For more than 60 years, Northwestern Health Sciences University has worked to develop an INTERNATIONAL REPUTATION for excellence in professional education, patient care, clinical research, and community service. Our University is committed to providing students with individual attention from a faculty and staff that are second to none; with a rigorous, well-rounded curriculum; and with an unparalleled clinical foundation for helping students to become successful natural health care practitioners. The combination of Northwestern College of Chiropractic, the Minnesota College of Acupuncture and Oriental Medicine, the School of Massage Therapy, and the certificate programs in Integrative Health and Wellness positions Northwestern as one of the leading natural health care institutions in the United States.

Not only is Northwestern a leader in education, we are also pioneers in community service and caring. At Northwestern, students, faculty, and staff, are all part of a COMMUNITY OF CARING. It is this community that keeps our alumni active, employees dedicated, and our students focused on the "bigger picture" outside of the University. At Northwestern, they find the resources to become healers, and a University that will prepare them to excel in the health care environment of the 21st Century.

Because many of Northwestern's instructors are also excellent health care practitioners, they are able to pass on to their students more than technique and skill. They model compassion and understanding, traits that only outstanding integrative health and wellness practitioners, doctors of chiropractic, massage therapists, and practitioners of acupuncture and Oriental medicine can display to their patients.

Why Northwestern? The answer is best told through our students, faculty and staff, who are the foundation of our Community of Caring.

### **OUR MISSION**

The mission of Northwestern Health Sciences University is to advance and promote natural approaches to health through education, research, clinical services and community involvement.

### **GENERAL INFORMATION**

Admissions:

The Office of Admissions

Northwestern Health Sciences University

2501 West 84th Street

Minneapolis, MN 55431

Telephone: (952) 888-4777, ext. 409

FAX: (952) 888-6713

e-mail: admit@nwhealth.edu

www.nwhealth.edu

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This catalog is published every two years.

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# Calendar 2004-2006

The full academic calendar for 2004-2006, including information on tuition deadlines, board exams, and dates of commencement, is available on-line at <a href="https://www.nwhealth.edu">www.nwhealth.edu</a>. On the home page, click on Registrar, then click on Academic Calendar.

## Fall 2004 Trimester

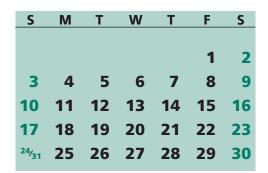
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### **SEPTEMBER 2004**

**Sept. 3, 2004** *New Student Orientation* (All programs)

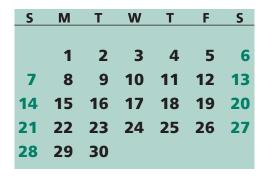
**Sept. 6, 2004** *Labor Day Holiday* 

**Sept. 7, 2004** *Classes begin* 



### **OCTOBER 2004**

**Oct. 11, 2004**Columbus Day Holiday



### **NOVEMBER 2004**

**Nov. 25-26, 2004** *Thanksgiving Holiday* 

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### **DECEMBER 2004**

Dec. 18, 2004

Last day of Fall 2004 trimester (All programs)

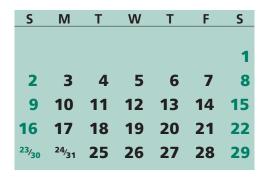
Dec. 20-31, 2004

Winter Break

Dec. 30, 2004

New Student Orientation (All programs)

## Winter 2005 Trimester

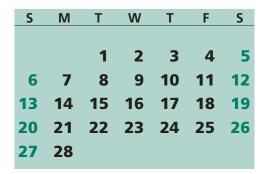


### **JANUARY 2005**

Jan. 3, 2005 Classes begin

Jan. 17, 2005

Martin Luther King Jr. Day Holiday



### **FEBRUARY 2005**

Feb. 3-5, 2005

Chiropractic Homecoming and Winter Gathering

Feb. 21, 2005

President's Day Holiday

Feb. 26-27, 2005

School of Massage Therapy Homecoming and Winter Symposium

# (alendar 2004-2006)

#### S M

### **MARCH 2005**

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### **APRIL 2005**

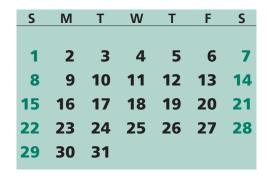
**April 1-3, 2005** *Great River Symposium and Spring Gathering* 

**April 16, 2005**Last day of Winter 2005 trimester (All programs)

April 18-29, 2005 Spring Break

**April 29, 2005** *New Student Orientation* (All programs)

## Summer 2005 Trimester



### **MAY 2005**

May 2, 2005 Classes begin

May 30, 2005 Memorial Day Holiday

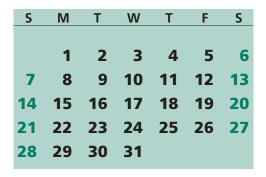
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### **JUNE 2005**

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### **JULY 2005**

**July 4, 2005** *Independence Day Holiday* 



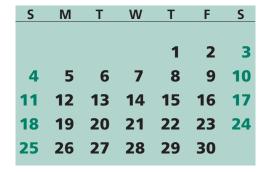
### **AUGUST 2005**

Aug. 13, 2005 Last day of Summer 2005 trimester

Aug. I 5-Sept. I, 2005 Summer Break

# Calendar 2004-2006

## Fall 2005 Trimester

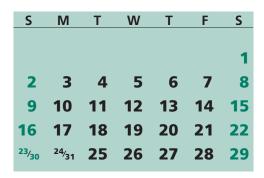


### SEPTEMBER 2005

**Sept. 2, 2005** *New Student Orientation* (All programs)

**Sept. 5, 2005** *Labor Day Holiday* 

**Sept. 6, 2005** *Classes begin* 



### **OCTOBER 2005**

Oct. 10, 2005 Columbus Day Holiday



### **NOVEMBER 2005**

**Nov. 24-25, 2005** *Thanksgiving Holiday* 

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### **DECEMBER 2005**

Dec. 17, 2005

Last day of Fall 2005 trimester (All programs)

Dec. 19-30, 2005

Winter Break

Dec. 30, 2005

New Student Orientation (All Programs)

## Winter 2006 Trimester

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### **JANUARY 2006**

Jan. 2, 2006

Winter Break New Year's Holiday observed

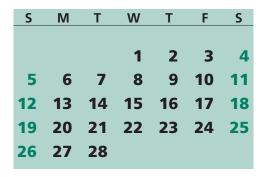
Jan. 3, 2006

Classes begin

Jan. 16, 2006

Martin Luther King Jr. Holiday

### **FEBRUARY 2006**



Feb. 2-4, 2006

Chiropractic Homecoming and Winter Gathering

Feb. 20, 2006

President's Day Holiday

Feb. 25-26, 2006

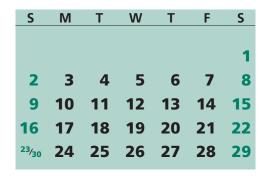
School of Massage Therapy Homecoming and Winter Symposium

# (alendar 2004-2006)

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### **MARCH 2006**

March 31-April 2, 2006 Great River Symposium and Spring Gathering



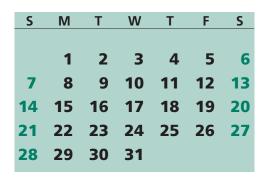
### **APRIL 2006**

**April 15, 2006**Last day of the Winter 2006 trimester (All programs)

**April 17-28, 2006** Spring Break

**April 28, 2006** *New Student Orientation* (All programs)

# Summer 2006 Trimester



### **MAY 2006**

May 1, 2006 Classes begin

May 29, 2006 Memorial Day Holiday

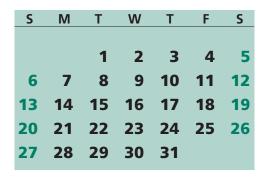
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### **JUNE 2006**

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16	17	18	19	20	21	22
23/30	<sup>24</sup> / <sub>31</sub>	25	26	27	28	29

### **JULY 2006**

**July 4, 2006** *Independence Day Holiday* 



### **AUGUST 2006**

Aug. 12, 2006

Last day of Summer 2006 trimester (All programs)

Aug. 14-31, 2006

Summer Break

"I feel the most crucial part of any program is the people doing the teaching. The group of instructors, professors, and administrators at Northwestern have a tremendous passion for their profession and it shines through everyday."

"Being part of a University, with its variety of programs, has helped me learn how to be a well rounded doctor and how to really understand how each different health care option can help my patient."

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there really is something for everyone.

"In the Twin cities there is always something to do for a study break. There are many theaters, takes, casks, hiking trails, sports teams, museums and conderts. Plus there are a lot of events and activities free hor students, which is impurtant too.

"The financial aid and registral staff have always been very recentive to helping with my questions. They we all very nice people.

"The alumni office has arranged speakers to come in on a variety of topics.

It is great to have someone making those connections for as."

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Having all of the different programs allows MCAOM to get a lot \_\_\_\_\_

more benefits like the cadaver lab and great clinic opportunities."

### **A Focused Vision**

### **MISSION STATEMENT**

The mission of Northwestern Health Sciences University is to advance and promote natural approaches to health through education, research, clinical services, and community involvement.

### **VISION STATEMENT**

Our collective vision is to develop an environment that fosters exemplary, innovative, and ethically-based educational programs in natural health care. We will also support clinical research, provide leadership for the development of collaborative and integrated health care models, prepare students for successful careers, provide lifelong-learning opportunities, and be of service to our community. Through assessment of the academic achievement of our learners and the effectiveness of our research and service programs, we will demonstrate our commitment to excellence and continuous improvement.

### Goals, Guiding Principles, and Fundamental Values

- We will provide an educational environment that fosters effective teaching and learning.
- We will improve the effectiveness of our educational, clinical and community service functions through institutional research and assessment.
- We will practice the science, art and ethics of our professional skills at the highest possible level, informed by evidence and clinical experience.
- We will create an institutional culture that values and cultivates respect, responsibility, diversity and communication.

- We will encourage and support clinical research as being necessary for improving the outcomes of care, and the credibility of all healing professions.
- We will work with professional associations, educational institutions, individual practitioners and others in the health care community to promote public health.
- We will establish an organizational structure and process supporting the responsibility of faculty for the ongoing assessment, development and improvement of our educational programs.
- We will establish a working and learning environment that fosters equity, respect, trust and the opportunity for personal and professional development.
- We will provide programs and support services that respond to the changing needs of our learners.
- We will emphasize the professional values, attitudes and behavior that we desire of our students in our academic programs.
- We will build stronger connections between our students and alumni.
- We will behave in a fiscally responsible manner in all aspects of the University operations.
- We will promote health and wellness throughout the University.
- We will prepare our graduates for practice in contemporary health care environments.
- We will support the professional activities, development and autonomy of the health care disciplines that exist within the University.

- We believe in and will promote a philosophy that the mind, body and spirit are inseparable in all matters of health.
- We believe that shared governance is essential to the health and vitality of our educational institution, therefore, we will establish mechanisms for collaboration among students, staff, faculty and administration.
- All clinical curricula will be supported by a basic science foundation, knowing that this is essential for assessment, diagnosis, clinical problem solving, treatment, preventive health and patient education.
- We value the strength a shared vision imparts that is based on institutional mission, values and principles.

### **Community of Caring**

At the heart of Northwestern Health Sciences University is a simple yet profound core value which is manifest daily by our staff, faculty, students, and alumni. This core value is encompassed in a single statement - WE CARE – and is at the heart of our "Community of Caring." This belief spearheads every action and activity in which we engage and leads to inevitable success in shaping and molding our University's culture.

What do we care for? What do we care about?

- We care for our students, because they are the future of a profession that makes a fundamental difference in the lives of hundreds of thousands of people each and every day.
- We care about our mission, because history is only made by organizations that have a clear, unique vision, which is universally embraced by its stakeholders.
- We care for each other, because the journey of doing great things is only bearable if one deeply cares about those with whom they stand shoulder to shoulder.
- We care for those in pain and for those who seek wellness. We care because natural health care should be an essential component of good health for every man, woman and child.
- We care for our University, which has carved a place at the forefront of the natural health care profession.
- And finally, we care deeply for our alumni, because they have been the rock-solid foundation of our institution for more than six decades.

## Statement of Committment to Cultural Competency

NWHSU is committed to cultural competency, (awareness, knowledge and skills) and integrating diversity into all aspects of the University's strategic direction.

### **Assessment of Learning Outcomes**

The learning outcomes of the institution define the common ground that unites the programs within the University. They are purposefully broad so that the various colleges and schools can continue to develop their unique identities through varying ways in which the goals are met.

### • Effective Communication

Graduates will demonstrate effective verbal, nonverbal, and written communication skills in a wide variety of contexts, including collaborative activities.

### • Self-Directed and Lifelong Learning

Graduates will be aware of the limits of one's personal knowledge and experience, and have an intellectual interest in scholarly and creative endeavors. Graduates will actively set appropriate learning goals, pursue them, and apply the knowledge gained.

### Ethical Reasoning

Graduates will demonstrate a willingness to recognize the values of others while maintaining one's own integrity, and act ethically and professionally in all endeavors.

### • Individuals, Communities, and Cultures

Graduates will demonstrate awareness and sensitivity to the cultural and health practices of individuals and communities. Graduates will be able to identify appropriate health-related resources.

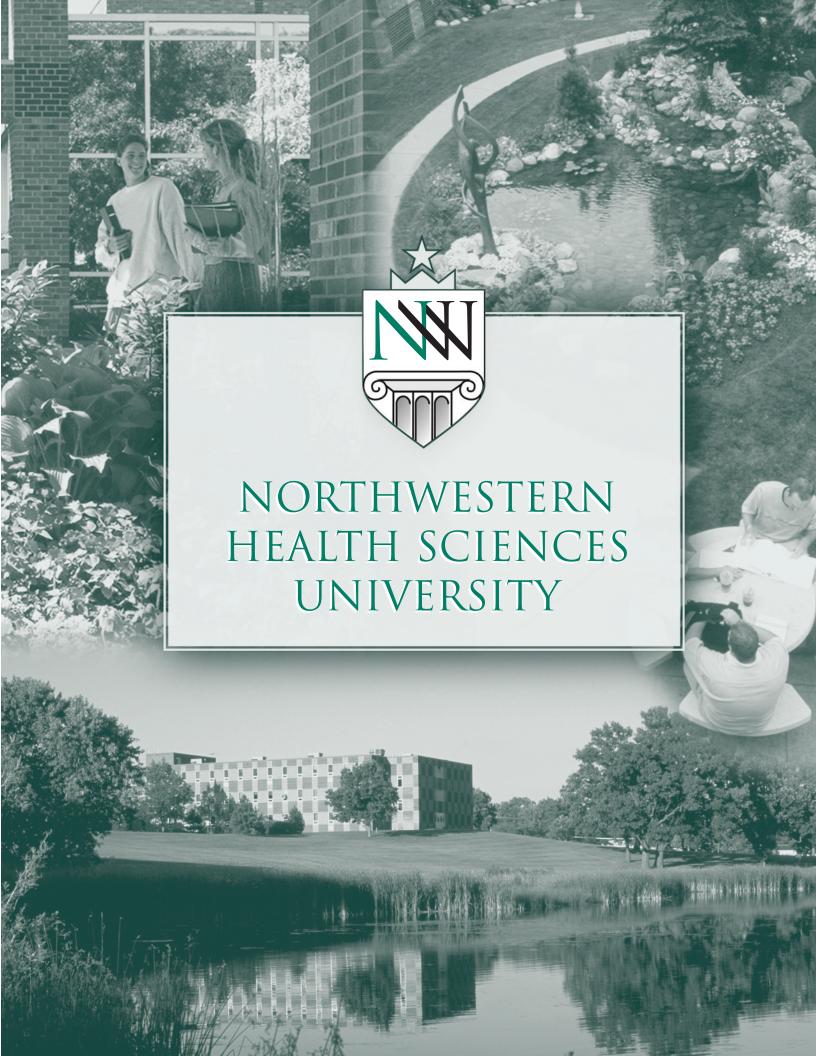
### • Service to the Community

Graduates will understand and value the benefits of service to the community.

- Influence of Mind, Body, and Spirit on Health
  Graduates will recognize the interrelationship of
  the mind, body, and spirit; and the influence of
  extrinsic factors on an individual's health.
- Critical Thought and Knowledge Acquisition
   Graduates will acquire, appraise, and apply scientific information. Graduates will contextually organize and synthesize relevant information to address an issue or problem.

### • Competence in One's Discipline

Graduates will demonstrate competence of appropriate depth and scope for one's discipline.



"I feel the most crucial part of any program is the people doing the teaching. The group of instructors, professors, and administrators at Northwestern have a tremendous passion for their profession and it shines through everyday."

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Having all of the different programs allows MCAOM to get a lot \_\_\_\_\_

more benefits like the cadaver lab and great clinic opportunities."

## The Diversity of Our Programs

"Being part of a University, with its variety of programs, has helped me learn how to be a well-rounded doctor and how to really understand how each different health care option can help my patient."

