



To: Daniel Seitz, JD, EdD, Council on Naturopathic Medical Education

From: Cheryl Miller, Chief Academic Officer / Vice President of Institutional Effectiveness,
Shehab El-Hashemy, Director of Curriculum Innovation, and Kelly Baltazar, Interim
Director of the School of Naturopathic Medicine

Date: October 8, 2020

Re: Submittal of Substantive Change Proposal for Approval for Delivering the First Year of
NUNM's Naturopathic Medicine Program as an Online Cohort.

A. University and College of Naturopathic Medicine Mission and Core Themes:
**1. A clear statement of the nature and purposes of the change in the context of
institutional mission and core themes.**

The mission of the National University of Natural Medicine (NUNM) is ***to educate and train physicians, practitioners, and pre-professionals in the art, science, and research of natural medicine***. The mission of the College of Naturopathic Medicine (ND) is ***to educate and train physicians in the art, science and research of naturopathic medicine.***"

The NUNM Board formally adopted three Core Themes that provide further definition of the mission statement: Student Success – support successful student learning; Teaching and Learning – deliver education that ensures student achievement of competencies within the art and science of natural medicine practice and research; and Professional Vitality – promote the success of our graduates through our academic, clinical, and research endeavors.

The purpose of this substantive change application is to request approval to offer the first year of the naturopathic medicine program at NUNM entirely online. The fundamental purpose of offering the option of completing the first year of the naturopathic medicine program online is to help NUNM broaden the reach of its mission to other parts of the country and, potentially, the world. The Council on Naturopathic Medical Education Handbook (2020) handbook states, "While distance learning may play a role in naturopathic medical education, the CNME task force maintains that the majority of the academic component should occur face-to-face and that any on-line activity should include the provision for peers and instructors to interact with one another in meeting course objectives." NUNM concurs with the CNME that the ND degree must be primarily a hands-on, competency, and skill-based program. This proposal accounts for a threshold of 25% of its education to be online, maintaining that the majority of the program remains in-person with required demonstrated clinical and hands-on competencies.



Five key objectives will be met by offering the first year of the naturopathic medicine program through distance education, impacting all naturopathic medical students. These elements are improving the quality of educational delivery, expanded the reach of prospective students, student retention, reduced student debt, and remaining competitive in healthcare education.

1. Improvement in the Quality of Instruction

With the COVID-19 pandemic challenging educators globally, NUNM has secured funding earmarked to support the development and delivery of online education.

- NUNM was the receipt of Department of Education funding to be used prior to September 2021 for the development of online curriculum - \$108,000
- A new major donor to the University has pledged \$100,000 over four years
- A new Family Foundation relationship with a contribution of \$35,000 in the first year of online curriculum development with a pathway for greater funding over two additional years has been procured.

While many schools and universities have pivoted instructional delivery via online technologies over the past terms due to COVID-19, NUNM's ND faculty and staff have done so from a perspective of creatively adapting current course offerings and provided online alternatives, such as narrated power points, videocasting, and exam software. NUNM recognizes that in addition to these short-term delivery method changes, a deliberately designed online first-year cohort approach reflects a systematic adoption of online best practices from the ground up. NUNM is using examples of excellence in online educational delivery, including leaning into the University of Central Oklahoma model of "Learning Environment Modeling Language" (LEML, <https://blog.insynctraining.com/the-four-components-of-learning-environment-modeling-language>), and "Quality Matters" (<https://www.qualitymatters.org>). The models underscore the use of rubrics and assessments for online education, additional investment in our faculty development to understand, adapt, and improve in their vision, and delivery of an educational product that reflects nationally recognized standards in online education.

In addition to developing quality online educational material, the funding supports access to professional instructional designers to improve the delivery methods to a curriculum for the on-ground students in their first year of the ND program at NUNM. NUNM intends to seek out and utilize the same highly-qualified ND faculty for the in-person and online delivery of the first-year curriculum. The substantial investment in structured curriculum development will undoubtedly benefit the educational experience of the students in the in-person year 1 ND cohort.

2. Broadening Recruitment Possibilities



An overarching reason for deliberately designing a quality online year one cohort is to help NUNM broaden the reach of its mission to other parts of the country and, potentially, the world. One of the challenges faced by NUNM in fulfilling these mission statements is that many potential students cannot afford to live in the Portland metropolitan area, interrupt their family life, or compromise their ability to earn a living. By offering the first year of the naturopathic medical program online and in-person, it provides students with an option of flexibility and convenience that meets their educational needs while earning their first year credits.

According to Rosell (2020), online learning opportunities provide:

- A welcoming environment to new global students who are not limited by geographical location;
- The ability to attract working students who cannot attend classes due to the time and place-based methods of a traditional course. In addition, this type of student is more likely to be engaged by courses that offer multi-device learning opportunities; and
- A range of online training and multi-device learning opportunities that are within an affordable price range. Online learning platforms make it easy and less expensive for educational organizations to introduce a range of full and introductory courses to give potential students a taste of what is offered.

3. Retain more Naturopathic Medicine Students

Offering an online “bridge” to the in-person ND program will enable NUNM to recruit and retain more students who are well suited for the evolving ND profession in the post-COVID era. Students request more flexibility in how they are earning their degrees. Providing an option that meets students where they are, in terms of either an online or in-person option, helps recruit and retain more students. In addition, students are requesting more online opportunities, as demonstrated in the 2018 student satisfaction survey, where 53% of ND students respondents indicated a preference for hybrid lectures (“I would like lecture courses to be half face-to-face and half online”).

Students who would choose the online cohort option will be required to be more independent, organized, disciplined, and self-motivated as online education requires different skill sets (Fairmont State University, 2020; Quora, 2020). Offering an online first year may appeal to students returning to school from previous careers, military backgrounds, have physical or learning disabilities, or have attended online education opportunities before arrival at NUNM. The first year online cohort can, again, provide a bridge to students in preparing for the in-person education for the remainder of their degree.



