

COURSE CATALOG ADDENDUM

2023-2024
Academic Year



WELCOME

President's Welcome Message

Welcome to Sonoran University of Health Sciences. Discovering effective treatments and ensuring that we are grounded in the healing power of nature is directly tied to Sonoran's mission to shape a healthier future. This and our core values are woven throughout the campus experience where dedicated, bright faculty and staff work tirelessly for our students' success. Establishing partnerships with healthcare systems, clinics, and practitioners and providing Sonoran students with an outstanding learning experience and career opportunities is something we're passionate about. Our philanthropic relationships with individuals and corporations help us deliver the best campus resources for the benefit of Sonoran students and patients, which include state-of-the-art classrooms, study and library spaces, integrative healthcare clinics, research laboratories, and wellness clinics.

I'm Dr. Paul Mittman, President of Sonoran University of Health Sciences. I practiced naturopathic medicine for 25 years, conducted and published research, taught medical students, and promoted the benefits of naturopathic medicine to the public. After becoming President, I earned a Doctorate in Higher Education Management.

Sonoran University of Health Sciences is intent on meeting the challenges of our time and shaping a healthier future by educating the next generation of naturopathic physicians and nutritionists to address today's and tomorrow's healthcare needs. Sonoran University faculty and staff embrace new learning technologies and best practices in teaching and learning to foster student success. Sonoran clinicians combine the best of conventional and integrative medicine at our Medical Center, at seven Community Clinics caring for patients in underserved communities, at the Virtual Center for Personalized Nutrition, and at the Neil Riordan Center for Regenerative Medicine offering non-opioid solutions for people suffering from chronic pain. Scientists in Sonoran's Ric Scalzo Institute for Botanical Research are discovering new medicines and improving centuries-old treatments.

Decades from now, when historians chronicle the innovation wave of our time, Sonoran University of Health Sciences will be part of that history. Read on and learn how you can too.

Purpose and Publication Notice

This catalog is effective October 2, 2024, with an Addendum published on February 7, 2024.

Sonoran University of Health Sciences Course Catalog is published to provide applicants and the general public with information about educational programs, policies, and procedures. This catalog does not constitute a contract. Sonoran University reserves the right to make changes in the regulations, rules, and policies set forth in this publication. The University will communicate those changes with reasonable notice to interested parties. While every effort is made to ensure the accuracy of the information available at the time the copy is prepared for this catalog, Sonoran University does not guarantee its accuracy. Students are responsible for understanding and complying with all policies and procedures contained in the most recent catalog and in other publications distributed by Sonoran University. A student's course of study is guided by the curricula published annually in this catalog. Information, programs, and requirements are subject to change without notice at the discretion of the administration. The University reserves the right to change the terms and

conditions of this catalog at any time. This catalog supersedes all previous editions.

Sonoran University is a tax-exempt, not-for-profit corporation accredited by the Higher Learning Commission (HLC) and approved to offer degrees by the Arizona Naturopathic Physicians Board of Medical Examiners and Arizona State Board of Private Postsecondary Education. Sonoran University's Doctor of Naturopathic Medicine (ND) program is accredited by the Council on Naturopathic Medical Education (CNME). In addition to the ND program, HLC has approved Sonoran University to offer distance education courses and programs, including the Master of Science in Clinical Nutrition (MSCN) and Master of Science in Nutrition Business Leadership (MSNBL). Sonoran University's MS in Clinical Nutrition program fulfills the didactic requirements to sit for the Certified Nutrition Specialist (CNS) exam and has been approved for CNS candidates to earn 324 hours and meet the required competencies for the Supervised Practice Experience (SPE), see Academic Accreditation (p. 5) and specific program Information to learn more about accreditation and certification.

Sonoran University does not discriminate on the basis of race, ethnicity, gender, socioeconomic background, religion, sexual orientation, gender expression or identity, age, disability, veteran status, nationality, thinking styles, or life experiences in the administration of educational policies, admission policies, financial aid, employment, or any other program or activity.

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2023/24 ADDENDUM SUMMARY

University Information: Strategic Plan 2022-2027 Summary

This section supplements the University Information: Strategic Plan section in the 2023-2024 Course Catalog (p. 4). The full text of the Strategic Plan 2022-2027 changes follows this summary section.

Strategic Plan 2022-2027 Modifications

Section: Strategic Plan 2022-2027

What Changed: The Strategic Plan has been updated to reflect recent modification of the plan.

Effective Term: Winter 2024

University Policies: Standards of Satisfactory Academic Progress Summary

This section supplements the Satisfactory Academic Progress section in the 2023-2024 Course Catalog (p. 8). The full text of the Standards of Satisfactory Academic Progress changes follows this summary section.

Standards of Satisfactory Academic Progress Modifications

Section: Academic Standing: Academic Restoration

What Changed: The cumulative GPA that students in the ND program has been changed to 2.1.

Effective Term: Fall 2023

Section: Academic Standing: Academic Restoration

What Changed: The language of the requirements has been updated from "term (quarter) GPA" to "cumulative GPA"

Effective Term: Winter 2024

Academic Calendar Summary

This section supplements the Academic Calendar section in the 2023-2024 Course Catalog (p. 12). The text of the Academic Calendar changes follows this summary section.

Academic Calendar Modifications

Quarter: Winter 2024

What Changed: The ND White Coat Ceremony has been moved to March 23, 2024.

Effective Term: Winter 2024

Administration, Faculty & Physicians: Faculty Summary

This section supplements the Administration, Faculty & Physicians: Faculty section in the 2023-2024 Course Catalog (<https://catalog.sonoran.edu/catalog/administration-faculty-physicians/faculty/#adjuncttext>). The full text of the Faculty changes follows this summary section.

Faculty Modifications

Section: Adjunct Faculty

What Changed: Dr. Dharti Patel has been added to the adjunct faculty listing.

Effective Term: Fall 2023

ND Course Descriptions Summary

This section supplements the ND Course Descriptions section in the 2023-2024 Course Catalog (<https://catalog.sonoran.edu/catalog/doctor-naturopathic-medicine-program/course-descriptions/#selectivestext>). The full text of the ND Course Descriptions changes follows this summary section.

ND Course Descriptions Modifications

Course: RSCH 6914

What Changed: Updated course prerequisites to: RSCH 5016 or approval of instructor based on research experience.

Effective Term: Fall 2023

University Information

Vision

A world that embraces the healing power of nature.

Mission Statement

Sonoran University of Health Sciences shapes a healthier future by supporting students as they train to excel as healthcare professionals, by enhancing the health and wellbeing of our patients and communities, and by discovering effective treatments for humanity grounded in the healing power of nature.

Value Proposition

Challenge your mind and engage your heart to change lives through healthcare at a school of medicine and health sciences renowned for its dynamic culture of innovation and collaboration.

Core Values

Sonoran University embraces the following values:

We Shape the Future

- **With Purpose:** Educating the next generation of evidence-based healers and leaders
- **Through Collaborations:** Embracing interprofessional relationships
- **By Expanding Knowledge:** Conducting research that improves health and well-being
- **Through Evidence-based Principles:** While honoring the past

We Achieve Excellence

- **By Pursuing Greatness:** Setting the bar high—and exceeding it
- **Through Continuous Improvement:** Enhancing the Sonoran University experience through innovation and persistence
- **By Celebrating Accomplishments:** Appreciating achievements with humility and gratitude

We Love

- **By Practicing Inclusivity:** Embracing diversity with kindness, respect, and understanding
- **Through Self-Awareness:** Recognizing our inherent biases to expand our capacity to serve
- **By Projecting Positivity:** Providing hope and encouragement
- **Through Compassion:** Serving individuals, communities, and humanity

We Do the Right Thing

- **By Being Principle-driven:** Guiding our actions through honesty and integrity
- **Through Honoring Commitments:** Saying what we do and doing what we say
- **By Accepting Responsibility:** Holding ourselves and others accountable
- **By Following the Golden Rule:** Treating others as we want to be treated

We Are Resilient

- **By Never Giving Up:** Finding solutions through tenacity and teamwork
- **Through Appreciative Inquiry:** Identifying our best practices to overcome challenges
- **Through Wellness:** Promoting physical, mental, and emotional health
- **With Mindfulness:** Finding calm in the face of adversity

Strategic Plan 2022-2027

As a leader in integrative health sciences education, Sonoran University will meet the challenges in higher education and in healthcare by continuing to improve and innovate its existing academic programs and patient/client care, developing and acquiring new programs and services, and growing through strategic partnerships.

The full Strategic Plan (https://my.sonoran.edu/ICS/Campus_Life/Campus_Leadership/) can be found on MySonoran, you must be logged in to view the content.

Sonoran University is Renowned For

- **Student-Centeredness** – empowering and supporting students to engage in a learning process that sparks curiosity, develops critical thinking, and respects their unique attributes and capabilities.
- **Grounding in the Healing Power of Nature** – fostering the self-healing process in people and uncovering the health-promoting properties of medicinal plants.
- **Strategic Partnerships** – collaborating with other academic, research, healthcare institutions, governmental and non-profit agencies, and businesses to expand the University's role in addressing current and emerging health problems.
- **Values-Based Education and Care** – applying our Core Values, “We Shape the Future, We Love, We Achieve Excellence, We Do the Right Thing, We Are Resilient” to the way we think, speak, and act.
- **Interprofessional Synergy** – collaborating with faculty, practitioners, and researchers across disciplines to enhance learning, patient care, and discovery.
- **Inclusive Excellence and Belonging** – fostering a community that values the range of human experiences and where students, staff, faculty, and patients feel respected, included, supported, and valued.
- **Innovative and Exceptional Education** – valuing work that is grounded in learning science and driven by data insights.
- **Inclusive and Holistic Healthcare** – applying best practices in the campus and community medical centers.

Three Strategic Goals

Deliver high-quality graduate and certificate education

The University is measured by the success of its students, including graduation rates and professional examination scores. The University supports student learning by drawing upon learning science to incorporate best practices in teaching and learning, innovative technology and curricular design, faculty support and development, and collaboration between Academic, Student Affairs and Inclusive Excellence departments.

Engage in impactful research

The University's research agenda is multi-faceted. We are committed to investigating: 1) Medicinal plants – which already comprise 10% of the World Health Organization's Model List of Essential Medicines – representing a rich source of medicines to treat current and emerging diseases; and 2) Lifestyle and other therapeutic interventions to address preventable illness and premature death.

Serve individuals and communities through patient/client-centered care

During the pandemic, the public adopted healthcare innovations (e.g., telehealth), gained a deeper appreciation of stress and mental health, and saw healthcare equity gaps widen. Over the next five years, Sonoran University of Health Sciences will increase its investment in telehealth, deepen its commitment to cultural competence and inclusive excellence in the communities it serves, and continue to infuse patient care with evidence-based and patient-empowering treatments.

Foundational Resources Needed to Succeed Expand resources critical to the University's vibrant future

Fulfilling our audacious goals – including changing the institution's name and brand and capitalizing on today's evolving education and technology opportunities – will require increased human and financial resources, and investments in training, technology, and philanthropic support.

Oversight

Academic Accreditation

The Arizona State Board of Private Postsecondary Education granted a license to Sonoran University as a degree-granting institution in April 1993 to offer the Doctor of Naturopathic Medicine program. In October 2018, Sonoran University was granted a license to offer the Master of Science in Clinical Nutrition and Master of Science in Nutrition Business Leadership programs.

Sonoran University's naturopathic medical program is accredited by the Council on Naturopathic Medical Education (CNME), the programmatic accreditor for naturopathic medicine programs. A copy of the CNME Handbook for Accreditation for Naturopathic Medical Colleges and Programs is available in the Library.

Sonoran University's doctorate and master's programs are also accredited by the Higher Learning Commission (HLC), including the Doctor of Naturopathic Medicine, Master of Science in Clinical Nutrition, and Executive Master of Science in Nutrition Business Leadership.

For additional information, please contact:

Arizona State Board for Private Postsecondary Education

1740 West Adams, Suite 3008, Phoenix, AZ 85007
Phone: 602.542.5709
<https://ppse.az.gov/>

Council on Naturopathic Medical Education

342 Main Street, PO Box 178, Great Barrington, MA 01230
Phone: 413.528.8877 | Fax: 413.528.8880
www.cnme.org (<http://www.cnme.org>)

Higher Learning Commission

230 South LaSalle Street, Suite 7-500, Chicago, IL 60604
Phone: 312.263.0456 | Fax: 312.263.7462
www.hlcommission.org (<http://www.hlcommission.org>)

Sonoran University Medical & Research Facilities

Neil Riordan Center for Regenerative Medicine

For two generations the name Riordan has been synonymous with medical advances harnessing the body's innate healing ability. Sonoran University's Neil Riordan Center for Regenerative Medicine builds on this legacy, turning the tide from symptom suppression to regeneration and healing. The Neil Riordan Center for Regenerative Medicine is located in a beautiful 6,200-square-foot space on the ground floor of the Lim Commons building. Through patient care, research, and medical education, Neil Riordan Center for Regenerative Medicine helps to usher in a new era in the treatment of pain and chronic disease by:

- Developing innovative, safe, effective, and promising practices for patients suffering from pain
- Training the next generation of physicians skilled in regenerative medicine
- Building the foundation for in vitro and clinical research in regenerative medicine to explore new treatments and explicate their mechanisms of action

Ric Scalzo Institute for Botanical Research

The Institute's mission is to explore traditional medicines at the cellular, molecular, and cultural levels to create novel botanical solutions that support people, plants, and the planet.

The Ric Scalzo Institute for Botanical Research, a state-of-the-art molecular biology/phytochemistry laboratory opened in the Spring of 2021. The Institute works in collaboration with the natural products industry, foundations, and other academic institutions and labs to develop new products and improve existing botanical therapeutics through scientific exploration grounded in clinical and traditional herbalism's rich history. The Institute houses multiple laboratory facilities including a Biosafety Level 2 molecular and cellular biology laboratory with cell/virus culture capabilities, a compound isolation laboratory, and a compound identification and quantification facility. Bioassay-guided characterization, purification, and isolation of botanicals is a proven process that our research team utilizes to achieve success in creating novel, evidence-based natural products.

Sonoran University Medical Center

Sonoran University's Medical Center is a fragrance-free facility consisting of natural and recycled building materials and non-toxic paint. It is designed to support and enhance patient care and student learning through indoor healing spaces.

The Medical Center creates a clinical environment unique to any naturopathic clinical setting. Hydrotherapy, a core modality in naturopathic medicine and an important component of European water spas comprises nearly thirty percent of the Center and includes a custom-designed steam area, two saunas (far-infrared/radiant), and a hydrotherapy/color therapy suite. There are also two minor surgery suites with high-definition video equipment for recording or transmitting certain procedures, with patient consent, for learning purposes. Intravenous therapies, which can be a prominent treatment method for many health conditions, are provided in the IV Suite.

Equipment and Technology

In addition to serving patients' health needs, Sonoran University's Medical Center and Neil Riordan Center for Regenerative Medicine are

the on-campus training sites for naturopathic medical students' clinical training. Designed with video technology in each of the 7 classrooms and 37 exam rooms, the clinical care facilities support student learning in the clinical environment. Corporate sponsors donated large LCD monitors to each classroom to enhance the physicians' ability to use online resources, display a patient's electronic health record (EHR), and closed-circuit observation of exam rooms when appropriate. This technology allows students to gain immediate feedback from their attending physician. In addition, state-of-the-art medical equipment in each exam room was donated by Welch-Allyn. Naturopathic medical student learning is supported through the Clinical Resource Center, a specialized clinical collection that is an extension of Sonoran University's Library. The collection features resources in naturopathic modalities including acupuncture, botanical medicine, nutrition, homeopathy, hydrotherapy, and environmental, physical, and mind-body medicine. The Library subscribes to electronic books, journals, and specialized medical, naturopathic, and nutrition databases that supplement the on-campus print resources.

Sonoran University was the first naturopathic medical school to implement an EHR system in 2010. The utilization of EHR increases medical research opportunities and enhances patient benefits through electronic record keeping and communication among medical facility physicians and other healthcare providers. Sonoran University updated the system to eClinicalWorks in 2020. This system supports a patient portal and telemedicine.

Sonoran University Laboratory

Sonoran University's Laboratory is a CLIA moderate complexity laboratory and is accredited by COLA. Students are required to participate in laboratory posts in which they gain a finer understanding of laboratory diagnostic tests, as well as OSHA and CLIA standards. While in a laboratory post, naturopathic medical students have the opportunity to collect and prepare samples and perform CLIA-waived testing.

While some laboratory testing is done on-site, the Medical Center laboratory also contracts with Laboratory Corporation of America (LabCorp) and Sonora Quest Laboratories for standard diagnostic tests. The laboratory utilizes 15 additional specialty labs for testing not available at LabCorp or Sonora Quest.

Sonoran University Medicinary

Sonoran University's Medicinary, located in the Lim Commons building, is Arizona's largest natural Medicinary with the largest inventory of homeopathic medicines and botanical tinctures in Arizona. Naturopathic medical students are required to complete a one-credit course in which they learn about how the Medicinary operates. Covered topics include choosing high-quality supplements, the safety and prescribing of botanical tinctures, inventory management, providing customer service, and more. The Medicinary serves the patients of in-house physicians, providers across the Greater Phoenix area, and the general public.

Virtual Center for Personalized Nutrition

Leveraging high-quality and evidence-based care standards, our Virtual Center for Personalized Nutrition engages clients on a Virtual Care Journey that retains the best practices of in-person personalized nutrition care delivered at no cost through our virtual care setting. The Center eliminates traditional barriers to personalized nutrition care by increasing access and eliminating costs. Through our telehealth platform, we are connecting our providers to clients in need of nutrition care from across the country.

Our care team consists of master's or doctoral degree-level nutrition providers who are all candidates enrolled in our Supervised Practice Experience Program (SPE). Each provider is completing an internship in pursuit of their Certified Nutrition Specialist® (CNS®) credential and working under the direct supervision of licensed clinical nutritionists who hold appointments as Clinical Faculty within the College of Nutrition at Sonoran University and have been vetted and approved as SPE Clinical Supervisors by the Board for Certification of Nutrition Specialists.

Naturopathic Extended Site Community Clinics

Naturopathic medicine students may also receive their clinical training at community clinics. These clinics give students unique opportunities to provide treatment, gain skills and experience in a community healthcare setting, and enhance their cultural competence working with diverse patient populations. Treatments often include nutritional intervention, clinical nutrition, botanical medicine, physical medicine, acupuncture, homeopathy, and prescription medicines when necessary. To learn more about Sonoran University's Community Clinics, please review the listings below:

Sage Foundation for Health

www.sage.sonoran.edu (<https://sage.sonoran.edu/>)

Hamilton Elementary School

sage.sonoran.edu/community-clinics/hamilton-elementary-school (<http://sage.sonoran.edu/community-clinics/hamilton-elementary-school/>)

Mission of Mercy

[amissionofmercy.org/arizona](https://www.amissionofmercy.org/arizona) (<https://www.amissionofmercy.org/arizona/>)

Phoenix Rescue Mission – Changing Lives

sage.sonoran.edu/community-clinics/changing-lives (<http://sage.sonoran.edu/community-clinics/changing-lives/>)

Roosevelt Health Center

sage.sonoran.edu/community-clinics/roosevelt-health-center/ (<https://sage.sonoran.edu/community-clinics/roosevelt-health-center/>)

Sojourner Center

sage.sonoran.edu/community-clinics/sojourner-center (<http://sage.sonoran.edu/community-clinics/sojourner-center/>)

Southwest Center

sage.sonoran.edu/community-clinics/southwest-center/ (<https://sage.sonoran.edu/community-clinics/southwest-center/>)

Tempe Elementary Clinic

sage.sonoran.edu/community-clinics/tempe-elementary-clinic/ (<https://sage.sonoran.edu/community-clinics/tempe-elementary-clinic/>)

University Location

Sonoran University's main campus, including the research institute and two medical facilities, is located in Tempe, Arizona - a sophisticated city of culture and learning. Known as the home of Arizona State University, Tempe has a rich college atmosphere and an abundance of affordable housing, research, and entertainment opportunities. It is the ideal place to learn, live, work, and play.

