty-five years of experience merging modern scientific perspectives with traditional explanatory models of healing. At MUIH, Mr. Snow's work focuses on enhancing research literacy and capacity among complementary and integrative health faculty. Mr. Snow has conducted and published research on the cognitive effects of rosemary (*Rosmarinus officinalis*), the development of a questionnaire to measure wellness, and the role of context effects in Western herbal medicine. Current research projects include patient-reported health outcomes in yoga therapy as well as the attitudes and use of evidence-informed practice among complementary and integrative health practitioners.

Christina Sax, PhD

Provost and Vice President of Academic Affairs and Professor, MUIH

Possible Courses: NMBS523, NMCI521

Dr. Sax earned a Bachelor of Science degree in microbiology with high distinction in research from the University of Rochester in Rochester, NY. She earned a PhD in human genetics from the Medical College of Virginia in Richmond, VA, including a two-year rotation in the genetic counseling clinic. She has eleven years experience as a research scientist at the National Eye Institute (NEI) of the National Institutes of Health (NIH) with a specialty in molecular biology, genetics, and gene expression, and a record of 36 peer-reviewed scientific research publications. Dr. Sax has 26 years of experience as a faculty member at the professional, graduate, and undergraduate levels, with specializations in science education, online education, and academic innovation. She was the Founding Co-Director of the nationally recognized and award-winning Quality Matters Program, and the Collective for Academic Innovation and Transformation. She has also been engaged in national science education initiatives including the National Center for Case Study Teaching in Science, the Science Education Resources Working Group of the NIH Office of Science Education, the National Academy of Sciences-Smithsonian Institution Curriculum Review Panel, and the American Association of Colleges & Universities Science Education for New Civic Engagements and Responsibilities Program, Dr. Sax is the recipient of twelve national and regional awards in online education.

Steffany Moonaz, PhD

Assistant Director for Academic Research, MUIH

Possible Courses: NMIH605, NMIH727

Dr. Moonaz is a yoga therapist and researcher in Baltimore, MD and serves as Assistant Director of Academic Research at the Maryland University of Integrative Health. She completed undergraduate work in biology and dance at Oberlin College, earned a MFA from University of Maryland as well as a CMA from the Laban Institute, and spent seven years at Johns Hopkins University, helping to develop and evaluate a yoga program for individuals with the chronic diseases of rheumatoid arthritis and osteoarthritis, which became the basis for her PhD in public health. This work is currently being replicated at the National Institutes of Health through intramural research collaboration. Dr. Moonaz serves as a mentor for several emerging

researchers in complementary and integrative health disciplines and is leading the development of yoga research reporting guidelines.

#### **Current Ranked Faculty**

Elizabeth Lipski, PhD, CCN, CHN, IFM Professor and Director of Academic Development, MUIH

**Possible Courses:** NMTH523

Dr. Lipski is a Professor and the Director of Academic Development for the graduate programs in Nutrition and Integrative Health at Maryland University of Integrative Health. Dr. Lipski holds a PhD in Clinical Nutrition with specialization in Integrative Medicine from the Union Institute, three board certifications in clinical nutrition and one in functional medicine. She has been working in the field of integrative and functional medicine for over 30 years and is on the faculty for the Institute for Functional Medicine, the Metabolic Medicine Institute fellowship program. She sits on the Scientific Advisory Board of the Neurological Health Foundation, advisory boards for Certified International Health Coaches, and the Autism Hope Alliance. Dr. Lipski has been published in peer-reviewed journals including Nutrition in Clinical Practice and Integrative Medicine: A Clinician's Journal, and is the author of several books on digestive wellness. She co-authored the Gastrointestinal chapter for the American Board of Integrative Health and Medicine study guide and is a contributing author for *Integrative Gastroenterology*. She is the founder of Innovative Healing, where she offers webinar-based Mentoring Programs and Advanced Nutrition Forums for nutritionists, dietitians, and other clinicians.

#### Heming Zhu, MAc, PhD, CMD, MD (China), LAc **Professor and Division Chair, MUIH**

Possible Courses: NMCS601

Dr. Zhu is currently Professor of Integrative Health Sciences and Division Chair of Integrative Health Sciences, AOM Program. Dr. Zhu holds a Master of Acupuncture from Tai Sophia Institute and a PhD of Anatomy and Neuroscience from Tongii Medical University, and was awarded the international certificate of Chinese Medicine Doctor (CMD) by the World Federation of Chinese Medicine Societies (WFCMS). He studied conventional medicine in medical school in China and also received training in traditional Chinese medicine. He maintains his private practice of acupuncture and Chinese medicine in Columbia, Maryland.