4. Reduction of Cost of Attendance and Student Debt

One of the challenges faced by NUNM in fulfilling its mission is that many potential students cannot afford to live in the Portland metropolitan area, interrupt their family life, or compromise their ability to earn a living. Offering the first-year cohort via online instruction at the same cost-per-credit as the in-person cohort would enable a student to spend one year closer to home. This has the potential of significant savings and debt reduction (housing, meals, transportation, travel, ability to work, etc.)

With the increasing costs of higher education in general, the decline in applications to naturopathic medical schools, which is attributed to at least in part to an exceedingly financially strained and/or risk-averse population (AANMC), we are looking for ways to reduce barriers to entry to the profession. The barriers that we are attempting to reduce are:

- Affordability.
- Risk of failure in an intensive health professional program.
- Offering the opportunity to attempt the first term and up to the first year online. Once successful, the appeal to interact with faculty and fellow students in a face-to-face environment is less intimidating. Offering an online option provides a less expensive “loss” proposition.

5. Attending to Current Trends Health Professional Education

The last key element of the online first-year cohort addresses the current and competing trends in healthcare education. Many health professions education institutions have successfully launched graduate and undergraduate online programs. Although to date, there are no completely-online medical school programs in the US, there are substantial medical education course offerings online by Med Ed luminaries such as:

- Stanford School of Medicine <https://online.stanford.edu/schools/stanford-school-medicine>
- Purdue University <https://www.purdueglobal.edu/degree-programs/health-sciences/>
- Harvard University <https://online-learning.harvard.edu/subject/health-medicine>

Lastly, the option for both opportunities speaks to the needs of the next generation of learners, Generation Z, who will be entering naturopathic medical school in the next year or two who learn differently than previous student generations (Bukhari et al., 2019; Buskirk-Cohen et al., 2016; Carver, Candela, & Gutierrez, 2011; Chun et al., 2016; Kleinhans et al., 2015; Shatto & Erwin, 2017; Stedman et al., 2011; Worley, 2011). These students prefer both online and in-person opportunities. The online first-year cohort will provide opportunities that meet both these needs.

B. Authorization:



- 1. Evidence of the date of formal approval by the governing board and by the appropriate governmental agency to offer the proposed existing and/or new program(s) at the proposed site(s). If the institution is located in or operates in, a state that has only minimal requirements for chartering, but also a higher level of authorization to grant degrees, date, and evidence of approval at the higher level is required.**

NUNM followed its established program approval process, which includes submission to the Curriculum Approval Committee (CAC), followed by the Academic Operations Team (AOT), President's Cabinet, and finally achieving the final Board of Director's Academic Affairs Committee approval (AAC). Meeting minutes from the NUNM committees showing approval of the new program proposal are appended.

C. Educational Offerings:

- 1. Descriptive information of the educational offering(s) including credits to completion, courses by title and assigned academic credit granted;**

The number of credits, program outcomes and course competencies will be the same for the year one online cohort as the in-person cohort. The proposed online delivery of the year one online ND curriculum is designed for students to demonstrate the identical established in-person year one competencies and course objectives. The overarching commitment to competencies and outcomes equivalency for both cohorts is seen in content development and rigor. In addition, the goal to embody evidence-informed standards and practices in online education is intentionally built into the curriculum. Emphasis will continue to be on a deeper understanding of the targeted knowledge and skills of the subject, with diverse opportunities for applying knowledge and application to real-world problem-solving.

There are only minor variations in academic sequencing delivery due to deliberate frameshifting of some instructional activities. The variations are equivalent to seven credits are due to the hands-on technical or applied nature of courses that cannot be reasonably achieved through online delivery (e.g., physical examination techniques, anatomy cadaver laboratory, hydrotherapy laboratory, some aspects of clinical observation, and the naturopathic retreat). These courses have been moved to either the summer before the second year or in the second year curriculum.

Here is an itemized inventory of course offerings for the proposed online cohort compared side-by-side to the established in-person cohort.



FIRST YEAR Term 1		In-person Cohort		Online Cohort			
Course #	Course Name	Total Hours	Credits	Total Hours	Credits	Credits Frame shifted to In-Person portion	
BAS5210	Structure and Function I	144.00	12.00	144.00	12.00		
BAS5210T	Structure and Function I Tutorial	22.00	1.83	22.00	1.83		
BAS5210L	Structure and Function I Lab	8.00	0.33	8.00	0.33		
BAS5111	Anatomy I	36.00	3.00	36.00	3.00		
BAS5111T	Anatomy I Tutorial	12.00	1.00	12.00	1.00		
BAS5111L	Anatomy I Lab	36.00	1.50	18.00	0.75	0.75	18 hours Anatomy Lab
CLE5210	Clinical Education I	42.00	3.08	21.00	1.75	1.33	10 hrs observation and 11 hrs tutorial
PHL5110	Naturopathic History & Philosophy I	12.00	1.00	12.00	1.00		
PHL5113	Intro to Medical Systems	24.00	2.00	24.00	2.00		
	Electives*	12.00	1.00	12.00	1.00		online elective
	Total Hours	348.00	26.75	309.00	24.67	2.08	