Phoenix Metro Area

Tempe is part of the Greater Phoenix Metro area, one of the top ten largest metropolitan areas in the United States. The "Valley of the Sun" has the diversity of big-city life without the big-city cost. Among these

assets are flat terrain, simple transportation routes, and a light-rail system. Not only is the transportation system evolving, but the housing communities provide comfortable, affordable homes for new and longtime residents.

With 300 days of sunshine each year, the Phoenix Metro area is a haven for outdoor enthusiasts. Students enjoy hiking, biking, boating, swimming, golf, tennis, horseback riding, and even skiing and snowboarding during the winter months in beautiful northern Arizona. They also enjoy weekend and day trips to breathtaking Sedona, Tucson, the Grand Canyon, Mogollon Rim, and the White Mountains.

Entertainment venues, fine dining, and shopping settings are plentiful, as well as countless golf courses. Along with the cosmopolitan treasures of the Herberger Theatre, Ballet Arizona, The Phoenix Symphony, and the world-renowned Heard Museum, the cities that make up Greater Phoenix are home to numerous professional sports teams including the Arizona Cardinals, Phoenix Suns, Arizona Diamondbacks, Phoenix Rising, and Phoenix Coyotes. Tempe is also a sports mecca with the ASU Sun Devils, spring training sites for Major League Baseball, the annual Rock 'N Roll Arizona Marathon, and the Ironman Arizona Triathlon.

Phoenix is fortunate to be a growing city with a healthy economy. Uniquely, the cost of living in Phoenix and Tempe is lower relative to other metropolitan cities housing naturopathic colleges/universities.

Sonoran University Campus and Community

The Tempe campus includes Sonoran University's Medical Center and in the Lim Commons building the Neil Riordan Center for Regenerative Medicine, which convey the excitement and enthusiasm that the staff, faculty, and students bring to our community. Sonoran University is a highly respected source of information in the natural healthcare field. Our faculty, staff, and administrators collaborate to deliver a bold, innovative, and dynamic education. Those who spend time on campus know that Sonoran University's sense of community makes these goals a reality.

The Mr. Andrew C.G. and Dr. Ruth Tan Lim Commons (Lim Commons), a LEED platinum-certified building, features the integrative Neil Riordan Center for Regenerative Medicine, teaching kitchen, yoga studio, an extensive medical library, Borneman Board Room with high-definition teleconferencing, Thorne Auditorium, classrooms, 18 group study/meeting rooms, weight and cardio room, student lounge, wellness rooms, café, and Medicinary. The first building of its kind at any naturopathic college/university, the Lim Commons engages the public as it reshapes the university experience. Sonoran University's campus also generates clean electricity, provides shade, and reduces energy costs through the installation of solar-panel-covered structures over 80% of all parking spaces. Abundant light, evidence-based design, and sustainable and non-toxic materials create an atmosphere that delights the eye as it inspires healing, learning, and community engagement. The top-of-the-line Steelcase furnishings are functional and environmentally sustainable, providing students, patients, and the public comfortable and ergonomically sound seating throughout the Lim Commons.

The academic buildings are well-equipped to serve the needs of the community. Sonoran University classrooms, medical facilities, and Lim Commons are equipped with presentation technology and wireless internet. In addition, computers are available for student use throughout the library and at the Medical Center. To top it all off, the beauty of the medicinal gardens creates an atmosphere for community learning, campus events, and medical conferences. The gardens also provide botanicals for classroom instruction and lab experiences.

Founded principally by naturopathic physicians Michael and Kyle Cronin as Southwest College of Naturopathic Medicine & Health Sciences in 1992, Sonoran University is one of five recognized institutions of naturopathic medicine in North America. It is also the first medical school in the Phoenix Metropolitan area.

Prospective students are invited to experience Sonoran University by touring the campus and/or sitting in on a class or a clinical shift. For more information, please call the College of Naturopathic Medicine at 480.222.1136 or the College of Nutrition at 480.809.9738 to speak with an admission representative and schedule your visit.

Student Community

The student community at Sonoran University includes individuals from diverse backgrounds and experiences with a shared commitment to integrative and natural healthcare. Student demographic information is available on the Student Consumer Information Page (<https://www.sonoran.edu/student-life/student-consumer-information/>) on Sonoran University's website.

Satisfactory Academic Progress

Standards of Satisfactory Academic Progress

Sonoran University is committed to excellence in educational quality and learning outcomes by providing a supportive academic environment to students. To help Sonoran University and students identify if a student is making progress toward the completion of their degree, the University sets standards of Satisfactory Academic Progress (SAP). Federal regulations require Sonoran University to establish specific standards for measuring SAP for students receiving financial aid, which includes a quantitative measure (credit hours completed) as well as a qualitative measure (grade point average).

Satisfactory Academic Progress describes a student's successful completion of coursework toward a degree. Sonoran University monitors students' satisfactory academic progress at the end of each quarter with the calculation of a term grade point average and a cumulative grade point average (GPA) for enrolled students. A student's academic standing is based on the cumulative GPA and cumulative earned credits.

To meet Satisfactory Academic Progress at Sonoran University, students must:

- Successfully complete (earn) a cumulative number of required credits by the end of every calendar year (see Satisfactory Academic Progress for the prescribed program of study).
- Maintain a minimum career GPA (see Satisfactory Academic Progress for the prescribed program of study).

Failure to maintain either of these requirements will result in a student being placed on academic warning and/or being academically dismissed, see Good Academic Standing (p. 8) for more information.

Academic Standing

Good Academic Standing

Good Academic Standing is defined as consistently meeting or exceeding the program requirements of GPA minimum standards and the minimum academic requirements of appropriate program progression as measured against the program's maximum time to completion (see Satisfactory Academic Progress Completion and Cumulative GPA Requirement for the prescribed program of study).

Course Failure/Withdrawal and Program Completion

Failure of, or withdrawal from, courses may not always progress a student to a warning level. However, students failing or withdrawing from a course(s) are required to meet with Academic Advising to complete an academic development plan, which may include requisite supplemental coursework intended to support improved performance.

- Failure or withdrawal from a course could impact the student's projected program completion date. Students who do not meet the minimum academic requirements of program progression (as measured against the program's maximum time to completion) will be subject to dismissal from the program.
- Failing a course for the second time will result in dismissal.

Academic Warning

Academic Warning is a reflection of a student's academic standing. Academic Warning is assigned as an alert when the student is not making sufficient progress toward completion of the degree and a signal that intervention, in the form of an academic development plan, is required.

First Academic Warning (Academic Warning I)

A student is placed on Academic Warning I if:

- The student does not achieve the required program minimum cumulative GPA standard (2.1 ND/3.0 MS), or
- The student fails one or more clerkships (CLTR course) during a quarter at Sonoran University (ND program only).

A notation of Academic Warning I is included on the academic transcript. Students placed on Academic Warning I will receive notification from the Registrar's Office and must meet with Academic Advising to complete an academic development plan intended to support improved performance. Students are encouraged to engage with all available support resources (e.g., Learning Specialist, and mental health professionals) to obtain additional assistance. Students placed on Academic Warning I will continue in this status unless they meet the requirements for restoring good academic standing.

If the student is unable to continue in their prescribed program of study, the student may be placed on an Administrative Leave of Absence (ALOA) (<https://catalog.sonoran.edu/catalog/university-policies/enrollment-policies/#leaveofabsencestext>) and therefore may not be eligible for financial aid. The student may be eligible to reenter their prescribed program of study as determined by academic advising and Sonoran University's ALOA policy as outlined in the catalog. # Note: A student whose GPA projections show an inability to recover to 2.1 (ND)/3.0 (MS) or higher in subsequent terms by the projected graduation date may be subject to dismissal.

Second Academic Warning (Academic Warning II)

A student is placed on Academic Warning II if:

- The student does not achieve the required program minimum cumulative GPA standard (2.1 ND/3.0 MS) while on Academic Warning I, or
- The student fails one or more clerkships (CLTR course) during a quarter at Sonoran University (ND program only) while on Academic Warning I.

#A notation of Academic Warning II is included on the academic transcript. Students placed on Academic Warning II will receive notification from the Registrar's Office and are required to meet with academic advising to update their academic development plan intended to support improved performance. # Students are encouraged to engage with all available support resources (e.g., Learning Specialist, and mental health professionals) to obtain additional assistance. Students placed on Academic Warning II will continue in this status unless they meet the requirements for restoring good academic standing.

If the student is unable to continue in their prescribed program of study, the student may be placed on an Administrative Leave of Absence (ALOA) (<https://catalog.sonoran.edu/catalog/university-policies/enrollment-policies/#leaveofabsencestext>) and, therefore may not be eligible for financial aid. The student may be eligible to reenter their prescribed program of study as determined by academic advising and Sonoran University's ALOA policy as outlined in the catalog. # Note: A student whose GPA projections show

an inability to recover to 2.1 (ND)/3.0 (MS) or higher in subsequent terms by the projected graduation date may be subject to dismissal.

Academic Support for Students on Academic Warning

To support students on academic warning, students are required to meet with Academic Advising to help navigate resources and support opportunities. Students on the first or second levels of academic warning will be required to complete an academic development plan during their meeting with Academic Advising. If the student is unable to continue in their prescribed program of study, the student may be placed on an Administrative Leave of Absence (ALOA) and may not be eligible for financial aid. The student may be eligible to reenter their prescribed program of study as determined by Sonoran University's ALOA policy and the Academic Advising Office.

The Academic Warning notation remains on the student's transcript indefinitely. Students reduce a warning level when their cumulative GPA meets or exceeds the minimum required as outlined for their program of study for two consecutive quarters per warning level.

Academic Restoration

To clear an Academic Warning and restore good academic standing, a student on Academic Warning must meet the following requirements for *each* level of academic warning to be reduced by one level.

- Earn a minimum cumulative GPA for two consecutive terms.
 - ND students must earn a minimum cumulative GPA of 2.1
 - MS students must earn a minimum cumulative GPA of 3.0

The Advising Office can help students understand the impact and consequences of earned and future grades on their cumulative GPA.

Academic Dismissal

Students who are demonstrating unsatisfactory academic progress or are unable to meet the Technical Standards of Admission (if applicable) for their prescribed program of study will be subject to dismissal. A student will be subject to dismissal if:

- The student does not achieve the required program minimum cumulative GPA standard (2.1 ND/3.0 MS) while on Academic Warning II, or
- The student fails one or more clerkships (CLTR course) during a quarter at Sonoran University (ND program only) while on Academic Warning II, or
- The student's projected program completion exceeds the program's maximum completion time, or
- The student fails the same course for the second time during any portion of their enrollment at Sonoran University (a course includes any didactic course or clinical clerkship in the prescribed program of study), or
- The student fails to meet the Technical Standards of Admission (if applicable) for a prescribed program of study.

Should, despite reasonable accommodation (whether the student chooses to use the accommodation or not), a student's existing or acquired disability interfere with patient or peer safety or otherwise impede the ability to meet the Technical Standards for their program and advance to graduation, the student may withdraw or be subject to academic dismissal from the program.

Students who have been dismissed will receive official notification from the Registrar's Office. The dismissal notification will outline the student's rights to an appeal. The Appeal Process (<https://catalog.sonoran.edu/>

student-handbook/code-professional-conduct-academic-honor/disciplinary-process/) is also outlined in the Student Handbook. If a student is reinstated on a dismissal appeal, they are ineligible for academic restoration as outlined in this policy and must meet the requirements outlined in their reinstatement letter.

Academic dismissal from a degree program does not preclude the student from admission to another degree program at Sonoran University. All academic records from the program from which a student was dismissed are reviewed to inform admission decisions.

Academic Dismissal Appeal Process

The student has five (5) business days from the date the dismissal was issued in which to request an appeal to the APPC regarding dismissal. The student and appropriate program dean will receive written notification from the Dean of Students regarding the outcome of the appeal.

If the dismissal is upheld, the student then has five (5) business days from the date the dismissal was upheld by APPC to appeal in writing to the appropriate program dean, whose decision is final. A student may not enroll in or attend any courses in that program and may not participate in any of that program's sponsored activities while the Dismissal Appeal process is pending. Additionally, they may be barred from Sonoran University's property unless pre-approved permission is provided by the Dean of Students to attend meetings and/or hearings in person.

Students who have been dismissed from an academic program will not be readmitted to that program under any circumstance.

Grading Scale Policy

Faculty members are required to provide students with a course syllabus that outlines course requirements, including methods of evaluation that assess mastery of course content.

Core courses in the ND program will be graded A/B/C/F; clinical clerkships and lab/medicinary posts and some classes/selectives are graded satisfactory/unsatisfactory (S/U). S/U graded courses have no effect on GPA and are noted in the course syllabus.

Core courses in the MS programs are graded A/B/F. Some selectives are graded satisfactory/unsatisfactory (S/U). S/U graded courses have no effect on GPA and are noted in the course syllabus.

Faculty are not required to round up a grade to a higher grade irrespective of relative percentages. Faculty may also adjust a final letter grade depending on extenuating circumstances while maintaining the academic integrity and learning objectives of the course.

Grade Point Averages

The Grade Point Average (GPA) for each quarter is calculated by multiplying the point value of the grade received (see the following table) by the number of credits for each course. To calculate the GPA, add the credits, then add the grade points and divide the total points by the total credits. The same principle applies to the cumulative GPA reflected on the transcript. If a course is repeated, all grades earned are used in determining the GPA. Grades received at another institution are not included in Sonoran University's GPA. Grades specific to the Doctor of Naturopathic (ND) program and the Master of Science (MS) programs are indicated next to the grade.

Grade	Description	Points	Percentage
A	Outstanding	4	90-100%
B	Very Good	3	80-89%

C (ND)	Average	2	70-79%
F (ND)	Fail	0	Less than 70%
F (MS)	Fail	0	Less than 80%
AU	Audit	Taken	
I	Incomplete	Additional work required	
I/R	Incomplete/ Remediate	Additional work required	
S (ND)	Satisfactory	Pass/Credit earned	
U (ND)	Unsatisfactory	Fail/No credit earned	
T	Transfer	Graduate transfer	
WD	Withdrew	Withdrew	
WV	Waived	Requirements waived	
WIP	Work in Progress	Continuing course	

1. The Grade of Incomplete does not contradict the course requirements as outlined in the course syllabus or other published course documents;
2. The student either:
 - a. Has completed at least 70% of the course duration, or
 - b. Has no more than 30% of grades outstanding;
3. The student is passing the course at the date of submission of the Grade of Incomplete request;
4. The request is submitted to the course faculty before the final week of the course;

If approved by the course faculty, the program dean will ensure:

1. The presence of a legitimate circumstance (i.e., serious illness, bereavement, or another unanticipated factor) beyond the student's control;
2. The course is not a repeat of a previously failed course;
3. The student is not on Academic Warning II or Dismissal Appeal status.

If approved, the program dean will notify the faculty and student.

All work for the course must be completed by the Friday following completion of the course. Students are responsible for meeting all stated requirements. Any failure to meet these requirements will result in the Incomplete grade reverting to the cumulative grade calculation, including all assessments – completed or not – at the end of the course.

Incompletes for ND clinical clerkships will follow the Incomplete/Make-Up Policy and process outlined in the Clinical Handbook and do not require a dean's approval unless completion requires an extension beyond the normal time period, as determined by clinical faculty.

Students on documented medical or military leave must resolve their Incomplete grade within four academic quarters. If the Incomplete grade is not resolved within four quarters, the Incomplete will be converted to the cumulative grade calculation, including all assessments – completed or not – at the end of the course, see Medical or Military Leave of Absence Policy (<https://catalog.sonoran.edu/catalog/university-policies/enrollment-policies/#leaveofabsencestext>).

Grade Reports

Grade reports are available within two weeks of the end of the quarter for the prescribed program of study. Grades are considered a part of the student's educational record and will not be released to anyone other than the student or authorized school official or posted in any personally identifiable form. Grade reports are available upon request through the Registrar's Office and online through MySonoran.

Grade Appeal Procedures

For courses taken in the College of Naturopathic Medicine, grade appeals must be initiated no later than the second Monday after the quarter has been completed. For courses taken in the College of Nutrition, grade appeals must be initiated no later than the second Monday after the course has been completed. Final grades are posted to the Student Services, Academic Records section in MySonoran. Grade appeals are only applicable for final course grades and will only be pursued if evidence and a valid basis are presented. The responsibility for presenting a case for appeal rests with the student.

Students should consider only the following evidence when initiating a grade appeal:

Grade of Fail, Unsatisfactory

A grade of Fail (F)/Unsatisfactory (U) can seriously affect the student's academic progress and the student's eligibility for financial aid. Students failing any course(s) will be required to meet with Academic Advising to complete an academic development plan, which may include co-requisite developmental coursework intended to support improved performance.

- A grade of U or F in a prerequisite for other courses precludes the student from entering those courses until the U/F has been rectified.
- To rectify the grade of U/F, the course must be repeated at the next available offering in the student's prescribed program of study, with the exception of selectives.
- Students on federal financial aid should be aware of funding eligibility for repeating a failed course. For more information see the Financial Aid Policy for Repeat Coursework (<https://catalog.sonoran.edu/catalog/financial-information/#financialpoliciestext>).
- Both the original U/F grade and the grade given in the repeated course appear on the student's transcript and are calculated in the student's cumulative GPA.
- If a U/F is earned for the repeated course, the student will be academically dismissed. For more information, see Satisfactory Academic Progress (p. 8) and Academic Dismissal (p. 8).

Grade of Incomplete

If a student is unable to complete a course, the student may request a grade of Incomplete "I" using the Incomplete Grade Request Form on MySonoran. The student initiates the process by submitting the completed form to the course faculty, including supportive documentation. The Incomplete Request Form is to be completed collaboratively by the student and course faculty and serves to create a feasible course completion plan should the request be approved by the program dean.

The faculty will itemize unfinished coursework and sign the form, indicating preliminary approval, only if the student meets all minimum course completion requirements to receive a Grade of Incomplete:

- The final grade included a miscalculation of the course grades or final exam/assignment.
- The final grade deviated from the calculation of course grades as outlined in the course syllabus.

The following situations do not serve as a valid basis for grade appeal:

- A dispute over how to interpret the syllabus.
- The grade change does not alter the final course grade.
- Comparing the course grading standards with another course.

First Appeal

The student must submit an appeal using the online Grade Appeal form on MySonoran (see initiation deadlines above). Students must provide evidence to support their appeal. The Academic Services Manager has the responsibility to screen out frivolous or unsubstantiated appeals and report such findings to the student and faculty. At this time the student will have an opportunity to voice concern(s) about the grade received. The course faculty may elect to meet with the student and/or obtain additional information to further evaluate the student's concern(s) and will decide whether to maintain the original grade or submit a Grade Change Form to the Registrar's Office. A written notification of the decision will be provided to the student from the faculty within two (2) business days. Note, that if the faculty is unavailable for the first appeal, the Academic Services Manager will advance the appeal to the next level supervisor.