-Tammy Walz, chiropractic student

### **ABOUT THE UNIVERSITY**

Northwestern Health Sciences University was organized in 1999 to provide education, research, clinical care, and community service in natural health care disciplines. Leadership in educational program standards; commitment to a limited enrollment; and emphasis on ethical, successful practice are important characteristics of Northwestern. The University accepts the challenge of extending this leadership role to meet its new and broader mission and purposes.

The University is composed of:

- The Northwestern College of Chiropractic, offering the Doctor of Chiropractic degree;
- The Minnesota College of Acupuncture and Oriental Medicine (formerly the Minnesota Institute of Acupuncture and Herbal Studies), offering the Master of Acupuncture and Master of Oriental Medicine degrees;
- The School of Massage Therapy, offering a professional certificate program;
- The School of Undergraduate and Graduate Studies, including the Bachelor of Science Program in Human Biology and the Certificate Program in Integrative Health and Wellness;
- The Wolfe-Harris Center for Clinical Studies:
- The University public clinic system, including four Natural Care Centers, a University Health Service, the Edith Davis Teaching Clinic, Radiological Consultation Services, and clinical laboratory; and
- The University central administration and services, including the Greenawalt Library, University Bookstore, Student Records and Financial Services,

Admissions, Alumni and Career Services, Communications, Information Technology, Human Resources, and Continuing Education.

#### **UNIVERSITY FACILITIES**

The University's principal facility resides on a 25-acre site in Bloomington, Minnesota. The 230,000-square-foot facility includes nine lecture halls, biological science laboratories, methods laboratories, library, computer labs, athletic facilities, swimming pool, auditorium, cafeteria, and three clinical environments. The University maintains additional clinical facilities around the Twin Cities metropolitan area.

### **ABOUT THE COLLEGE OF CHIROPRACTIC**

Founded in 1941, Northwestern College of Chiropractic (N.W.C.C.) is a visionary school whose innovative ideas and practices have led, and will continue to lead, generations of chiropractic doctors to the forefront of their profession. Northwestern's basic sciences, clinical, chiropractic and business education is unmatched in preparing students to pass the National Boards and successfully enter clinical practice.

For more than six decades, excellence has been nurtured and inspired at Northwestern College of Chiropractic. The international reputation we have earned has been created in large part by our approach to educating our students.

Northwestern has pioneered an extraordinary and unique clinical system, with four Natural Care

Centers, more than 150 community-based privatepractice clinics, and final term preceptorship opportunities around the world. The University's public clinic system recorded more than 60,000 patient visits last year, making Northwestern the largest provider of natural health care services in Minnesota.

Northwestern's Doctor of Chiropractic program is a full-time day program consisting of more than 4,200 credit hours over 10 trimesters. The University admits new chiropractic students in January, May and September of each calendar year. Classes are held Monday through Friday.

Chiropractic students at Northwestern may also complete a Bachelor of Science degree in Human Biology while enrolled in the chiropractic program. Information about the Bachelor of Science degree program is available through the Office of Admissions.

## ABOUT THE MINNESOTA COLLEGE OF ACUPUNCTURE AND ORIENTAL MEDICINE

The Minnesota College of Acupuncture and Oriental Medicine (M.C.A.O.M.) is the largest and oldest school in the state of Minnesota offering master's degree programs accredited by the Accreditation Commission for Acupuncture and Oriental Medicine. Founded in 1990 as the Minnesota Institute of Acupuncture and Herbal Studies, M.C.A.O.M. has established itself in the Twin Cities area as a premier provider of education and clinical services in acupuncture and Oriental medicine. M.C.A.O.M. student interns provide acupuncture and Oriental medicine services in the Edith Davis Teaching Clinic on the University campus, as well as health care clinics and community agencies throughout the metropolitan area.

The master's degree programs in acupuncture and Oriental medicine emphasize the unified understanding of the mind, body and spirit inherent in traditional Chinese medicine. M.C.A.O.M. has gathered a multi-national faculty committed to academic and professional excellence and to teaching the extensive body of knowledge and skills necessary for safe and effective practice. Our graduates have the education and skills necessary to develop a successful practice based on their own personal style.

The curriculum for the Master of Oriental Medicine program provides about 3,000 hours of didactic and clinical instruction in acupuncture, Chinese

herbology, and related studies such as Tui Na, Qi Gong, introductory Chinese language skills and practice management. The program takes three years of full-time enrollment to complete.

The curriculum for the Master of Acupuncture program is similar to that of the Oriental medicine program, but does not include herbal studies. This program includes more than 2,300 hours of instruction, taking two and two-thirds years of full-time enrollment to complete.

The University admits new acupuncture and Oriental medicine students in January and September of each calendar year. Transfer students may be allowed to enter in the Summer trimester, which begins in May.

## ABOUT THE SCHOOL OF MASSAGE THERAPY

Students seeking a rigorous professional massage therapy curriculum will find quality and excellence in Northwestern's School of Massage Therapy. The School of Massage Therapy admitted its first group of students in September of 2000. The massage therapy program is dedicated to advancing the public's perception and acceptance of massage therapy as an important health care option. Massage therapists fill an increasingly important role in the health care field. A growing number of medical doctors and doctors of chiropractic are referring patients to massage therapists all around the United States.

This 36-semester credit, 780-hour program emphasizes a solid foundation in the basic sciences, long a Northwestern hallmark; more than 340 hours of hands-on lab experience; and a structured clinical experience within the School of Massage Therapy Teaching Clinic and other community sites. The School of Massage Therapy has assembled outstanding teacher-practitioners, including some of the most experienced and prominent therapists in Minnesota.

The massage therapy program at Northwestern will challenge and inspire students along their path towards becoming a natural health care provider, while instilling the importance of actively managing and maintaining one's own health and wellness. Students are educated in interpersonal communication skills and in the necessity of communicating effectively with clients and the public.

There are two 1,100-square-foot massage labs equipped with a minimum of one massage table for

every two students. The School also makes use of lecture halls located throughout the University for classes held in a didactic format.

The University admits new massage therapy students in January, May, and September of each calendar year. The massage therapy program takes approximately one year to complete. Day classes are offered in a unique two-day per week format, on Tuesdays and Thursdays. Evening and weekend classes are also available. The clinical experience requires a third morning or evening. The School of Massage Therapy Teaching Clinic, located at the Burnsville Natural Care Center, operates on Mondays, Wednesdays, Fridays and Saturdays.

## ABOUT THE SCHOOL OF UNDERGRADUATE AND GRADUATE STUDIES

The School of Undergraduate and Graduate Studies offers a Bachelor's Degree Completion Program in Human Biology and a certificate program in Integrative Health and Wellness. The Bachelor of Science Degree Program (B.S.) offers students enrolled in the Doctor of Chiropractic program the opportunity to complete an undergraduate degree in human biology. The Integrative Health and Wellness Program offers health care professionals who seek further education and credentialing to obtain either an undergraduate-level certificate or a graduate-level certificate. Professionals enrolled in the Integrative Health and Wellness program can chose between one of two curriculum tracks: a clinical track or an administrative track.

## ACCREDITATION, APPROVALS AND LEGAL STATUS

Northwestern Health Sciences University is accredited by the Higher Learning Commission and is a member of the North Central

Association (N.C.A.). The N.C.A. was founded in 1895 as a membership organization for educational institutions. The Association is one of six regional institutional accrediting associations in the United States. Through its Commissions, it accredits and grants membership to educational institutions in the 19-state North Central region. The Higher Learning Commission is recognized by the United States Secretary of Education and by the Council on Higher Education Accreditation. Accreditation was extended to Northwestern in 1988, and was renewed in 1993 and 2001. The University's next comprehensive evaluation has been designated for the 2009-2010 academic year.

Higher Learning Commission 30 N. LaSalle St., Suite 2400 Chicago, IL 60602-2504

Voice: (800) 621-7440; (312) 263-0456

Fax: (312) 263-7462

Web: <u>www.ncahigherlearningcommission.org</u>

### The Doctor of Chiropractic program offered by the University is accredited by the Commission for Accreditation of the Council on

Chiropractic Education (C.C.E.). The Council on Chiropractic Education is recognized by the United States Secretary of Education as the official accrediting body for chiropractic education. Northwestern has been a member of C.C.E. since the Commission's inception in 1965. Accreditation was extended to Northwestern in 1971, and renewed in 1974, 1978, 1982, 1985, 1991 and 1998. The next program evaluation is designated for the 2004-2005 academic year. C.C.E. is the agency to which complaints about the compliance of the program with C.C.E. Standards should be addressed.

Council on Chiropractic Education Commission for Accreditation 8049 N. 85th Way Scottsdale, AZ 85258-4321

Voice: (480) 443-8877
Fax: (480) 483-7333
E-mail: cce@cce-usa.org
Web: www.cce-usa.org

The Master of Acupuncture and Master of Oriental Medicine programs offered by the University are accredited by the Accreditation Commission for Acupuncture and Oriental Medicine (A.C.A.O.M.), which is the accrediting agency recognized by the United States Secretary of Education for the approval of programs preparing acupuncture and Oriental medicine practitioners. Program accreditation was extended in 2002, and the next program evaluation is designated for the 2005-2006 academic year.

Accreditation Commission for Acupuncture and Oriental Medicine Maryland Trade Center 3 7501 Greenway Center Drive, Suite 820 Greenbelt, MD 20770

Voice: (301) 313-0855 Fax: (301) 313-0912 Web: <u>www.acaom.org</u> Northwestern Health Sciences University is registered with the Minnesota Higher Education Services Office. Registration is not an endorsement of the institution. Registration does not mean that credits earned at the institution can be transferred to other institutions or that the quality of the educational programs would meet the standards of every student, educational institution, or employer.

The Veterans Education Unit of the Minnesota Department of Education approves Northwestern Health Sciences University for veterans' education. Northwestern Health Sciences University is a not-for-profit corporation under articles and bylaws registered with the Minnesota Department of State. The University is qualified as a 501@(3) tax-exempt organization with the Internal Revenue Services of the United States Department of Treasury. 501@(3) status is reserved for organizations operating for educational, religious or charitable purposes.

### **More Than 60 Years Of Excellence**

### **UNIVERSITY HISTORY**

Northwestern Health Sciences University debuted in 1999, bringing together a wide array of natural health care programs under one educational roof. However, the history of Northwestern's dedication to excellence in education began in 1941 with the founding of Northwestern College of Chiropractic. The College was founded in response to the need existing in the Midwestern states for an educational institution offering a broad program in clinical and chiropractic sciences, built upon a comprehensive background of basic sciences. John B. Wolfe, D.C., was the first president. A postwar influx of veterans raised the total enrollment to 280 by 1949. Northwestern prospered as a school because of the rigorous academic goals it established, and because of the excellent quality of the students and faculty it attracted.

In June of 1949, in order to best advance the interests of the chiropractic profession in Minnesota, the school was reorganized under a nonprofit corporate structure. The new organization obtained as governing members on its Board of Trustees representatives from the Minnesota Chiropractic Association, the Minnesota Chiropractic Foundation, and the public. Dr. Wolfe remained president. The College moved to a campus on Park Avenue in Minneapolis. In 1964, a realistic self-evaluation led to the introduction of the Giant Step Program in 1965. This program provided for a new clinic, a twoyear pre-professional requirement for all incoming students, remodeling of the main building, including a library and an all-purpose biology teaching laboratory, and the adoption of objectives that would ensure the development of a quality education program designed for the needs of the profession. Northwestern pioneered the six-year

chiropractic academic program, which became a requirement of all chiropractic programs by the Council on Chiropractic Education several years later. By 1973, the continuing growth of the College necessitated the search for a new campus, which led to the Upward Bound development program and purchase, in 1974, of a campus in Saint Paul, located on Mississippi River Boulevard.

Northwestern also pioneered the multiple-clinic concept, community-based clinical education, and the final trimester preceptorship for the training of chiropractic interns within clinics across the United States and in some foreign countries.

Presently Northwestern owns and operates public clinics in Bloomington, Burnsville, Saint Paul, and Woodbury, Minnesota.

The college made a major step forward in its development with the purchase in 1983 of a large campus located in Bloomington, a beautiful suburb of the Twin Cities. The campus consists of 25 acres and includes a small lake. The new complex is exceptional throughout in both beauty and quality, and is complete with laboratories, lecture halls, classrooms, library, public clinic, auditorium, cafeteria, a gymnasium, a bookstore, and an indoor swimming pool and fitness center.

In 1984, Dr. Wolfe retired after 43 years as president. Donald M. Cassata, Ph.D., was appointed as the second President of Northwestern and served until 1991. Northwestern's third President was John F. Allenburg, D.C., who led Northwestern's transition from college to university, and served as President of Northwestern Health Sciences University until his retirement in 2001.

Under Dr. Allenburg's leadership, Northwestern's strategic transition to University status in 1999 was a natural outgrowth of the institution's dedication to being a national leader in natural health care education. Burgeoning interest among health care consumers in natural therapies prompted the College's leadership to begin actively exploring in the late 1990s, the possibility of providing additional natural health care degree programs.

The Minnesota Institute of Acupuncture and Herbal Studies, founded in 1990 by Edith R. Davis, B.A., L.Ac., Dipl.Ac. (N.C.C.A.O.M.), joined the University in 1999. The Institute has become the Minnesota College of Acupuncture and Oriental Medicine (M.C.A.O.M.), which offers both the Master of Acupuncture and Master of Oriental Medicine degrees. In 2000, the University introduced its School of Massage Therapy. The program is growing, vibrant, and highly successful. The School began public clinical services in 2001 and graduated

its first class in the spring of 2002. Beginning in the Fall of 2004, the University began offering a certificate program in Integrative Health and Wellness, the first of its kind in the Midwest.

Northwestern's fourth and current president is Alfred D. Traina, D.C., who was an associate professor at Northwestern as well as Chair of Clinical Sciences and the Clinical Sciences Residency program until 1989. He has returned to lead Northwestern, drawing upon expertise from his years of practice, education, leadership and service.

The University is dedicated to attaining the highest quality in education, scientific research, and patient care. Northwestern maintains limited enrollment, fosters clinical research, promotes individualized instruction, provides faculty development, and establishes standards for clinical competencies.

## **Student Opportunities**

"With the clubs, Student Senate, parties, dances, intramural sports, there really is something for everyone."

Kelly Prettyman, massage therapy student

### **STUDENT LIFE**

#### **Orientation**

New student orientation is scheduled the week before the first day of classes. Orientation days for the entering terms Fall 2004 through Fall 2006 are shown on the University Student Affairs web site.

New Student Orientation is designed to acquaint students with each other as well as with the campus. Students begin meeting administration, faculty, staff, and students from all programs in the Northwestern community. Certain administrative tasks are also resolved at new student orientation, such as payment of fees, acquisition of books, issuance of ID cards, and similar matters.

### **Student Conduct**

Students at Northwestern Health Sciences University are preparing for health care professions, with all the privileges, responsibilities, confidence, and trust that implies. Northwestern expects each student to exhibit maturity, intelligence, integrity, and concern for the rights of others. The University has the right and responsibility to determine the appropriateness of student behavior. Northwestern is committed to cooperation with federal, state, and local authorities in their efforts to enforce existing laws and regulations.

Students are expected to abide by these laws and regulations and to accept responsibility for their own conduct. Violations of federal, state, or local laws may be reported to appropriate outside agencies for disposition in addition to any University disciplinary action.

### **University Student Handbook**

The University Student Handbook contains rules, regulations, procedures and academic standards that affect students of the University. The topics contained in the handbook are clarified during New Student Orientation and students are responsible for being aware of the policies contained in the handbook and noting changes as they occur. The University Student Handbook is located online on the Student Affairs web site and additional copies are available in the Student Affairs office or the Library. Disciplinary regulations at the University are set forth in the Student Handbook in order to give students general notice of prohibited conduct. The regulations should be read broadly and are not designed to define misconduct in exhaustive terms. The University reserves the right to interpret what constitutes a violation of these regulations.

### **Services of Student Affairs**

### **Peer Tutoring Service**

The Peer Tutoring Service is provided by the Student Affairs office to facilitate the learning experience of all students. The service is provided free of charge, and a current list of tutors is available in the Student Affairs office. The Student Affairs office recruits tutors from the student body, and selects tutors who have demonstrated academic success and a desire to help others.

### **Counseling Service**

The University provides counseling services, free of charge, for students with academic, emotional, or relationship concerns. The service provided is short-term, outcome-oriented, supportive counseling. Also available to students through the University Counseling Services are academic skills training, advocacy, and referrals for resources,

both within and outside the University. Short-term relationship counseling is also available to students and their partners.

All contacts with the University Counselor are handled confidentially. Unless requested from the student, no reports are made about specific counseling sessions. Exceptions to confidentiality are listed in the University Counseling Handout, available from the Student Affairs office. On occasion, referrals will need to be made to outside services. The University does not cover the cost of the referral care. Students who want help dealing with concerns that may impede their academic progress can make an appointment for counseling. Appointments are scheduled through the Student Affairs office.