Bryan Walsh, ND Associate Professor, MUIH Possible Courses: NMCI509

Dr. Walsh holds a degree in Naturopathic Medicine from the University of Bridgeport College of Naturopathic Medicine. He is a co-owner of Rescue My Health, LLC, where he maintains a private practice in Ellicott, Maryland. He is a guest lecturer at the University of Maryland School of Medicine, has been a presenter at national conferences, lectures nationally to healthcare professionals, and has been an advisor to a number of wellness companies.

Bevin Clare, MS, RH, CNS Associate Professor and Program Manager, MUIH

Possible Courses: NMTH510

Bevin Clare is a clinical herbalist, nutritionist, and Associate Professor in Clinical Herbalism at MUIH, with expertise in on herbal medicine, nutrition, and teaching pedagogy. She holds a MSc in Infectious Disease from the London School of Hygiene and Tropical Medicine and serves as an adjunct Assistant Professor at the Massachusetts College of Pharmacy in Boston. Prof. Clare is the president of the American Herbalists Guild, the largest body of professional clinical herbalists in the US, and founder of the Herbal Clinic for All program, providing cost-free herbal medicine healthcare since 2007. She is a board member of the United Plant Savers, a group working to protect at-risk medicinal plants in North America.

Mary Fry, ND Associate Professor, MUIH Possible Courses: NMPP523, NMIH514

Dr. Fry received her undergraduate degree in Nutritional Biochemistry from McGill University and a doctoral degree in Naturopathic Medicine, with additional certificates in Homeopathy and Shiatsu, from National College of Natural Medicine in Portland, Oregon. Following her naturopathic studies, she completed a National Center for Complementary and Integrative Health postdoctoral research fellowship with NIH in the Department of Psychiatry at Oregon Health & Science University. She has designed and taught a wide variety of nutrition and natural medicine classes online since 2009. Dr. Fry is a certified Master Reviewer for Quality Matters and has led several review teams in the evaluation of online curriculum nationwide. She owns and maintains a private practice focusing on Naturopathic Mental Healthcare, A Healthy State of Mind, LLC.

Sylvia Regalla, MD Instructor, MUIH Possible Courses: NMCS726, NMTH719

Dr. Sylvia H. Regalla earned her Bachelor of Arts degree in biology and her Doctor of Medicine from the State University of New York at Buffalo. Her training in Internal Medicine was also completed in Buffalo, NY. Dr. Regalla has also earned a Master's degree in Applied Clinical Nutrition and has has practiced internal medicine for more than 25 years. In addition to her role as Clinical Assistant Professor of Medicine at UB, she is Adjunct Professor of Nutrition at the New York Chiropractic College and a member of the New York Academy of Sciences, the Medical Society of the State of New York, and American College of Physicians. She is licensed to practice medicine in the State of New York and currently specializes in functional medicine, nutritional medicine and nutrigenomics.

#### **Current Adjunct Faculty**

Marybeth Missenda, MS, RPh, CNSC Adjunct Faculty, MUIH Possible Courses: NMTH523 Marybeth Missenda has over 20 years of experience as a health system pharmacist specializing in Parenteral Nutrition and medication therapy management. With a BS in Pharmacy from Duquesne University and a Master's in Nutrition and Integrative Health from Maryland University of Integrative Health, she has worked with the World Health Organization in its Essential Drug Program in Haiti and as a director of pharmacy on the island of Montserrat. Prof. Missenda has been teaching at the graduate level since 2013 and currently teaches in MUIH's Integrative Science and Herbal Medicine departments at the Maryland University of Integrative Health. She teaches both online and face-to-face courses and collaborated in the development of the University's Introduction to Complementary and Integrative Health course.

#### **Other Potential Faculty**

Nicole Absar, MD

Possible Courses: NMTH719, NMIH714

Dr. Absar is the Medical Director of the Copper Ridge Memory Clinic. She is a diplomate in behavioral neurology and neuropsychiatry and certified by the American Board of Psychiatry and Neurology (ABPN) and American Board of Psychosomatic Medicine, a fellow of the American Psychiatric Association (FAPA) and an active member of the American Academy of Neurology (AAN), the American Neuropsychiatric Association (ANPA) and the American Medical Association (AMA). She has practiced Geriatric Neuropsychiatry and taught at the Harvard Medical School, University of Massachusetts Medical School and Tufts Medical School. She is also a registered yoga teacher and specializes in Yoga Therapy for brain disorders.

#### Randy Gastwirt, PhD (ND Candidate)

Possible Courses: NMBS507, NMCI509, NMBS525

Dr. Gastwirt received his PhD in Biomedical Sciences from UC San Diego, completed a post-doctoral fellowship, and worked as an associate director of a biotechnology company. His graduate training focused on cell biology and biochemistry, specifically in cancer and included didactic, online, and direct experiential learning. He has taught health and wellness at the private and corporate level, yoga and fitness classes, science to underprivileged students and provided tutoring and assistant teaching at the graduate level. Dr. Gastwirt is presently completing the naturopathic program at Bastyr University in San Diego.