FIRST YEAR Term 2		In-person Cohort		Online Cohort			
Course #	Course Name	Total Hours	Credits	Total Hours	Credits	Credits Frame shifted to In-Person portion	
BAS5120	Structure and Function II	96.00	8.00	96.00	8.00		
BAS5220T	Structure and Function II Tutorial	16.50	1.38	16.50	1.38		
BAS5120L	Structure and Function II Lab	8.00	0.33	8.00	0.33		
BAS5121	Anatomy II	36.00	3.00	36.00	3.00		
BAS5121T	Anatomy II Tutorial	12.00	1.00	12.00	1.00		
BAS5121L	Anatomy II Lab	36.00	1.50	18.00	0.75	0.75	18 hours Anatomy Lab
PHL5120	Naturopathic History & Philosophy II	12.00	1.00	12.00	1.00		
THR5120	Intro to Therapeutic Modalities I	72.00	6.00	72.00	6.00		
THR5120T	Intro to Therapeutic Modalities I Tutorial	24.00	2.00	24.00	2.00		
THR5120L	Intro to Therapeutic Modalities I Lab	24.00	1.00	0.00	0.00	1.00	Hydrotherapy and Physical med



CLE5220	Clinical Education II	42.00	3.08	21.00	1.75	1.33	10 hrs observation and 11 hrs tutorial
	Electives*	12.00	1.00	12.00	1.00	0.00	Online elective
	Total Hours	390.50	29.29	327.50	26.21	3.08	

FIRST YEAR Term 3		In-person Cohort		Online Cohort			
Course #	Course Name	Total Hours	Credits	Total Hours	Credits	Credits Frame shifted to In-Person portion	
BAS5130	Structure and Function III	96.00	8.00	96.00	8.00	0.00	
BAS5230T	Structure and Function III Tutorial	6.00	0.50	6.00	0.50	0.00	
PHL5130	Naturopathic Retreat	18.00	0.75	0.00	0.00	0.75	Postponed till second year
THR5131	Intro to Therapeutic Modalities II	72.00	6.00	72.00	6.00	0.00	
THR5131L	Intro to Therapeutic Modalities II Lab	12.00	0.50	12.00	0.50	0.00	Botanical medicine lab can be delivered
THR5131T	Intro to Therapeutic Modalities II Tutorial	24.00	2.00	24.00	2.00	0.00	
BAS5131	Microbiology, Public Health, Immunology	36.00	3.00	36.00	3.00	0.00	
BAS5131T	Microbiology, Public Health, Immunology Tutorial	24.00	2.00	24.00	2.00	0.00	
CLE5230	Clinical Education III	40.00	2.92	21.00	1.75	1.17	10 hrs observation and 11 hrs tutorial
	Electives*	12.00	1.00	12.00	1.00	0.00	
	Total Hours	340.00	26.67	303.00	24.75	1.92	

	TOTAL FIRST YEAR		82.71		75.63	7.08	Difference between online and in-person
--	-------------------------	--	--------------	--	--------------	-------------	--

SECOND YEAR FALL							
CLS6210	Musculoskeletal, Ortho, Exercise Physiology & Rehab	108.00	9.00	42.00	3.50	3.5	bring this didactic portion from the second year to the first year on-line to create room in the second year for frame shifted components
CLS6211	Neurology	66.00	5.50	42.00	3.50	3.5	

The Elective Courses available in the first year include the following: _____



Northwest Herbs I	NDEB 5110E	2 credits
Northwest Herbs II	NDEB 5130E -	2 credits
Cascade Mountain Herbal Intensive	NDEB 5201E -	2 credits
Herbal Garden Processing	NDEB 5210E	.5 credit
CASEE Center Herb Walk	NDEB 5231E -	.5 credit
Bodywork I: Massage Foundations	NDET 5120E -	1 credit
Somatic Re-Education I	NDET 5121E -	1 credit
Bodywork II: Massage Foundations	NDET 5130E -	1 credit
Somatic Re-Education II	NDET 5131E -	1 credit

In this delivery model, frameshifted hands-on components (described in the table above) will be completed in the first six weeks of year two. This will be enabled by reciprocal frameshifting of the first six weeks (approx. 7 credits as well) of didactic instruction in the CLS6210-MSK Ortho, Exercise Physiology & Rehab, and CLS6211-Neurology courses. The change in delivery will free up approximately 15 in-person hours per week to achieve hand-on competencies. This design will allow for complete academic synchronization of the two cohorts at the six-week mark of year 2.

2. Descriptive information regarding the method of instructional delivery (i.e., type of delivery including percent of face-to-face, hybrid, distance delivery, and/or competency-based).

The instructional delivery of the proposed online first-year ND program will be delivered entirely online without the need for in-person meetings. Classes will be provided through NUNM’s online learning management system, Moodle, recorded videos, readings, group projects, synchronous class meetings, synchronous cohort meetings with all 1st year students (both on-ground and online), and discussion boards. The anticipated percentages of each method of instruction are

- Synchronous and asynchronous large-group online activities (lectures) – 20%
- Synchronous and asynchronous small-group online discussion (tutorials) – 20%
- Creative ways of offering some hands-on experience online (though we will frame shift those aspects that cannot reasonably be accomplished online) 20%
- Curated student-driven active-learning online modules 40% (go at your own pace education and assessment, adaptive instructional design, gamified learning adventures, formative and summative assessments).

D. Description of expected student learning outcomes.

Identical to the in-person year one curriculum, during the first year of the online cohort of the naturopathic medical program, students learning includes the normal structure and function of the body with a solid introduction to naturopathic theory, philosophy, therapeutics, and medical systems. Students enter the clinic in an observational capacity and begin preceptorships in the



first year.

The first-year student learning outcomes are measurable through instructional activities based upon the knowledge required and skills assessed under the overarching programmatic outcomes. The online ND student learning outcomes are identical to those of the on-ground student cohort, congruent with the AANMC Core Competencies of the Graduating Naturopathic Student, and the NWCCU standards. The seven program competencies that are addressed in the first year of the naturopathic medicine program are:

1. **Medical Knowledge:** Apply appropriate biomedical knowledge and clinical skills to patient-centered naturopathic primary care.
 - i. The Structure and Function and Clinical Anatomy course series cover basic biochemistry, cell and tissue pathology; and cardiac, circulatory, respiratory, gastrointestinal, and renal structure and function along with the human anatomy.
 - ii. The Microbiology, Public Health, and Immunology course explore infectious diseases, microbial structure and function, and the normal flora and common pathogens of the human body. The etiology, epidemiology, prevention, and control of communicable diseases from a public health perspective are also covered. Special emphasis is given to how practitioners effectively interact with public health agencies.