Final Appeal

If the grade appeal is denied by the course faculty, the student may appeal in writing to the next level supervisor: the appropriate Department Chair (DC), Division Director (DD), or Dean within two (2) business days of notification of denial from course faculty. The DC, DD, or Dean may make a decision regarding the grade appeal with or without meeting with the student directly. If a meeting is granted, the DC, DD, or Dean may also request the course faculty be present for this meeting. The student will again have an opportunity to voice concern(s) about the grade received. The DC, DD, or Dean will have the chance to review the criteria by which the final grade is determined. The DC, DD, or Dean may elect to obtain additional information to further evaluate the student's concern(s) and will decide whether to maintain the original grade or submit a Grade Change Form to the Registrar's Office. A written notification of the decision will be provided to the student within two (2) business days. The decision is final and is not subject to further appeal or grievance.

Academic Calendar

2023-2024 Academic Calendar

Fall Quarter

October 2 - December 24, 2023

Date	Event
Aug 7	Fall Online Orientation Opens (All Programs)
Sep 25 - 29	ND LIVE New Student Orientation (NSO)
Oct 2	Fall Classes Begin
Oct 2 - 5	MS Add/Drop - Session A Courses
Oct 2 - 13	ND/MS Add/Drop - Session C Didactic Courses
Oct 6	Last Day to Pay Tuition & Fees
Nov 10	Veterans Day - University/Clinics Closed
Nov 12	MS Mid Quarter - End of Session A
Nov 13 - 16	MS Add/Drop - Session B Courses
Nov 13 - 17	Winter Quarter Registration
Nov 23 - 24	Thanksgiving - University/Clinics Closed
Dec 9 - 13	Certified Nutrition Specialist Exam (MSCN)
Dec 10	MS Graduates End of Fall Quarter
Dec 11 - 15	ND Final Exams
Dec 15	ND End of Fall Quarter
Dec 18	Graduation Ceremony
Dec 18 - 29	ND Clinic Rotations (Break Weeks 1 & 2)
Dec 18 - 29	ND Student Recess - Didactic Only
Dec 20	ND Final Grades Due
Dec 22 - 25	Holiday - University/Clinics Closed
Dec 24	MS End of Fall Quarter
Dec 25 - 29	MS Student Recess
Dec 27	MS Final Grades Due
Dec 29 - Jan 1	New Year's - University/Clinics Closed

Winter Quarter

January 2 - March 24, 2024

Date	Event
Jan 2	Winter Classes Begin
Jan 2 - 5	MS Add/Drop Courses - Session A
Jan 2 - 12	ND/MS Add/Drop - Session C Didactic Courses
Jan 5	Last Day to Pay Tuition & Fees
Jan 15	Martin Luther King - University/Clinics Closed
Feb 6	NPLEX Basic Science Exam (ND - Q8)
Feb 7 - 9	NPLEX Clinical Science Exam (ND)
Feb 11	MS Mid Quarter - End of Session A

Feb 12 - 15	MS Add/Drop Courses - Session B
Feb 12 - 16	Spring Quarter Registration
Feb 19	MS Spring Orientation Opens
Mar 11 - 15	ND Final Exams (except Q8)
Mar 15	ND End of Winter Quarter (except Q8)
Mar 18 - 22	ND Q8 - Final Exams
Mar 18 - 29	ND Clinic Rotations (Break Weeks 1 & 2)
Mar 18 - 29	ND Student Recess - Didactic (except Q8)
Mar 20	ND Final Grades Due (except Q8)
Mar 22	ND Q8 - End of Winter Quarter
Mar 23	ND White Coat Ceremony
Mar 24	MS End of Winter Quarter
Mar 25 - 29	MS/ND Q8 - Student Recess
Mar 27	MS/ND Q8 - Final Grades Due

Spring Quarter

April 1 - June 23, 2024

Date	Event
Feb 5	Spring Online Orientation Opens (all programs)
Mar 25 - 29	ND LIVE New Student Orientation (NSO)
Apr 1	Spring Classes Begin
Apr 1 - 4	MS Add/Drop - Session A Courses
Apr 1 - 12	ND/MS Add/Drop - Session C Didactic Courses
Apr 5	Last Day to Pay Tuition & Fees
May 12	MS Mid Quarter - End of Session A
May 13 - 16	MS Add/Drop - Session B Courses
May 13 - 17	Summer Quarter Registration
May 27	Memorial Day - University/Clinics Closed
Jun 8 - 12	Certified Nutrition Specialist Exam (MSCN)
Jun 9	MS Graduates End of Spring Quarter
Jun 10 - 14	ND Final Exams
Jun 16	ND End of Spring Quarter
Jun 17	Graduation Ceremony
Jun 17 - 28	ND Clinic Rotations (Break Weeks 1 & 2)
Jun 17 - 28	ND Student Recess - Didactic Only
Jun 18	ND Final Grades Due
Jun 19	Juneteenth - University/Clinics Closed
Jun 23	MS End of Spring Quarter
Jun 24 - 28	MS Student Recess
Jun 26	MS Final Grades Due

Summer Quarter

July 1 - September 22, 2024

Date	Event
Jul 1	Summer Classes Begin
Jul 1 - 5	MS Add/Drop Courses - Session A
Jul 1 - 12	ND/MS Add/Drop - Session C Didactic Courses
Jul 4	Independence Day - University/ Clinics Closed
Jul 5	Last Day to Pay Tuition & Fees
Aug 6	NPLEX Basic Science Exam (ND - Q8)
Aug 7 - 9	NPLEX Clinical Science Exam (ND)
Aug 11	MS Mid Quarter - End of Session A
Aug 12 - 15	MS Add/Drop Courses - Session B
Aug 12 - 16	Fall Quarter Registration
Sep 2	Labor Day - University/Clinics Closed
Sep 9 - 13	ND Final Exams (except Q8)
Sep 13	ND End of Summer Quarter (except Q8)
Sep 16 - 20	ND Quarter 8 - Final Exams
Sep 16 - 27	ND Clinic Rotations (Break Weeks 1 & 2)
Sep 16 - 27	ND Student Recess - Didactic (except Q8)
Sep 18	ND Final Grades Due (except Q8)
Sep 20	ND Q8 - End of Summer Quarter
Sep 20	ND White Coat Ceremony
Sep 22	MS End of Summer Quarter
Sep 23 - 27	MS/ND Q8 - Student Recess
Sep 25	MS/ND Q8 - Final Grades Due

Fall Quarter

2024-2025 Academic Year

Date	Event
Aug 5	Fall Online Orientation Opens (All Programs)
TBD	ND LIVE New Student Orientation (NSO)
TBD	Fall Classes Begin

All dates are subject to change

Faculty

Full-Time Faculty

A

Abusamra, Yasmin, PhD

Professor of Biochemistry, Department Chair, Basic Medical Sciences BS, Botany and Chemistry, University of Khartoum, Sudan, 1986; MS, Analytical Chemistry, University of Khartoum, Sudan, 1995; PhD, Biochemistry and Molecular Biology, Michigan State University, 2002

Alexander, Amanda, ND

Associate Professor of Naturopathic Medicine BS, Biology/Pre-Medicine, University of Georgia, 2001; MEd, Science Education, Georgia State University, 2006; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2012.

Axelrod, Leslie, ND

Professor of Naturopathic Medicine BS, Human Nutrition, University of Massachusetts; ND, Bastyr University, 1987; Dipl. Ac, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 1998.

B

Bain, Jaclyn, ND

Associate Professor of Naturopathic Medicine; Division Director of Clinical Education; Department Chair, Pre-clinical Studies BS, Biology, The College of New Jersey, 2009; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Science), 2013.

E

Eltigani, Hamid, MD

Professor of Anatomy MS, Human Morphology, University of Khartoum, Sudan, 1996; MD, Mink State Medical Institute, 1991.

G

Gaines, Patricia, ND

Professor of Naturopathic Medicine; Department Chair of Botanical Medicine ND, Bastyr University, 2002.

H

Howell, Pamela, MD

Associate Professor of Clinical Diagnostics; Department Chair of General Medicine BS, Biology and Chemistry, West Texas State University, 1985; MD, Texas Tech Medical School, 1989.

J

Jonas, Mary Dawn, ND

Assistant Professor of Naturopathic Medicine; Interim Department Chair of the Department of Mind-Body, Environmental Medicine and Naturopathic Philosophy. BS, Psychology, Washington University, 1999; MA, Counseling, Webster University, 2001; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2016.

K

Kadar, Gena, DC, MS.MEdL, CNS

Professor of Clinical Nutrition; Dean College of Nutrition BA, Humanistic Studies, McGill University, 1998; DC, Southern California University of Health Sciences, 2001; CNS, Board for Certification of Nutrition Specialists, 2007; MS, Medical Education Leadership, University of New England, 2016.

Kennedy, Shaun, ND

Assistant Professor of Naturopathic Medicine MS, Psychology, University of Phoenix, 2011; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2016.

L

Langland, Jeffrey, PhD

Professor of Research; Department Chair of Research BS, Microbiology, Arizona State University, 1986; PhD, Microbiology, Arizona State University, 1990.

Lasku, Arben, PhD

Professor of Pathology and Laboratory Medicine MD, University of Tirana, Albania, 1985; MS, Clinical Pathology, University of Tirana, Albania, 1988; PhD, Clinical Pathology, University of Tirana, Albania, 1994.

M

Mitchell, Jessica, ND

Assistant Professor of Naturopathic Medicine; Dean, College of Naturopathic Medicine BS, Psychobiology, Binghamton University, 2001; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2005.

R

Rice, Elizabeth, ND

Associate Professor of Naturopathic Medicine; Department Chair of Homeopathy & Pharmacology BA, Global Studies- Culture and Ideology/Spanish Language, University of California, 2002; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2009.

Rodriguez, Odessa Arianna, ND

Assistant Professor of Naturopathic Medicine Biological Science, Arizona State University, 2010; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2017.

S

Salisbury, Lauren, ND

Roosevelt Health Center Clinic Director BA, Political Science, Our Lady of the Lake University, 2005; MS, Non-Profit Management, Our Lady of the Lake University, 2009; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2016; MS, Acupuncture, Phoenix Institute of Herbal Medicine and Acupuncture, 2019.

Schmidt, John, PhD

Professor of Physiology

BS, Biochemistry, University of Massachusetts, Amherst, 1981; PhD, Pharmacology, University of Washington, Seattle, 1987.

Schroeder, Hannah, ND

Instructor of Naturopathic Medicine

BS, Biomedical Sciences, Northern Arizona University, 2016; ND; Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2020.

Stage, Katrina, ND

Associate Professor of Naturopathic Medicine; Division Director of Therapeutics

BA, Anthropology, Philosophy, Northwestern University, 1996; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2010.

Stoppa, Iginio, ND

Instructor of Naturopathic Medicine

BS, Exercise Science, Northern Arizona University, Flagstaff, 2015, ND, Bastyr University, Kenmore, WA, 2021.

T**Thompson, H. Garrett, DC, PhD**

Vice President of Academic Affairs

BA, Biology, Reed College 1994; PhD, Biochemistry, Loma Linda University, 2000; DC, Southern California University of Health Sciences, Los Angeles College of Chiropractic, 2010.

V**Vedeler, Christopher, LAc**

Assistant Professor, Department Chair, Acupuncture & Chinese Medicine

BA, Philosophy, New Mexico State University, 1998; MS, Oriental Medicine, Southwest Acupuncture College, 2004.

Adjunct Faculty

A**Alfrey, Jennifer, MS, CCN, CSCS*D**

BS, Exercise Physiology, University of Utah, 1995; MS, Exercise Science/ Nutrition, Arizona State University, 2000.

Ama, Suzanne, DCN, MS, MS Ed., BFA

BFA in Digital Design, American InterContinental University, 2004; MS, Education, California State University East Bay, 2007; MS, Human Nutrition, University of Bridgeport, 2018; DCN, Maryland University of Integrative Health; 2021.

Amrine, Craig, LAc

BS, Ceramic Engineering, Alfred University, New York, 1991; MS, Acupuncture, Phoenix Institute of Herbal Medicine and Acupuncture, 2008.

B**Bethel, Klee, MD**

MD, Creighton University School of Medicine, 1986.

Bos, Willem, DC

BS, Human Biology, Northwestern Health Sciences University, 1999; DC, Northwestern Health Sciences University, 1999.

Branham, Gary, MDR

BS, Business, Indiana University, Kelley School of Business, 1986; Master of Dispute Resolution, Pepperdine University of Law, Straus Institute for Dispute Resolution, 2015.

Briante, Carla, MSc., ND

BA, Major Statistics, University of Guelph, 2004; MS, Statistics, University of Guelph, 2005; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2016.

Brouwer, Lauri, ND

BS, Nutrition (Dietetics), Arizona State University, 2008; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2012.

C**Carlbom, Bronwyn, ND**

BA, Classical Flute Performance, University of Southern California, 2010; ND, Southwest College of Naturopathic Medicine, (Now Sonoran University of Health Sciences), 2019.

Cherpak-Castagna, Christine, CN, CNS, CDN, LDN, BCFWP, CIHC, INHC

BA, Stony Brook University, 2007; DCN, Maryland University of Integrative Health, 2020.

Clough, Kelly, ND

BS, Physics and Economics, SUNY at Stony Brook Honors College, Stony Brook, NY, 2007; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2013.

Cook, Tracey, ND

BS, Biology, University of Akron, 2009; Masters, PIHMA, 2016; ND, Southwest College of Naturopathic Medicine & Health Sciences (Now Sonoran University of Health Sciences), 2014.

Covey, Christina, ND

BS, University of Vermont, 2010; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2020.

Czeczuga, Alison,

BA, International Affairs, Elliott School of International Affairs, 2007; Certificate in Business Education, The George Washington University, School of Business, 2007.

D**Darragh, Angela, ND**

BS, Biological Sciences, Florida Atlantic University, 2006; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2012.

Davis, Mark, ND

BA, Applied Linguistics, University of Maryland, Baltimore County, 1999 ND, National College of Natural Medicine, 2011.

DeCarolis, Anna-Maria, ND

BS, Biology, Grand Canyon University, 2017; ND, Southwest College of Naturopathic Medicine, (Now Sonoran University of Health Sciences), 2021.

Desai, Sarika, DO

BS, Health Promotion Studies, University of Southern California, 2004; DO, Western University of Health Sciences, 2008.

DiCampli, Jesika, ND

BS, Interdisciplinary Health Services, Saint Joseph's University, 2000; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2006.

DiFrancesco, Tara, MS, CNS, LDN

BS, Psychology and Mental Health, Worcester State University; MS, Nutrition and Herbal Medicine, Maryland University of Integrative Health.

E

Eischens, Shawna, ND

BS, Therapeutic Recreation-Child/Youth Emphasis, University of Wisconsin-La Crosse, 1999; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2012.

Ewald, Jaime, ND

BS, Biological Sciences, Wright State University, 2000; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2006.

F

Freeth, Stephanie, MBA

BA, English, Princeton University, 1997; MBA, Kellogg School of Management, Northwestern University, 2002.

G

Gatter, Robin, MS, CNS, LDN

BS, International Business, Central Connecticut State University; MS, Human Nutrition, University of Bridgeport.

Gerstel, Johanne, ND

BS, Psychology and Biology, Arizona State University, 2011; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2019.

Goelz, Linna, ND

BS, Business Administration, University of Denver, Daniels College of Business, 2012; Certified Natural Foods Chef, Nutrition Therapy Institute, Denver, CO, 2013; Certified Master Nutrition Therapist, Nutrition Therapy Institute, Denver, CO, 2015; ND, Southwest College of Naturopathic Medicine & Health Sciences (Now Sonoran University of Health Sciences), 2021.

Goodman-Herrick, Pearlyn, ND

ND, National University of Natural Medicine, 1979; DHANP, 1988.

Gouge, Laura, ND

BS, Public Health, University of Washington, Seattle, 2010; ND, National College of Natural Medicine, Portland, 2015.

Grise, Diane, ND

BS, Human Biology, Indiana University, 2009; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2013.

H

Hamdan, Saeed, MD

MD, General Medicine, Minsk State Medical University, Minsk; MS, Obstetrics & Gynecology, National Medical University, Russia, Moscow; PhD, Obstetrics & Gynecology, Russia State Medical University, Moscow; MS, Health Informatics, UAB, Birmingham, Alabama.

Hartwell, Lillea, ND

BS, Plant Sciences, University of Arizona, 2015; ND, Southwest College of Naturopathic Medicine & Health Sciences (Now Sonoran University of Health Sciences), 2019

Harvey, Phillip, PhD, RD, CNS, FACN, FISSN

BA, Biology, California State University, Northridge; MSPH, Nutritional Sciences, UCLA, School of Public Health; PhD, Nutritional Biochemistry, Colorado State University.

Hilton, Jeffrey, MS

BA, Marketing, University of Utah; MS, Integrated Marketing Communications, Northwestern University.

Hodges, Romilly, CNS, CKNS, CDN, IFMCP, mBANT, CNHC

BS, Management, University of London Royal Holloway College, 2002; MS, Human Nutrition, University of Bridgeport, 2015.

J

Johnson, Arthur, EdD, EdS, MEd

MEd, University of Florida; EdS, University of Florida; EdD, Florida Atlantic University.

Jones, Feather,

Massage Therapist, Boulder School of Message Therapy, 1978; Certification, Clinical Herbalist, Santa Fe College of Natural Medicine, 1982.

Jurglewicz, Michael, DC, DACBN, DCBCN, CNS

BS, Marketing, The Pennsylvania State University, 2001; BS, Health & Wellness, Parker University, 2007; BS, Anatomy, Parker University, 2007; DC, Parker University, 2007.

K

Kaplan, Steven, ND

BA, English Literature, University of California at Los Angeles, 1983; MA, Mass Communications (Radio-TV-Film), California State University, Northridge, CA, 1996; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2016.

Kaufman, Patricia, PhD, LDN, CNS

MS, Human Nutrition and Functional Medicine, University of Western States, 2018; MBA, Marketing, Marquette University, 2000; PhD, Health and Performance, Concordia University of Chicago, 2021.

Kennedy, Stacy, MPH, RD, CSO, LDN

BS, Nutrition Science & Dietetics, Indiana University, 1996; MPH, University of North Carolina at Chapel Hill, 2000.

Klein, Rachel, ND, DC

Doctor of Chiropractic, National University of Health Sciences, Lombard, IL, 2012; Doctor of Naturopathic Medicine, National University of Health Sciences, Lombard, IL, 2013.

Kovalchik, Jessica, DC, MS, CNS, LDN, CDN

BS, Biology, Marywood University, 2009; DC, New York Chiropractic College (Now Northeast College of Health Sciences), 2011; MS, Applied Clinical Nutrition, New York Chiropractic College, 2020.

L

Lewis, Danielle, ND

BS, Health Science/Management, Old Dominion University, 1999; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2013.

Livengood, Elizabeth, ND

BS, Zoology, Arizona State University, 1992; MA, Education, University of Phoenix; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2015.

Londre, Bryan, MSNBL, MS, NASM-CNC

BS, Biology, University of Minnesota, 2010; MS, Regulatory Affairs, Northeastern University, 2014; MS, Nutrition Business Leadership, Sonoran University of Health Sciences, 2022.

M

Mac-Kay-Timmermans, Drew, ND

BS, Kinesiology, University of Western Ontario, CA; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2017.

Marchese, Marianne, ND

BS, Occupational Therapy, Creighton University, 1990; ND, National University of Natural Medicine, 2002.

Medore, Yadim,

Founder and CEO of Pure Branding, Bennington College, Liberal Arts and Sciences, 1982-1984; University of North Carolina School of the Arts, Drama, 1984-1986

Merkey, Allison, ND, MS

BS, Nutrition, University of Nevada Las Vegas, 2006; MS, Biology, University of Nevada Las Vegas, 2008; ND, Southwest College of Naturopathic Medicine, (Now Sonoran University of Health Sciences), 2018.