#### Janice Stefanacci Seward, PsyD

**Possible Courses: NMPP601** 

Dr. Seward is a Licensed Clinical Psychologist (NY and MA) specializing in integrative health psychology and alternative and complementary healing. For the past 7 years, Dr. Stefanacci Seward served as Adjunct Clinical Professor at University of Bridgeport College of Naturopathic Medicine and created curriculum in the areas of the physician-patient relationship, mind-body medicine, and developmental psychology. She also supervised students in the Mind-Body Clinic.

**Brad Lichtenstein, ND, BCB Possible Courses:** NMPP612

Dr. Lichtenstein has been a naturopathic physician in private practice and a professor at Bastyr University for over two decades. He received his doctorate of naturopathic medicine from Bastyr University and is board certified in biofeedback. Dr. Lichtenstein participated in a joint research study between the University of Washington and Bastyr University providing over 500 guided meditations to hospice patients, and he has published and speaks nationally on topics including stress-reduction, mindfulness and health, mind-body approaches to healing trauma, and issues surrounding end-of-life.

#### **Geovanni Espinosa, ND, Lac Possible Courses:** NMCS707

Dr. Espinosa is a naturopathic doctor and licensed acupuncturist, recognized as an authority in integrative and functional urology. He is the founder and director of the Integrative and Functional Urology Center at New York University Langone Medical Center (NYULMC) and lectures internationally on the application of integrative and functional medicine. He is the author of the book *Thrive, Don't Only Survive*, on prostate cancer.

## Carrie Runde-Paddock, ND Possible Courses: NMCS709

Dr. Runde has worked extensively in the conventional medical system -- as a research assistant in medical school and nursing school, a volunteer at a hospital and a primary care community clinic in Baltimore, and conducting clinical research at a large hospital in Boston. She earned her ND from Bastyr University in Seattle and completed a naturopathic residency program in integrative medicine at the GW Center for Integrative Medicine in Washington, DC. Dr. Runde is an active member of the American Association of Naturopathic Physicians, and served on their Board of Directors for five years. She is the immediate past Vice President of the Maryland Naturopathic Doctors Association, and currently serves on the Naturopathic Advisory Committee under the Maryland Board of Physicians.

### **Stephany Porter, ND Possible Courses:** NMCS609

Dr. Porter graduated from Bastyr University and joined an Integrative Medicine clinic in Montana. She was on the Board of the Montana Association of Naturopathic Doctors and the Board of the American Association of Naturopathic Physicians as the Speaker of the House. In 2006, Dr. Porter founded The Bodhi Clinic in Millersville, MD. She became president of the Maryland Naturopathic Doctors Association, and a Fellow of the American Board of Naturopathic Oncology (FABNO), and assisted in writing the questions for FABNO exams. In 2015, she served on a job analysis team to update the Certification Exam Blueprint for future FABNO exams. Dr. Porter has been a speaker at professional conventions like the American Assn of Naturopathic Physicians, Cancer Treatment Centers of America, Maryland Psychology Association, and various hospital tumor boards. She has taught courses to patients and the public concerning cancer, detoxification, the immune system and stress management, and served as adjunct faculty at Tai Sophia (now MUIH).

Erin Kinney, ND

Possible Courses: NMCE601, NMCE611

Dr. Kinney is a Naturopathic Doctor and the owner of KinnCare Naturopathic, specializing in caring for patients who suffer from anxiety, depression, gastro-intestinal disorders, and HPA-axis dysfunction. She received a bachelor of arts from Vanderbilt University and is a summa cum laude graduate of the University of Bridgeport College of Naturopathic Medicine (UBCNM). She also earned the Academic Excellence and the Outstanding Student Clinician awards chosen by the faculty. Dr. Kinney is currently vice president of the Maryland Naturopathic Doctors Association and an active member of the American Association of Naturopathic Physicians.

John Koloski, DC

Possible Courses: NMCS605, NMTH601, NMTH621

Dr. Koloski is a national board-certified chiropractor with a license to practice physical therapy in the state of Maryland. He completed pre-medical undergraduate studies at Boston's Northeastern University and his doctoral degree from the University of Bridgeport Chiropractic College in Connecticut, both with honors. Dr. Koloski is an active member of the Maryland Chiropractic Association and the American Chiropractic Association. Dr. Koloski specializes in the treatment of complex spinal conditions, including whiplash, disc disorders, and post-surgical pain management.