### **Disabled Students: Applicants and Students**

Qualified persons shall receive reasonable accommodations for access to educational opportunities, programs and activities of Northwestern. The Student Affairs office is responsible for coordination of programs and services for qualified applicants for admission, and enrolled students with disabilities. In order for the University to provide reasonable accommodations for students with disabilities, the following process will be used:

- 1. The Office of Admissions will notify accepted students of the procedures to receive necessary support services.
- It is the responsibility of the individual student to inform the Student Affairs office of any special aids or services that he/she may need as the result of a disability.
- 3. Students must submit directly to the Student Affairs office a written request for accommodations or auxiliary aids. Students may be required to submit medical or other diagnostic documentation of disability and/or limitations. This information will remain confidential to the Student Affairs office, except as permitted by the student expressly for providing support services to that student.
- 4. As needed, the Student Affairs office will discuss the student's request for accommodation with the student and faculty member or department involved to determine appropriate accommodation. If there is a question about the appropriateness of a student's requested accommodation, the Student Affairs office will inform the student of the University's decision. Northwestern will make every reasonable effort to provide reasonable accommodations. However, Northwestern will not waive require-

- ments that are integral to the educational program.
- Requests must be made in a timely manner.
   Students must initiate a request for accommodation at least 30 days prior to the beginning of a course/program. Untimely requests may result in delay or denial of accommodation.
- 6. Complaints concerning the provision of accommodations to disabled students will be handled through the Grievance Process specified in the University Student Handbook.

### **Student Leave of Absence**

During times of serious illness or when extended time is needed to deal with a personal crisis, students have the option to take a five day Emergency Leave of Absence. A student must call the Registrar to request this leave, who will notify the student's instructors. The program Academic Standards Committee may grant an extension of the Leave of Absence if necessary. Once the student returns to classes, they are obligated to speak with their instructors to create a plan to make up the work that they missed.

### **International Students**

The Student Affairs Office provides assistance to international students seeking temporary admission to the United States to pursue a full course of study. Forms are generated and student records are continually maintained to assure proper student status and compliance with the Immigration and Naturalization Service.

## Student and Exchange Visitor Information System (SEVIS)

Northwestern Health Sciences University has full approval from the U.S. Immigration and Naturalization Service to enroll foreign students. The Student and Exchange Visitor Information System (SEVIS) is an internet-based application for electronically tracking and reporting on foreign students in the United States. SEVIS enables schools and program sponsors to transmit electronic information to the Immigration and Naturalization Service and Department of State throughout a student's program in the U.S.

SEVIS enables schools to submit school certification applications; update certification information; submit updates to the U.S. Immigration and Naturalization Service that require adjudication; and create and update F-1 (academic) student and dependent records. Designated School Officials (DSOs) maintain the SEVIS program.

### **Student Government and Organizations**

### **Student Government**

The University Student Senate represents the student body by promoting communication within the University community, coordinating student activities, advocating for student concerns and needs, developing leadership, and setting examples of professional responsibility.

The University Student Senate gives recommendations to the faculty and administration concerning all phases of University life and the professional programs. Senate-appointed representatives serve on many University committees. In cooperation with Student Affairs, the Student Senate coordinates the activities of all student organizations and clubs.

Within the Senate, numerous committees exist to address a variety of student needs. These include the athletic, culture and arts, education, house, seminar, social, and volunteer committees. Various activities are held throughout the year, giving students an opportunity to socialize and interact with one another. The Senate utilizes the student activity fee to help support these activities and organizations. The Senate includes representatives from each class in each program and elections for all officers are held annually.

### **Student Organizations**

Groups of students who share a common interest, either social or professional, may organize and seek recognition as a student organization through the Dean of Student Affairs. These approved organizations reflect a wide range of interests, including an array of professional, political, social and recreational groups. Each term, the University welcomes a number of distinguished lecturers from a variety of fields, who are sponsored by student organizations. The University recognizes the need to keep informed on a full range of professional issues and encourages participation in these events.

Student organizations provide an opportunity for students to participate and contribute in student leadership and governance. By way of student organizations, the student body enjoys the benefits of those contributions that enhance the quality of life and improve the educational program.

Special interest student organizations plan programs, guest speakers, and events with their corresponding local and national professional organizations. They work to form mutually beneficial, reciprocal relationships between students, practitioners, and the general public by becoming involved in community activities. They are an important voice of leadership on issues regarding professional practice and education.

The University provides and sponsors extracurricular clubs and activities throughout the year including aerobics, hockey, baseball, softball, volleyball, basketball, soccer, and martial arts. The Northwestern Fitness Center is a place for students to work out while on campus. Stairmasters, aerobicycles, an aerobic training room, free weights and exercise machines, are just a few highlights of the center's equipment. Students can receive information about using the Fitness Center from the Student Affairs office.

### **University Health Service**

A variety of health care options are available to students through the University Health Services, located on-campus in the De Rusha Clinical Education Center. Services available include general physical examination; chiropractic assessment and treatment; X-ray and laboratory evaluation; acupuncture; and massage. Care is provided by upper-term students under the supervision of faculty clinicians/supervisors.

### **INFORMATION TECHNOLOGY**

### **E-mail Policy**

Northwestern students are assigned a Novell GroupWise e-mail account for the purpose of receiving official University correspondence. Students are responsible for all information, including attachments, transmitted to them via their e-mail account. E-mail accounts can be accessed at http://mail.nwhealth.edu on the World Wide Web. The Information Technology Department provides support for GroupWise e-mail users.

### **Dial-up Access**

Students may request an Internet dial-up account at no charge, through the Information Technology Department. University dial-up accounts provide free Internet access for students residing within the Twin Cities metropolitan area (which includes most of area codes 612, 651, 952, and 763). Students residing outside the Twin Cities metropolitan dialing area will incur long-distance charges when using a University dial-up account.

### **Personal Computer Requirement**

Northwestern requires that all students have access to a computer for research, training, independent study, and institutional services. Students satisfy the access requirement in a variety of ways, including the use of computers in the campus library, public libraries, various computer labs, or their own personal computer.

Computer literacy is expected of all students. Computer tutoring is available from student computer assistants during the evening hours and lunch periods. Tutoring is available on the following topics:

- Internet basics;
- Introduction to computers;
- Using Microsoft Word;
- Creating a PowerPoint presentation.

Students are expected to use computers for various purposes, depending upon the academic program. For specific information about the expectations in your program, please consult the program office.

Qualifying students may purchase a personal computer through Title IV financial aid. Students selecting this option should consult with a representative in the Student Records and Financial Services office. Students may only exercise this option once during their educational program at Northwestern Health Sciences University.

### **THE CAMPUS**

### **Bookstore**

The University Bookstore offers most of the resources that a student needs for classroom lecture, laboratory, and clinical practice.

### The Greenawalt Library

The primary purpose of the 10,000-square-foot Greenawalt Library is to provide information resources in support of Northwestern's programs, student and faculty research, continuing education, and clinical practice. The Library is available to all students, faculty, administration, staff, alumni, and natural health care practitioners. Members of the general public may also use the Library's resources.

The Greenawalt Library has a specialized collection of more than 15,000 books and bound periodicals. An online library catalog provides easy access to this

collection. The Library subscribes to approximately 310 journal titles relating to natural health care, health sciences, and life sciences. Users of the Library have access to a variety of major health science databases. Interlibrary loan services link Northwestern to local, regional, national, and international networks of libraries, providing students, faculty, and staff access to resources beyond the Library's holdings. The University computer network provides access to the Internet, class-related materials, and standard office software programs.

Professional librarians provide group and individual instruction to students, faculty, or staff when they need assistance in accessing information. The librarians have developed the Library's web site, which offers information on library services, as well as research guidance and links to pertinent Internet resources. The site highlights current journal subscriptions (with links to full text when available), new materials, and an Interlibrary Loan Request form. It also provides a link to the Library's online catalog. The Greenawalt Library offers a collection of videos, DVDs, sound recordings, slides, and software with the appropriate equipment and facilities for their use. Rooms are available for audiovisual viewing and for group study use. The Library has seating at tables and carrels for quiet study.

The Greenawalt Library is named after Monte H. Greenawalt, D.C., and his son, Kent S. Greenawalt, President of Foot Levelers, Inc. Their generous gift made it possible to expand this outstanding library facility.

### The Wolfe-Harris Center for Clinical Studies

The Wolfe-Harris Center for Clinical Studies (W.H.C.C.S.), named for William Harris, D.C., one of the University's largest benefactors, and John B. Wolfe, D.C., the founder and first president of Northwestern College of Chiropractic, was constructed in 1991 as part of the 50-year celebration of Northwestern's founding.

The W.H.C.C.S. represents the clinical research division of the University with the mission of conducting high-quality clinical research investigating the treatments and diagnostic tools used by natural health care providers. Faculty and staff at the W.H.C.C.S. have developed successful collaborations with prominent educational and health care institutions, including the University of Minnesota, the Mayo Clinic, Hennepin County Medical Center, McMaster University, and the University of Southern Denmark. Their work is recognized as some of the highest quality in the field of back, neck, and headache

conditions, and they have acquired more than \$6 million in research funding from the National Institutes of Health, U.S. Department of Health and Human Services, and other agencies.

### **De Rusha Clinical Education Center**

The J. Lamoine De Rusha Clinical Education Center is a 9,000-square-foot patient care and instructional environment. The De Rusha Center features 15 treatment rooms; an X-ray laboratory; a student work room equipped with networked PCs and Internet access; and a large multi-purpose room that can be used for lectures, labs, presentations or small group discussion. Several treatment rooms are equipped with equipment for videotaping clinical encounters between students and simulated patients during instructional laboratory sessions and competency examinations. The University Health Service is housed in the De Rusha Center.

The De Rusha Center is named in honor of J. Lamoine De Rusha, D.C., a long-time professor and Dean Emeritus at Northwestern. Dr. De Rusha committed his life to Northwestern College of Chiropractic and along with his wife, Klara, became an integral part of the campus culture. Dr. De Rusha was recognized internationally for his knowledge of chiropractic and neurology.

### The Edith Davis Teaching Clinic

The Edith Davis Teaching Clinic is a 1,696-square-foot patient care and instructional facility for student interns in the Minnesota College of Acupuncture and Oriental Medicine. The interns are closely supervised at all times by highly-experienced licensed clinical instructors. The clinic is open to the public and provides the community with an opportunity to receive quality acupuncture treatment and Oriental medicine services, while providing invaluable, hands-on clinical experience for the student interns. The Edith Davis Teaching Clinic features six treatment rooms and a full herbal pharmacy.

The teaching clinic is named in honor of Edith R. Davis, B.A., L.Ac., Dipl.Ac., the founder and first president of the Minnesota Institute of Acupuncture and Herbal Studies (M.I.A.H.S.), which is now known as the Minnesota College of Acupuncture and Oriental Medicine (M.C.A.O.M.). Davis is a licensed acupuncture practitioner and teacher. Beginning in 1982, she became directly involved with the evolution of national acupuncture policy development and national certification standards and was the founding member of the Acupuncture Association of Minnesota. Davis was presented with the Acupuncturist of the Year Award by the American Association of Acupuncture and Oriental Medicine in 1985. The clinic is dedicated to her leadership and ongoing contribution to the acupuncture and Oriental medicine community in Minnesota.

"I feel the most crucial part of any program is the people doing the teaching. The group of instructors, professors, and administrators at Northwestern have a tremendous passion for their profession and it shines through everyday."

"Being part of a University, with its variety of programs, has helped me learn how to be a well rounded doctor and how to really understand how each different health care option can help my patient."

Northwestern offers a very well-rounded education in the sciences as well as the philogophy of chiropractic.
They continue this through property all experience and externships."

The projession of health early formative on traditional and alternative towards integrative. This programme administrator to fully integrated from the control of the practitioner or "With the clubs, student sense of the dances, intramunal sports,"

there really is something for everyone.

"In the Twin cities there is always something to do for a study break. There are many theaters, takes, casks, hiking trails, sports teams, museums and conderts. Plus there are a lot of events and activities free hor students, which is impurtant too.

"The financial aid and registral staff have always been very recentive to helping with my questions. They we all very nice people.

"The alumni office has arranged speakers to come in on a variety of topics.

It is great to have someone making those connections for as."

"Northwestern offers great networking opportunities among the programs.

Having all of the different programs allows MCAOM to get a lot \_\_\_\_\_

more benefits like the cadaver lab and great clinic opportunities."

### **Our Location: Minnesota And The Twin Cities**

"In the Twin Cities, there is always something to do for a study break. There are many theaters, lakes, parks, hiking trails, sports teams, museums and concerts. Plus there are a lot of events and activities free for students, which is important too."

**Brad Woodle, chiropractic student** 

Voted the most livable state in the United States, Minnesota offers a wealth of indoor and outdoor activities year-round, whether your interest lies outdoors or in the culture of the city.

Get ready to pack up and portage a canoe as you explore Minnesota's breathtaking Boundary Waters Canoe Area Wilderness in northern Minnesota. Camp on the banks of the Mississippi or indulge in a nature hike in one of the dozens of nearby state, county, and city parks. Walk, canoe, sail, ski, skate, or snowmobile at one or more of the not 10,000, but 15,000 famed Minnesota lakes – many located in the greater Twin Cities area.

Northwestern's location places you in the heart of Minneapolis and Saint Paul, a rapidly growing metropolitan area of nearly three million people. Minnesota enjoys a broad ethnic diversity in its population, which includes a large number of Native Americans, Hispanic Americans, African Americans and Asian Americans. Historically, Minnesota has had one of the strongest economies nationally; as well as an excellent public school system with one of the highest high school graduation rates in the United States. In the Twin Cities, you'll find a friendly community atmosphere amid big city opportunities. Your options are limitless.

Take in a game of your favorite professional sport: baseball, football, basketball, hockey, soccer and more. Enjoy excellent music, theater and dance throughout the year. The Twin Cities is home to the internationally recognized Guthrie Theater, Children's Theater, Ordway Theater, and the Theatre de la Jeune Lune (a theater company that divides its time between the Twin Cities and Paris), as well as numerous smaller theaters, and a variety of dance companies. Nightlife in the Twin Cities will catch your interest, offering entertainment from coffeehouses to nightclubs, with dancing from salsa to swing.

Minnesota's theater of seasons caters to the individual adventurer in all of us. With the snow and

cold weather, winter also brings great opportunity to get outside. Skating, skiing, sledding, ice fishing, hunting, and snowmobiling are just a few activities available right in the cities. Saint Paul's annual Winter Carnival celebrates the season with parades, ice sculptures, and fun cold-weather activities. Minneapolis' annual celebration of the state's water heritage, the mid-summer Aquatennial, is a party of parades, concerts, and made-to-order water events.

Minnesota has for many years been one of the leading states in the country for both traditional and innovative natural health care. It is the home of the Mayo Clinic, the University of Minnesota Hospitals, and the Sister Kenny Institute; and was the birthplace of Group Health, one of the nation's earliest HMOs. The Twin Cities area also ranks high in quality-of-life ratings, with a cost of living that is modest in comparison with that of many large cities. The cities are served by a network of buses and a light rail line for public transportation, and freeways provide easy access to different parts of the Twin Cities, with downtown Minneapolis and downtown Saint Paul only 20 minutes apart.

The Minnesota outdoors is hard to avoid. One has a choice of two zoos, picnic grounds, amusement parks, art fairs, music festivals, and a Renaissance Festival. Indoor events beckon, too. A number of museums, including a hands-on Science Museum; art centers; and any one of the 22 colleges and universities in the metropolitan area all offer a wealth of choices. Take your pick from hundreds of incredible restaurants serving up dishes from Scandinavia, Thailand, and Greece (just to name a few). And don't forget the internationally recognized Mall of America, the largest shopping mall in the United States, located only minutes from campus.

Whatever season you choose, or whatever activity captures your imagination, you'll find it close at hand in Minnesota.

## **Experience In A Pioneering Clinic System**

"The clinical internship program has been amazing. The diversity is great and I feel that I could handle just about any situation thrown at me. The clinics are really a great learning tool."

- Emily Erickson, massage therapy student

The Northwestern Health Sciences University Clinic System is comprised of:

- The Bloomington Natural Care Center, located in the Wolfe-Harris Center for Clinical Studies on the University campus;
- The Highland Natural Care Center, located near Cleveland Avenue and Ford Parkway in Saint Paul;
- The Natural Care Center at Woodwinds, located on the Woodwinds Health Campus in Woodbury;
- The Edith Davis Teaching Clinic of the Minnesota College of Acupuncture and Oriental Medicine, located on the University campus;
- The University Health Service, located in the De Rusha Center for Clinical Education on the University campus;
- The Burnsville Natural Care Center, which features
  The School of Massage Therapy Teaching Clinic,
  located in Burnsville near Interstate 35W on
  Highway 13;
- Northwestern Health Sciences University Clinical Laboratory, located on the University campus; and
- Radiological Consultation Services, located on the University campus.