Mirbolooki, Reza, MD, PhD

MD, General Medicine, Babol University of Medical Sciences, Babol, Iran, 2000; PhD, Experimental Surgery, University of Alberta, Edmonton, Canada, 2008.

Moore, Jessica, ND, FABNO

Bachelor of Kinesiology, University of Calgary, AB Canada, 2007; Doctor of Naturopathic Medicine, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2013; Fellow of the American Board of Naturopathic Oncology, 2017.

Mundt, Jennifer, ND

BA, Biology, University of Minnesota, 2000; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2009.

Musset, Jeannette, NMD

BS, Biochemistry, Indiana University, South Bend, 2010; NMD, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2015.

P

Pantermuehl, Jessica, NTP, CHHC

NTP, Nutrition Therapy Practitioner, Nutritional Therapy Association, 2015; CHHC, Certified Holistic Health Counseling, American Association of Drugless Practitioners, 2012.

Patel, Dharti, DMD, FDS RCS (Ed), ND, MSOM, DAChM

DMD, University of Pennsylvania School of Dental Medicine, 2002; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2018; MS, Oriental Medicine, Phoenix Institute of Herbal Medicine and Acupuncture, 2020; DAChM, Phoenix Institute of Herbal Medicine and Acupuncture, 2021.

Paulson, Heather, ND

BS, Aquatic Biology, University of California, Santa Barbara, 2000; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2007.

Perrino, Carie, ND

BS, Nutritional Science, University of Missouri, 2014; ND, Southwest College of Naturopathic Medicine & Health Sciences (Now Sonoran University of Health Sciences); 2022.

Phillips, Luke, MDiv, MBA(c)

BA, Religious Studies, University of South Florida, 2009; MDiv, Fuller Theological Seminary, 2015.

Pierce, Kay, PCC, FNTF

PCC, Professional Certified Coach, International Coaching Federation 2021; FNTF, Functional Nutritional Therapy Practitioner 2014.

Pinazza, Anthony, ND

BS, Biochemistry, Southern Nazarene University, 2013; ND, Southwest College of Naturopathic Medicine & Health Sciences (Now Sonoran University of Health Sciences), 2018.

Pizano, Jessica, MS, CNS, DCN

DCN, Maryland University of Integrative Health; MS, Human Nutrition, University of Bridgeport.

R

Ross, Kim, DCN, MS, MBA, CNS, CDN, LDN, IFMCP

MBA, Utica College, 2008; MS, Applied Clinical Nutrition, New York Chiropractic College (now Northeast College of Health Sciences), 2012; DCN, Maryland University of Integrative Health, 2021.

S

Sanchez, JoAnn, BS

BS, Forestry & Wildlife Management, University of Rhode Island, 1981.

Schichtl, Rachel, PhD, RDN, FAND

MS, Nutrition, University of Central Arkansas, 2005; RDN, Nutrition and Dietetic Internship, University of Central Arkansas; 2009; PhD., Family and Consumer Sciences Education, Texas Tech University, 2020.

Schuler, Corey, FNP, DC, MSN, MSHN, EMBA, BSN, ASN

BS, Valparaiso University, 2002; DC, Northwestern Health Sciences University, 2007; MS, Human Nutrition, University of Bridgeport, 2011; ASN, International College of Health Sciences, 2016; MBA, Quantic School of Business and Technology, 2018; BSN, Graceland University, 2019; MSN, Graceland University, 2021.

Sharaf, Sydney, ND

BS, Nutrition Science, Montana State University, 2014; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2019.

Sherlin, Leslie, PhD

BS, Psychology, University of Tennessee, 2000; MS, Psychology, Capella University, 2003; PhD, Psychology, Capella University, 2008.

Short, Daniel, PhD

BA, Psychology, McMurry University, 1990; MS, University of North Texas, 1993; PhD, Counseling Psychology, University of Massachusetts, Amherst, 2000.

Stone, Sarah, ND

BS, Psychology, University of South Florida, 2011; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2015.

T
Tabares, Amber, ND

BA, Biology, University of Missouri, 2004; MBA, Healthcare, American Intercontinental University, 2006; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2012.

Tamburri, Phranq, ND

BS, Life Sciences, University of Pennsylvania, 1998; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2002.

Tately, Molly, ND

BS, Technical Management, DeVry University, 2004; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2021.

TerHaar, Jessica, PhD

BSc, Kinesiology & Health Science, York University, Canada, 2007; MSc, Human Health & Nutrition, University of Guelph, Canada 2009; PhD, Medical Science & Microbiology, UMCG, The Netherlands, 2015.

V
Vaughan, Karen, ND

BS, Biology, University of South Florida, 1999; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2004.

Volk, Kimberly, ND

BA, Psychology, University of Buffalo, 2001; RN, Associates in Applied Sciences, Alfred SUNY, 1992; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2006.

W
Wright, Berlin, ND

BS, Kinesiology, Barrett Honors College, ASU, 2013; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2018.

Y
Yarnell, Eric, ND

BS, Natural Health Sciences, Bastyr University, 1994; ND, Bastyr University, 1996.

Visiting Adjunct Research Faculty

B
Bell, Iris, MD, PhD

BA, Harvard University, 1972; MD, Stanford University, 1980; PhD, Stanford University, 1997.

Bibak, Emily, PhD

MS, Chemistry, Linkoping University, Sweden; PhD, Pharmaceutical Chemistry, Heidelberg University.

D
Dirkmaat, Heather, NMD

MBS, University of Northern Colorado, Greeley, Colorado, 2017; MBT, Johns Hopkins University, Baltimore, Maryland, 2019; NMD, Southwest College of Naturopathic Medicine (now Sonoran University of Health Sciences), 2022.

J
Jacobs, Jennifer, MD, MPH

BA Biology, Wayne State University 1972; MD, Wayne State University, 1976; MPH, University of Washington School of Public Health, 1990.

JoAnn L., Yane, ND, MPH, CAE

ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2000; MS, Public Health, Des Moines University, Iowa, 2012.

K
Kumar, Ashok, PhD

PhD, AMU, Aligarh, India, 1986; Research Fellow, University of Calgary, Canada, 1989; Fogarty International Research Fellow (NIH), Harvard Medical School, Boston, 1990.

L
Lovejoy (Snowden), Rebecca, ND, LAc, FABNO

MS, Acupuncture, Tri-State College of Acupuncture, New York, 2009; ND, Southwest College of Naturopathic Medicine (Now Sonoran University of Health Sciences), 2013; Naturopathic Oncology Residency, Indiana University Health Goshen Center for Cancer Care, 2015.

R
Riley, David, MD

BA, UNC-Chapel Hill, 1976; MD, University of Utah, Salt Lake City, 1983.

S
Shahabi, Shahram, MD, PhD, Dhom

DHom, Diploma of the Institute of Homeopathy, British Institute of Homeopathy; MD, General Medicine, Tehran Medical Sciences University; PhD, Medical Immunology, Tarbiat Modares University, Tehran, Iran.

Standish, L, Jeanna, PhD, ND, MSAOM

Ph.D., University of Massachusetts, Amherst; ND, Bastyr University; MSAOM, Bastyr University.

U
Upton, Roy, RH; DipAyu

Diploma in Ayurveda, Mt. Madonna College of Ayurveda, 2006; 120-hour Program, Traditional Chinese Herbal Medicine and Acupuncture, Shanghai College of Traditional Chinese Medicine, 1997.

Honorary Faculty

B
Buratovich, Nick, ND

Professor Emeritus

BS, Biology, Saint Mary's College, 1973; ND, National University of Natural Medicine, 1983.

C

Canvasser, Bruce, ND

National University of Natural Medicine, 1977.

D

Deng, Yong, MD, LAc;

Professor Emeritus

Supervising Acupuncturist, Endowed Chair (Gero-Vita); MD (China), LAc, Chengdu College of Traditional Chinese Medicine, 1983.

Dye, John, ND

Professor Emeritus

BA, Whittier College, 1974; ND, National University of Natural Medicine, 1979.

M

Messer, Stephen, MEd, ND, DHANP

Professor Emeritus

MEd, University of Pennsylvania, 1974; ND, National University of Natural Medicine, 1979; DHANP, 1988.

ND Course Descriptions

Required Courses

ACMD 6010 Acupuncture and Chinese Medicine I: Theory & Fundamentals of Acupuncture and Chinese Medicine

2.5 Didactic Credits

This course introduces the fundamental concepts of Chinese Medicine, including yin yang, five elements theory, zang-fu organ systems, qi, blood and body fluid, meridian systems, TCM etiology, treatment principles, and eight phases theory. This course lays a foundation for further study.

Department: Acupuncture and Chinese Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

ACMD 6020 Acupuncture and Chinese Medicine II: Traditional Chinese Medicine Diagnosis

2.5 Didactic Credits

In this course, the basics of Traditional Chinese Medicine (TCM) and the Four Diagnostic Techniques are studied. TCM case-history taking, including the classic ten questions and the significance of elucidated symptoms, is explored, as well as classic diagnostic methods such as inspection, listening and smelling, and tongue and pulse diagnosis. Syndrome differentiation based on Eight Principle Theory is also introduced.

Department: Acupuncture and Chinese Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

ACMD 6030 Acupuncture and Chinese Medicine III: Meridians Points I

2 Didactic Credits

This is the first of a two-course sequence that covers the Traditional Chinese Medicine acupuncture points and meridians. The location, function, and indications of acupuncture points of each meridian are studied. Practical, hands-on experience in point location occurs with the supervision of an experienced acupuncturist. This course has an accompanying lab.

Department: Acupuncture and Chinese Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: ACMD 6030L

ACMD 6030L Acupuncture and Chinese Medicine III: Meridians Points I Lab

1 Lab Credit

This is the first lab of a two-course sequence that covers the Traditional Chinese Medicine acupuncture points and meridians. The location, function, and indications of acupuncture points of each meridian are studied. Practical, hands-on experience in point location occurs with the supervision of an experienced acupuncturist. This lab has an accompanying didactic course.

Department: Acupuncture and Chinese Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: ACMD 6030

ACMD 6040 Acupuncture and Chinese Medicine IV: Meridians & Points II

1.5 Didactic Credits

This is the second of a two-course sequence that covers the Traditional Chinese Medicine acupuncture points and meridians. The location, function, and indications of acupuncture points of each meridian are studied. Practical, hands-on experience in point location occurs with the supervision of an experienced acupuncturist. This course has an accompanying lab.

Department: Acupuncture and Chinese Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: ACMD 6040L

ACMD 6040L Acupuncture and Chinese Medicine IV: Meridians & Points II Lab

1 Lab Credit

This is the second lab of a two-course sequence that covers the Traditional Chinese Medicine acupuncture points and meridians. The location, function, and indications of acupuncture points of each meridian are studied. Practical, hands-on experience in point location occurs with the supervision of an experienced acupuncturist. This lab has an accompanying lecture course.

Department: Acupuncture and Chinese Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: ACMD 6040

ACMD 7057 Acupuncture and Chinese Medicine V: Traditional Chinese Medicine Pathology

4 Didactic Credits

In this course, students will learn to identify key symptoms of Zang-Fu organ patterns and the method of syndrome differential diagnosis of TCM according to Zang-Fu organ system theory. Therapeutic principles and acupuncture treatment for individual patterns will also be studied.

Department: Acupuncture and Chinese Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

ACMD 7060 Acupuncture and Chinese Medicine VI: Acupuncture Techniques

1 Didactic Credit

This course covers basic needling techniques used in acupuncture, such as needle insertion, removal, tonification, reduction, bleeding, intradermal needle, and electric stimulator; also cupping, moxibustion, and Gusha. Practical experience in needling technique occurs under the supervision of an experienced acupuncturist. Clean needle and safe needling techniques are discussed. Basic auricular acupuncture is introduced. This course has an accompanying lab.

Department: Acupuncture and Chinese Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: ACMD 7060L

ACMD 7060L Acupuncture and Chinese Medicine VI Acupuncture Techniques Lab
1 Lab Credit

This course covers basic needling techniques used in acupuncture, such as needle insertion, removal, tonification, reduction, bleeding, intradermal needle, and electric stimulator; also cupping, moxibustion, and Gusha. Practical experience in needling technique occurs under the supervision of an experienced acupuncturist. Clean needle and safe needling techniques are discussed. Basic auricular acupuncture is introduced. This lab has an accompanying lecture course.

Department: Acupuncture and Chinese Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: ACMD 7060

ACMD 7070 Acupuncture and Chinese Medicine VII: Case Analysis and Management I
2 Didactic Credits

In this course, a case analysis approach illustrates the disease entities commonly encountered in clinical practice. Students translate Western disease assessments into TCM syndromes. The differential diagnosis of syndromes is reviewed, along with the therapeutic principles required for acupuncture and Chinese-prepared medicines.

Department: Acupuncture and Chinese Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

ACMD 7084 Acupuncture and Chinese Medicine VIII: Case Analysis and Management II
2 Didactic Credits

This course continues the exploration of case analysis and management of the disease entities commonly encountered in practice that began in ACMD 7070. The differential diagnosis of syndromes is reviewed, along with the therapeutic principles required for effective treatment. Acupuncture protocols are emphasized, along with Chinese-prepared medicines.

Department: Acupuncture and Chinese Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

ANAT 5014 Regional Anatomy, Embryology, and Histology I
5 Didactic Credits

The first of three anatomy blocks, this course includes interactive didactic instruction to learn the gross anatomy, embryology, and histology of the human body as it relates to the practice of medicine. Lab instruction includes cadaver dissection. This systems-based approach starts with fundamental concepts and continues with organ system anatomy. This course is taught in coordination with the PHYS 5014 and ICSA 5014 courses. This course has an accompanying lab.

Department: Basic Medical Sciences

Prerequisites: Admission to the program

Corequisites: PHYS 5014 and ICSA 5014

ANAT 5014L Regional Anatomy, Embryology, and Histology I Lab

The first of three anatomy blocks, this course includes interactive laboratory instruction to learn the gross anatomy, embryology and histology of the human body as it relates to the practice of medicine. Lab instruction includes cadaver dissection. This systems-based approach starts with fundamental concepts and continues with organ system anatomy. This course is taught in coordination with the PHYS 5014 and ICSA 5014 courses. This course has an accompanying lecture.

Department: Basic Medical Sciences

Prerequisites: Admission to the program

Corequisites: PHYS 5014 and ICSA 5014

ANAT 5024 Regional Anatomy, Embryology, and Histology II

The second of three anatomy blocks, this course includes interactive didactic instruction to learn the gross anatomy, embryology, and histology of the human body as it relates to the practice of medicine. Lab instruction includes cadaver dissection. This systems-based approach continues with organ systems anatomy. This course is taught in coordination with the PHYS 5024 and ICSA 5024 courses. This course has an accompanying lab.

Department: Basic Medical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: PHYS 5024 and ICSA 5024

ANAT 5024L Regional Anatomy, Embryology, and Histology II Lab

The second of three anatomy blocks, this course includes interactive laboratory instruction to learn the gross anatomy, embryology, and histology of the human body as it relates to the practice of medicine. Lab instruction includes cadaver dissection. This systems-based approach continues with organ systems anatomy. This course is taught in coordination with the PHYS 5024 and ICSA 5024 courses. This course has an accompanying lecture.

Department: Basic Medical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: PHYS 5024 and ICSA 5024

ANAT 5034 Regional Anatomy, Embryology, and Histology III

The third of three anatomy blocks, this course includes interactive didactic instruction to learn the gross anatomy, embryology, and histology of the human body as it relates to the practice of medicine. Lab instruction includes cadaver dissection. This systems-based approach continues with organ system anatomy. This course is taught in coordination with the PHYS 5034 and ICSA 5034 courses. This course has an accompanying lab.

Department: Basic Medical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: PHYS 5034 and ICSA 5034

ANAT 5034L Regional Anatomy, Embryology, and Histology III Lab
3 Lab Credits

The third of three anatomy blocks, this course includes interactive laboratory instruction to learn the gross anatomy, embryology, and histology of the human body as it relates to the practice of medicine.

Lab instruction includes cadaver dissection. This systems-based approach continues with organ system anatomy. This course is taught in coordination with the PHYS 5034 and ICSA 5034 courses. This course has an accompanying lecture.

Department: Basic Medical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: PHYS 5034 and ICSA 5034

ANAT 5048 Neuroanatomy
2 Didactic Credits

This course incorporates the gross and microscopic anatomy of the nervous system, its circuitry, functions, pathophysiology, clinical correlations, and an introduction to imaging techniques used for the study of the nervous system. The course stresses the acquisition and use of concepts. Emphasis will be placed on the clinical relevance of the presented material.

Department: Basic Medical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

BIOC 5014 Biochemistry I
4 Didactic Credits

This foundational course is the first of a three-quarter sequence in cell biology, medical biochemistry, and genetics. This course details the structure and function of the cell, as well as the molecules utilized within it, including but not limited to nucleic acids, carbohydrates, amino acids/proteins, and lipids. Structure and function relationships are stressed, with particular emphasis on enzyme and coenzyme function and regulation. Enzymatic regulation and cellular function are further explored within intermediary metabolism, including glycolysis, citric acid cycle, and oxidative phosphorylation. Particular emphasis is placed on the utilization of vitamins as coenzymes, their roles in mitochondrial energetics, and their physiologic sequelae.

Department: Basic Medical Sciences

Prerequisites: Admission to the program

BIOC 5026 Biochemistry II
4 Didactic Credits

This foundational course is the second course within a three-quarter sequence in cell biology, medical biochemistry, and genetics. This course focuses on the study of the body's metabolic processes, including but not limited to carbohydrates, fatty acids, lipids, nitrogen and amino acids, and nucleotides.

Department: Basic Medical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

BOTM 6010 Botanical Medicine I: Intro to Botanical Medicine
2 Didactic Credits

This course lays the foundation for the Botanical Medicine component of the curriculum at Sonoran. The format is interactive lecture and question/answer. Course content includes the foundations of botanical medicine, introduction to materia medica and monograph study, herbal properties and actions, formulary, and posology. There is also an overview of plants found in our Southwest environment and adaptive techniques for survival.

Department: Botanical Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

BOTM 6020L Botanical Medicine II: Pharmacy of Botanical Medicine Lab
2 Lab Credits

This hands-on course familiarizes students with the preparation of herbal medicine. The format is lecture and interactive demonstration. Students actively participate in the preparation of aqueous extracts, tinctures, herbal oils and salves, syrups, capsules, oxymels, poultices, and compresses. Students examine the comparable disadvantages of each type of preparation and identify the role pharmacognosy plays in determining optimal extraction and delivery for a variety of plants. Other topics presented include organoleptic assessment, quality assessment, ecological harvest of raw materials, storage, solubility of constituents, and botanical prescription writing. Monograph study is included for herbs commonly used in topical preparations. This course, along with BOTM 6010, provides the foundational information for further study in the following materia medica courses.

Department: Botanical Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

BOTM 6934 Botanical Medicine in the Rocky Mountains
2 Didactic Credits

This course is a four-day field study near Lyons, Colorado. Specific campsite information will be given to students, and students can either set up tents or car-camps. Day trips are planned to different locations and elevations in the local canyons and meadows for plant diversity. Approximately 30 to 40 plants will be available for plant identification, materia medica, and herbal therapeutics discussions including case studies, ethical wild-harvest, and medicine making. Discussions related to the clinical use of plants will take place throughout the field identification, harvesting, and medicine-making segments. Individual constituents, actions, energetics, extraction, delivery, and safety will be examined for each plant. Additional costs include campsite fees, food, transportation, and medicine-making supplies.