2. **Patient Management:** Apply the philosophy of naturopathic primary care to effectively encourage prevention, treat health problems, and foster optimal health.
 - i. The clinical education series focuses on the early development of knowledge, skills, and judgment essential for clinical practice. This includes a focus on the cultivation of the practitioner, professionalism, evidence-informed practice, foundational clinical skills, charting and physical clinical diagnosis, observation of praxis, and reflection. Throughout the series, year-one students are assigned to NUNM clinic shifts to observe routine clinical policies and procedures, doctor/student intern.

3. **Communication and Collaboration:** Apply communication skills that result in effective education, communication exchange, and partnership with patients, their loved ones, and other health professionals.
 - i. The clinical education series focuses on the early development of knowledge, skills, and judgment essential for clinical practice. This includes a focus on the cultivation of the practitioner, professionalism, evidence-informed practice, foundational clinical skills, charting and physical clinical diagnosis, observation of praxis, and reflection. Throughout the series, year-one students



are assigned to NUNM clinic shifts to observe routine clinical policies and procedures, doctor/student intern.

4. **Practice-Based Learning and Improvement:** Appraise, assimilate, and apply scientific evidence to improve patient care.
 - i. The Therapeutic Modalities courses focus on the six major naturopathic therapeutic modalities. Students analyze evidence for the effectiveness of each modality. The role of each modality in naturopathic care and the broader medical system is also explored.
 - ii. In the Introduction to Medical Systems course, students study the history and philosophy of the major medical systems of the world. Characteristics of the U.S. medical system are explored and the developing role of naturopathic medicine within the broader context of the healthcare system. Insurance practices, strategies for delivering quality care, and best practices in patient referral, and management are also covered.

5. **Ethics & Professionalism:** Demonstrate a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.
 - i. The clinical education series focuses on the early development of knowledge, skills, and judgment essential for clinical practice. This includes a focus on the cultivation of the practitioner, professionalism, evidence-informed practice, foundational clinical skills, charting and physical clinical diagnosis, observation of praxis, and reflection. Throughout the series, year-one students are assigned to NUNM clinic shifts to observe routine clinical policies and procedures, doctor/student intern.

6. **Practice Management and Business Skills:** Identify opportunities and develop resources for establishing and maintaining a viable career using your naturopathic medical education.
 - i. The Microbiology, Public Health, and Immunology course emphasize how practitioners effectively interact with public health agencies.

7. **Systems-Based Practice:** Effectively call on system resources to provide care that is of optimal value.
 - i. The Therapeutic Modalities courses focus on the six major naturopathic therapeutic modalities. History and philosophy, terminology, mechanism of action, and general therapeutic applications, indications, contraindications, safety, and monitoring for each modality are covered. Students analyze



evidence for the effectiveness of each modality. The role of each modality in naturopathic care and the broader medical system is also explored.

- ii. In the Introduction to Medical Systems course, students study the history and philosophy of the major medical systems of the world. Characteristics of the U.S. medical system are explored and the developing role of naturopathic medicine within the broader context of the healthcare system. Insurance practices, strategies for delivering quality care, and best practices in patient referral, and management are also covered.

E. Description of the assessment plan for student learning outcomes;

The naturopathic medical program is a competency-based curriculum that facilitates education and training in congruence with the AANMC Core Competencies of the Graduating Naturopathic Student: <https://aanmc.org/reports-and-research/aanmc-professional-competencies-graduating-naturopathic-physicians/>.

In the first year of the program, students learn fundamental knowledge and application of anatomy, physiology, medical systems, naturopathic philosophy, and therapeutic modalities. The assessment of student learning outcomes is done through various methods, including exams, papers, case papers, and presentations, which directly contribute to students learning and meet the course competencies and program outcomes. Students demonstrate appropriate skills and behaviors based on their level of development, which is incorporated into course syllabi and linked in curriculum maps.

In the first year of the online naturopathic medicine program, students will be assessed in the following program outcomes and competencies through:

- 1. Medical Knowledge:** Exams assess student understanding of structures, systems, functions, physiology, and anatomy of the human body and how they connect with pathology. Students will perform appropriate tests and evaluations to formulate an accurate diagnosis. Students practice skills and becoming comfortable taking vital signs and performing examinations of the heart and lungs. Students practice the appreciation of normal findings on the exam performed and develop positive attitudes towards patient care and physical diagnosis.
- 2. Patient Management:** Students will engage in meaningful public health considerations and organizations to prevent diseases, including using surveillance, promotion of healthy behaviors, and vaccination.
- 3. Communication and Collaboration:** Engage with classmates and others while practicing communication skills to converse with patients about microbial diseases that they may experience. Also, be able to give accurate information about how a microbial disease might impact overall health. Discussion forums are utilized in the



assessment of students' skills in communication and collaboration. Students participate in mock medical interviews.

4. **Practice-Based Learning and Improvement:** Case-based lessons are used to assess student understanding of research and practice-based learning.
5. **Ethics & Professionalism:** Students take part in and pass HIPAA training. Students practice locating and utilizing reliable, evidence-based literature and research in case application. Students practice mock scenarios while also reflect on personal development, professionalism, and building a doctor-patient relationship.
6. **Systems-Based Practice:** Students are assessed on their understanding of modalities via quizzes, exams, and evidence-based medicine assignments and engaging in student discussion forums for pharmacology, homeopathy, and botanical medicine. Students conduct and evaluate cases based on an analysis of symptoms to inform the development of treatment plans.