The Natural Care Center at Woodwinds is a unique integrative health care clinic, located on the Woodwinds Health Campus in Woodbury, Minnesota. A collaboration between HealthEast and Children's Hospitals and Clinics, Woodwinds Health Campus includes a hospital and comprehensive medical services. The Natural Care Center fulfills an important component of Woodwinds' unique mission: to provide seamless integration of health care services for the community, including natural

care services. The Natural Care Center provides chiropractic, acupuncture, Oriental medicine, massage therapy, healing touch, and naturopathic services, and makes available to patients a variety of natural health care herbal products. Part of the University's mission at the Natural Care Center is to explore integrative care delivery models, in which a spectrum of natural and medical health care providers work collaboratively to provide the best possible comprehensive care for patients. The Natural Care Center represents a significant experiment in health care, a bold clinical move for Northwestern Health Sciences University, and a recognition that natural health care professions are a part of the broader health care system.

In addition to the University clinic system, chiropractic students also serve in community-based internships and preceptorships, under the guidance of associate clinical faculty. University students also serve in selected community and service settings, such as HIV/AIDS service agencies, athletic events, residential hospices, community events, and long-term care facilities. Specialized clinical rotations within inpatient hospital settings are currently under development.

## Helping To Guide Your Career Path

"The alumni office has arranged speakers to come in on a variety of topics. It is great to have someone making those connections for us."

Susan Gillette, acupuncture and Oriental medicine student

### **CONTINUING EDUCATION DEPARTMENT**

Northwestern Health Sciences University recognizes that continuing education is vital to the future of natural health care. Northwestern's continuing education programs promote the advancement and worth of every individual by providing diverse educational opportunities to those who seek them.

The Continuing Education Department sponsors more than 150 continuing education programs each year, including topics in nutrition, radiology, orthopedics, neurology, sports injuries, acupuncture, pediatrics, Oriental medicine, rehabilitation, massage therapy, and occupational health, among others. In addition to providing practitioners with applicable and appropriate knowledge, these programs often fulfill licensure renewal requirements established by state and/or national licensing authorities.

Where appropriate, Northwestern students may also augment their education by attending continuing education courses on a non-credit basis. Often continuing education course material can expand the classroom experience. Students who qualify may attend predetermined courses for a nominal charge.

### **ALUMNI ASSOCIATIONS**

After graduation, Northwestern students can look forward to continuing contact with the University through their alumni associations. Service to the University and to our alumni is at the heart of the alumni associations of Northwestern College of Chiropractic, The Minnesota College of Acupuncture and Oriental Medicine, and The School of Massage Therapy. Each association strives to build and foster

understanding of the University and to provide and facilitate communication between alumni and their alma mater. The associations provide a forum that encourages identity and pride in the University. They assist in fundraising and financial support, student recruitment, scholarship support, and are an excellent networking resource for career opportunities. Northwestern Health Sciences University is committed to providing quality programs and services to all alumni.

### **CAREER SERVICES**

The health professional student faces many choices after graduation, but some of the most important involve what type of practice they will have, where they will work, and with whom they will work. Northwestern's Career Services Office serves as a resource center for students, graduates, and other health professionals who might benefit from current information on licensure laws and regulations, professional boards, professional associations, demographic profiles from state populations, practice management and development information, and developing relationships with vendors.

There are numerous opportunities available across the United States and Canada, as well as other countries for doctors of chiropractic, practitioners of Oriental medicine, acupuncturists, and massage therapists. Mentorship relationships with other alumni can be coordinated with Alumni Relations.

Most graduates go directly into clinical practice in a location of their choice, and, coupled with Alumni Relations, Career Services assists students in helping with their career-related decisions. Current opportu-

nities available in clinical practice are posted and are also available to be mailed, or e-mailed, as a monthly newsletter to recent graduates.

### **OCCUPATIONAL OUTLOOK**

### **Northwestern College of Chiropractic**

The U.S. Department of Labor Occupational Outlook for 2002-2003 states that, for the practice of chiropractic, "Job prospects are expected to be good...Employment of chiropractors is expected to grow faster than the average for all occupations through the year 2010 as consumer demand for alternative health care grows. Total job openings for doctors of chiropractic between 2000-2010 are projected to be 21,000: a 23-percent increase in the professional market. The rapidly expanding older population, with their increased likelihood of mechanical and structural problems, also will increase demand."

Doctors of chiropractic have many different practice opportunities, from solo practice to group offices, from integrative health care clinics to employment in mainstream health care clinics. With licensure opportunities in all 50 states, Puerto Rico and many foreign countries, chiropractic is a maturing, growing, and widely-accepted profession. Insurance coverage is widely available. As professional relationships with medical practitioners improve and lead to increasing collaborative care opportunities, chiropractic is expected to become more mainstream with time.

For data regarding the placement and success of our graduates, contact the Alumni and Career Services office.

## Minnesota College of Acupuncture and Oriental Medicine

Graduates face a marketplace where these professions are enjoying widening acceptance. Currently, most practitioners have private practices, while an increasing number are employed or collaborate with community service institutions, major health care agencies, and health maintenance organizations. Regulation of acupuncturists and Oriental medicine practitioners varies widely: from licensure, to regulation, to being unregulated. Insurance coverage for acupuncture services is slowly increasing.

### **Western Medicine Integration**

There is a growing interest in integrative health care nationwide. In Minnesota, Hennepin County Medical Center has long offered Chinese medicine treatment by licensed acupuncturists, and has built a national name in addiction treatment and research. Northwestern's groundbreaking Woodwinds Natural Care Center also provides inpatient care services. Acupuncture is widely seen as a profession on the rise, and is emerging as an important health care profession that stands on its own and can integrate with mainstream health care services.

### **School of Massage Therapy**

Massage therapy is a profession that is rapidly maturing. Educational programs have proliferated in recent years across the nation, and with national program accreditation recognition by the U.S. Department of Education on the horizon, an important step for stabilizing and standardizing massage therapy education and practices will soon be taken.

An important trend is the inclusion of massage therapy in many mainstream health care facilities and their interest in credentialing massage therapy providers from legitimate, academically-oriented programs such as Northwestern's.

Graduates have many opportunities for private solo practice; working with other health care professionals (doctors of chiropractic are the single largest health care profession that employ massage therapists); or working in health care institutions such as clinics and hospitals. Insurance coverage for some conditions and types of injuries is available in certain states and increasing, especially in alliance with medical referrals.

The U.S. Department of Labor notes that total job openings for massage therapist between 2000-2010 are projected to be 18,000, a 30.4 percent increase in the professional market (U.S. Department of Labor Monthly Labor Review, November 2001, p. 69).

### **Our Policies**

"The financial aid and registrar staff have always been very receptive to helping with my questions. They're all very nice people."

Tina La Roux, massage therapy student

### **GENERAL POLICY**

Northwestern Health Sciences University is a private, non-profit institution that derives its financial resources from alumni gifts, private foundation grants, clinic fees, student tuition, and the benevolence of the University's alumni and friends.

All tuition and fees are due and payable the end of the third week of class. After the completion of the third week of class, if tuition has not been paid or if arrangements for payment have not been made with the Student Records and Financial Services Office, a \$150 late fee will be assessed and registration for that trimester will be cancelled. To be reinstated, the student must pay tuition and fees in full or make payment arrangements with the Accounting Office.

Students who have not paid tuition by the end of the third week of class are to sign an interestbearing note until the tuition has been paid. This will be required in the following cases:

- If a student has not satisfactorily completed and filed all financial aid applications prior to the first day of class (except first-term students). (NOTE: Satisfactory completion and filing of financial aid applications is defined as having all paperwork submitted for review to the Financial Aid Office, and the office has determined that the applications are complete and ready for submission, and have been submitted to the appropriate lender.)
- 2. If a student with special tuition agreement has not paid in full the portion of tuition due by the end of the third week of class.

3. If a student has not received financial aid, and is not able to pay tuition by the end of the third week of class, and has been approved for an extension of time in which to pay the tuition.

An interest-bearing note begins accruing interest on the Monday following the Friday of the third week of class. It is the responsibility of the student to report to the Student Records and Financial Services Office to sign the note. Failure to do so at the required time will result in the assessment of a \$150 late fee and possible permanent cancellation of that student's registration and dismissal from school.

All tuition and fees owed by a student must be paid in full, before registration begins for the subsequent trimester, or he/she will not be allowed to register. Any student with a balance due at the time of graduation will not receive a diploma, and copies of official transcripts will be withheld until the balance is paid in full.

Tuition and fees are subject to change at any time. As a general rule, costs will be adjusted once a year to be in effect for fall, winter, and summer terms of the entire academic year. New tuition and fee rates are announced in the summer prior to the beginning of the upcoming academic year. To find out current tuition and fees for all programs at Northwestern, contact Student Records and Financial Services at (800) 888-4777.

### **AUDIT POLICY**

A student who registers as an auditor should request audit status at registration. As an auditor you will enroll in, pay tuition and fees for, and attend classes but not complete assignments or take

examinations. The symbol "AU" will automatically appear in the grade column of the student's transcript. The fee for such a course is the same as for credit. Audited courses may not be used for credit, will not transfer to other colleges and do not meet the requirements for a degree. Financial aid is not available for audited courses.

Prerequisite requirements for audited courses must be completed. Audits are allowed on a space-available basis with priority given to full-credit registrants. Colleges may have additional requirements to meet prior to registering as an auditor. Prior to auditing it is necessary to have approval from the appropriate course/program administrator as directed by the Registrar. This policy does not include students who are encouraged or required to audit a course for the purpose of remediation or mitigating academic deficiencies.

### **WITHDRAWAL POLICY**

The University recognizes that a decision to withdraw for any reason, financial or personal, is a difficult one. It is advisable for a student to share thoughts about potential withdrawal with their program office and the Office of Student Affairs as early as possible so that the University may offer counsel on different alternatives and the student may derive maximum benefit under the University's refund policy.

Students may officially withdraw from the University by personally informing the Registrar in writing of their intentions. The Registrar is located in the Student Records and Financial Services Office. The date of withdrawal will be noted as the date on which the student notifies the Registrar.

If, at the time of withdrawal, the student's payments for the trimester exceed the amount of liability, he or she will be entitled to a refund of the excess; if the student's payments are less than the liability, the balance will be due and payable as of that date.

Students withdrawing from the University will be considered in good standing, unless they have failed to clear up any probation notation on their record or failed to pay a tuition and fees liability. Students in good standing may reenter the University upon application for readmission. Students not in good academic standing may be required to complete conditions imposed by the Academic Standards Committee. Students not in good financial standing are required to clear their financial obligations prior to readmission.

### **RETURN OF TITLE IV FUNDS POLICY**

The Return of Funds Policy applies to all students who have, or could have been, disbursed federal funds. In accordance with federal regulations, the institution and the student are required to return unearned portions of Title IV assistance (federal grants and/or federal student loans). This return of unearned funds only applies to students who have completely withdrawn. The return of funds is based upon the percentage of time the student was at the institution. The percentage of time completed is determined by dividing the number of days prior to complete withdrawal by the total days of the trimester. The earned percentage (rounded) is then subtracted from 100 percent, which then gives the unearned percentage.

The unearned percentage is then multiplied times the total disbursal of federal assistance, which calculates the total funds that need to be returned to the Federal government. This unearned amount is then evaluated by the institution (Financial Aid Office and Accounting) to determine how much must be returned to the Federal government. If a student withdraws after 60 percent of the trimester has been completed, no funds will be returned.

Return of Title IV funds to the Federal government will be in the following order:

- Unsubsidized Stafford Loan;
- Subsidized Stafford Loan;
- Federal Perkins Loan;
- PLUS Loan;
- · Federal PELL Grant;
- · Federal SEOG.

Failure of the student to repay the Federal government could jeopardize the student's eligibility for future financial assistance at Northwestern and other institutions. Failure to repay the institution could jeopardize the student's eligibility to return to the school and/or receive official academic transcripts.

Note: Refunds may also be required for State of Minnesota financial aid programs. Return of Title IV funds calculations will be done first before Northwestern's Refund Policy.

# NORTHWESTERN HEALTH SCIENCES UNIVERSITY REFUND POLICY

The Institutional Refund Policy applies to all continuing students (new students are subject to the refund policy except the tuition deposit). This Refund Policy takes into consideration the substantial financial commitment made by the University for the education of its students, including the employment of faculty, maintenance of laboratories, clinics, physical plant, and administrative operations. These commitments are made in advance of each trimester, and withdrawals leave vacancies to be filled until the next matriculation. Withdrawals will be calculated from the date on which the student officially withdraws, except in the instance of an incapacitating accident, illness, or death.

- 100 percent of tuition charges will be refunded if the student withdraws on or before the first day of classes.
- 90 percent of tuition charges will be refunded if the student withdraws after the first day of class but before 10 percent (in time) of the enrollment period.
- 50 percent of tuition charges will be refunded if the student withdraws during the time between 10 percent (in time) and 25 percent (in time) of the enrollment period.
- 25 percent of tuition charges will be refunded if the student withdraws during the time between the end of the first 25 percent (in time) and the end of the first 50 percent (in time) of the enrollment period.
- No refund will be granted, if withdrawal is made after 50 percent of the enrollment period has passed.
- All percentages will be rounded.

Example: If an enrollment period is 105 days and a student withdraws on the 52nd day (49.52 percent of the enrollment period) or the 53rd day (50.47 percent of enrollment period), the student would get a 25 percent tuition refund. However, a student who withdraws on the 54th day or later, would not receive a refund. When a student is entitled to a refund, the funds will be given to the student unless the institution has been required to return an unearned portion of Federal Title IV funds to the Federal government. If the refund is more than that which is to be returned, then the student will be given the remaining portion. If the refund is less than that which is to be returned to the Federal government, then the student will be billed for the difference (see "The Return of Title IV Funds Policy" in this section).

#### **FINANCIAL AID PROGRAMS**

Northwestern Health Sciences University provides a wide variety of financial aid programs to assist its students in meeting the cost of attendance. For those who qualify, financial aid is available through federal, state, institutional, and private sources. Only students who have been accepted to Northwestern, and have submitted their tuition deposit, will be considered for financial aid assistance. New students will be mailed a financial aid packet (time line determined by the Financial Aid Office – generally four months prior to the start of the trimester) with all necessary instructions. Example: For new students starting in the fall term, packets may be sent out by May 15 and aid processed by August 1. Complete the Free Application for Federal Student Aid (F.A.F.S.A.) online at www.fafsa.ed.gov. Our school code is 012328.

All students are responsible for checking on the status of their financial aid to insure that funds are available at the start of a term. Northwestern's policy is to disburse aid, in compliance with federal regulations, on or after the first day of classes. When funds have been posted to your Northwestern account, tuition and fees will be deducted by the Accounting Office and the balance will be issued as a check within 14 days. You may pick up checks in the Student Records and Financial Services Office. Balance checks may not be picked up prior to the first day of classes. For more financial aid details, see our web site (www.nwhealth.edu)

Listed below are all the Northwestern programs approved for federal assistance:

**Northwestern College of Chiropractic:** Graduate/health profession status.

Masters of Acupuncture and Oriental Medicine: When entering with a bachelor's degree: graduate status; when entering without a four-year degree: undergraduate status until you become a Trimester 3 student; then graduate status.

**School of Massage Therapy Certificate:** First-year undergraduate status.

Pre-Professional Program (graduate/professional preparatory work): Undergraduate status.

Important Note: The Integrated Health and Wellness Program is not eligible for federal, state, private, or institutional aid, but you may go to our website for possible private loans.

#### FINANCIAL AID AND ELIGIBILITY

Students may receive financial aid if they meet federal eligibility criteria and are in good academic standing with the institution. Some of the federal eligibility criteria are U.S. citizenship, not in default of federal grants or loans, Social Security Administration match, and Selective Service enrollment.

Students are eligible for financial aid during those terms in which they are enrolled at least half-time in credit hours, as determined by the Registrar's Office.

#### **ENROLLMENT STATUS DEFINITIONS**

The enrollment status of Northwestern students is defined according to the credit loads shown in the following table:

		Three-quarter	
Academic Program	Half-time	time	Full-time
College of Chiropractic Terms 1-9	7.5 credits	11 credits	15 credits
Term 10	5 credits	7.5 credits	10 credits
College of Acupuncture & Oriental Medicine	5 credits	7 credits	9 credits
School of Massage Therapy	8 credits	10 credits	12 credits
Undergraduate courses	6 credits	9 credits	12 credits
Graduate courses	5 credits	7 credits	9 credits

Financial assistance will be adjusted for each trimester of enrollment according to the student's enrollment status and the regulations that govern each program. Students who have been suspended from financial aid for failing to make satisfactory academic progress, who have been dismissed from the institution, or withdrawn, are not eligible for federal, state, private, and institutional aid.