Department: Botanical Medicine

Prerequisites: Completion of quarters 1-3 (see the program of study for additional eligibility requirements for the 5-year track)

BOTM 6954 Pharmacognosy and Phytochemistry
2 Didactic Credits

This course is an overview of secondary metabolites found in medicinal plants. This topic will be explored through the major classes of plant constituents in order to understand the activity of plants and offer a framework for the clinical application of botanical medicine. It will cover basic plant chemistry and examine solubility and extraction, variability and synergy, as well as review biosynthetic pathways, absorption, metabolism, standardization, and concentration. The primary focus of the course is on the major categories and subcategories of phytochemicals relevant to botanical medicine and the physiological effects these constituents have on the human body.

Department: Botanical Medicine

Prerequisites: BOTM 6010

BOTM 6996 Introduction to Medical Cannabis
1.5 Didactic Credits

This course will cover the historical use of cannabis as medicine, pharmacology and chemistry of the cannabis plant, the endocannabinoid system, clinical uses of medical cannabis, and laws and processes for recommending medical cannabis in Arizona.

Department: Botanical Medicine

Prerequisites: BOTM 7030

BOTM 6998 Botanical Medicine Therapeutics: Developing Clinical Proficiency
1.5 Didactic Credits

This is an interactive case-based course focusing on the development of botanical formulations to treat common conditions. This course is designed to prepare students for the demands of a broad naturopathic practice and to gain expertise in phytotherapy. Case studies will be utilized to illustrate the complexity of botanical prescribing. The formulation will be emphasized as a clinical strategy in conditions of multifactorial etiologies and multi-organ system disease processes. The recognition of quality botanical medicine will also be addressed as well as materia medica review. The quality and value of this course largely depend on student participation in lectures and learning exercises. Be prepared to participate in this course.

Department: Botanical Medicine

Prerequisites: BOTM 7030, BOTM 7040, BOTM 7050

BOTM 7030 Botanical Medicine III: Naturopathic Materia Medica Pharmacognosy/Therapeutics I
2 Didactic Credits

This course is the first in a sequence of three botanical materia medica courses designed to give students the principles by which they will use plants as medicines safely and effectively. The course will provide information on taxonomy, description, habitat, part(s) used, pharmacognosy, historical and current medicinal actions and uses, dosing, toxicology, safety, and potential drug interactions, all of which are used to critically analyze the application of these botanicals individually and in formulation. The student will study the use of botanicals in the immune, EENT/respiratory, and cardiovascular systems. Emphasis is placed on recognizing the unique aspects of each plant in a system.

Department: Botanical Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

BOTM 7044 Botanical Medicine IV: Naturopathic Materia Medica Pharmacognosy/Therapeutics II
2.5 Didactic Credits

Part two of three consecutive courses that provide students with the necessary knowledge and skills to understand herbal medicine in the naturopathic materia medica. Students are taught materia medica from an organ system perspective including gastrointestinal, respiratory, immune, cardiovascular, EENT, reproductive, urinary, endocrine, musculoskeletal, and nervous systems. Material presented on each botanical includes taxonomy, description, habitat, part(s) used, pharmacognosy, actions, historical and current medicinal actions and uses, dosing, delivery, and safety, all of which are used to critically analyze the application of each botanical.

Department: Botanical Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

BOTM 7050 Botanical Medicine V: Naturo Materia Medica Pharmacognosy/Therapeutics III
2 Didactic Credits

This course is the third in a sequence of three botanical materia medica courses designed to give students the principles by which they will use plants as medicines safely and effectively. The course will provide information on taxonomy, description, habitat, part(s) used, pharmacognosy, historical and current medicinal actions and uses, dosing, toxicology, safety, and potential drug interactions, all of which are used to critically analyze the application of these botanicals individually and in formulation. The student will study the use of botanicals in the nervous, endocrine, and musculoskeletal systems. Emphasis is placed on recognizing the unique aspects of each plant in a system which informs students how to choose plants that best meet the needs of each patient they will treat.

Department: Botanical Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

CAPS 5018 Basic Sciences Capstone (Weeks 1-4)
3 Didactic Credits

This four-week block is a capstone for the basic sciences curriculum of the previous three quarters. The topics are integrative and include a review of the first-year basic science courses. The final exam is cumulative and covers all of the physiology sequence as well as all the anatomy, biochemistry, immunology, and microbiology of the first three quarters.

Department: Basic Medical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

CAPS 6024 NPLEX I Review (Weeks 1-3)
0 Didactic Credits

This course guides and supports the student preparing for the NPLEX I exam. Through the administration of mock NPLEX exams, students identify strengths and weaknesses in their basic science knowledge. Students will develop a personalized content review plan. Content review will be provided in the following subject areas: anatomy, physiology, biochemistry, microbiology, and pathology.

Department: Basic Medical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

CAPS 8034 NPLEX II Review (Weeks 1-11)
0 Didactic Credits

This course guides and supports the student preparing for the NPLEX II exam. It includes a review of general medical diagnosis and clinical practice disciplines. Emphasis will be placed on the diagnosis, naturopathic treatment, and principles of the following clinical modalities: nutrition, homeopathy, botanical medicine, mind-body medicine, oriental medicine, physical medicine, and emergency medicine.

Department: General Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

CLPR 5010 Introduction Clinical Practice I**2 Didactic Credits**

This is the first in a series of three courses introducing the art of practicing medicine. It begins with the development, enhancement, and exercise of cognitive analytical and evaluative thinking. Growth and professionalism will be practiced through effective skills, active listening, interviewing techniques, and the self-application of healthy behavior. Medical ethics, jurisprudence, and cultural and social considerations will be explored. Differential diagnosis, critical thinking, and case assessment will be introduced through case-based learning. Public health, epidemiology, and basic lab procedures will be addressed. Basic skills in phlebotomy and injection techniques will be practiced through hands-on lab exercises. Beginning clinical skills such as the patient interview, heart and lung physical exams, clinical assessment, and charting will prepare the student for clinical observation opportunities and the required standardized clinical practice exam at the end of the first year. This course is accompanied by a lab.

Department: Pre-Clinical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: CLPR 5010L

CLPR 5010L Introduction Clinical Practice Skills I Lab**2 Lab Credits**

This is the first lab in a series of three labs accompanying courses introducing the art of practicing medicine. It begins with the development, enhancement, and exercise of cognitive analytical and evaluative thinking. Growth and professionalism will be practiced through effective skills, active listening, interviewing techniques, and the self-application of healthy behavior. Medical ethics, jurisprudence, and cultural and social considerations will be explored. Differential diagnosis, critical thinking, and case assessment will be introduced through case-based learning. Public health, epidemiology, and basic lab procedures will be addressed. Basic skills in phlebotomy and injection techniques will be practiced through hands-on lab exercises. Beginning clinical skills such as the patient interview, heart and lung physical exams, clinical assessment, and charting will prepare the student for clinical observation opportunities and the required standardized clinical practice exam at the end of the first year.

Department: Pre-Clinical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: CLPR 5010

CLPR 5020 Introduction Clinical Practice II**2 Didactic Credits**

This is the second in a series of three courses introducing the art of practicing medicine. It begins with the development, enhancement, and exercise of cognitive analytical and evaluative thinking. Growth and professionalism will be practiced through effective skills, active listening, interviewing techniques, and the self-application of healthy behavior. Medical ethics, jurisprudence, and cultural and social considerations will be explored. Differential diagnosis, critical thinking, and case assessment will be introduced through case-based learning. Public health, epidemiology, and basic lab procedures will be addressed. Basic skills in phlebotomy and injection techniques will be practiced through hands-on lab exercises. Beginning clinical skills such as the patient interview, heart and lung physical exams, clinical assessment, and charting will prepare the student for clinical observation opportunities and the required standardized clinical practice exam at the end of the first year. This course has an accompanying lab.

Department: Pre-Clinical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: CLPR 5020L

CLPR 5020L Introduction Clinical Practice Skills II Lab**2 Lab Credits**

This is the second lab in a series of three labs accompanying courses introducing the art of practicing medicine. It begins with the development, enhancement, and exercise of cognitive analytical and evaluative thinking. Growth and professionalism will be practiced through effective skills, active listening, interviewing techniques, and the self-application of healthy behavior. Medical ethics, jurisprudence, and cultural and social considerations will be explored. Differential diagnosis, critical thinking, and case assessment will be introduced through case-based learning. Public health, epidemiology, and basic lab procedures will be addressed. Basic skills in phlebotomy and injection techniques will be practiced through hands-on lab exercises. Beginning clinical skills such as the patient interview, heart and lung physical exams, clinical assessment, and charting will prepare the student for clinical observation opportunities and the required standardized clinical practice exam at the end of the first year.

Department: Pre-Clinical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: CLPR 5020

CLPR 5030 Introduction Clinical Practice III**2 Didactic Credits**

This is the third in a series of three courses introducing the art of practicing medicine. It begins with the development, enhancement, and exercise of cognitive analytical and evaluative thinking. Growth and professionalism will be practiced through effective skills, active listening, interviewing techniques, and the self-application of healthy behavior. Medical ethics, jurisprudence, and cultural and social considerations will be explored. Differential diagnosis, critical thinking, and case assessment will be introduced through case-based learning. Public health, epidemiology, and basic lab procedures will be addressed. Basic skills in phlebotomy and injection techniques will be practiced through hands-on lab exercises. Beginning clinical skills such as the patient interview, heart and lung physical exams, clinical assessment, and charting will prepare the student for clinical observation opportunities and the required standardized clinical practice exam at the end of the first year. This course has an accompanying lab.

Department: Pre-Clinical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: CLPR 5030L

**CLPR 5030L Introduction Clinical Practice Skills III Lab
2 Lab Credits**

This is the third in a series of three labs accompanying courses introducing the art of practicing medicine. It begins with the development, enhancement, and exercise of cognitive analytical and evaluative thinking. Growth and professionalism will be practiced through effective skills, active listening, interviewing techniques, and the self-application of healthy behavior. Medical ethics, jurisprudence, and cultural and social considerations will be explored. Differential diagnosis, critical thinking, and case assessment will be introduced through case-based learning. Public health, epidemiology, and basic lab procedures will be addressed. Basic skills in phlebotomy and injection techniques will be practiced through hands-on lab exercises. Beginning clinical skills such as the patient interview, heart and lung physical exams, clinical assessment, and charting will prepare the student for clinical observation opportunities and the required standardized clinical practice exam at the end of the first year.

Department: Pre-Clinical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: CLPR 5030

CLPR 6040 Clinical Practice I**2 Didactic Credits**

This is the first in a series of three courses in advanced clinical practice. In year 2 (year 3 in the 5-year track) the clinical practice coursework expands to include urogenital/prostate, gynecological, orthopedic, Head/Ears/Eyes/Nose/Throat (HEENT), abdominal, neurological, and the Complete Screening Physical Exams. It will refine the integration of subjective and objective information into an effective and realistic patient assessment. Clinical decision-making and case management will be exercised using case-based instruction. Cultural competencies and social diversities in private practice and community medicine will be explored. Preventative approaches and health screening standards will be addressed. Students will also review basic electronic health record skills. Skills in formulating and administering IV nutrients will be introduced. Clinical skills such as the patient interview, heart and lung physical exams, clinical assessment, and charting will be more deeply explored in preparation for a clinic entry exam required at the end of year 2 (year 3 in the 5-year track) prior to beginning the year 3 (year 4 in the 5-year track) clerkships. This course has an accompanying lab.

Department: Pre-Clinical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: CLPR 6040L

**CLPR 6040L Clinical Practice Skills I Lab
2 Lab Credits**

This is the first in a series of three labs accompanying courses in advanced clinical practice. In year 2 (year 3 in the 5-year track) the clinical practice coursework expands to include urogenital/prostate, gynecological, orthopedic, Head/Ears/Eyes/Nose/Throat (HEENT), abdominal, neurological, and the Complete Screening Physical Exams. It will refine the integration of subjective and objective information into an effective and realistic patient assessment. Clinical decision-making and case management will be exercised using case-based instruction. Cultural competencies and social diversities in private practice and community medicine will be explored. Preventative approaches and health screening standards will be addressed. Students will also review basic electronic health record skills. Skills in formulating and administering IV nutrients will be introduced. Clinical skills such as the patient interview, heart and lung physical exams, clinical assessment, and charting will be more deeply explored in preparation for a clinic entry exam required at the end of year 2 (year 3 in the 5-year track) prior to beginning the year 3 (year 4 in the 5-year track) clerkships.

Department: Pre-Clinical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: CLPR 6040

CLPR 6050 Clinical Practice II
2 Didactic Credits

This is the second in a series of three courses in advanced clinical practice. In year 2 (year 3 in the 5-year track) the clinical practice coursework expands to include urogenital/prostate, gynecological, orthopedic, Head/Ears/Eyes/Nose/Throat (HEENT), abdominal, neurological, and the Complete Screening Physical Exams. It will refine the integration of subjective and objective information into an effective and realistic patient assessment. Clinical decision-making and case management will be exercised using case-based instruction. Cultural competencies and social diversities in private practice and community medicine will be explored. Preventative approaches and health screening standards will be addressed. Students will also review basic electronic health record skills. Skills in formulating and administering IV nutrients will be introduced. Clinical skills such as the patient interview, heart and lung physical exams, clinical assessment, and charting will be more deeply explored in preparation for a clinic entry exam required at the end of year 2 (year 3 in the 5-year track) prior to beginning the year 3 (year 4 in the 5-year track) clerkships. This course has an accompanying lab.

Department: Pre-Clinical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: CLPR 6050L

CLPR 6050L Clinical Practice Skills II Lab
2 Lab Credits

This is the second in a series of three labs accompanying courses in advanced clinical practice. In year 2 (year 3 in the 5-year track) the clinical practice coursework expands to include urogenital/prostate, gynecological, orthopedic, Head/Ears/Eyes/Nose/Throat (HEENT), abdominal, neurological, and the Complete Screening Physical Exams. It will refine the integration of subjective and objective information into an effective and realistic patient assessment. Clinical decision-making and case management will be exercised using case-based instruction. Cultural competencies and social diversities in private practice and community medicine will be explored. Preventative approaches and health screening standards will be addressed. Students will also review basic electronic health record skills. Skills in formulating and administering IV nutrients will be introduced. Clinical skills such as the patient interview, heart and lung physical exams, clinical assessment, and charting will be more deeply explored in preparation for a clinic entry exam required at the end of year 2 (year 3 in the 5-year track) prior to beginning the year 3 (year 4 in the 5-year track) clerkships.

Department: Pre-Clinical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: CLPR 6050

CLPR 6060 Clinical Practice III
2 Didactic Credits

This is the third in a series of three courses in advanced clinical practice. In year 2 (year 3 in the 5-year track) the clinical practice coursework expands to include urogenital/prostate, gynecological, orthopedic, Head/Ears/Eyes/Nose/Throat (HEENT), abdominal, neurological, and the Complete Screening Physical Exams. It will refine the integration of subjective and objective information into an effective and realistic patient assessment. Clinical decision-making and case management will be exercised using case-based instruction. Cultural competencies and social diversities in private practice and community medicine will be explored. Preventative approaches and health screening standards will be addressed. Students will also review basic electronic health record skills. Skills in formulating and administering IV nutrients will be introduced. Clinical skills such as the patient interview, heart and lung physical exams, clinical assessment, and charting will be more deeply explored in preparation for a clinic entry exam required at the end of year 2 (year 3 in the 5-year track) prior to beginning the year 3 (year 4 in the 5-year track) clerkships. This course has an accompanying lab.

Department: Pre-Clinical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: CLPR 6060L

CLPR 6060L Clinical Practice Skills III Lab
2 Lab Credits

This is the third in a series of three labs accompanying courses in advanced clinical practice. In year 2 (year 3 in the 5-year track) the clinical practice coursework expands to include urogenital/prostate, gynecological, orthopedic, Head/Ears/Eyes/Nose/Throat (HEENT), abdominal, neurological, and the Complete Screening Physical Exams. It will refine the integration of subjective and objective information into an effective and realistic patient assessment. Clinical decision-making and case management will be exercised using case-based instruction. Cultural competencies and social diversities in private practice and community medicine will be explored. Preventative approaches and health screening standards will be addressed. Students will also review basic electronic health record skills. Skills in formulating and administering IV nutrients will be introduced. Clinical skills such as the patient interview, heart and lung physical exams, clinical assessment, and charting will be more deeply explored in preparation for a clinic entry exam required at the end of year 2 (year 3 in the 5-year track) prior to beginning the year 3 (year 4 in the 5-year track) clerkships.

Department: Pre-Clinical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: CLPR 6060

CLTR 4304 Clinical Entry Skills Assessment**1.5 Clinical Credits**

This course is dedicated to preparation for the Clinic Entry Examination (CEE) in year 2 (year 3 in the 5-year track) and the beginning of clinical rotations. The exam simulates clinical encounters that are commonly found in a general clinical practice utilizing Standardized Patients (SPs) trained to act out the role of the patient in clinical scenarios. Students will be refining their intake, differential diagnosis, and assessment skills through group activities including practice cases performed in class. Included in the course will be a range of self-, peer-, and physician-rated assessments. Students will practice orally delivering a case in an appropriate and efficient manner and practice charting skills. In addition, they will review administrative skills such as coding, complete clinical training modules for entry into the clinic, and become familiarized with basic clinic procedures.

Department: Pre-Clinical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

CLTR 4508 Comprehensive Clinical Skills Assessment I**2 Clinical Credits**

This course comprises a global assessment of core competencies required to practice as a beginning naturopathic physician. Sonoran University's Objective Structured Clinical Examination (OSCE), the final milestone exam, will assess students' communication, interpersonal, clinical, and charting skills. The exam simulates clinical encounters that are commonly found in general clinical practice utilizing Standardized Patients (SPs). The course includes case review modules designed to familiarize students with the assessment process and expectations, covering skills of patient communication, history taking, physical examination, differential diagnosis, laboratory assessment, and treatment. This Course includes a range of self-, peer-, and physician-rated assessments.

Department: Pre-Clinical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

CLTR 4908 Comprehensive Clinical Case Study**2 Clinical Credits**

This course builds on the core competencies required to practice as a beginning naturopathic physician. The course includes case review modules designed to improve students' proficiency in differential diagnosis, laboratory assessment, patient communication, interpersonal skills, critical thinking, charting skills, treatment, and case management. Included in the course will be a range of self-, peer-, and physician-rated assessments. The case review modules will simulate clinical encounters that are commonly found in general clinical practice. The course also covers a Clinical Ethics module utilizing cases and group discussion and examination to assess competency.

Department: Pre-Clinical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

CLTR 6004 Field Observation**4 Clinical Credits**

Field observation provides students with opportunities to observe established healthcare practitioners in their private clinical practices. Observation hours are completed during the first two years of the program (three years for students on the 5-year track) which allows students to gain early clinical experiences prior to beginning their clinical clerkships. Students are required to document 44 hours of observation and 40 patient contacts in the following categories: direct patient, indirect patient, and patient services/practice management.

Department: Clinical Sciences

Prerequisites: Completion of quarters 1-3, including CLPR 5030, and the successful completion of the Jurisprudence exam required for attainment of a clinical training certificate from the Arizona Naturopathic Physicians Medical Board (NPMB) (see program of study for additional eligibility requirements for the 5-year track).