Academic Integrity in Distance Education

A variety of different techniques and software solutions will be utilized to ensure the academic integrity of this online program. If high-stakes examinations are used in the assessment process, such as a midterm or final exam, these examinations will be administered utilizing virtual proctoring software. NUNM's exam proctoring software solution will verify the identity of students as well as utilize a webcam to monitor and record them while they complete the exam. Facial recognition and tracking software will automatically flag these recordings for potentially suspicious activity and notify the faculty member who can then easily review the recording and determine whether academic dishonesty is likely to have occurred. Suspicious activity during an exam that the software can detect might include students leaving the computer, looking at a phone or other mobile device, or speaking with another person. The software also "locks" the student's computer during the exam and prevents them from opening other websites or programs.

There are multiple software vendors offering solutions that meet these parameters (e.g., proctorio.com). NUNM is to conduct an evaluation process to review multiple solutions and acquire the best solution for our institution. Preliminary evaluation of several proctoring software solutions has determined that it will be within our budget to acquire licensing for one of these solutions.

In addition to proctoring software for high-stakes examinations, NUNM currently utilizes the Turnitin plagiarism detection platform to identify academic integrity issues in student writing assignments such as term papers or case study analyses (turnitin.com). NUNM engaged the use of the Turnitin platform as a requirement of our compliance strategy



for the NC-SARA National Council for State Authorization Reciprocity Agreements (NC-SARA) requirement and approval, which states that “the Institution assures the integrity of its online offerings” (refer to the 2011 C-RAC guidelines located at nc-sara.org/apply-renew).

F. Evidence of review by the appropriate academic policy body of the institution- upload minutes of minutes or other evidence using. List the date of academic policy body review

The Curriculum Approval Committee in June 2020 approved the expansion of the current degree offering (appendix 1). The Academic Operations Team approved the proposal in June 2020 (appendix 2). The President's Cabinet approved in June 2020 (appendix 3). The Academic Affairs Committee of the NUNM Board of Directors (June 2020) approved the expansion of this program delivery model to make it accessible to more healthcare professionals (appendix 4).

G. Planning:

1. Plans and descriptive materials indicating evidence of the need for the change, and the student clientele to be served and timetable;

Attached to this Substantive Change Application are the NUNM Curriculum Approval Committee’s Proposal, Course Prospectus, and Financial Projections used in the approval process of a substantive curricular modification. The creation of the first-year online project involved faculty input regarding curriculum and delivery.

2. Procedures used in arriving at the decision to change;

Multiple faculty meetings regarding the first year ND curriculum have occurred over the last academic year. Considerations of adding an online first-year cohort work to strengthen the naturopathic medicine program, specifically reducing the financial burden associated with relocation and interruption of student living. In addition, it provides students a means to learn in an environment that meets their immediate needs, either in a face-to-face model or on an online model. By the second year, both cohorts of students will be joined at the NUNM campus.

3. Organizational arrangements required within the institution to accommodate the change including administrative, staff, and faculty hires, facilities, student services, library;

Organizationally, NUNM already offers a fully online degree program. Therefore, any arrangements to accommodate those changes have already occurred. A complete offering of student services has been provided for online-only students since September 2019.



In July 2017, NUNM created a new department to support distance education efforts, the Department of Instructional Design & Technology (IDT). IDT was responsible for supporting the project to develop NUNM’s first fully online distance education degree program, the fully online Master of Science in Nutrition, which has received approval from NUNM’s regional accreditor, the Northwest Commission on Colleges and Universities (www.nwccu.org), launched in the fall 2019 (nunm.edu/programs/mscno).

The IDT also is critical in the support and development of the first-year online curriculum, working directly with the ND academic leadership and faculty. The curriculum is being intentionally designed using the models mentioned above of excellence in online curriculum and delivery. The IDT director, Dr. Justin Fowler, has three years of instructional design experience and formal training in distance education pedagogy, as a part of his online curricular design-focused Master of Education (MEd) and Doctor of Education (EdD) degrees.

Additionally, to support the development of this project, an additional, full-time instructional designer position was also added to the IDT team in summer 2020. The new instructional designer has a master's degree in instructional design and six years of instructional design experience in higher education.

Rounding out the team, a Director of Curriculum Innovation position equivalent to 50% of full-time faculty load was established in July 2020 to support this and other critical curricular projects. Together with the IDT and newly recruited instructional designer, those three form a Curriculum Innovation arm within a newly restructured Student Success and Curriculum Innovation branch.

Pedagogy and Instructional Design Process

The curriculum and innovation team, as described above, are using an evidence-informed process through which faculty members work one-on-one with an instructional designer and produce required deliverables for approval at each milestone. This process aims to assist faculty in adopting appropriate design principles for online education so that high-quality standards can be reflected throughout the course design and development process.

- During the preliminary conceptual phase, a visual design toolkit “Learning Environment Modeling Language” (LEML, University of Central Oklahoma), and a published set of standards for online education named “Quality Matters” (QM, qualitymatters.org) will be introduced to faculty members.
- The LEML toolkit consists of five visual building blocks, including information, dialogue, feedback, practice, and evidence. The faculty will manipulate these building blocks and create a student’s weekly learning journey map. In the meantime,



instructional designers will assist faculty with using the QM rubric to evaluate the effectiveness of the alignment between learning objectives, assessments, learning content, and learning activities.

Using the evaluations, the instructional designers will adjust the course design to ensure that the course meets QM standards and creates an engaging and interactive learning experience. Once the learning journey map is created, the faculty will create outlines to indicate the context of each building block and its connections in the map.

The outlines will then be evaluated and approved by our review committee (two instructional designers, director of curriculum innovation, and another faculty member providing peer review). Then faculty will continue to follow the QM rubrics to develop detailed information (such as weekly introduction, prompts for discussion forums) for the weekly learning journey map and construct them on their course pages in Moodle.