# FINANCIAL AID AND SATISFACTORY ACADEMIC PROGRESS

The Higher Education Amendments that govern Title IV Financial Assistance Programs state that "a student shall be entitled to receive federal student assistance benefits only if that student is maintaining progress in the course of study he/she is pursuing, according to the standards and practices of the institution." Northwestern's Policy of Satisfactory Academic Progress requires a student to meet both a Scholastic Standard (qualitative-grade requirement), and a Program Standard (quantitative-work completed). Supportive services are available at Northwestern to help ensure scholastic success. Information about these services is avail-

able in the Student Counseling Center. An aid-recipient's Satisfactory Academic Progress will be monitored at the end of each grading period to establish the student's eligibility to continue receiving financial aid.

### Satisfactory Academic Progress Policy for Receiving Financial Aid in Programs Offered at Northwestern:

# Chiropractic/Pre-Professional (graduate/professional preparatory work)

- Maintaining a minimum G.P.A. on all work attempted or academic standing consistent with graduation requirements; that is, to be making satisfactory progress toward a Doctor of Chiropractic Degree and a Bachelor of Science Degree in Human Biology.
- Completing the minimum trimester status requirements for which assistance was received.
- The student may not receive federal financial aid beyond 150 percent of the normal time to complete the Doctor of Chiropractic Degree and the Bachelors of Science in Human Biology Degree. Therefore, a student may receive financial aid during periods of full-time enrollment equivalent to: Chiropractic – 15 trimesters or 331.80 credits; Pre-Professional – three terms or 20 credits

#### **Acupuncture and Oriental Medicine**

- Students must pass all required courses with a grade of 75 percent. Students may repeat failed or "no credit" courses.
- For elective courses, no credit is given without a passing grade, but a failed elective need not be repeated. Other courses may be substituted to make up the total credit requirement.
- Full-time students must pass 75 percent of enrolled courses each year.
- No credit is given for withdrawals or failures.
- Credit for an incomplete is granted only on completion of the specified missing parts, within the time frame provided by the instructor.
- Clinical performance is evaluated each term. To pass, the average score must be appropriate for the intern's stage of progress in the clinic.
   Particular areas with scores below expectation will have to be re-mediated.
- 100 percent clinical attendance is required. All missed hours must be made up.
- Students must pass clinical competency exams prior to beginning supervised clinical practice, and at various stages throughout clinic.

 The student may not receive federal financial aid beyond 150 percent of the normal time to complete the Master of Acupuncture or Oriental Medicine. Therefore, a student may receive financial aid during periods of full-time enrollment equivalent to: Acupuncture – 12 trimesters or 166.35 credits; Oriental Medicine – 13.5 trimester or 216.60 credits

#### Massage Therapy

- Students must maintain a cumulative grade point average (G.P.A.) of 2.00 ("C"). Satisfactory progress is evaluated at the conclusion of each academic term.
- The student may not receive federal financial aid beyond 150 percent of the normal time to complete the Certificate of Massage Therapy. Therefore, a student may receive financial aid during periods of full-time enrollment equivalent to: Massage Therapy – 4.5 trimesters or 54 credits

#### FINANCIAL AID SUSPENSION AND APPEAL

Academic dismissal or financial aid suspension: If the student has incurred an academic deficiency (probation or dismissal) of the trimester just completed, the student's financial aid may be suspended until the student's academic record has improved.

**How to appeal:** The student may make an appeal of the academic dismissal to the Academic Standards Committee.

Waiver of financial aid suspension: Financial Aid may only be reinstated when regular status is granted by the academic standards committee and confirmed by the Registrar.

#### **FINANCIAL AID COUNSELING**

Entrance, Midstream, and Exit Counseling are required for students who have or will obtain loans while attending Northwestern. Loan counseling is particularly important because new students often have little or no experience with repayment and managing debt (individual financial aid portfolio). A school must conduct "initial" or Entrance Counseling before releasing the first disbursement of Stafford and Perkins (online at <a href="https://www.mapping-your-future.org">www.mapping-your-future.org</a>). Midstream Counseling is provided halfway through the graduate programs so that you are aware of your up-to-date aggregate total and monthly payments. The emphasis for Exit Counseling

shifts to more specific information about loan repayment and debt-management (online at www.mapping-your-future.org).

#### FEDERAL STUDENT AID AT A GLANCE

Federal Student Financial Aid (S.F.A.), <a href="https://www.ed.gov">www.ed.gov</a> info/ SFA/StudentGuide, is assistance for students enrolled at least half-time in participating schools. It helps to cover school expenses, including tuition and fees, room and board, books and supplies, and transportation. Most aid is need-based, and the three types of aid are grants, loans, and work-study. All students, who wish to be considered for Student Financial Aid, must complete a Free Application for Federal Student Aid (F.A.F.S.A.) (available online at <a href="https://www.fafsa.ed.gov">www.fafsa.ed.gov</a>). Electronically sign the F.A.F.S.A. with a personalized pin number (<a href="https://www.pin.ed.gov">www.pin.ed.gov</a>). Go to <a href="https://www.pin.ed.gov">www.ed.gov/prog\_info/SFA/FAFSA</a> for help in completing the F.A.F.S.A.

#### **FEDERAL PELL GRANT (PELL)**

The Federal PELL Grant is available to those eligible students who are considered undergraduate. For those students who are eligible, it should be the first form of financial aid investigated. In order to determine eligibility, the F.A.F.S.A. must be completed. At your request, the processor will forward that information to the U.S. Department of Education, which determines final eligibility. This should be done before applications for student loans are made. Federal PELL Grant amounts are determined by the Federal Government and certified by Student Records and Financial Services.

# FEDERAL SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANTS (F.S.E.O.G.)

F.S.E.O.G. is a campus-based award of federal gift money given to eligible undergraduate students. To qualify for this award, a student must be eligible for a Federal PELL Grant and still have additional financial need. U.S. federal guidelines and institutional policies determine amounts.

#### **FEDERAL PERKINS LOAN**

A Federal Perkins loan is a low-interest loan for students with exceptional financial need (undergraduate or graduate). Eligibility for the Federal Perkins Loan, as determined by the financial aid office, is considered when students apply for other forms of federal financial aid. The financial aid office along with funding levels from the Department of Education, determines the standard Federal Perkins Loan amount awarded per academic year. Principal and interest are deferred until nine months after graduation.

# FEDERAL FAMILY EDUCATION LOAN PROGRAM (F.F.E.L.P.)

The F.F.E.L.P. program consists of the Subsidized Stafford, Unsubsidized Stafford, and PLUS loans. The Federal Stafford Loan Program (subsidized and/or unsubsidized) was established to provide long-term, variable low-interest loans to eligible students in post-secondary education, while the student is attending school at least half-time.

Loans are generally processed every two trimesters. Using guidelines of the institution and the Federal Government, "reasonable" cost of attendance is determined for the student only.

### Graduate/Health Profession (Chiropractic):

Up to \$8,500 subsidized Stafford Loan (need based); total (subsidized and unsubsidized) \$18,500. As a recognized health profession, up to \$12,500 in additional unsubsidized. Aggregate total is \$189,125 including undergraduate studies.

#### Graduate (Acupuncture and Oriental Medicine):

Up to \$8,500 subsidized Stafford Loan (need based); total (subsidized and unsubsidized) \$18,500. Aggregate total is \$138,500 including undergraduate studies. Those students who enter the program without a bachelor's degree are under the fifth year and higher undergraduate limits. At Trimester 3, the student is eligible for graduate limits.

# Undergraduate Students (Pre-Professional – graduate/professional preparatory work):

Students taking prerequisites for graduate study (fifth year and higher) may receive up to \$5,500 undergraduate Stafford Loan limit; total (subsidized and unsubsidized) \$5,500 dependent student; total (subsidized and unsubsidized) \$10,500 independent student. Aggregate total is \$23,000 (dependent) and \$46,000 (independent).

#### Undergraduate (Massage Therapy):

First-year, undergraduate limits. \$2,625 subsidized Stafford Loan; total (subsidized and unsubsidized) \$2,625 dependent; total (subsidized and unsubsidized) \$6,625 independent. Aggregate total is \$23,000 (dependent), \$46,000 (independent).

The amounts given are the maximum a student can borrow. Students cannot borrow more than the cost of education (refer to Federal Student Guide), as determined by Northwestern, minus any other financial aid. Students may contact the Financial Aid Office for special circumstances and/or budget adjustments.

#### **FEDERAL WORK STUDY (F.W.S.)**

This is a federally-funded, campus-based work program that provides jobs on campus for financially-eligible students to work up to an average of 20 hours per week. The College provides positions for students in the library, admissions, building maintenance, and laboratory assistance, among others. To determine your Work Study eligibility, you must stop in the Student Records and Financial Services area. All F.W.S. funds are subject to I.R.S. tax rules and regulations. The Human Resources Department determines wages.

Northwestern also participates in the Community Service Program, which encourages students to get involved in community service activities.

Opportunities include Master Aquatics Program (Rehabilitation Center), Clinic Receptionist (four locations), and literacy or reading programs (coordinated with Student Affairs).

#### STUDENT ELIGIBILITY

Effective July 1, 2000, a student may be suspended from financial aid eligibility for drug-related offenses.

# MINNESOTA HIGHER EDUCATION SERVICES OFFICE (M.H.E.S.O.)

Minnesota State Grant Program (M.S.G.P.) and Student Self Loan Fund Program (S.E.L.F.):

The M.S.G.P. provides undergraduate students with assistance in meeting the cost of attendance at eligible Minnesota public and private post-secondary institutions of their choice. In order to receive an award, the student must demonstrate

financial need; be a Minnesota resident attending an eligible Minnesota institution; be making satisfactory academic progress; and meet any federal and state requirements.

The S.E.L.F. loan program helps students who need assistance in paying for education beyond high school. To be eligible for the S.E.L.F. program, a student must be either a:

- Minnesota resident who is enrolled at least halftime in a certificate, associate, baccalaureate, or graduate degree program at an eligible school; or
- Non-Minnesota resident who is enrolled at least half-time in a certificate, associate, baccalaureate, or graduate degree program at an eligible school located in Minnesota.

To be eligible for a S.E.L.F. loan, the student must have a credit-worthy co-signer, and may not be delinquent or in default on an S.E.L.F. or any other outstanding student loan. S.E.L.F. Loan counseling is also required (www.mheso.state.mn.us/self/self.cfm).

The State of Minnesota, <u>www.mheso.state.mn.us</u>, requires the completion of the F.A.F.S.A. for determining the eligibility of grants and S.E.L.F. loans.

#### **ALTERNATIVE/PRIVATE LOAN PROGRAMS**

There are alternative loans available (including those for international students). However, there are limitations, so contact the Financial Aid Office for more information.

#### **SCHOLARSHIPS**

Northwestern offers a wide variety of institutional aid including scholarships and endowments. Northwestern scholarships are awarded based on financial resources, academic performance, service/leadership involvement, trimester level, scholarship history, and faculty/clinic recommendation. Funds from outside agencies may also be available.

Institutional scholarships and grants are intended to encourage geographical, cultural, and socioeconomic diversity at Northwestern. Please note that the availability of funds is based on contributions, interest-bearing accounts, and institutional funding. Actual amounts may vary.

You may contact the Student Records and Financial Services Office for more information.

#### STANDARD REPAYMENT, EXTENDED REPAYMENT, AND CONSOLIDATION OPTIONS

Payments normally begin six months after the student is no longer enrolled. Minimum monthly payment is \$50. Generally the loan must be repaid within 10 years. Consolidation combines all of your federal student loans into a single, new loan (i.e. level, graduated, or income-sensitive repayment options are available). There are no application fees, and flexible repayment options are available to suit your current financial situation. When your income increases, you can always make additional payments towards principal to help reduce interest over the long run. There are no prepayment penalties.

# CANADIAN AND INTERNATIONAL STUDENTS

For those who qualify, students may apply for Canadian and Provincial Loans, Northwestern International Scholarships, Canadian Tuition Reciprocity, and Ed-Invest Canadian alternative loans. There may be other private loans, but with limitations.

#### **COHORT DEFAULT RATE**

For information regarding the University's Title IV Cohort default rate, please contact the Financial Aid Office.

#### **MANAGING YOUR FINANCIAL AID**

Student loan indebtedness can be burdensome. It is important to understand your loan status.

Management of your financial aid requires that you:

- Apply only for the aid you need. Live like a student now so you don't have to later;
- Keep records of income, expenses, and money borrowed;
- Complete all forms accurately and on time;
- Read everything sent to you by the lender, servicer, and institution;
- Become familiar with repayment terms of the loans;
- Take advantage of the access to web site locations;
- Do not default on your student loan(s) as there are serious consequences.

#### **Frequently Requested Telephone Numbers**

- General information about the federal student financial aid programs: (800) 433-3243.
- Free Application for Federal Student Aid (F.A.F.S.A. on the Web) assistance: (800) 801-0576.

#### **Useful Web Sites**

U.S. Department of Education: <a href="https://www.ed.gov/studentaid">www.ed.gov/studentaid</a>

Northwestern Health Sciences University: www.nwhealth.edu

Loan Consolidation: www.healthpayment.org

Calculators:

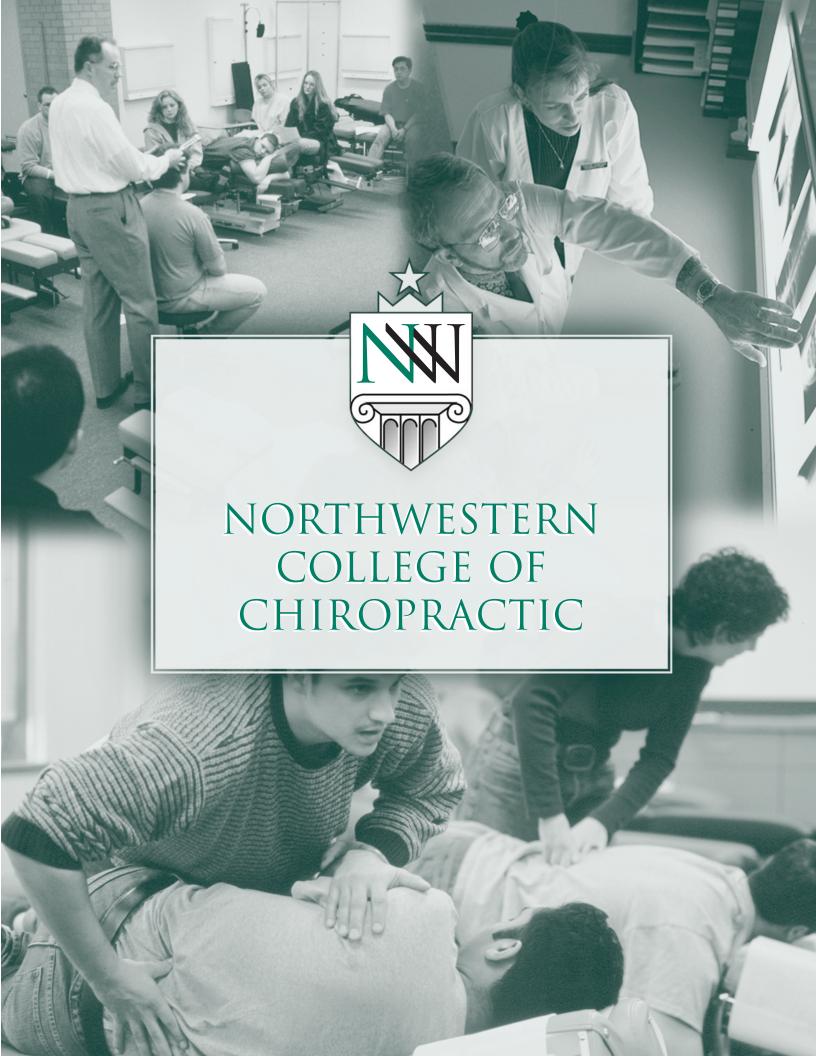
www.eac-easci.org; www.ed-invest.org; www.mygreatlakes.org

Free Application for Federal Student Aid: www.fafsa.ed.org

Consumer Information: www.students.gov

For further details on any programs, contact the Student Records and Financial Services Office at (800) 888-4777, ext. 440.

Please note that financial aid and related processing are subject to change.



"I feel the most crucial part of any program is the people doing the teaching. The group of instructors, professors, and administrators at Northwestern have a tremendous passion for their profession and it shines through everyday."

"Being part of a University, with its variety of programs, has helped me learn how to be a well rounded doctor and how to really understand how each different health care option can help my patient."

Northwestern offers a very well-rounded education in the sciences as well as the philogophy of chiropractic.
They continue this through property all experience and externships."

The projession of health early formative on traditional and alternative towards integrative. This programme administrator to fully integrated from the control of the practitioner or "With the clubs, student sense of the dances, intramunal sports,"

there really is something for everyone.

"In the Twin cities there is always something to do for a study break. There are many theaters, takes, casks, hiking trails, sports teams, museums and conderts. Plus there are a lot of events and activities free hor students, which is impurtant too.

"The financial aid and registral staff have always been very recentive to helping with my questions. They we all very nice people.

"The alumni office has arranged speakers to come in on a variety of topics.

It is great to have someone making those connections for as."