CLTR 6600 Laboratory Posts**1 Clinical Credit**

The laboratory post is an immersion course designed to introduce students to Sonoran University's Medical Center procedures with a focus on laboratory functions. Students will build an understanding of the requirements to set up a laboratory; compliance with OSHA, HIPAA, and CLIA; laboratory billing, insurance filing, accurate coding, and interpreting lab results. Students will enhance their skills in phlebotomy and capillary collection, specimen processing, and performing waived testing.

Department: Clinical Sciences

Prerequisites: Completion of quarters 1-3 (see the program of study for additional eligibility requirements for the 5-year track); valid OSHA and HIPAA certifications

CLTR 6704 Medicinary /IV Post**1 Clinical Credit**

During the medicinary post section of this course, students gain a foundation for understanding the mechanics of a medicinary. Students learn skills related to maintaining the day-to-day functions of a medicinary including selecting quality supplements and botanical medicines, as well as ordering, receiving, stocking, and shipping products. Students are also introduced to MySonoran resources for the medicinary and business strategies for hiring and retaining employees and preventing fraud. During the IV section of the course, students will gain a basic foundation of the clinical practice of IV therapy. The information reviewed includes basic nutrients for infusion, IV room setup, IV administration, vaccination administration, and legal and safety aspects of having injectable therapy in your practice.

Department: Clinical Sciences

Prerequisites: Completion of quarters 1-3 (see the program of study for additional eligibility requirements for the 5-year track)

CLTR 8000 Clinical Clerkships
4 Clinical Credits

Clinical clerkships provide the student with practical clinical exposure, information, and additional medical knowledge in a clinical setting focusing on primary care medicine. Students will demonstrate skills in history taking and physical examinations, become skilled at differentiating between common medical conditions, and develop basic plans of treatment consistent with the principles of the naturopathic therapeutic order. Clerkships are completed at Sonoran University's Medical Center, Neil Riordan Center for Regenerative Medicine, and -affiliated clinical sites staffed by Sonoran University faculty. In addition, the student will have an opportunity to work with private physicians.

Department: Clinical Sciences

Prerequisites: Passing score on Clinic Entry Exam and, for the 4-year track, Completion of quarters 1-8; for the 5-year track, Completion of quarters 1-12

ENVM 6010 Environmental Medicine
2.5 Didactic Credits

The course will begin with the major families of chemical toxins and then will be divided into those whose primary routes of exposure are via indoor air, outdoor air, and food. Within each chemical family, the main health effects will be covered along with methods of testing. Biotransformation will then be addressed along with genetic polymorphisms in those pathways and nutrient impact. Cellular and systemic effects of toxins will then be covered to not only show the classic presentations but also the biochemical mechanisms for their effects. The classic presentation of environmental illness will be covered along with taking an environmental history. The course will be rounded out with methods of treatment.

Department: Mind-Body, Environmental Medicine, and Naturopathic Philosophy

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

ERMD 8014 Emergency Medicine
3 Didactic Credits

This course provides students with experiences to differentially diagnose signs, symptoms, and situations in acute medical care. Students learn to recognize emergency signs and situations involving various organ systems. Emphasis is on the integration of current allopathic drugs and procedures and the complementary practice of acute care by naturopathic physicians.

Department: General Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

GNMD 6014 General Medical Diagnosis I
7 Didactic Credits

General Medical Diagnosis will be taught in a systems-based block format with integrated course content. Pathology will be aligned with instruction in clinical, physical, radiological, and laboratory diagnosis. This course will begin with the general study of cell injury, inflammation, tissue repair, neoplasia, and principles of diagnostic imaging. Hematology and dermatology will follow with integrated course content.

Department: General Medicine

Prerequisites: Completion of CAPS 5014 and all previous quarters' courses as outlined in students' prescribed program of study

GNMD 6024 General Medical Diagnosis II
9 Didactic Credits

General Medical Diagnosis will be taught in a systems-based block format with integrated course content. Pathology will be aligned with instruction in clinical, physical, radiological, and laboratory diagnosis. The course will include EENT, endocrinology, male and female reproductive disorders, and musculoskeletal disorders. Naturopathic strategies for diagnosis will be included. Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study.

Department: General Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

GNMD 6034 General Medical Diagnosis III
9 Didactic Credits

General Medical Diagnosis is taught in a systems-based block format with integrated course content. Pathology will be aligned with instruction in clinical, physical, radiological, and laboratory diagnosis. This course will include cardiovascular, respiratory, urinary disorders, and behavioral health.

Department: General Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

GNMD 6044 General Medical Diagnosis IV
8 Didactic Credits

General Medical Diagnosis will be taught in a systems-based block format with integrated course content. Pathology will be aligned with instruction in clinical, physical, radiological, and laboratory diagnosis. This course will include gastrointestinal and neurological disorders. Naturopathic strategies for diagnosis will be included.

Department: General Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

GNMP 6011 General Medical Practice: Dermatology
1 Didactic Credit

The clinical presentations discussed in the course include malignancies and benign masses, infections and inflammation, burns, hair and nail disorders, pruritus, skin ulcers, and skin rashes.

Department: General Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

GNMP 6014 General Medical Practice: Eyes, Ears, Nose, and Throat (EENT)
2 Didactic Credits

This course provides an introductory exploration of common and high-risk EENT conditions seen in general naturopathic practice. Symptoms, assessment, diagnosis, and therapeutic considerations will be examined.

Department: General Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

GNMP 7020 General Medical Practice: Gastroenterology**2.5 Didactic Credits**

This course is a comprehensive study of the gastrointestinal tract. Students will gain an understanding regarding the pathophysiology, diagnosis, clinical presentation, management of emergent situations, and standard and naturopathic treatment of conditions of the esophagus, stomach, pancreas, gallbladder, liver, small intestine, large intestine, rectum, and anus, as well as beneficial bacteria and pathogens found in the gut. Student competency will be assessed through examination and literature analysis of emergent topics in gastroenterology.

Department: General Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

GNMP 7030 General Medical Practice: Endocrinology**2.5 Didactic Credits**

This course focuses on the complex interactions of the human hormonal system, including the causes and effects of hormonal imbalance and dysregulation. Principles and methods of naturopathic endocrinology are discussed, including functional assessments, prevention of disease, and restoration of endocrine function, as well as hormone replacement protocols. Class instruction will focus on basic patient management of the most common endocrine disorders seen in a general medical practice, including the appropriate use of prescription hormones and complementary therapeutics.

Department: General Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

GNMP 7031 General Medical Practice: Hematology**1 Didactic Credit**

The clinical presentations discussed in this course include different types of anemia and leukemia, Hodgkin's and non-Hodgkin's lymphomas, myeloproliferative disorders, plasma cell dyscrasias, and clotting disorders. It will provide students with current guidance on the diagnosis and naturopathic treatment of blood diseases and on consultative problems in hematology.

Department: General Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

GNMP 7040 General Medical Practice: Cardiology and Vascular Medicine**1.5 Didactic Credits**

The clinical presentations discussed in the course include differentiation of chest pain, syncope, and dyspnea; infections, inflammations, acute coronary syndrome, peripheral vascular disease, hypotension, hypertension, valvular disorders, arrhythmias, heart failure, malignancies, transient ischemic attack, cerebrovascular accident, and cardiovascular shock.

Department: General Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

GNMP 7041 General Medical Practice: Pulmonology**1.5 Didactic Credits**

This course will begin with a review of the anatomy and physiology of the respiratory system. Evaluation of patients with symptoms including cough, dyspnea, and chest pain will introduce various disorders. Allopathic and naturopathic treatments for various conditions will be presented. Some of the conditions included will be obstructive and restrictive disorders, infections, cancer, pulmonary embolism, ARDS, and respiratory failure.

Department: General Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

GNMP 8050 General Medical Practice: Rheumatology**2 Didactic Credits**

The clinical presentations discussed in the course include autoimmune and inflammatory conditions primarily affecting the musculoskeletal system. Emphasis is placed on the etiology, diagnosis, management, and treatment of monoarticular, polyarticular, and autoimmune disorders.

Department: General Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

GNMP 8051 General Medical Practice: Musculoskeletal/Orthopedic Conditions**1 Didactic Credit**

This advanced course addresses the clinical management of musculoskeletal and orthopedic conditions of joints and bones. Areas of focus include the spine and upper and lower extremities. The management of patients presenting with comorbidities, including infection, inflammation, malignancies, masses, injuries, and trauma, is discussed.

Department: General Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

GNMP 8060 General Medical Practice: Neurology**2 Didactic Credits**

The clinical presentations discussed in the course include masses and malignancies, cognitive disorders, infections and inflammations, vascular disorders, weakness/paralysis, sleep disorders, headache, pain modulation, movement disorders, dizziness, vertigo, gait disturbances, syncope, seizures, neurodegenerative diseases, and trauma.

Department: General Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

GNMP 8061 General Medical Practice: Oncology**1.5 Didactic Credits**

The clinical presentations discussed in the course include cancer cell biology, pathology, screening, and prevention guidelines. The principles and conventional therapies for cancer will be covered in addition to in-depth integrative naturopathic oncology for the most commonly observed cancers.

Department: General Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

GNMP 8070 General Medical Practice: Urology/Kidney/Male Conditions
1.5 Didactic Credits

The clinical presentations discussed in the course include generalized edema, electrolyte imbalances, metabolic acidosis, metabolic alkalosis, hypertension, hematuria, polyuria, urinary frequency, dysuria, renal mass, proteinuria, acute renal failure, urinary obstruction, renal colic, nephrolithiasis, and chronic renal failure. The male reproductive system will include cancers and masses, male infertility, testicular conditions, prostate conditions, sexual dysfunction, erectile dysfunction, and trauma.

Department: General Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

GNMP 8074 General Medical Practice Men's Health
1 Didactic Credit

This course focuses on the etiology, diagnosis, management, and treatment of male health problems. Students will learn evidence-based, effective naturopathic treatment protocols. Criteria for referral to specialists and integration of naturopathic medicine with conventional medicine are also covered.

Department: General Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

GNMP 8076 General Medical Practice: Geriatrics
2 Didactic Credits

This course focuses on the physiology of aging as well as the assessment and treatment of common disorders in the elderly, including dementia, musculoskeletal disorders, nervous system disorders, circulatory disorders, and ocular disorders. Emphasis is placed on symptoms and concerns commonly associated with aging, including social and functional limitations, nutritional issues, elder abuse, and medication management.

Department: General Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

GYNE 7010 Gynecology I
3 Didactic Credits

This course focuses on the etiology, diagnosis, management, and treatment of gynecological problems. Students will learn evidence-based, effective naturopathic treatment protocols. Criteria for referral to specialists and integration of naturopathic medicine with conventional medicine are also covered. This structure of the course includes lectures, assigned readings, quizzes, cases, group discussions, and examinations. Attendance is required, and each student is expected to come to class prepared by reading the assignments and PowerPoints a day or two before the corresponding class.

Department: General Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

GYNE 7020L Gynecology I Lab
2 Lab Credits

This laboratory course teaches examination and procedures associated with gynecological diagnosis and treatment. This is part lecture, part hands-on laboratory experience performing exams and gynecological procedures on models. Attendance is required, and each student is expected to come to class prepared by reading the assignments and PowerPoints before class.

Department: General Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

HMEO 6010 Homeopathy I
2 Didactic Credits

Homeopathy I, II, III, and IV are an integrated series of courses that sequentially introduce the student to the art and practice of homeopathy. They will draw on and utilize the knowledge and skills gained in each of the previous homeopathy department courses. These courses are primarily designed to impart the knowledge of homeopathy necessary for the student to pass the homeopathic portion of the NPLEX licensing exam. In addition, these courses lay the foundation for further study and mastery of homeopathy on clinical homeopathy clerkships. Topics include Materia Medica of all the homeopathic medicines tested by NPLEX, homeopathic philosophy, and theory including a detailed examination of the Organon of Medicine, review of current research literature, case taking and case analysis, computer repertorization, treatment and management of acute and chronic disease states, and integrating homeopathy with other naturopathic treatment options. These courses will utilize both lecture and case-based teaching methods, along with team-based and other active forms of learning.

Department: Homeopathy and Pharmacology

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

HMEO 6991 Advanced Case Management
1 Didactic Credit

Students focus on advanced topics in homeopathic medicine and how to integrate homeopathy with general naturopathic practice. This course is, in large measure, case-based. This course emphasizes sharpening skills in case analysis and repertorization, advanced study of materia medica, and managing patients with acute and chronic conditions.

Department: Homeopathy and Pharmacology

Prerequisites: HMEO 7040

HMEO 7020 Homeopathy II
2 Didactic Credits

Homeopathy I, II, III, and IV are an integrated series of courses that sequentially introduce the student to the art and practice of homeopathy. They will draw on and utilize the knowledge and skills gained in each of the previous homeopathy department courses. These courses are primarily designed to impart the knowledge of homeopathy necessary for the student to pass the homeopathic portion of the NPLEX licensing exam. In addition, these courses lay the foundation for further study and mastery of homeopathy on clinical homeopathy clerkships. Topics include Materia Medica of all the homeopathic medicines tested by NPLEX, homeopathic philosophy, and theory including a detailed examination of the Organon of Medicine, review of current research literature, case taking and case analysis, computer repertorization, treatment and management of acute and chronic disease states, and integrating homeopathy with other naturopathic treatment options. These courses will utilize both lecture and case-based teaching methods, along with team-based and other active forms of learning.

Department: Homeopathy and Pharmacology

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

HMEO 7030 Homeopathy III
2 Didactic Credits

Homeopathy I, II, III, and IV are an integrated series of courses that sequentially introduce the student to the art and practice of homeopathy. They will draw on and utilize the knowledge and skills gained in each of the previous homeopathy department courses. These courses are primarily designed to impart the knowledge of homeopathy necessary for the student to pass the homeopathic portion of the NPLEX licensing exam. In addition, these courses lay the foundation for further study and mastery of homeopathy on clinical homeopathy clerkships. Topics include Materia Medica of all the homeopathic medicines tested by NPLEX, homeopathic philosophy, and theory including a detailed examination of the Organon of Medicine, review of current research literature, case taking and case analysis, computer repertorization, treatment and management of acute and chronic disease states, and integrating homeopathy with other naturopathic treatment options. These courses will utilize both lecture and case-based teaching methods, along with team-based and other active forms of learning.

Department: Homeopathy and Pharmacology

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

HMEO 7040 Homeopathy IV
2 Didactic Credits

Homeopathy I, II, III, and IV are an integrated series of courses that sequentially introduce the student to the art and practice of homeopathy. They will draw on and utilize the knowledge and skills gained in each of the previous homeopathy department courses. These courses are primarily designed to impart the knowledge of homeopathy necessary for the student to pass the homeopathic portion of the NPLEX licensing exam. In addition, these courses lay the foundation for further study and mastery of homeopathy on clinical homeopathy clerkships. Topics include Materia Medica of all the homeopathic medicines tested by NPLEX, homeopathic philosophy, and theory including a detailed examination of the Organon of Medicine, review of current research literature, case taking and case analysis, computer repertorization, treatment and management of acute and chronic disease states, and integrating homeopathy with other naturopathic treatment options. These courses will utilize both lecture and case-based teaching methods, along with team-based and other active forms of learning.

Department: Homeopathy and Pharmacology

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

ICSA 5014 Integrated Case Studies Application I
1 Didactic Credit

This team-taught course, in conjunction with the ANAT 5014 and PHYS 5014 courses, utilizes cooperative learning and provides clinical correlations to the basic sciences. Critical thinking and problem-solving skills are emphasized.

Department: Basic Medical Sciences

Prerequisites: Admittance to the 4-year ND program

ICSA 5024 Integrated Case Studies Application II
1 Didactic Credit

This team-taught course, in conjunction with the ANAT 5024 and PHYS 5024 courses, utilizes cooperative learning, and provides clinical correlations to the basic sciences. Critical thinking and problem-solving skills are emphasized.

Department: Basic Medical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

ICSA 5034 Integrated Case Studies Application III
1 Didactic Credit

This team-taught course, in conjunction with the ANAT 5034 and PHYS 5034 courses, utilizes cooperative learning and provides clinical correlations to the basic sciences. Critical thinking and problem-solving skills are emphasized.

Department: Basic Medical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

IMMU 5024 Immunology
3 Didactic Credits

This course is designed to familiarize students with cellular, molecular, and biochemical aspects of the development of the immune system and the immune response. The course focuses on the development of the immune system and the function of its major components. The course explores the basic principles of the immune system, including tolerance, the development and differentiation of lymphocyte subsets, the regulation of immune responses, memory, cell-cell interactions, antigen presentation and recognition, vaccination, and immune-associated diseases.

Department: Basic Medical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

MGEN 5038 Medical Genetics
3 Didactic Credits

This course focuses on molecular biology and genetics. The topics focus on biosynthesis of nucleic acids, DNA replication, transcription, regulation of translation, and post-translational modifications. Emphasis is on the human genome and Mendelian inheritance, as well as cellular differentiation, immunogenetics, oncogenetics, nutritional genomics, and pharmacogenetics.

Department: Basic Medical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

MICR 5026 Microbiology I
3 Didactic Credits

This is the first of a two-quarter sequence in microbiology and immunology and includes lecture and laboratory sessions. In this course, students identify and examine the bacteria that are associated with human disease. This includes the evaluation of virulence factors, modes of transmission, epidemiology, general pathology, and the basis of the human immune response to these factors. This course has an accompanying lab.

Department: Basic Medical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: MICR 5026L

MICR 5026L Microbiology I Lab
2 Lab Credits

This is the first of a two-quarter sequence in microbiology and immunology and includes lecture and laboratory sessions. In this course, students identify and examine the bacteria that are associated with human disease. This includes the evaluation of virulence factors, modes of transmission, epidemiology, general pathology, and the basis of the human immune response to these factors. This lab has an accompanying lecture course.

Department: Basic Medical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: MICR 5026

MICR 5034 Microbiology II**4 Didactic Credits**

This course is the continuation of MICR 5024. In this course, students identify and examine other microorganisms that are associated with human disease. This includes the evaluation of virulence factors, modes of transmission, epidemiology, and general pathology of viruses, parasites, and fungi and the human immune defense against them.

Department: Basic Medical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

MNGT 6010 Practice Management I: Operations**1 Didactic Credit**

This course focuses on providing practical business foundations where students are introduced to naturopathic industry concepts and operations. Skills and techniques are presented that can be applied in any working environment (entrepreneur, associate, or independent contractor). Topics covered include naturopathic degree career tracks, CV and cover letter creation, interview skills, business plan basics, practice models, clinical and business pearls (as they apply to second-year medical students), vocational skill self-assessments, and what students can do now to help prepare for their future careers.

Department: Clinical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

MNGT 7020 Practice Management II: Marketing**1 Didactic Credit**

This is the second course in the management series where marketing foundations are introduced. Marketing tools and strategies are examined with emphasis on building a successful naturopathic practice. Focus is given to authentically promoting and maintaining a practice and personal brand through online and offline systems, professionalism, and the integration of naturopathic philosophy. This course provides various strategies to support marketing, build a successful practice, or prepare yourself to work as an employee or contractor in the healthcare industry.

Department: Clinical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

MNGT 7030 Practice Management III: Leadership**1 Didactic Credit**

This is the third course in the management series where leadership foundations are introduced. Leadership competencies and character are examined with emphasis on inspiring, influencing, and impacting communities and populations at large. Focus is given to the creation of mission and vision statements; setting goals and planning for success; mastering the heart, mind, and skill of the naturopathic leader; and creating a "culture of care" in one's practice, patient programs, and career. This class provides ideas and examples to model across the spectrum of practitioners, consultants, researchers, and others.

Department: Clinical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

MNGT 8040 Practice Management IV: Administration**1 Didactic Credit**

This course focuses on providing practical business foundations for students' post-graduate success. Skills and techniques will be presented that can be applied in any working environment (entrepreneur, associate, or independent contractor). Topics covered include licenses/certifications, necessary insurance(s), entity and tax structures, financial basics, and administrative fundamentals.