Once a weekly course page is completed, the assigned instructional designers will evaluate and provide suggested changes for improvement. When approximately 50% of the course content (in terms of course weeks) is built, our review committee will come in again for evaluation and approval. Then the process continues till all course pages are built in Moodle. The assigned instructional designers will conduct a tech QA process to ensure the configurations for all elements within the entire course in Moodle function properly. At the very end of the design process, the course design will be reviewed by instructional design staff to score the course using the QM rubric and indicate whether it meets the appropriate standard. Then the review committee will conduct their final approval and indicate if the course is ready for launch.

4. The timetable for implementation.

Fall 2020: Submission for approval. Currently, the curricular design is occurring due to the needs of COVID-19 online delivery methods.

Winter 2021: If approved, a soft launch may occur. However, it is not anticipated that students would enroll in the program until Fall 2021. Recruitment begins for fall 2021—the continuation of online course design.

Spring 2021: Recruitment continues for fall 2021. Continuation of online course design. Recruitment of online faculty.

Summer 2021: Recruitment continues for fall 2021. Continuation of online course design. Recruitment of online faculty. Online summer orientation occurs with both synchronous and



asynchronous sessions for all students, including those who are taking courses exclusively online.

Fall 2021: New cohort begins enrollment. Recruitment of fall 2022 students begin.

Winter 2022: New winter cohort begins if there is interest. Student and faculty feedback sessions occur to evaluate the program. Implement changes as needed.

Spring 2022: Spring courses offered. Implement changes as needed—feedback sessions with students and faculty to evaluate the program.

Summer 2022: Students join on-ground students for in-person opportunities

Fall 2022: The first cohort of online students begins on-ground at the NUNM campus.

H. Budget Projections for first three years of implemented change; revenue and expenditures association and institutional support to accommodate change

The NUNM financial proforma is attached to this proposal. Below are some of the costs associated with the implementation, development, and delivery costs.

- The curriculum development costs for 82.7 credits will be remunerated at 50% times the standard rate of \$1040. The total cost of the curriculum development cost of \$43,000.
- The salary of the instructional designer will be approximately \$50,000.
- The University's New Program Development Fund is being used to fund the startup costs and support the establishment of this cohort during the fiscal year 2021.
- The on-going delivery costs will be equivalent to the on-site instruction, approximately \$100,00K per year.
- A budget of \$39,000 will be utilized to market the program through web-based advertising, brochures, and social media.

Estimated revenue

- We are aiming for a target of no less than seven students (based on pedagogical evidence for establishing a quality academic unit) with an upper enrollment limit of 20 students in the initial offerings.
- The cost recovery point (instructional, administrative, marketing) is 5.5 FTEs per year.

I. Student Services: the capacity of student services to accommodate the change; and implications of the change for services to the rest of the student body;



With the implementation of the online MScN program in fall 2019, NUNM already provides online student services from the Center for Academic Success, Student Life, the Financial Aid Office, the Registrar's Office, Counseling Services, Business Office, and Information Technology. Staffing changes occurred when NUNM's online program was implemented. There is no anticipated need for services to change, nor would it impact the rest of the student body.

The ND academic team does not expect much conflict with the current in-person ND program. It is the expectation that many of the same faculty will teach in both cohorts, using the same program outcomes, course competencies, and student learning objectives. These efforts will have a positive impact on improving both delivery methods simultaneously.

Student Life

Student complaint processes are clearly defined and can be used electronically. The Dean of Students revised the online reporting form (Advocate hosted by Symplicity) to be a community reporting form. Students will be informed that all complaints can be filed using this form, which is linked on each footer of the NUNM website, to submit any concern or complaint. Policies and procedures for grievances and other types of concerns are found in the electronic version of the student handbook, reviewed and published annually.

The Center for Academic Success

The Center for Academic Success oversees the Testing Center, Peer-Tutoring program, Academic Resource pages on Moodle, and Disability Services. The online presence of the Center for Academic Success is found here: <https://studentservices.nunm.edu/student-life-resources/academic-success/>.

Financial Aid

The Office of Financial Aid provides services to all new and current students who apply for financial aid annually by completing the FAFSA form available online at fafsa.ed.gov. Notification of additional materials needed for awarding purposes is requested by email/mail/phone. Awards are mailed to the student. Acceptance of the awards require a signature, and those are sent back to the financial aid office. Students can use NUNM's student information system, SONIS, to check their award status. Students can also request direct deposit of their financial aid refund checks.

The Registrar's Office

The Office of the Registrar will register the students for required courses using SONIS. Students will use SONIS to enroll in elective courses through online registration. Students would have access to Registrar services via email, online meeting platforms, and phone during standard working hours.



Information Technology

The Office of Information Technology, in conjunction with the Office of Student Life, developed an asynchronous online orientation course, with some synchronous components for online students. This program will be accessible to all students. It will provide students with instructions on performing basic tasks in the learning management system, such as submitting an assignment or contributing to a discussion forum. Completion of this orientation course will be required for all online students before they participate in the program.

- The support service personnel will interact with online students via phone, Microsoft Teams, Zoom, and email. Essential personnel who typically have face-to-face meetings with students (e.g., academic advisors) will use Microsoft Teams and Zoom software platforms, which they will use to coordinate private video conferencing meetings with students as needed.
- NUNM has contracted with eLearning Innovation, a third-party vendor that will provide students, staff, and faculty with tech support for the learning management system. eLearning Innovation will provide 24/7 tech support by email and live phone and chat support from 9 am to 9 pm PST, Monday through Friday.
- Completing the required online student orientation course will ensure that students can utilize our electronic learning resources. Students in the program will be asked to provide survey feedback on the accessibility of these learning resources and the effectiveness of any provided orientation or training. Any negative feedback will be addressed through the modification of existing training resources or the creation of new ones.
- All students pay a technology fee that supports the institution's system of student authentication and will not require students to pay any additional fees beyond their base fees and tuition. The originality of student's written assignments will be verified using plagiarism-detecting software (e.g., Turnitin). Closed-book quizzes or examinations will be conducted using online proctoring software (e.g., ProctorU).