Kristaps Paddock, ND

Possible Courses: NMCS722

Dr. Paddock is co-founder and medical director of Charm City Natural Health. He received his bachelor's degree in American Studies from Tufts University and attended naturopathic medical school at Bastyr University in Kenmore, Washington. He also completed four years of training with the New England School of Homeopathy (NESH). Dr. Paddock is an active member of the American Association of Naturopathic Physicians (AANP) and Maryland Naturopathic Doctors Association (MNDA), where he currently serves as President.

**Emily Telfair, ND** 

Possible Courses: NMPM801, NMCE701

Dr. Telfair received her Doctorate of Naturopathic Medicine from Bastyr University in 2005, and practices as a naturopathic doctor in Baltimore, MD. She has served as both Vice-President and President of the Maryland Naturopathic Doctors Association and was instrumental in helping to pass legislation in 2014 making Maryland the 17th state to license naturopathic doctors. In August 2015, Dr. Telfair received the American Association of Naturopathic Medicine's President's Award in recognition of her efforts. She is now co-chair of the State Alliance Committee through the AANP.

Abigail Aiyepola, ND, CPM

Possible Courses: NMCS703, NMCS711

Dr. Aiyepola earned her degrees in naturopathic medicine and midwifery from Bastyr University and specializes in integrative gynecology, fertility and preconception management. She is the founder of Phenomenal Woman Initiative, an organization dedicated to educating women of all ages about their bodies, and has served as faculty at various institutions teaching women's health-related topics to medical and midwifery students. She currently serves as an executive board member of the Midwifery Education and Accreditation Council (MEAC), the International

Center for Traditional Childbearing (ICTC), co-chair of the Midwifery Clinical Training Task Force, and is active on several committees within the US MERA collaboration.

**Mark Davis, ND** 

Possible Courses: NMCS618, NMCI612

Dr. Davis is a naturopathic doctor with clinical expertise in fecal microbiota transplantation (FMT) and helminthic therapy. He sits on the board of directors of the Gastroenterological Association of Naturopathic Physicians (president), the Fecal Transplant Foundation (treasurer), and on the editorial board of the Natural Medicine Journal. He received his ND with honors in research from the National University of Natural Medicine.

Leah Hollon, ND, MPH

Possible Courses: NMIH510, NMIH514

Dr. Hollon holds a BS in Psychology from Virginia Commonwealth University (VCU) and a Master in Public Health (MPH) from VCU School of Medicine. She completed her ND degree and residency training at the National University of Natural Medicine (NUNM) in Portland, OR. She was an Assistant Professor of Pharmacy for three years and has served as an editor for the *American Journal of Pharmaceutical Education* (AJPE). She has also assisted in the implementation of a local drug court program, published in the use of alternative medicine in Central Appalachia, founded Richmond Natural Medicine, and lectured within the field of pharmacy and natural medicine for ASCP (American Society of Consulting Pharmacists), University of North Carolina, Creighton University, Eastern Virginia Medical School and Virginia College of Osteopathic Medicine. She has served as a board member as well as past President of the Virginia Association of Naturopathic Physicians. Dr. Hollon presently serves as the residency site director for the first accredited naturopathic residency program in Virginia.

**Kevin Passero, ND** 

Possible Courses: NMCS620, NMCS629

Dr. Passero received a Bachelor's Degree in Environmental Biology from the University of Colorado and his Doctorate in Naturopathic Medicine from the National College of Naturopathic Medicine in Portland, Oregon. His practice focuses on an individualized approach to medicine. He is a former President of the Maryland Naturopathic Doctors Association and is an active member of the American Association of Naturopathic Physicians. He currently serves as a member of the Naturopathic Advisory Committee under the Maryland Board of Physicians.

Eric Yarnell, ND, RH (AHG)
Possible Courses: NMCS621

Dr. Yarnell (Bastyr 1996) is a full professor in the department of botanical medicine at Bastyr University. He is the former chair of botanical medicine at Southwest College of Naturopathic Medicine and former editor of the *Journal of Naturopathic Medicine*. He assisted in the development of Boucher Institute of Naturopathic Medicine in British Columbia and is president of Heron Botanicals and chief creative officer at Wild Brilliance Press. He is the author of *Natural Approach to Urology* (2nd ed.) and *Natural Approach to Gastroenterology* (2nd).

**Shaundel Knights, ND** 

Possible Courses: NMTH525, NMPM610

Dr. Knights obtained her Doctorate of Naturopathic Medicine from National College of Natural Medicine after completing an undergraduate degree in Biology from Howard University. She is presently the owner and director of Nirvana Holistic Spa in Washington, DC, providing comprehensive care to a diverse population of patients, focusing on chronic pain, addictions disorders, and complementary cancer support. She is a Medical Massage Therapy Instructor for advanced massage techniques, client assessment, and ethics and professionalism.