Department: Clinical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

MSRG 7010 Minor Surgery I: Introduction to Minor Surgery**1.5 Didactic Credits**

This course introduces the naturopathic medical student to the fundamentals and principles of conducting minor surgical procedures in an office setting. Basic surgical techniques for the removal and/or treatment of various skin lesions, subcutaneous tissues, and laceration repair will be presented with hands-on practice in the laboratory. Principles of anesthesia, knot tying, instrumentation, diagnostics, clinical and patient evaluation, sterile field, aseptic technique, and emergency care will be discussed with emphasis on appropriate referral. At the termination of the course, students should be proficient in the diagnosis and treatment by surgical means of common epidermal, dermal, and subdermal lesions. Students will also be able to do a focused intake in relation to minor surgical procedures as well as give patient education regarding diagnosis and aftercare instructions. This course has an accompanying lab.

Department: Physical Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: MSRG 7010L

MSRG 7010L Minor Surgery I Lab**1 Lab Credit**

This course introduces the naturopathic medical student to the fundamentals and principles of conducting minor surgical procedures in an office setting. Basic surgical techniques for the removal and/or treatment of various skin lesions, subcutaneous tissues, and laceration repair will be presented with hands-on practice in the laboratory. Principles of anesthesia, knot tying, instrumentation, diagnostics, clinical and patient evaluation, sterile field, aseptic technique, and emergency care will be discussed with emphasis on appropriate referral. At the termination of the course, students should be proficient in the diagnosis and treatment by surgical means of common epidermal, dermal, and subdermal lesions. Students will also be able to do a focused intake in relation to minor surgical procedures as well as give patient education regarding diagnosis and aftercare instructions. This lab has an accompanying lecture course.

Department: Physical Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: MSRG 7010

MSRG 8020 Minor Surgery II: Advanced Techniques in Minor Surgery**1 Didactic Credit**

This course will review the fundamentals of conducting basic and advanced minor surgical procedures in the office setting. Basic surgical techniques from MSRG 7010 will be reviewed and expanded upon. Advanced suture techniques and minor surgical procedures for the removal and/or treatment of various integumentary and mucosal lesions will be presented weekly with hands-on practice in the laboratory. This course has an accompanying lab.

Department: Physical Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: MSRG 8020L

MSRG 8020L Minor Surgery II Lab**1 Lab Credit**

This course will review the fundamentals of conducting basic and advanced minor surgical procedures in the office setting. Basic surgical techniques from MSRG 7010 will be reviewed and expanded upon. Advanced suture techniques and minor surgical procedures for the removal and/or treatment of various integumentary and mucosal lesions will be presented weekly with hands-on practice in the laboratory. This lab has an accompanying lecture course.

Department: Physical Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: MSRG 8020

NTMD 5010 Philosophical and Historical Foundations of Naturopathic Medicine I**2 Didactic Credits**

This is a three-quarter course sequence designed to introduce beginning medical students to the history and philosophy of naturopathic medicine. This is a team-taught course with emphasis given to the applied principles and historical milestones as well as the origins and development of naturopathic therapeutics including botanical medicine, homeopathy, hydrotherapy, mind-body medicine, nutrition, pharmacology, physical medicine, and Traditional Chinese Medicine. The intention of this course is for students to (1) actively engage in the exploration and discovery of their personal relationship to naturopathic medicine by critically examining both controversial and widely-accepted issues and ideas within the naturopathic profession; (2) identify, strengthen, and cultivate the human dimension of the practice of medicine, including reflection and communication; and (3) clarify a personal commitment to the principles of naturopathic medicine.

Department: Mind-Body, Environmental Medicine, and Naturopathic Philosophy

Prerequisites: Admission to the program

NTMD 5020 Philosophical and Historical Foundations of Naturopathic Medicine II**2 Didactic Credits**

This is a three-quarter course sequence designed to introduce beginning medical students to the history and philosophy of naturopathic medicine. This is a team-taught course with emphasis given to the applied principles and historical milestones as well as the origins and development of naturopathic therapeutics including botanical medicine, homeopathy, hydrotherapy, mind-body medicine, nutrition, pharmacology, physical medicine, and Traditional Chinese Medicine. The intention of this course is for students to (1) actively engage in the exploration and discovery of their personal relationship to naturopathic medicine by critically examining both controversial and widely-accepted issues and ideas within the naturopathic profession; (2) identify, strengthen, and cultivate the human dimension of the practice of medicine, including reflection and communication; and (3) clarify a personal commitment to the principles of naturopathic medicine.

Department: Mind-Body, Environmental Medicine, and Naturopathic Philosophy

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

NTMD 5030 Philosophical and Historical Foundations of Naturopathic Medicine III**2 Didactic Credits**

This is a three-quarter course sequence designed to introduce beginning medical students to the history and philosophy of naturopathic medicine. This is a team-taught course with emphasis given to the applied principles and historical milestones as well as the origins and development of naturopathic therapeutics including botanical medicine, homeopathy, hydrotherapy, mind-body medicine, nutrition, pharmacology, physical medicine, and Traditional Chinese Medicine. The intention of this course is for students to (1) actively engage in the exploration and discovery of their personal relationship to naturopathic medicine by critically examining both controversial and widely-accepted issues and ideas within the naturopathic profession; (2) identify, strengthen, and cultivate the human dimension of the practice of medicine, including reflection and communication; and (3) clarify a personal commitment to the principles of naturopathic medicine.

Department: Mind-Body, Environmental Medicine, and Naturopathic Philosophy

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

NUTR 6014 Nutrition I: Macronutrients and Nutritional Science**2 Didactic Credits**

This course examines cellular nutrition and metabolism, gastrointestinal function, and the role of macronutrients (fats, carbohydrates, proteins, and fiber) in health and disease. Nutritional science and the philosophies of nutritional protocols to create, maintain, and restore health are discussed. The structure of this course includes hands-on culinary lab instruction in the teaching kitchen as well as interactive lectures and discussions.

Department: Nutrition

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

NUTR 6024 Nutrition II: Micronutrients and Therapy Dynamics
2.5 Didactic Credits

This course examines the human body's need for specific micronutrients, the science of determining basic nutritional requirements, the role of each micronutrient, their availability in food, and the factors that influence absorption and utilization, including genetics, diseases, drug interactions, environment, exercise, and lifestyle. Effective dosing, safety considerations, and contraindications are discussed. The structure of this course includes hands-on culinary lab instruction in the teaching kitchen as well as interactive lectures and discussions.

Department: Nutrition

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

NUTR 7034 Nutrition III: Clinical Nutrition
2.5 Didactic Credits

This course introduces the clinical evaluation of diet and the diagnosis of nutritional needs. Specialized therapeutic diets and nutritional supplements will be explored for health maintenance and select populations. This course stresses therapeutic nutrition and diet as it is used to treat various diseases and conditions seen clinically in naturopathic medical practices.

Department: Nutrition

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

NUTR 7044 Nutrition IV: Advanced Strategies for Clinical Nutrition
2 Didactic Credits

This case-based course will discuss strategies in clinical evaluation and protocol implementation for complex conditions. Implementation strategies for clinical scenarios that involve comorbidities, socio-economic challenges, and age-related issues will be included. Nutritional testing, meal planning, recipes, food education, and supplementation for preventative care and acute and chronic conditions will be explored for individualized treatment.

Department: Nutrition

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

OBST 7010 Obstetrics
2.5 Didactic Credits

This course prepares the student to provide basic health care appropriate for the pregnant woman. Topics include diagnosis of pregnancy, initiating prenatal care, therapeutics for early complications of pregnancy, management of spontaneous abortion, infertility, overview of normal and complicated labor/delivery, and the postpartum care of mothers and infants. The student is prepared to screen for risks and to offer patients referrals and informed choices related to hospital or out-of-hospital birthing options.

Department: General Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

PEDS 7010 Pediatrics I
2 Didactic Credits

This course focuses on the assessment of common problems in infancy, childhood, and adolescence. Emphasis is on normal developmental milestones, disease prevention, and the treatment of common childhood conditions. Appropriate referral is addressed. Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Department: General Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

PEDS 8020 Pediatrics II
2 Didactic Credits

This course will be a continuation of common and complex problems in infancy, childhood, and adolescence. Disease prevention, treatment, and appropriate referral will be addressed.

Department: General Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

PHAR 6010 Pharmacology and Pharmacotherapeutics I
3 Didactic Credits

This course focuses on the principles and mechanisms of drug action and the purpose of pharmaceutical interventions. Emphasis is placed on drugs that act on neurotransmitter systems, including autonomics, hypnotics, and medications used in the treatment of pain, seizure, depression, anxiety, bipolar, psychosis, Parkinson's, and dementia, as well as drugs of abuse. It includes overviews of the pharmaceutical environment, legal and statutory issues, and basic terminology.

Department: Homeopathy and Pharmacology

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

PHAR 6020 Pharmacology and Pharmacotherapeutics II
3 Didactic Credits

This course continues the discussion of drug therapeutics, their mechanisms, and their uses. Side effects, toxicity, interaction, and contraindications are included in this course.

Department: Homeopathy and Pharmacology

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

PHAR 6030 Pharmacology and Pharmacotherapeutics III
3 Didactic Credits

This course continues the discussion of drug therapeutics, their mechanisms, and their uses. Side effects, toxicity, interaction, and contraindications are included in this course.

Department: Homeopathy and Pharmacology

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

PHMD 6010 Physical Medicine I: Introduction to Physical Medicine and Orthopedics
1 Didactic Credit

This course examines the study of physical medicine as a diagnostic and therapeutic tool. Emphasis is given to regional physical assessment using palpation, orthopedic tests, and orthopedic muscle testing. The theory of injury, inflammation, and the fibrosis of repair and joint end feel are examined along with a review of joint range of motion and trigger points. This course has an accompanying lab.

Department: Physical Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: PHMD 6010L

PHMD 6010L Physical Medicine I Lab**1 Lab Credit**

This course examines the study of physical medicine as a diagnostic and therapeutic tool. Emphasis is given to regional physical assessment using palpation, orthopedic tests, and orthopedic muscle testing. The theory of injury, inflammation, and the fibrosis of repair and joint end feel are examined along with a review of joint range of motion and trigger points. This lab has an accompanying lecture course.

Department: Physical Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: PHMD 6010

PHMD 6020 Physical Medicine II: Naturopathic Manipulative Treatment – Assessment and Application I**2 Didactic Credits**

This is part one of a two-course sequence that covers the evaluation of normal and abnormal findings of the spine through static palpation assessment of normal and positional deviations, assessment of joint mobility through motion palpation, grading of orthopedic muscular strength, joint range-of-motion, differential diagnosis of common and special disorders, and evaluation of common disease conditions and injury of the musculoskeletal patient. Emphasis is on regional orthopedic physical assessment and osseous manipulation (HVLA). Manipulative evaluation and treatment include the sacroiliac, lumbosacral, lumbar, thoracic, ribs, cervical, and occipital spinal areas. Students demonstrate the application of Naturopathic Manipulative Treatment and patient management of the musculoskeletal patient. Naturopathic philosophy and principles are integrated into the course presentation. This course has an accompanying lab.

Department: Physical Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: PHMD 6020L

PHMD 6020L Physical Medicine II Lab**2 Lab Credits**

This is part one of a two-course sequence that covers the evaluation of normal and abnormal findings of the spine through static palpation assessment of normal and positional deviations, assessment of joint mobility through motion palpation, grading of orthopedic muscular strength, joint range-of-motion, differential diagnosis of common and special disorders, and evaluation of common disease conditions and injury of the musculoskeletal patient. Emphasis is on regional orthopedic physical assessment and osseous manipulation (HVLA). Manipulative evaluation and treatment include the sacroiliac, lumbosacral, lumbar, thoracic, ribs, cervical, and occipital spinal areas. Students demonstrate the application of Naturopathic Manipulative Treatment and patient management of the musculoskeletal patient. Naturopathic philosophy and principles are integrated into the course presentation. This lab has an accompanying lecture course.

Department: Physical Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: PHMD 6020

PHMD 6030 Physical Medicine III: Naturopathic Manipulative Treatment – Assessment and Application II**2 Didactic Credits**

This is part two of a two-course sequence which covers the evaluation of normal and abnormal findings of the extremities through static palpation assessment of normal and postural deviations. The students will learn assessments of joint mobility through motion palpation, grading of orthopedic muscle strength and joint range of motion, differential diagnosis of common and special disorders, and evaluation of disease and injury of the musculoskeletal patient, including concussion. Emphasis is on regional orthopedic physical assessment with orthopedic testing, muscle testing, and osseous manipulation. Manipulative treatment includes the upper and lower extremities, temporomandibular joint (TMJ), and specialty visceral manipulative techniques. Patient management of the musculoskeletal patient, including exercise, will be introduced; types of pain and mechanoreceptor stimulation with movement will be discussed; and orthopedic biomechanics of posture and gait will be examined. Students are introduced to neuromuscular technique, muscle energy technique, and craniosacral technique. Also included is a review and refinement of spinal manipulative techniques. Naturopathic philosophy and principles are integrated into the course presentation. This course has an accompanying lab.

Department: Physical Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: PHMD 6030L

PHMD 6030L Physical Medicine III Lab**2 Lab Credits**

This is part two of a two-course sequence which covers the evaluation of normal and abnormal findings of the extremities through static palpation assessment of normal and postural deviations. The students will learn assessments of joint mobility through motion palpation, grading of orthopedic muscle strength and joint range of motion, differential diagnosis of common and special disorders, and evaluation of disease and injury of the musculoskeletal patient, including concussion. Emphasis is on regional orthopedic physical assessment with orthopedic testing, muscle testing, and osseous manipulation. Manipulative treatment includes the upper and lower extremities, temporomandibular joint (TMJ), and specialty visceral manipulative techniques. Patient management of the musculoskeletal patient, including exercise, will be introduced; types of pain and mechanoreceptor stimulation with movement will be discussed; and orthopedic biomechanics of posture and gait will be examined. Students are introduced to neuromuscular technique, muscle energy technique, and cranio-sacral technique. Also included is a review and refinement of spinal manipulative techniques. Naturopathic philosophy and principles are integrated into the course presentation. This lab has an accompanying lecture course.

Department: Physical Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: PHMD 6030

PHMD 6040 Physical Medicine IV: Physiotherapy Modalities
1 Didactic Credit

This is a course in physical therapy modalities. A variety of modalities will be explored, including ultrasound, electric muscle stimulation, microcurrent, TENS, cold laser, diathermy, iontophoresis, and others. The modalities will be studied in terms of the mechanism by which they function and how to physically apply the modalities to the patient. Students will have hands-on experience in a lab setting learning how to appropriately apply modalities. A variety of clinical applications will be discussed. This course has an accompanying lab.

Department: Physical Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: PHMD 6040L

PHMD 6040L Physical Medicine IV Lab
1 Lab Credit

This is a course in physical therapy modalities. A variety of modalities will be explored, including ultrasound, electric muscle stimulation, microcurrent, TENS, cold laser, diathermy, iontophoresis, and others. The modalities will be studied in terms of the mechanism by which they function and how to physically apply the modalities to the patient. Students will have hands-on experience in a lab setting learning how to appropriately apply modalities. A variety of clinical applications will be discussed. This lab has an accompanying lecture course.

Department: Physical Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: PHMD 6040

PHMD 6054 Physical Medicine V: Principles of Hydrotherapy
1 Didactic Credit

This course will cover the physiology, clinical applications, and practice management of Naturopathic Hydrotherapy. By the conclusion of this course, students will be able to demonstrate written, verbal, and practical knowledge of hydrotherapy theories and skills; the physiologic response to different water treatments, temperatures, and associated applications; and how to apply techniques in acute and chronic disease safely and effectively. The use of constitutional hydrotherapy, sauna, and other methods will be taught and practiced. This course has an accompanying lab.

Department: Physical Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: PHMD 6054L

PHMD 6054L Physical Medicine V Lab
2 Lab Credits

This course will cover the physiology, clinical applications, and practice management of Naturopathic Hydrotherapy. By the conclusion of this course, students will be able to demonstrate written, verbal, and practical knowledge of hydrotherapy theories and skills; the physiologic response to different water treatments, temperatures, and associated applications; and how to apply techniques in acute and chronic disease safely and effectively. The use of constitutional hydrotherapy, sauna, and other methods will be taught and practiced. This lab has an accompanying lecture course.

Department: Physical Medicine

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: PHMD 6054

PHYS 5014 Human Physiology and Endocrinology I
4 Didactic Credits

The first of three physiology blocks, this course includes interactive didactic and laboratory instruction to examine the physiology and endocrinology of the human body. The first block includes general concepts in cell and membrane biology and begins the organ systems physiology. This course is taught in coordination with the ANAT 5014 and ICSA 5014 courses. This course has an accompanying lab.

Department: Basic Medical Sciences

Prerequisites: Admission to the program

Corequisites: PHYS 5014L

PHYS 5014L Human Physiology and Endocrinology I Lab
1 Lab Credit

The first of three physiology blocks, this course includes interactive didactic and laboratory instruction to examine the physiology and endocrinology of the human body. The first block includes general concepts in cell and membrane biology and begins the organ systems physiology. This course is taught in coordination with the ANAT 5014 and ICSA 5014 courses. This lab has an accompanying lecture course.

Department: Basic Medical Sciences

Prerequisites: Admission to the program

Corequisites: PHYS 5014

PHYS 5024 Human Physiology and Endocrinology II
4 Didactic Credits

The second of three physiology blocks, this course includes interactive didactic and laboratory instruction to examine the physiology and endocrinology of the human body. This systems-based approach continues with organ system physiology. This course is taught in coordination with the ANAT 5024 and ICSA 5024 courses. This course has an accompanying lab.

Department: Basic Medical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: PHYS 5024L

PHYS 5024L Human Physiology and Endocrinology II Lab
1 Lab Credit

The second of three physiology blocks, this course includes interactive didactic and laboratory instruction to examine the physiology and endocrinology of the human body. This systems-based approach continues with organ system physiology. This course is taught in coordination with the ANAT 5024 and ICSA 5024 courses. This lab has an accompanying lecture course.

Department: Basic Medical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: PHYS 5024

PHYS 5034 Human Physiology and Endocrinology III
4 Didactic Credits

The third of three physiology blocks, this course includes interactive didactic and laboratory instruction to examine the physiology and endocrinology of the human body. This systems-based approach continues with organ system physiology. This course is taught in coordination with the ANAT 5034 and ICSA 5034 courses. This course has an accompanying lab.

Department: Basic Medical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: PHYS 5034L

PHYS 5034L Human Physiology and Endocrinology III Lab
1 Lab Credit

The third of three physiology blocks, this course includes interactive didactic and laboratory instruction to examine the physiology and endocrinology of the human body. This systems-based approach continues with organ system physiology. This course is taught in coordination with the ANAT 5034 and ICSA 5034 courses. This lab has an accompanying lecture course.

Department: Basic Medical Sciences

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Corequisites: PHYS 5034

PSYC 6010 Mind-Body Medicine: Fundamentals of Mind-Body Medicine
2 Didactic Credits

This course provides the foundation necessary to understand the fundamental dynamics of mind-body medicine, including psychosocial and spiritual dimensions in healing. Students will learn how to facilitate in themselves and other people mind-body practices for disease prevention and treatment. Mind-body processes and techniques such as grounding skills, mindfulness practices, breathing exercises, biofeedback, and tapping therapies are discussed and critically examined for their potential role in integrative naturopathic healthcare.