J. Provision for physical facilities and equipment:

The addition of the online program will not impact facilities for current students and the campus community. All students pay a technology fee that supports technology services. Any upgrades to technology to accommodate online learning will benefit all students within our institution. There are no requirements for additions to the existing physical facilities as the online program will be conducted entirely online. Also, no additional equipment is required to be added to the current campus community.

K. Library and information resources: adequacy and availability of library and information resources;

Students using online learning have adequate access to learning resources, including library



information resources, laboratory and equipment, and tracking systems. The library provides access to an expanded collection of materials through a partnership with Oregon Health & Science University, University of Western States, Oregon University of Oriental Medicine, and Pacific University in the Portland Academic Health Libraries (PAHL) consortium. Through a shared online catalog, library users can discover and borrow materials across a vast range of subjects in the health sciences. The library also participates in two national interlibrary loan systems (OCLC and NLM) and generates loan interactions with libraries from around the country. All the library's electronic resources, such as e-books, e-journals, and databases are accessible from the library website, and distance students will access these in the same manner as on-site students, using their Active Directory credentials. NUNM will review and update policies on circulation, resource sharing, and interlibrary loan to address students' need for the library's circulating materials. Library staff will coordinate with program directors and faculty to develop and deliver support and instruction in the use of library resources in formats appropriate for distance students and faculty.

L. Faculty: analysis of the faculty and staff needed which includes educational and professional experience qualifications of the faculty members relative to their individual teaching assignments; and anticipated sources or plans to secure qualified faculty and staff.

Similarly to in-person delivery, faculty will be expected to have earned a terminal degree in naturopathic medicine, or a closely related discipline (Ph.D., MD, DO, PA, or DC). A minimum of two years of classroom teaching experience is required with online teaching experience preferred.

Given the intended instruction of an additional 83 credits, an *equivalent* of 2 full-time faculty loads will be added to the ND faculty to provide online education, either through full-time or adjunct teaching assignments. The primary need will be most likely for teaching faculty in the areas of foundational medical sciences such as anatomy, physiology, histology, and microbiology. As we seek to have consistency between the online and in-person cohorts, NUNM gives preferential consideration to the in-person faculty who wish to teach online, of which almost all are full-time faculty members. Faculty teaching assignments and load will be adjusted accordingly to accommodate the online and in-person teaching expectations, thus using the concept of full-time equivalent load herein.

The number of additional credits that will be taught by full and part-time/adjunct faculty is outlined in the comments in the cells of the attached financial proforma. Incremental increases in staffing for all other offices affected by the online students have been included in the financial proforma as well.

M. Attached financial proforma:

Funds for the startup monies necessary for the online 1st year of the naturopathic medicine program involve primarily curriculum development, admissions, and marketing. A budget of \$39,000 will be utilized to market the program through web-based advertising, brochures, and social media. The University's New Program Development Fund is being used to pay for the startup costs and support the Director of Curricular Innovation and ND Director to implement this online program during the current fiscal year. (See the Financial Proforma appendix 5).

References

- Bukhari, A., Park, Y. S., Hamed, O., & Tekian, A. (2019). Cultural influence on generational gaps. A case for medical education in the Gulf region. *Saudi Medical Journal*, *40*, 601–609. doi: 10.15537/smj.2019.6.23863
- Buskirk-Cohen, A. A., Duncan, T. A., & Levicoff, M. (2016). Using generational theory to rethink teaching in higher education. *Teaching in Higher Education*, *21*(1), 25–36. doi: 10.1080/13562517.2015.1110787
- Carver, L., Candela, L., & Gutierrez, A. P. (2011). Survey of generational aspects of nurse faculty organizational commitment. *Nursing Outlook*, *59*(3), 137–148. doi: 10.1016/j.outlook.2011.01.004
- Chun, C., Dudoit, K., Fujihara, S., Gerschenson, M., Kennedy, A., Koanui, B., ... Stearns, J. (2016). Teaching Generation Z at the University of Hawai'i (pp. 1–24) [President's Emerging Leaders Program]. University of Hawai'i. Retrieved from University of Hawai'i website: https://www.hawaii.edu/ovppp/Leaders/files/2015-2016-Projects/PELP_GenZ_PaperV.6.0-5.4.16.pdf
- Council on Naturopathic Medical Education. (2020, January). Handbook of accreditation for naturopathic medical programs. Council on Naturopathic Medical Education. Retrieved from <https://cnme.org/wp-content/uploads/2020/01/CNME-Accreditation-Handbook.pdf>
- Fairmont State University. (n.d.). Characteristics of a successful online student. Retrieved from <https://www.fairmontstate.edu/academics/distancelearning/successful-student>
- Kleinhans, K. A., Chakradhar, K., Muller, S., & Waddill, P. (2015). Multigenerational perceptions of the academic work environment in higher education in the United States. *Higher Education*, *70*(1), 89–103. doi: 10.1007/s10734-014-9825-y
- Quora. (2020). What type of student is attracted to/successful in online education? Retrieved from <https://www.quora.com/What-type-of-student-is-attracted-to-successful-in-Online-Education>
- Rosell, C. D. (2020, January 23). Why Online Learning Will Help You Attract More Students? Retrieved from CAE Computer Aided E-learning website: <https://www.cae.net/why-online-learning-will-help-you-attract-more-students/>



- Shatto, B., & Erwin, K. (2017). Teaching Millennials and Generation Z: Bridging the generational divide. *Creative Nursing; Minneapolis*, 23(1), 24–28.
- Stedman, N., Roberts, T. G., Harder, A., Myers, B., & Thoron, A. (2011). The relationship between experience and self-perceptions of knowledge and relevance of teaching competencies of faculty in a college of agricultural and life sciences. *Journal of Agricultural Education*, 52(1), 50–60. doi: 10.5032/jae.2011.01050
- Worley, K. (2011). Educating college students of the net generation. *Adult Learning*, 22(3), 31–39.