"Northwestern offers great networking opportunities among the programs.

Having all of the different programs allows MCAOM to get a lot \_\_\_\_\_

more benefits like the cadaver lab and great clinic opportunities."

# Why Northwestern College of Chiropractic?

# Strong Academic Education, Philosophy, and Experience

"Northwestern offers a very well-rounded education in the sciences as well as the philosophy of chiropractic. They continue this through practical experience and externships."

Barbro Brost, DC, 1979 Northwestern College of Chiropractic alumnae

# NORTHWESTERN COLLEGE OF CHIROPRACTIC

#### **Chiropractic Philosophy**

Northwestern College of Chiropractic's model of health care embraces the responsibility to respond to the health care needs of the patient, as they relate to clinical problems and promotion of optimal health. This model is based on the principle that the body's innate recuperative power is affected by and integrated through the nervous system.

With this underlying philosophy, chiropractic's patient-centered perspective incorporates both therapeutic and preventive approaches. The therapeutic approach promotes improved health through the diagnosis and management of clinical conditions. The preventive approach requires attention to the patient's health behaviors, and the maintenance of optimum body structure and neural function.

Chiropractic recognizes and places particular attention on the adjustment, correction, and prevention of the subluxation complex in the preservation and restoration of health.

One meaning of philosophy is the love or pursuit of wisdom. Philosophy is not something that is taught or learned in any one particular course, lecture, or laboratory. Rather, it is a process that evolves in unique ways for each individual. Northwestern will provide the environment for thought, observation, and other experiences through which you, as a student of chiropractic, will develop your philosophy of health care based upon strong chiropractic principles.

Northwestern College of Chiropractic's goals are to develop and teach an approach that is open to and

examines everything. Northwestern seeks out value and incorporates the strengths thereby identified into a dynamic science-based technique program rooted in a strong philosophical model of health. This integrated-methods curriculum attaches value to established, research-supported knowledge; to consistency with biomechanical principles; and to an openness to new procedures requiring investigation.

Each patient is unique in clinical practice. Therefore, the management of each patient's care needs to be unique to the individual. Quality health care involves science as well as art, technical competence, good communication skills, and compassion and empathy for the patient, all of which combine to form an individual's philosophy. One doctor's approach to patient care is unlikely to be a mirror image of another doctor's approach. This is not because one doctor is right and another doctor is wrong. Rather, each is using his or her wisdom and skill in the best interest of the patient.

The faculty members of Northwestern are leaders in innovative methods in the education and training of the chiropractic clinician. They strive for a leadership position in the initiation and conduct of clinical research; the documentation and establishment of professional standards of care and guidelines; and the delivery of high-quality patient care in the community.

During your years at Northwestern, you will begin to develop your personal philosophy regarding clinical chiropractic health care. We promise to provide mentors to challenge you, leaders for you to follow, and peers with whom to grow.

#### **Educational Objectives**

The educational objectives of the Doctor of Chiropractic program, established by the faculty, are consistent with the accreditation standards of the Council on Chiropractic Education, which require that graduates are prepared to:

- Practice direct-contact health care as a portal-ofentry provider for patients of all ages and genders;
- Assess the patient's general health status, complaints, and problems leading to a diagnosis.
   Specific elements of patient assessment include, complete health history; review of systems; a physical, biomechanical, and neurological examination; analysis of vertebral and extra-vertebral subluxation; and diagnostic imaging when clinically indicated; clinical laboratory; and/or specialized diagnostic procedures;
- Develop a goal-oriented case management plan that addresses any subluxations or other neurobiomechanical problems, and that may include rehabilitation and/or other therapeutic modalities:
- Develop appropriate doctor/patient relationships with continuity in the chiropractic management of health problems, and coordination of care with other health care providers;
- Promote wellness by assessing health risk and providing problem-related, general and public health information, and lifestyle counseling.

#### **ADMISSION INFORMATION**

#### **Admission to the College**

Northwestern admits as students, men and women of good character, who are qualified by previous education and experience to meet its academic challenges and to become practicing Doctors of Chiropractic. New students are admitted at the beginning of each trimester of the academic year: September, January, and April. Transfer students may also be admitted at those times. (See "Transfer Application" section.)

Applications for admission are available online on our web site at www.nwhealth.edu or may be obtained by contacting the Office of Admissions. The application for admission must be accompanied by a nonrefundable application processing fee of \$50 (U.S. dollars). It is the responsibility of the applicant to read this catalog and comply with all provisions and instructions.

#### **Entrance Requirements**

The following minimum requirements for admission apply to all candidates seeking admission to Northwestern College of Chiropractic and are consistent with the standards set forth by the Council on Chiropractic Education:

- Applicants must have completed three academic years (90 semester hours or 135 quarter hours) of college credit acceptable toward a baccalaureate degree (see required distribution in next column). Pre-chiropractic courses must be completed at a college or university accredited by a regional accrediting agency recognized by the United States Department of Education, or an equivalent foreign institution. No more than 20 semester hours may be acquired through CLEP examinations or challenging of courses, and only in courses other than required science courses. All science courses must be taken for letter grade.
- 2. Specific course distribution requirements and examples of acceptable courses are as follows:

Subject Minimum Minimum Semester Hours Quarter Hours

One academic year

> Animal/Vertebrate General Biology/Zoology, Anatomy, Physiology, Microbiology

One academic year of General/Inorganic Chemistry (with labs) 6 9

Of Biology (with labs)

General Chemistry I and II or variations in course title (Principles of Chemistry, Inorganic Chemistry, Introductory Chemistry)

One academic year of Organic Chemistry (with labs) 6

Usually titled Organic Chemistry I and II

One academic year of Physics/Quantitative Sciences/Biomechanics 6

First semester: algebra or trigonometry-based General Physics I, with lab. Second semester: General Physics II, Inferential Statistics, Biomechanics, Kinesiology, or Exercise Physiology for majors

Psychology 3 4.5

General Psychology, Principles of Psychology, Introductory Psychology

English, Literature or Speech 6

Composition is strongly recommended. English, literature, or speech courses are acceptable. Drama, Mass Communications, Theater, and Journalism may not be used to meet this distribution requirement.

#### Humanities or Social Sciences

15 22.5

Philosophy, Religion, General Humanities, Art History, Music History, Psychology, Sociology, Anthropology, History, Political Science, or Economics courses are acceptable. Business courses and studio courses in art or music may not be used to meet this distribution requirement.

#### Electives 42 63

Recommendations for elective courses include Human Anatomy, General Physiology, Cell Biology, Cell Physiology, Immunology, Genetics, Macroeconomics, Marketing, Small Business Management, Public Speaking and Technical Writing, and Medical Terminology.

#### TOTAL 90 135

Only courses completed with a grade of "C" or better (2.0 on a 4.0 scale) will be accepted. A grade of "C-" is not acceptable if the awarding college states that the numerical equivalent is less than 2.0. All coursework must be applicable to bachelor's degree requirements in a regionally accredited undergraduate institution; remedial or developmental courses will not be accepted.

As indicated in the table of course requirements, Northwestern requires that students complete one academic year in each distribution within the natural and physical sciences. In other words, students will complete two semesters or three quarters in sequence. Science courses must be taken in the logical sequence—for example, General Chemistry I must be taken before General Chemistry II. In most cases, students will complete 8 to 10 semester credits (12 to 15 quarter credits) in each distribution during a one-year sequence. All science courses should be foundation courses designed for science majors. Survey courses intended for non-science majors will not be accepted.

3. Applicants must have earned a cumulative G.P.A. of at least 2.5 and a science G.P.A. of at least 2.00. All course work is counted toward the cumulative G.P.A. and all science courses are included for the science G.P.A., not just selected course work. Applicants should realize that these are minimum grade points. To ensure acceptance, a more competitive grade point is desirable.

#### Qualifications

A student must possess the following abilities, with or without reasonable accommodation, for completion of the Doctor of Chiropractic degree program:

- Ability to use both upper extremities in the performance of common chiropractic procedures and techniques, including but not limited to: positioning patients; palpating; feeling with hands; pushing; pulling; thrusting with hands and wrists; grasping; and lifting up to 10 pounds;
- Ability to perform in all laboratory and clinical settings without posing a threat to herself/himself, to the safety and well-being of fellow students, or to patients;
- 3. Ability to determine depth and intensity of manual pressure and force, as applied in the performance of common chiropractic and adjunctive procedures and techniques;
- 4. Ability to see and hear, with or without reasonable accommodation, sufficient that the student can identify histologic, cytologic, microbiologic and pathologic structures through a microscope; receive and record patient histories; provide instructions to patients; provide routine patient safety services; perform stethoscopic and other auscultatory examinations; and read and interpret all forms of diagnostic imaging;
- 5. Ability and willingness to receive chiropractic and adjunctive treatment. Much of the technical instruction in the programs requires reciprocal application of chiropractic and adjunctive techniques. In reciprocal laboratory experiences, receiving techniques is necessary in order to learn proper procedures, and to receive and provide learning feedback. Reciprocal application of technique is also useful for developing sensitivity to client needs. The College may temporarily excuse a student from receiving chiropractic treatment provided that there is a specific medical contraindication, as determined in writing by a licensed health care professional.

All students, with or without reasonable accommodation, must carry out laboratory assignments, including microscopic work and X-ray interpretation. Qualified persons with disabilities, with or without reasonable accommodation, must be able to pass oral, written, and practical examinations and meet all of the clinical requirements of the University.

It is in the best interests of both the student and the University to assess the degree of limitation caused by disability. However, the University will make the final determination of whether or not an individual meets all qualifications for study at the University.

Persons who have been convicted of any felony or misdemeanor of a violent or sexual nature will be prohibited from professional health care practice in many jurisdictions. Northwestern Health Sciences University will deny admission to applicants with such convictions. The University conducts a criminal background check on all massage therapy applicants.

#### **Responsibility of Applicant**

It is the responsibility of the applicant to be aware of the entrance requirements and to ensure that they are met prior to enrollment. If the College determines at any time that requirements are not met in full, the student will not be allowed to enroll or to continue at Northwestern.

The Office of Admissions personnel are available to help prospective students plan their pre-chiropractic curricula.

#### **Minnesota Immunization Requirement**

All students born in 1957 or later must comply with the Minnesota State College Immunization Law (Minn. Stat. 135A.14). An admitted student must show proof of DPT immunization within the last 10 years, as well as measles, mumps, and rubella immunization after his/her first birthday. However, exemptions are permitted for philosophical or medical reasons. Further information is included with letters of acceptance to Northwestern.

Some clinical environments outside the University Clinic system may establish immunization and/or health screening requirements exceeding the Minnesota State College Immunization Law. In addition, some clinical environments outside the University Clinic system may not accept placement of interns who have not received or are not in the process of receiving certain immunizations and/or health screenings.

#### **Application Procedure**

The first step is to submit a fully-completed application for admission. You may obtain an application from the Office of Admissions. The application for admission must include:

- 1. A properly completed application for admission. Please type or print neatly;
- 2. An application processing fee of \$50 (U.S. dollars). This fee is non-refundable;
- Official transcripts from all colleges attended sent directly to the Office of Admissions at

Northwestern Health Sciences University from those colleges. High school transcripts are not required;

(Note: Please indicate on your application if your transcripts will be arriving under another name.)

- 4. Three completed character reference forms. References should be people who have known you for a period of at least six months. References from professors and doctors of chiropractic are preferred. Relatives are not accepted as references. Northwestern will send character reference forms to those references listed on the application, who should complete the form and return it to the University;
- 5. A completed essay (see Application Form for instructions).

#### **Selection of Candidates**

The Admissions Committee, in general, seeks to matriculate students who best suit the philosophies and goals of the program, which include providing an education in the scholarly and humane aspects of chiropractic, and fostering the development of leaders who will advance chiropractic practice and knowledge. Northwestern attempts to select students who have strong academic records and who demonstrate the motivational and personal characteristics suitable for a career in chiropractic. Service and a caring attitude are important characteristics of the future Doctor of Chiropractic. The University employs a rolling admissions process; therefore, early application could increase the applicant's probability for acceptance. It is best to apply 9-12 months in advance of the entering date desired.

In recent years, applicants granted admission have had an average G.P.A. of about 3.0 (A=4.0). The University encourages campus visits for all applicants and reserves the right to require an interview.

### **Tuition Deposit Policy**

Applicants will be notified in writing of the Admission Committee's decision regarding their application following receipt of all application materials and committee review. Upon notification of acceptance, a candidate must remit a tuition deposit of \$300 (U.S. dollars) to reserve a position in the entering class. This tuition deposit is non-refundable but is applied toward the first trimester tuition. The tuition deposit should be submitted shortly after notification of acceptance since processing of financial aid is initiated only after receipt of the tuition deposit. First trimester students who have been accepted and paid their \$300 (U.S. dollars) tuition deposit must pay the balance of their first

trimester tuition on the first day of class. If the student has a Stafford Loan in progress for the first trimester at Northwestern, then the first trimester tuition will be credited against this loan. It is important to note that because of the limited space available in each class, scheduling priorities, and the cost of education, the institutional refund policy does not apply to the \$300 tuition deposit.

### **Transfer Application**

A student wishing to transfer from another chiropractic college must:

- Follow the same application procedures as a new student (see previous section in catalog);
- 2. Submit an official transcript from the chiropractic institutions(s) previously attended;
- Submit two letters of recommendation from faculty members of the chiropractic institution previously attended, as well as a letter from that institution's registrar indicating the student applicant is leaving that college in good standing and could continue studies at their present chiropractic institution;
- The applicant's academic record must further allow for the student to be admitted without probation or other restriction, as defined by Northwestern policies;
- Transfer credit may be granted for courses completed with a grade of "C" or better from another chiropractic institution. Those courses must have content similar to corresponding Northwestern courses of the same name and level. The Northwestern registrar will determine that comparability;
- All credits that the student wishes to transfer to the Northwestern program must be applied for and posted to the applicant's Northwestern records prior to matriculation;
- 7. A transfer student must complete at least five trimesters of resident study in the Northwestern program prior to graduation;
- Excessive indebtedness as a result of financial aid borrowing will be a factor in the Admissions Committee's decisions regarding acceptance of a transfer student. The Student Records and Financial Services Office will set upper limits of previous indebtedness;
- These policies are subject to updating and modification. Contact the Office of Admissions for current information.

#### **Advanced Placement**

Advanced placement gives a student credit for a Northwestern course based on work completed before matriculation at Northwestern Health Sciences University. Advanced placement also requires completion of a competency examination written by the faculty and provided by the chairperson of the appropriate department.

Applicants may sit for competency examinations if their official transcripts show:

- Work in the subject area in addition to that required for admission and taken in upper-division courses;
- Coursework completed with a grade of "C" or better:
- 3. Coursework taken within a period of five years;
- 4. A request to take the examination filed no later than two weeks before entering Northwestern.

Unless otherwise announced, examinations will be given the Friday before the first day of classes. This is the one and only chance to apply for advanced placement. Credit cannot be granted for any clinical-level courses taken in a college of liberal arts and sciences.

Transfer students from accredited chiropractic, osteopathic, or medical colleges are given transfer credit and actual contact hours up to those equivalent to Northwestern standards. Advanced placement is not granted for only one part of two-part basic science courses such as Physiology I and II (see Trimester 2 and Trimester 3 in the course list section). Questions about advanced placement should be directed to the Office of Admissions.

#### **Non-Program Students**

Students not currently admitted to a program may enroll in a course for credit, if they meet the prerequisites, space is available, and approval for attendance in the course has been granted by the course instructor and the program administrator.

Students that are granted approval to enroll in a course should contact the Office of the Admission for registration instructions.

### **Foreign Applicants**

Matriculants from foreign countries must meet the same educational requirements as students matriculating from the United States. The student should note the entrance requirement and application procedure sections. The student must also fulfill the following:

- Have the endorsement of the chiropractic organization in his or her home country (if such an organization exists);
- 2. Verify competency in English. All classes at Northwestern are taught in English.

A student may verify competency in English in the following manner:

- a. Students from English-speaking countries (excluding the Canadian province of Quebec) may include with their application a copy of their birth certificate. Or these applicants may complete an English competency verification form, which can be obtained from the Office of Admissions. We reserve the right to request proof of English proficiency of any applicant.
- b. All other foreign applicants (including students from the Canadian province of Quebec) must complete a T.O.E.F.L. (Test Of English as a Foreign Language) examination. Applicants completing the paper-based examination must earn a score of 540 or higher. Applicants completing the computer-based examination must earn a score of 207 or higher. Results of the T.O.E.F.L. must be sent directly to Northwestern from the testing agency. T.O.E.F.L. information can be obtained from: T.O.E.F.L., P.O. Box 6154, Princeton, NJ 08541-6154, U.S.A.
- Provide evidence of having financial resources to complete a minimum of one year of education.
   Official bank statement indicating sufficient funds is required;
- 4. Have foreign transcripts evaluated by an international transcript evaluation service such as World Education Services, Inc. (P.O. Box 745, Old Chelsea Station, New York, NY 10011), with official copies of the course-by-course evaluation being forwarded directly to both Northwestern and the student. Contact the Office of Admissions for a W.E.S. application form or names of other accepted transcript evaluation services.