Department: Mind-Body, Environmental Medicine, and Naturopathic Philosophy

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

PSYC 6024 Mind-Body Medicine: Introduction to Medical Psychotherapy
1.5 Didactic Credits

An overview of developmental and behavioral theory, counseling skills, and techniques is presented, along with stages in the healing process. The multi-modal model of a physician as a counselor in the healing relationship is critically examined. Students will critically explore the roles of patient education, patient motivation for change, and medical ethics in the doctor/patient relationship. Clinical cases will provide opportunities to develop healthy communication and counseling skills. Students will be introduced to the Diagnostic and Statistical Manual of Mental Health Disorders (DSM) with a focus on the recognition and diagnosis of mental health disorders commonly encountered in the naturopathic primary care setting, including how to assess risk and identify appropriate community referrals.

Department: Mind-Body, Environmental Medicine, and Naturopathic Philosophy

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

PSYC 7034 Mind-Body Medicine: Affect Psychotherapy and Crisis Intervention
2 Didactic Credits

Students will develop the necessary foundation and general strategies to recognize, intervene, and refer patients who are experiencing transitional, traumatic, and acute psychiatric disorders. Elements of family dynamics, domestic violence, abuse, death and dying, homocidality, bullying, and suicidality are critically explored. Medical ethics issues related to these behavioral health dimensions are discussed. The use of agencies and referral sources is emphasized, as are crisis intervention and other strategies for dealing with emergency situations.

Department: Mind-Body, Environmental Medicine, and Naturopathic Philosophy

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

PSYC 8040 Mind-Body Medicine: Medical Management of Addiction
1.5 Didactic Credits

This course provides a naturopathic model for the care and treatment of people suffering from addiction. Students will explore the health impacts of drug, food, and other addictions with a focus on interactive medical, psycho-social, spiritual, and biochemical/nutritional influences. This course will present a multi-modal approach to the practice of naturopathic addiction medicine, including patient motivation to change. Students will have opportunities to interact with guest speakers experienced in the field of addiction care.

Department: Mind-Body, Environmental Medicine, and Naturopathic Philosophy

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

RSCH 5016 Research I
1 Didactic Credit

This is the first of a two-quarter sequence of research courses. This course discusses the scientific method, scientific technology, and the analysis of scientific data in general as it relates to naturopathic medicine.

Department: Research

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

RSCH 5024 Research II
1 Didactic Credit

RSCH 5024 Research II is the continuation of RSCH 5014. This course discusses the types and aids in the evaluation of journals and other scientific publications in which medical literature can be found. Students will be exposed to methods for evaluating the varying significance of research findings.

Department: Research

Prerequisites: Completion of all previous quarters' courses as outlined in students' prescribed program of study

Selective Courses

ACMD 6980 Chinese Prepared Medicines
2.5 Didactic Credits

This course explores Chinese-prepared medicines for common syndromes and disorders because acupuncture practitioners in North America commonly use pill or tincture forms for adjunctive therapy. This course trains the student in the skills necessary to critically evaluate the many products available. Classical Chinese patent medicines and contemporary North American Chinese-prepared formulas are discussed.

Department: Acupuncture and Chinese Medicine

Prerequisites: ACMD 6010, ACMD 6020, ACMD 6030, ACMD 6040, ACMD 7054, ACMD 7055, and ACMD 7070

BSSD 5014 Basic Sciences Skill Development I
0 Didactic Credits

This course provides an amalgamation of the basic science content from Q1 with an integration of study and time management strategies. Instruction is provided through the Basic Sciences Faculty, DDC tutors, and the Learning Specialist. Specific content is tailored to the needs of the individual students enrolled in this course.

Department: Basic Medical Sciences

Prerequisites: Failure of one or more of the first three basic sciences courses: ANAT 5014, PHYS 5014, BIOC 5014

BSSD 5024 Basic Sciences Skill Development II
0 Didactic Credits

This course provides an amalgamation of the basic science content from Q2 with an integration of study and time management strategies. Instruction is provided through the Basic Sciences Faculty, DDC tutors, and the Learning Specialist. Specific content is tailored to the needs of the individual students enrolled in this course.

Department: Basic Medical Sciences

Prerequisites: Failure of one or more of the second set of basic sciences courses: ANAT 5024, PHYS 5024, BIOC 5026

CLTR 9901 Advanced Topics in Pediatrics - Honors
1 Didactic Credit

The advanced topics selective course in Pediatrics is intended for clinic students and required for those in the Pediatrics honors track program. The objective is to advance discipline-specific knowledge. Students will critically review and interpret pediatric medicine research and utilize this knowledge for weekly debates with classmates. The debates will advance the student's ability to verbally communicate their knowledge, increase leadership confidence, and direct future evidence-informed clinical care.

Department: Clinical Sciences

Prerequisites: Completion of quarters 1-8 (quarters 1-12 in the 5-year track) and eligibility for clinic

CLTR 9902 Advanced Topics in Community Medicine - Honors
1 Didactic Credit

The advanced topics selective course in Community Medicine is intended for clinic students and required for those in the Community Medicine honors track program. The first objective is to advance discipline-specific knowledge. Students will learn how to critically review and interpret clinical/health research and apply this knowledge to evidence-informed clinical care. Secondly, leading a discussion of their research will advance the student's ability to verbally communicate their knowledge and increase leadership confidence.

Department: Clinical Sciences

Prerequisites: Completion of quarters 1-8 (quarters 1-12 in the 5-year track) and eligibility for clinic

CLTR 9903 Advanced Topics in Regenerative Medicine - Honors
1 Didactic Credit

The advanced topics selective course in regenerative medicine is intended for clinic students and is required for those in the regenerative medicine honors track program. The first objective is to advance discipline-specific knowledge. Students will learn how to critically review and interpret clinical/health research and apply this knowledge to evidence-informed clinical care. Secondly, leading a discussion of their research will advance the student's ability to verbally communicate their knowledge and increase leadership confidence.

Department: Clinical Sciences

Prerequisites: Completion of quarters 1-8 (quarters 1-12 in the 5-year track) and eligibility for clinic

CLTR 9905 Advanced Topics in Nature Cure - Honors
1 Didactic Credit

The advanced topics selective course in Nature Cure is intended for clinic students and required for those in the Nature Cure honors track program. The first objective is to advance discipline-specific knowledge. Students will learn how to critically review and interpret clinical/health research and apply this knowledge to evidence-informed clinical care. Secondly, leading a discussion of their research will advance the student's ability to verbally communicate their knowledge and increase leadership confidence.

Department: Clinical Sciences

Prerequisites: Completion of quarters 1-8 (quarters 1-12 in the 5-year track) and eligibility for clinic

ENVM 6940 Heavy Metals
1.5 Didactic Credits

This selective course will cover the most commonly found and most toxic heavy metals (arsenic, cadmium, lead, and mercury). Sources, health effects, and methods of diagnosis and treatment will be covered for each of these toxicants. Research articles on these topics will be made available by the instructor for review and in-class discussion. The accurate interpretation of heavy metal test results will be required for satisfactory completion of this course.

Department: Mind-Body, Environmental Medicine, and Naturopathic Philosophy

Prerequisites: ENVM 6010 and Completion of the GNMD course sequence through quarter 7 (quarter 11 in the 5-year track)

NTMD 6933 Nature Cure
2 Didactic Credits

To prepare for the role of primary care physician, the student of naturopathic medicine must become skilled in correlating and presenting histories, subjective symptoms, physical signs, and appropriate lab tests with a detailed evaluation of the body's level of health. The purpose of this course is for students to become familiar with the traditional methods of naturopathic medicine and to be able to apply them in clinical practice. Each class will focus on discussions of actual cases and specifically evaluate the application of each of the naturopathic principles to those cases.

Department: Mind-Body, Environmental Medicine, and Naturopathic Philosophy

Prerequisites: Admission to the program

NTMD 6936 The Human in Nature
2 Didactic Credits

This course will explore the concepts, theories, and research behind the benefits of nature exposure. Pertinent research on health conditions in all populations will be discussed and analyzed. The ultimate intent of this course is to impress upon the student the need for continued exposure to nature and play throughout human life cycles in school, work, and community settings.

Department: Mind-Body, Environmental Medicine, and Naturopathic Philosophy

Prerequisites: Admission to the program

NTMD 6950 Advanced Application of Nature Cure
2 Didactic Credits

Advanced Application of Nature Cure expands and deepens the student's experience with many nature cure techniques. A particular emphasis is given to variations for specific diseases and conditions while exploring the effects of the techniques on all levels of the body, mind, and spirit.

Department: Mind-Body, Environmental Medicine, and Naturopathic Philosophy

Prerequisites: PHMD 6054

NUTR 6910 Self-care: Role-modeling Health Behaviors
2 Didactic Credits

This course improves self-care in students to promote personal sustainability and prevent burnout for their well-being as well as for the benefit of their future clients and team members. Through a combination of didactic and experiential learning, students gain an understanding of the importance and impact of self-care practices. An emphasis will be placed on hands-on, practical approaches for making sustainable changes in diet, exercise, stress management, and sleep hygiene to reduce the risk of disease and promote health. As students are empowered with an enhanced capacity for self-care, it is expected that they will be more inclined, and better equipped, to implement these strategies when counseling future clients and/or when leading teams.

Department: Nutrition

Prerequisites: Admission to the program

NUTR 6930 Nutrigenomics and Personalized Nutrition
2 Didactic Credits

This course provides students with a foundational knowledge of nutritional genomics and guidance on how to apply nutrigenomics when developing a personalized nutrition plan. Students will explore current evidence on clinical applications of genetics, epigenetics, and nutrigenomics and the impact of personalized genomics on nutritional biochemistry and human physiology. Upon successful completion of the course, students will receive a Certificate in the Principles of Nutritional Genomics from the American Nutrition Association.

Department: Nutrition

Prerequisites: NUTR 6024

NUTR 6940 Probiotics from Research to Market
2 Didactic Credits

This course brings students along the supply chain and value chain of probiotics and explores this rapidly evolving field from the perspective of the scientist, the clinician, the manufacturer, and the consumer. Students will gain an understanding of the scientific basis for these products, evidence-based clinical applications, and key regulatory and manufacturing considerations. Instruction will also be provided on the basics from research and development, formulating products, and QA/QC, to manufacturing, labeling, and commercialization.

Department: Nutrition

Prerequisites: GNMP 7020, NUTR 6014, NUTR 6024

PHMD 6940 Introduction to Neuro Emotional Technique (NET)
1 Didactic Credit

This course serves as an introduction to Neuro Emotional Technique (NET) as taught by Drs. Scott & Deborah Walker (Founder & Co-Developer of NET). It is intended to give students a basic understanding of the methods utilized in this modality and instruction on how to apply these skills in clinical practice. Students who desire to study NET in further depth are encouraged to enroll in the NET certification course.

Department: Physical Medicine

Prerequisites: Admission to the program

PHMD 6970 Introduction to Applied Kinesiology
2 Didactic Credits

This course serves as an introduction to applied kinesiology (AK) as taught by its founder, Dr. George Goodheart, and gives students a basic understanding of the methods utilized in this modality and instruction on how to apply these skills in clinical practice. Students who desire to study AK in depth are encouraged to enroll in the certification course.

Department: Physical Medicine

Prerequisites: PHMD 6030, ACMD 6030

PHMD 6980 Orthopedic and Sports Medicine
3.5 Didactic Credits

In this course, students evaluate sports and orthopedic injuries. Emphasis is on exercise, soft tissue therapies, physiotherapy, and manipulative techniques used in the treatment of sports and orthopedic injuries.

Department: Physical Medicine

Prerequisites: PHMD 6030

PHMD 6981 Advanced Hydrotherapy
1 Didactic Credit

This course and lab expands and deepens the student's experience with many hydrotherapy techniques. Emphasis is given to variations for specific diseases and conditions. This course has an accompanying lab.

Department: Physical Medicine

Prerequisites: PHMD 6054

Corequisites: PHMD 6981L

PHMD 6981L Advanced Hydrotherapy Lab
2 Lab Credits

This course and lab expands and deepens the student's experience with many hydrotherapy techniques. Emphasis is given to variations for specific diseases and conditions. This lab has an accompanying lecture course.

Department: Physical Medicine

Prerequisites: PHMD 6054

Corequisites: PHMD 6981

PSYC 6940 Mindfulness-Based Stress Reduction
2.5 Didactic Credits

This highly experiential, group process-based, psychoeducational course guides motivated learners through an in-depth exploration of coping with emotional stress, psychological injury, pain conditions, and chronic illness using the patented, evidence-based principles and tools of MBSR®, specifically developed for use in healthcare settings around the world. This uniquely immersive and trauma-sensitive curriculum promotes lasting health changes in participants, which extends to the people they serve, by incrementally building both formal and informal mindfulness habits designed to be used in daily life and encouraging the embodiment of course concepts through direct experience. Upon completion of this course, participants will have the tools needed to independently develop and continue their own personalized, unguided, MBSR® practice as well as resources for ongoing support as desired. The skills and concepts emphasized in this course extend far beyond the classroom and may contribute to increased compassion and sense of belonging, improved emotional regulation, wiser choices, healthier relationships, and/or enhanced overall well-being throughout the lifespan. This course is appropriate for beginners as well as experienced learners.

Department: Mind-Body, Environmental Medicine and Naturopathic Philosophy

Prerequisites: Admission to the program

PSYC 6970 Foundations of Neurofeedback**3 Didactic Credits**

Students receive training in the principles and applications of neurofeedback (EEG biofeedback). Neurofeedback is a clinical process for changing the electrical activity, of either cortical or sub-cortical origin, of the Central Nervous System using electroencephalography-based biofeedback and/or electrical stimulation. The neurofeedback process teaches self-regulation of neural activity and related "state change," with promising therapeutic benefits in ADD, migraine, anxiety, depression, head injury, insomnia, and a host of other neuro-cognitive disorders. This course includes neurofeedback history and research, EEG and electrophysiology, instrumentation, treatment planning, and experiential modules designed to familiarize the student with electrode placement and clinical applications. This course also provides an introduction to quantitative EEG interpretation. The integration of neurofeedback as a complementary approach with other therapeutic procedures to enhance health and wellness will be emphasized. This course fulfills didactic requirements for certification from the two major certification boards in neurofeedback and biofeedback.

Department: Mind-Body, Environmental Medicine and Naturopathic Philosophy

Prerequisites: Completion of quarters 1-3 (see the program of study for eligibility requirements for the 5-year track)

PSYC 6980 Naturopathic Treatments for Mental Illness**2.5 Didactic Credits**

This course involves an in-depth exploration of specific naturopathic approaches to the most common psychiatric disorders seen in general practice, including depression, bipolar, anxiety, and sleep disorders. This course will allow students to assess, synthesize, prioritize, and implement therapies consistent with naturopathic principles. Course content will include an introduction to laboratory and other useful assessments, plus naturopathic treatments including nutrients, herbs, amino acids, biofeedback, homeopathy, and other evidence-based alternative therapies. Indications and treatment options using conventional drugs and methods are explored alongside alternative approaches. Students will recognize drug/herb and drug/nutrient interactions and specific protocols for safely weaning patients off conventional drug medications when appropriate.

Department: Mind-Body, Environmental Medicine and Naturopathic Philosophy

Prerequisites: Completion of CLPR 6060

PSYC 6993 Practicum in Mind-Body Healing**2 Didactic Credits**

Students begin utilizing a variety of current methodologies and techniques of mind-body healing. Intervention techniques are applied within a clearly outlined treatment plan. The use and effectiveness of various process-oriented techniques are critically evaluated. Primary focus is given to mind/body healing techniques selected for their potential relevance to naturopathic practice. Students practice and develop their skills and have opportunities for feedback. The instructor, TA, and/or guest speakers will supervise skill-building sessions and provide effective role models.

Department: Mind-Body, Environmental Medicine and Naturopathic Philosophy

Prerequisites: Admission to the program

PSYC 6995 Basic Medical Hypnosis**2 Didactic Credits**

Students learn practical tools and general strategies of hypnotic suggestion for different kinds of patients and problems. Both traditional and informal approaches to hypnosis will be taught, with emphasis placed on general day-to-day applications. Students learn to work with psychologically complex patients who are otherwise resistant to treatment. Accordingly, there will be instruction on how to adapt different techniques to a client's individual needs, and how to use hypnosis for specific clinical problems such as pain control, depression, anxiety, stress management, weight loss, childbirth, and preparation for surgery. General guidelines for other problems that occur in a physician's practice will also be discussed. Ethical issues related to medical hypnosis will be addressed.

Department: Mind-Body, Environmental Medicine and Naturopathic Philosophy

Prerequisites: Admission to the program

RSCH 6600 Directed Research Project**.5 - 3 Lab Credits**

This course is oriented towards independent medical student projects under the direction of the research faculty. Projects may involve the design, implementation, and analysis of clinical and/or bench-top research. Prerequisites, credits, and number of students will be determined by the instructor(s). Admittance to this course is in order of registration within the Registrar's Office until the course size limit has been attained.

Department: Research

Prerequisites: RSCH 5016

RSCH 6914 Research Studies: Case Reports and Meta-Analysis I
1 Lab Credit

This is the first of a two-quarter sequence of research courses. Each quarter is worth 1 credit hour, making the entire course worth 2 credit hours. Upon completing and passing the two-quarter sequence, students may re-take the complete two-quarter course one additional time. During this entire course, students will prepare research data for publication. Upon completion of the entire course, students will submit a report to a peer-reviewed journal for review and potential publication. Authorship of the report will include the student, faculty mentor, and other significant contributors. Two options are available for this course: Option A (Meta-analysis): In this option, 1st, 2nd, 3rd, or 4th year students will prepare a meta-analysis report. This meta-analysis report will involve the analysis of a large collection of results from individual studies for the purpose of integrating the findings. The topic of the meta-analysis will be chosen by the student under the supervision and guidance of a faculty mentor. Option B (Case report): In this option, 4th year students will prepare a case report. This case report will involve the preparation of a narrative that describes a medical problem and treatment experienced by one or more patients. The topic of the case study will be chosen by the student under the supervision and guidance of a faculty mentor.

Department: Research

Prerequisites: RSCH 5016 or approval of instructor based on research experience

RSCH 6924 Research Studies: Case Reports and Meta-Analysis II
1 Lab Credit

This is the second of a two-quarter sequence of research courses. Each quarter is worth 1 credit hour, making the entire course worth 2 credit hours. Upon completing and passing the two-quarter sequence, students may re-take the complete two-quarter course one additional time. During this entire course, students will prepare research data for publication. Upon completion of the entire course, students will submit a report to a peer-reviewed journal for review and potential publication. Authorship of the report will include the student, faculty mentor, and other significant contributors. Two options are available for this course: Option A (Meta-analysis): In this option, 1st, 2nd, 3rd, or 4th year students will finish a meta-analysis report that was begun during the first quarter of this course. This meta-analysis report will involve the analysis of a large collection of results from individual studies for the purpose of integrating the findings. The topic of the meta-analysis was chosen by the student under the supervision and guidance of a faculty mentor during the first quarter of this course, and the report will be completed during this second quarter. Option B (Case report): In this option, 4th year students will prepare a case report. This case report will involve the preparation of a narrative that describes a medical problem and treatment experienced by one or more patients. The topic of the case study was chosen by the student under the supervision and guidance of a faculty mentor during the first quarter of this course, and the report will be completed during the second quarter.

Department: Research

Prerequisites: RSCH 6914

Font Notice

This document should contain certain fonts with restrictive licenses. For this draft, substitutions were made using less legally restrictive fonts. Specifically:

Helvetica was used instead of Arial.

The editor may contact Leepfrog for a draft with the correct fonts in place.