Appendices

1. [Curriculum Approval Committee minutes](#)
2. [Academic Operations Team minutes](#)
3. [President's Cabinet minutes](#)
4. [Academic Affairs Committee of the Board of Directors minutes](#)
5. [Financial Proforma](#)

Appendix A: Curriculum Approval Committee minutes

OA
Vote on Proposals [Posts](#) [Files](#) [+](#)
Team

Tim Irving set this channel to be automatically shown in the channels list.

Forms 6/16 8:26 PM

Tim Irving created a poll
Results are visible to everyone; Names recorded

Vote on the June 2020 Proposal for the ND program online first year cohort

- Approve
- Not approve
- Abstain (use this if you cannot vote on this issue for whateve...

Submit Vote

←
Reply

Forms 6/16 8:26 PM Updated

Approve	100% (8)
<hr style="width: 100%;"/>	
Not approve	0% (0)
<hr style="width: 100%;"/>	
Abstain (use this if you cannot vote on this issue for whatever reason, after reading the documents)	0% (0)
<hr style="width: 100%;"/>	

8 responses

←
Reply



Tim Irving 6/23 9:22 AM

[O365GRP-Curriculum Approval Committee](#) - We have a quorum of voters and a unanimous vote to approve the proposal as a motion to the AOT (Academic Operations Team). Thanks everyone for the participation; if you have any questions, please let me know.

← Reply

Appendix B: Academic Operations Team minutes



Tim Irving 7/7 4:27 PM Edited

[O365GRP-AOT Meetings](#): Here is the proposal that was approved by CAC to come to the AOT as a motion to approve, Please discuss this here and vote in the form with the options to vote, below



CAC Proposal Yr 1 ND Online Cohort...
O365GRP-AOTMeetings > Items to Discuss ...



Year 1 Online Layout 06 2020.pdf
O365GRP-AOTMeetings > Items to Discuss ...

Tim Irving set this channel to be automatically shown in the channels list.

Forms 7/7 4:29 PM

Tim Irving created a poll
Results are visible to everyone; Names recorded

The motion to approve the ND year 1 proposal comes to the AOT from the CAC; how do you vote?

- Approve
- Not Approved
- Abstain (please only use this if you, after reading the proposa...

[Submit Vote](#)

← Reply

Forms 7/7 4:29 PM Updated

Approve	100% (7)
Not Approved	0% (0)
Abstain (please only use this if you, after reading the proposal and document, and discussing any issues you have with it, still cannot vote)	0% (0)

7 responses

July 21, 2020

Cheryl Miller 7/21 1:18 PM
We have 8 approvals. We can now move forward with submitting this to the CNME for consideration. [Shehab](#)

← Reply

Appendix C: President’s Cabinet minutes

PC agenda: June 2 - Message (HTML)

FILE **MESSAGE** **ACROBAT**

Ignore, Delete, Reply, Reply All, Forward, Meeting, More, New Message, Forward messa..., To Manager, Quick Steps, Move, OneNote, Actions, Assign Policy, Follow Up, Mark Unread, Categorize, Translate, Find, Related, Select, Zoom, Zoom

Tue 6/2/2020 10:50 AM

Jeremy Sloan
PC agenda: June 2

To: PresidentsCabinet
Cc: Christine Girard

Greetings all,

Here is the agenda for this afternoon:

- Re-org update (communication & town hall)
- Staff/Faculty - social media policy?
- 1st year ND program online discussion
- Current events discussion – please review the email forwarded from Rachael/SGA

See you at 1!

Jeremy Anderson-Sloan
Chief of Staff and Strategic Engagement
Pronouns: he/him/his
P. 503.552.1700 | nunm.edu



This message and any attachments may contain confidential information meant only for the addressee and may be legally protected from disclosure. If you are not the intended recipient of this message or it has been addressed to you in error, please immediately notify the sender by email reply and delete this email and any attachments. You are hereby notified that any use, dissemination, distribution, storage or copying of this email is strictly prohibited by law.

Unable to log in to: SharePoint.





Appendix 4: Academic Affairs Committee of the Board of Directors minutes

A screenshot of a PDF viewer interface. The top menu bar includes "File", "Edit", "View", "Sign", "Window", and "Help". Below the menu is a toolbar with icons for Home, Tools, and various document actions. The main content area displays the following text:

Executive Committee Actions

The Executive Committee has been meeting twice each month with Dr. Girard since April 6, 2020.

In its June 15th meeting, the Executive Committee learned from Dr. Girard that the CNME will require NUNM to submit a substantive change report in order to offer year 1 of the ND program online. A substantive change application is required when the CNME considers a change to an institution's program a major change. In this case, the CNME considers the entire 1st year of the ND program being delivered online consistent with what it defines as a major change. This is a change from previous advice. Staff needs the Board's approval in order to submit the application. The internal process requires the report to go to the Curriculum Approval Committee and, if approved, to the Academic Operations Team and, if approved, to the Academic Affairs Committee of the Board. The Executive Committee discussed this item and chose to take action rather than call an emergency meeting if the Academic Affairs Committee of the Board.

Motion to approve staff to move forward with its process to submit a substantive change report to the CNME seeking approval from the CNME to offer year 1 of the ND program online was made by Christoph and seconded by Winston. Motion carried unanimously.