We recommend that all foreign students be aware of the licensure requirements in the country in which they wish to practice. A student can contact the chiropractic licensing board in their province or country for that information.

# **Educational Requirements of Non-U.S. Citizens**

The following non-U.S.-based programs are recognized as being equivalent to the pre-professional requirements of the C.C.E.-U.S.A. Successful completion of one of these programs, in its entirety, will

normally fulfill the entrance requirements to Northwestern. However, students who have completed these programs should contact the Office of Admissions for the most current information. Northwestern also reserves the right to request a transcript review by an evaluation service.

- 1. The French Propedeutique
- 2. The Danish Matematisk Studentereksamen
- 3. Odense University Pre-chiropractic Program
- 4. The Swiss Matura and First Medical Propedeutical or qualifying report
- 5. The Richmond College of London Pre-chiropractic Program
- 6. College d'enseignement general et Professional or its Canadian English equivalent.

For students from Mexico, a special schedule of courses has been developed which supplements the Bachillerato Preparatoria as the prerequisite for entry to the Doctor of Chiropractic program. Students from Mexico should contact the Office of Admissions for the most current information.

# BACHELOR OF SCIENCE DEGREE IN HUMAN BIOLOGY

The Bachelor of Science in Human Biology (B.S.) is a degree completion program for students in the Doctor of Chiropractic program. The B.S. program is designed for eligible chiropractic students to complete their bachelor's degree while enrolled in the D.C. program.

### **Statement of Purpose**

There are many reasons to complete the Bachelor of Science program in Human Biology.

The B.S. program values broad knowledge, skills, and attitudes that prepare students for life as educated and productive members of society. The B.S. program focuses on skills in critical thinking, communication, and distinguishing high-quality research from weak, flawed studies. Practically, many states require a bachelor's degree for chiropractic licensure and some managed care organizations show a preference in network inclusion decisions to chiropractors with a bachelor's degree. In general, a bachelor's degree increases a graduate's professional credentials and options to excel in chiropractic practice.

#### **Course Requirements**

In addition to successful completion of the entrance requirements (90 credits) for the D.C. program, the B.S. degree program requires successful completion of Section A: Biology Concentration and Section B: Research Sequence. The Biology Concentration is completed during the course of the doctor of chiropractic program. The Research Sequence consists of five courses unique to the B.S. degree program, typically completed during the latter half of the D.C. program.

#### **Section A: Biology Concentration**

Biochemistry 1 (5 credits)

Biochemistry 2 (2 credits)

Clinical Nutrition 1 (4 credits)

Embryology (2 credits)

Gross Anatomy 1 (5.5 credits)

Gross Anatomy 2 (5.5 credits)

Histology 1 (3.75 credits)

Histology 2 (3.5 credits)

Infectious Disease (2 credits)

Microbiology (5 credits)

Neuroscience 1: PNS (4 credits)

Neuroscience 2: CNS (3 credits)

Principles of Evidence-Based Health Care (1 credit)

Pathology 1 (3 credits)

Pathology 2 (3 credits)

Physiology 1 (4.5 credits)

Physiology 2 (4.5 credits)

Public and Preventive Health (2 credits)

Total: 63.25 credits

#### **Section B: Five-Course Research Sequence**

SQS 3901 Research I: Numerical Reasoning (2 credits)

SQS 3902 Research II: Research Design (2 credits)

SQS 3903 Research III: Evaluating Health Information (1 credit)

SQS 4971 Research IV: Project Development (1 credit)

SQS 4972 Research V: Comprehensive Project

(3 credits)

All five courses in the Research Sequence must be completed at Northwestern.

#### **Graduation Requirements**

- 1. Passing grade in each course listed in Section B.
- Cumulative grade point average of 2.0 for courses in Section A and B.

#### **PRE-PROFESSIONAL PROGRAM**

For undergraduates completing their undergraduate, pre-professional course requirements, Northwestern offers a two-course sequence in General Chemistry as well as a two-course sequence in Organic Chemistry at Inver Hills Community College. These courses are offered in an accelerated format. Students can complete both General Chemistry courses in one trimester. Similarly, both Organic Chemistry courses can be completed in one trimester. CHEM2160 and CHEM2161 are offered fall and summer trimesters. CHEM2058 and CHEM 2059 are offered during fall, winter, and summer trimesters. The University also offers Human Anatomy and Physiology 1 & 2 each trimester.

#### **COURSE DESCRIPTIONS**

#### CHEM2160 General Chemistry I

#### 4 credits

This course investigates the composition, phases, and chemical reactions of matter. Other topics include atomic theory, stiochiometry, nomenclature, chemical bonding, and intermolecular interaction. This course emphasizes familiarization with these topics, along with their application.

#### CHEM2161 General Chemistry II

#### 4 credits

Prerequisite: CHEM 2160 or equivalent.

This course explores advanced concepts in chemistry. These include acid-base chemistry, kinetics, various aspects of equilibrium, and thermodynamics. This course will also serve as an introduction to future courses with a look at organic and biological chemistry.

#### CHEM 2058 Organic Chemistry I

#### 4 credits

Prerequisite: CHEM 2161 or equivalent.

This course begins with a review of basic chemical concepts applied to organic molecules and then explores organic chemistry nomenclature, structural isomerism, and stereochemistry. The course includes an investigation of substitution, elimination, and free-radical chemical reactions and examines the importance of these general concepts and reactions in biological systems. The laboratory component includes general lab techniques and understanding of basic laboratory concepts.

#### CHEM 2059 Organic Chemistry II

4 credits

Prerequisite: CHEM 2058 or equivalent.

This course focuses on the properties, reactions and synthesis of major organic functional groups as well as the importance of these groups in biological systems. The laboratory component provides experience in synthesis, purification, and instrumental analysis of organic molecules.

#### SBS1211 Human Anatomy and Physiology 1

4.5 credits

This is the first course of a two-course sequence in systems-based normal and abnormal human anatomy and physiology. Students will learn the design and function of the systems of the human body, with emphasis on the skeletal, muscular, nervous and integumentary systems. The laboratory includes observation of prosected human cadavers.

#### SBS1212 Human Anatomy and Physiology 2

2.5 credits

Prerequisite: SBS1211 Human Anatomy and Physiology 1.

This is the second course of a two-course sequence in systems-based normal and abnormal human anatomy and physiology. Students will learn the design and function of the systems of the human body, with emphasis on the cardiovascular; endocrine; respiratory; digestive; urinary and reproductive systems; and the sensory organs. The laboratory includes observation of prosected human cadavers.

#### AN UNMATCHED CLINICAL EXPERIENCE

The complete array of clinical opportunities for Northwestern interns is unmatched in chiropractic education. Students participate in these experiences starting in the sixth trimester and extending through graduation. These educational programs demonstrate the University's commitment to clinical excellence and preparedness for professional success.

#### **University Health Service**

Student interns prepare to enter fee-for-service clinic settings by first providing care to Northwestern students, employees, and their families in the University Health Services located in the J. Lamoine De Rusha Clinical Education Center. In the sixth trimester, interns complete a structured laboratory experience in which they refine their skills by interviewing, examining, and providing chiropractic

care to early trimester students. During this initial phase students review, practice and discuss all elements of the clinical process in laboratory, lecture and small group discussion settings.

In the seventh trimester, interns continue to apply and review all elements of the patient care process as they work with faculty clinicians in the University Health Services caring for patients from the campus community.

# Northwestern's Natural Care Centers and Community-Based Internship

In the eighth and ninth trimesters, students continue working with faculty in the Natural Care Centers of the University or the Community Based Internship (C.B.I.) program. Northwestern's internships provide students with rich clinical experiences and contact with a diverse patient population. In each clinic, a small student-to-faculty ratio results in a close relationship between the clinical mentor and each intern.

The Natural Care Centers are located in the Twin Cities metropolitan area. One of the Natural Care Centers is located on a hospital campus and features a variety of patient services, including chiropractic, massage therapy, acupuncture, Oriental medicine, healing touch, and naturopathy.

The Community Based Internship Program, a Northwestern innovation, is another opportunity available to students in the eighth and ninth trimesters. Students who serve their internship in the C.B.I. program are placed in the private practice of a doctor of chiropractic who participates with the University in clinical education. Approximately 150 doctors in Minnesota meet the rigorous internship standards to mentor chiropractic students from Northwestern during their internship experience.

#### **Clinical Rotations**

The promotion of integrated and collaborative natural and conventional medical care is a unique objective of Northwestern. As a complement to their primary clinical experience, students observe the clinical practices of chiropractors and other health care professionals such as neurologists, orthopedic surgeons, podiatrists, dentists, and radiologists. Through participation in this program, students come to better understand the rationale for different approaches to care; are exposed to a wider range of patient conditions; understand the means for patient management through consultations and referrals; and have the opportunity to network with specialists.

#### **Preceptorship Program**

Tenth trimester students who have completed all the clinical requirements of the University and the Council on Chiropractic Education have the option of completing their training with doctors of chiropractic practicing in more than 30 states and many foreign countries. This program provides an opportunity for final-term students to begin the transition to private practice.

#### **ACADEMIC POLICY**

#### **Trimester Credits**

The academic calendar includes fall, winter, and summer trimesters of 15 weeks each. In general, one credit represents one lecture hour, two laboratory hours, or two clinical hours per week.

#### **Attendance Policy**

Students are required to fulfill all course responsibilities, including class attendance, which are described by faculty in the course syllabus.

#### **Academic Evaluation and Grades**

Academic evaluation provides incentives to students, rewards achievement, and identifies students who are having difficulty. Final grades in each subject are issued at the end of each trimester and reflect students' performance in some combination of the following: comprehensive final examinations, announced tests, quizzes, assignments, classroom and laboratory work, participation in and contribution to class discussions, and attendance. Class grades summarize student achievement levels relative to objectives explained by the instructor.

Students who complete all the work assigned in a course are graded as follows: A, B, C, or D (excellent, above average, average, or minimal achievement, respectively). Honor grade points (for calculating grade point averages) are awarded on the scale starting with four points for an A and one for a D. Students who fail to achieve minimal competency are graded with F for failure. An incomplete (I) indicates that the full work of the course has not been completed because of illness or some cause beyond the student's control.

#### **Academic Honors**

Students receiving a G.P.A. of 3.50 or above are placed on the Dean's List. Academic honors are determined according to the following grade point levels:

Honor	G.P.A. Range
Cum laude	3.50 - 3.69
Magna cum laude	3.70 - 3.89
Summa cum laude	3.90 - 4.00

#### **Regulations Concerning Probationary Status**

Students are placed on probation when their cumulative grade point average is less than 2.0 at the end of any trimester. Students are automatically placed on probation if they earn a failure in any course. The Student Handbook provides details pertaining to probation, dismissal, review procedures and special student status.

#### **GRADUATION**

#### **Graduation Requirements**

The Doctor of Chiropractic degree is granted to those candidates who have:

- Completed the required course of study, of which the last five terms have been in residence at Northwestern Health Sciences University;
- 2. Demonstrated competency in clinic and completed internship and field experience requirements;
- 3. Earned at least a 2.0 cumulative G.P.A.;
- 4. Fulfilled all financial obligations to the University;
- 5. Recommended for graduation by the faculty.

#### **Graduation Rate**

More than 90 percent of Northwestern's chiropractic students graduate within five years of matriculation.

#### **LICENSURE**

Successful completion of a doctor of chiropractic degree is a minimum eligibility requirement for examination before the licensing boards in all 50 states and the District of Columbia, and all foreign countries that license chiropractic practitioners. Some jurisdictions may impose requirements for licensure in addition to a D.C. degree. Students should become familiar with the licensure policies and requirements of the jurisdiction in which they intend to practice. Information regarding licensure policies and requirements may be found in the Career Services Office or the Greenawalt Library.

# NORTHWESTERN COLLEGE OF CHIROPRACTIC

#### **Curriculum Overview**

The Doctor of Chiropractic curriculum at Northwestern consists of five academic years (three and one-third calendar years). Each year consists of two 15-week trimesters. The base of the curricular studies is composed of courses in the foundational sciences. These courses lay the groundwork for further study in the clinical sciences as well as clinical experiences. A 12-month public clinic internship and preceptorship constitute the last three trimesters. Northwestern offers three trimesters: Fall, Winter, and Summer.

Students begin learning "hands on" chiropractic techniques beginning in their first trimester and progress to supervised in-class adjusting in Trimester 3. Chiropractic therapies that are taught are broadbased, but stress those adjusting and manipulative procedures that have been proven most effective and which are consistent with biomechanical and biophysiological principles.

These adjusting skills are complemented by related therapeutics such as physiotherapy, nutrition counseling, exercise training, rehabilitation, and mobilization procedures. Students learn to educate patients regarding healthy living practices, encouraging a holistic view of both mental and physical well-being.

Graduates of Northwestern are prepared to practice as first-contact, primary care chiropractic physicians, able to take responsibility for the health of patients. The diagnostic acumen and therapeutic skill sets required for primary care clinicians requires a strong background in the foundational sciences as well as current and relevant studies in the clinical sciences. Critical thinking and clinical decision-making skills must be developed in order to make the most appropriate patient-centered health care decisions.

Northwestern students are trained to work in cooperation with all other health care providers. To facilitate such interdisciplinary practices, a network of physicians has been established with whom the clinics interact. Opportunities are also available for interns to spend time as observers within local medical practices.

#### **Course Load**

The breadth, depth and scope of courses and resulting study load in each term of the curriculum at Northwestern is similar to that in other health care professional schools in its academic rigor. As a result, students should expect substantially heavier loads at Northwestern than at colleges where they

completed their pre-chiropractic studies. Those entering or continuing students who wish to modify their course load may benefit from split-schedule registration. A student may request split-schedule information from the Office of the Registrar. Use of a split schedule of courses may add some time and expense to the completion of the academic program.

All students are considered full-time unless classified otherwise by the Academic Standards Committee or by special arrangement through the Student Affairs office of the College of Chiropractic. Due to the nature of the chiropractic program of study, all students are expected to maintain continuous enrollment. However, in the event that a student requires a term off due to unforeseen circumstances, upon request by the student, the University will consider a leave of absence.

#### **Course Sequence**

The chiropractic curriculum is taught in the following pattern:

**Trimesters 1 and 2** – courses in foundational sciences; introductory chiropractic principles and methods; and radiology.

**Trimesters 3, 4, and 5** – completion of foundational sciences; advancement in chiropractic methods and sciences; and progress in clinical sciences, including diagnosis and radiology.

**Trimesters 6 and 7** – completion of radiology sequence; completion of core curriculum chiropractic science courses, including physical therapy; continued advancement in clinical sciences, including clinical pathology; and University Health Service internship preparatory to service in the University's public clinics.

**Trimesters 8, 9, and 10** – service in the University's clinics over a 12-month period; completion of clinical sciences, practice management sequence preparatory to entrance into private or group practice; and elective opportunity to participate in a private practice as a chiropractic physician-preceptor's associate.

#### **Curriculum Organization**

Traditional didactic learning experiences comprise the first year of study in the doctor of chiropractic degree program. While engaged in these studies, students make the transition to becoming doctors of chiropractic. In the classroom, laboratory, and clinics, students learn to take patient health histories and conduct examinations, consisting of physical, neurological, orthopedic, radiological and laboratory procedures; and interpret findings in forming clinical decisions. Students learn that proper diagnosis is

fundamental in determining appropriate treatment and in measuring the patient's response to chiropractic care.

#### **Business Foundations**

Northwestern's Business and Professional Foundations curriculum is the most extensive business curriculum in chiropractic education and spans eight trimesters. The learning opportunities in this area will produce graduates cognizant of the aspects of business that allow for success as a primary care provider. The principles covered are applicable regardless of the business entity or arrangement the graduate chooses. The objectives of this program are to prepare the graduate with the additional tools and outside clinical competency necessary to succeed in the business of health care delivery.

#### Clinician Development

The courses and clinical experiences contained within this program comprise that body of knowledge, attitudes and behaviors necessary in the evolution of becoming a professional chiropractic clinician. A variety of learning interventions and opportunities are offered to ensure a broad exposure to clinical experiences that will allow the learner to discover the types of clinical settings which are personally most appealing and rewarding. Examples of course offerings are professional issues and clinical chiropractic. Clinical practica such as outpatient experiential learning, interdisciplinary setting rotations, and various field experiences are included

### Diagnosis, Imaging, and Special Studies

Learning opportunities in this program will assist in the development of knowledge and skills necessary to arrive at plausible differential diagnoses for patients with a variety of health care needs in ambulatory care settings. It is understood that learning to diagnose is a process that involves cognitive, behavioral and affective skills that are acquired over a period of time and sharpened with clinical experiences. Course work and experiences include patient interviewing, clinical laboratory and radiology diagnosis, differential diagnosis and organ/system pathophysiology.

#### Foundational Sciences

Course work in the foundational sciences build the framework upon which all the clinical courses rest as well as underscore the basis for learning advanced theories of health care. A solid knowledge of foundational information will ensure comprehensive understanding of the complexities of disease and

disorders encountered in primary care settings. Sample coursework includes anatomy, physiology, biochemistry, and pathology.

#### Health and Wellness Education

Doctors of chiropractic need to be well-versed in the health and wellness arena. The courses in this program are deliberately focused on the balance between the detection of disease or pathology and health promotion. The contents of this program stress the importance of attaining, maintaining, and promoting health and wellness. Course curricula will aid the learner in developing a personal approach to imparting healthy habits to patients as well as a keen sense of potential for health and wellness promotion opportunities in the practice of chiropractic health care. Representative course work includes maternal and infant health, children's health care, women's health, men's health and nutrition studies.

#### **Principles and Methods**

This program and its contents set the philosophy, science, and art of chiropractic health care apart from other methods of health care delivery. The principle tenets upon which the profession of chiropractic is founded are explored and discussed. Course work and experiential learning avenues will prepare the learner and set the stage for the lifelong journey to becoming a master in the art of adjustment and manipulation. Learners will take classes covering physiological therapeutics, exercise and rehabilitation, as well as three years of methods curricula that includes a final term of methods offerings that the learner can customize for him or herself.

#### Clinic Experience

The clinical phase of the curriculum consists of progressive and mentored patient contact preparing students for competent and successful chiropractic practice. Students develop their patient care skills through a variety of real-world experiences in the Natural Care Centers of Northwestern Health Sciences University, with chiropractic doctors working in private practice settings, and in community service learning environments.

#### **Course List**

The required curriculum for the doctor of chiropractic degree is composed of a sequence of courses offered in 10 separate 15-week trimesters for a minimum total of 4,225.75 contact hours, exclusive of elective courses of study.

### Trimester 1 – 15 weeks

Course		(Hou		Clock		
Number	Title	Lecture	Lab	Clinic	Credits	Hours
11010	Biochemistry 1	4	2	-	5	90
25510	CPR	.5	-	-	.5	8
13010	Gross Anatomy 1	3	5	-	5.5	120
15010	Histology 1	3	1.5	-	3.75	67.5
22710	Infection Control	.2	_	-	.2	3
33010	Methods 1		2	-	1	30
23510	Business and Professional Foundations 1	1	_	-	1	16
31010	Principles and Philosophy 1	1	-	-	1	15
20010	Skeletal Radiology 1	1	1	-	1.5	30
34010	Spine and Pelvis	3	-	-	3	45
	Totals	16.7	11.5	_	22.45	424.5

### Trimester 2 –15 weeks

Course		(Hou		Clock		
Number	Title	Lecture	Lab	Clinic	Credits	Hours
14220	Embryology	2			2	30
13120	Gross Anatomy 2	4	3	_	5.5	105
15120	Histology 2	3	1	_	3.5	60
33120	Methods 2	1	2	_	2	45
12120	Neuroscience 1: PNS	4	_	_	4	60
11120	Physiology 1	4	1	_	4.5	75
23520	Business and Professional Foundations 2	1	-	_	1	15
31120	Principles and Philosophy 2	2	_	_	2	30
	Totals	21	7	_	24.5	420

### Trimester 3 – 15 weeks

Course		(Hou		Clock		
Number	Title	Lecture	Lab	Clinic	Credits	Hours
11330	Biochemistry 2	2	_	-	2	30
33230	Methods 3	1.5	3.5	-	3.25	75
36030	Neuromusculoskeletal 1	3	_	_	3	45
12230	Neuroscience 2: CNS	3	_	_	3	45
17030	Pathology 1	3	_	_	3	45
11230	Physiology 2	4	1	-	4.5	75
21030	Physical Diagnosis	3	2	-	4	75
23530	Business and Professional Foundations 3	.75	_	-	.75	12
32030	Principles of Evidence-based Healthcare	1	_	-	1	15
37030	Principles and Philosophy 3	2	_	-	2	30
20130	Skeletal Radiology 2	2	1	-	2.5	45
	Totals	25.25	7.5	_	29	492

### Trimester 4 – 15 weeks

Course		(Hours per week)				
Number	Title	Lecture	Lab	Clinic	Credits	Hours
33340	Methods 4	1.5	3.5	_	3.25	75
16040	Microbiology	4	2	_	5	90
21140	Neurodiagnosis	2	1.5	_	3	56.25
36140	Neuromusculoskeletal 2	4	1	_	4.5	75
36141	Neuromusculoskeletal 3	2	3	_	4.5	90
17140	Pathology 2	3	-	_	3	45
23540	Business and Professional					
233.0	Foundations 4	_	-	_	.75	12
22040	Principles and Philosophy 4	2	-	_	2	30
20240	Skeletal Radiology 3	2	1	_	2.5	45
	Totals	20.5	12	_	27.75	506.25

Trimeste	er 5 – 15 weeks					
Course			urs per week)		6 III	Clock
Number	Title	Lecture	Lab	Clinic	Credits	Hours
21250	E.E.N.T.	2	1		2.5	45
36350	Clinical Nutrition 1	4	_	-	4	60
24050	Clinical Pathology 1	2	1.5	-	2.75	52.5
25150	Infectious Diseases	2	_	-	2	30
23550	Business and Professional Foundations 5	-	_	_	_	_
41050	Introduction to Clinical Chiropractic	1	-	-	1	15
34150	Methods 5	1	2	_	2	45
41040	Patient Interviewing	1	_	-	1	15
35151	Physiological Therapeutics 1	1	2.5	-	2.25	52.5
25250	Public and Preventive Health	2	_	_	2	30
20350	Skeletal Radiology 4	2	1	_	2.5	45
	Totals	18	8	-	22	390
Trimeste	er 6 –15 weeks					
Course Number	Title	(Ho Lecture	urs per week) Lab	Clinic	Credits	Clock Hours
23365	Cardiopulmonary System	3	2	_	5	90
24160	Clinical Pathology 2	3.5	1.5	-	4.25	75
41060	Clinic Internship 1	1	-	4	3	75

Course (Hours per week) Number Title Lecture Lab Clinic  23365 Cardiopulmonary System 3 2 -	5 4.25	90 75	
23365 Cardiopulmonary System 3 2 –			
	4.25	75	
24160 Clinical Pathology 2 3.5 1.5 –		, 5	
41060 Clinic Internship 1 1 – 4	3	75	
23562 Gastrointestinal/ Genitourinary Systems 3 1 –	4.5	75	
23560 Business and Professional Foundations 6 – – –	-	_	
34260 Methods 6 1 2 –	2	45	
33561 Physiological Therapeutics 2 0 3 –	2.5	45	
24760 Principles and Philosophy 5 1 – –	1	15	
20460 Radiation Physics and Safety 2 1 –	2.5	45	
20661 Radiology of the Abdomen and Chest 2 1 –	2.5	45	
Totals 16.5 11.5 4	26.25	510	

### Trimester 7 – 15 weeks

Course Number	Title	(Hou	rs per week) Lab	Clinic	Credits	Clock Hours
41170	Clinic Internship 2	1	_	4	3	75
36470	Clinical Nutrition 2	3	_	-	3	45
23890	Dermatology	1	_	-	1	15
25570	Emergency Procedures	1.5	2	_	2.5	52.5
23670	Endocrinology	1.5	_	-	1.5	22.5
25380	Maternal and Infant Health	2	_	-	2	30
26170	Mental Health 1	2	_	_	2	30
33670	Methods 7	0	3	_	.75	22.5
25980	Pharmacology	2	_	-	2	30
35170	Physiological Therapeutics 3	1	1	_	1.5	30
20570	Radiographic Technology and Positioning	1	1	_	1.5	30
23570	Women's Health	2	.5	_	2.25	37.5
	Totals	17	7.5	6	26.50	420

### Trimester 8 – 15 weeks

Course		(Но		Clock		
Number	Title	Lecture	Lab	Clinic	Credits	Hours
41080	The Business of Clinical Practice 1	2	-	-	2	30
25490	Children's Health	2	-	-	2	30
42280	Clinical Case Studies 1	1	-	-	1	15
41280	Clinic Internship 3	_	_	17	9	300
25690	Health and the Older Person	2	-	-	2	30
26280	Mental Health 2	2	-	-	3	45
	Totals	9	_	16	19	435

### Trimester 9 – 15 weeks

Course	(Hours per week)					Clock
Number	Title	Lecture	Lab	Clinic	Credits	Hours
43290	The Business of Clinical Practice 2	3	_	_	3	45
42390	Clinical Case Studies 2	1	_	_	1	15
41390	Clinic Internship 4	_	_	17	9	300
47190	Legal Aspects of Chiropractic Healthcare	2	_	_	2	30
	Totals	6	_	17	15	390

### Trimester 10 – 15 weeks

Course		(H	(Hours per week)			
Number	Title	Lecture	Lab	Clinic	Credits	Hours
41400	Clinic Internship 5	_	-	20-40	10	300-600
	Totals	_	_	20-40	10	300-600
	Total Minimum					4.287.75

#### **COURSE DESCRIPTIONS**

#### 11010 **Biochemistry 1**

5.00 credits (90 hours): 60 lecture hours; 30 laboratory hours

The functional chemistry of the human body, integrating topics in cellular physiology with biochemistry; buffers, proteins, enzymes, carbohydrates, lipids, nucleic acids, and intermediary metabolism. Lab includes methods of separation and identification of biochemical constituents.

#### 11330 Biochemistry 2

2.00 credits (30 hours): 30 lecture hours

Prerequisite: Biochemistry 1

A continuation of Biochemistry 1: glycogen, gluconeogenesis, fatty acid and amino acid metabolism, urea cycle, steroids, liver biotransformations, vitamins, and trace elements.

#### **Business and Professional Foundations 1** 23510

1.0 credit (16 hours): 16 lecture hours

This course introduces new students to concepts and issues pertaining to building the foundations for the business of chiropractic practice and for becoming a professional. Discussion will include what it means to be a professional; ways that students can begin to grow in terms of displaying the qualities and behaviors expected of a professional; core/governing values; money concepts; and budgeting.

#### **Business and Professional Foundations 2** 23520

1.0 credit (15hours): 15 lecture hours

This course will introduce goal-setting that is consistent with governing values developed from the previous term. Public speaking in relation to addressing common guestions in chiropractic practice will be explored with in-class speaking presentations.

#### 23530 **Business and Professional Foundations 3**

.75 credit (12 hours): 12 lecture hours

This course will expose students to the concepts issues that are central to aspects of routine office visits including the history, examination/X-rays, and report of findings. Students will develop and apply skills of communication necessary for practice.

#### 41080 The Business of Clinical Practice 1

2.00 credits (30 hours): 30 lecture hours

Principles of effective patient and practice management. Communication principles and attitudes necessary in building the doctor-patient relationship. Practice and personal development strategies for successful careers. Setting goals and looking beyond graduation. Classroom workshop participation. Oral presentation is required.

#### 43290 The Business of Clinical Practice 2

3.00 credits (45 hours): 45 lecture hours

The essentials of proper business and practice management are introduced. Topics include accounting, taxes, budget preparation, financing, marketing, investing, and practice opportunities. Principles of investment are presented. A personal, detailed business plan is required for a passing grade.

#### 23365 Cardiopulmonary System

5.00 credits (90 hours):

45 lecture hours;

30 laboratory hours; 1 credit of directed independent study Prerequisite: Physical Diagnosis

Discussion of the presentation, diagnosis and treatment of common complaints and important cardiovascular and pulmonary disorders. Students learn diagnostic and treatment procedures, and discuss how doctors of chiropractic can participate in the management of patients who have these disorders.

#### 25490 Children's Health

2.00 credits (30 hours): 30 lecture hours

Students develop an understanding of normal growth and development of the child. An emphasis is placed on lifestyles and behaviors that support health maintenance and prevent common disorders or diseases of childhood.

#### 42280 Clinical Case Studies 1

1.00 credit (15 hours): 15 lecture hours

A variety of patient cases are presented and discussed in an interactive format. Most presenters are field doctors from the University's Community-Based Internship program.

#### 42390 Clinical Case Studies 2

1.00 credit (15 hours): 15 lecture hours

Presentation and discussion of patient cases commonly seen in the outpatient clinic setting.

#### 41060 Clinic Internship 1

3.00 credits (75 hours): 15 lecture hours 60 clinic hours

The initial internship term begins with practical experiences accompanied by lecture and small group discussions, and supported by web site resources. All elements of doctor-patient interaction are reviewed and discussed, including interviewing; examination; development of a diagnosis and management plan; re-evaluation; outcome assessment; and documentation. Through interaction with early-term chiropractic program students and simulated patients, interns refine the skills necessary for progression to the next phase of their clinical experience and share their experiences in small group discussions.

#### 41170 Clinic Internship 2

3.00 credits (75 hours):15 lecture hours60 clinic hours

Prerequisite: Clinic Internship 1

In the second internship term, students continue to apply and review all elements of the patient care process as they work with faculty clinicians in the University Health Service, caring for patients from the campus community. In lecture and small group discussion sessions, students critique and discuss videotaped patient encounters. Topics emphasized include patient and professional communication, cultural competence, clinical thinking, and case management. During the practical and didactic elements of the course, students also advance their skills in gathering clinical information, synthesizing laboratory and radiographic data, arriving at accurate diagnostic decisions, providing health counseling and competently treating clinic patients.

### 41280 Clinic Internship 3

9.00 credits 300 clinic hours

Prerequisite: Clinic Internship 2

During the 17-week clinic term, interns provide chiropractic care to patients under the supervision of faculty clinicians. Doctors of chiropractic mentor students in either the University's Natural Care Centers or the Community Based-Internship program as they further develop their competence in all elements of the clinical process. Prerequisites and other internship policies and procedures are described in the Clinic Handbook and explained during orientation sessions scheduled in Trimesters 7 and 8.

#### 41390 Clinic Internship 4

9.00 credits 300 clinic hours

Prerequisite: Clinic Internship 3

During the 17-week clinic term, interns provide chiropractic care to patients under the supervision of faculty clinicians. Doctors of chiropractic mentor students in either the University's Natural Care Centers or the Community Based-Internship Program as they further develop their competence in all elements of the clinical process. Prerequisites and other internship policies and procedures are described in the Clinic Handbook and explained during orientation sessions scheduled in Trimesters 7 and 8.

#### 41400 Clinic Internship 5

10.00-20.00 credits (300 to 600 hours): 300 to 600 clinic hours

In the final academic term, students complete their internship by continuing to provide chiropractic care to patients in the University Natural Care Centers, or in select private chiropractic clinics. Students who have completed all clinic requirements related to patient visits, physical examinations, radiographic, laboratory and case management studies may expand their Clinic Internship 5 options to include working with clinicians in both urban and rural areas across the United States and in many foreign countries.

#### 36350 Clinical Nutrition 1

4.00 credits (60 hours): 60 lecture hours Prerequisites: Biochemistry 1 and 2; Physiology 1 and 2

Discussion of nutrient metabolism and physiologic function in the body. Components of nutrition including vitamins, major minerals, and trace elements.

Macronutrients and micronutrients are discussed along with clinical applications.

### 36470 Clinical Nutrition 2

3.00 credits (30 hours):45 lecture hours;

Prerequisite: Clinical Nutrition 1

Current application of nutritional management of common conditions encountered in chiropractic practice, including disorders of the organ systems. Discussion of nutritional needs throughout life. Students practice assessing nutritional status. Discussion of general, individual, and community nutritional needs along with special patient populations.

#### 24050 Clinical Pathology 1

2.75 credits (52.5 hours):

30 lecture hours; 22.5 laboratory hours

Prerequisites:

Gross Anatomy 1 & 2; Histology; Physiology; Microbiology; and

Biochemistry 1 and 2

Introduction to laboratory skills, including venipuncture, and discussion of urinalysis, hematology and serology. Emphasis on interpretation of laboratory test results and study of case histories to enhance clinical learning and diagnostic skills.

### 24160 Clinical Pathology 2

4.25 credits (75 hours): 52.5 lecture hours;

Prerequisite: Clinical Pathology 1

Discussion of laboratory alterations accompanying abnormal function of body organs and specific diseases, with emphasis on interpretation of blood chemistries. Choosing appropriate lab tests. Correlation of laboratory results with patient history and examination findings. Case histories are discussed to enhance clinical learning.

### 23890 Dermatology

1.00 credit (15 hours): 15 lecture hours

Prerequisite: Physical Diagnosis

Discussion of the presentation, diagnosis, and treatment of dermatological conditions commonly encountered in chiropractic practice, including infections, tumors, allergic reactions, inflammatory conditions and skin injuries. Discussions as to how chiropractic doctors participate in the management of patients who have skin conditions.

#### 21250 E.E.N.T.

2.50 credits (45 hours):30 lecture hours;15 laboratory hours

Prerequisite: Physical Diagnosis

Discussion of the presentation, diagnosis, and treatment of common complaints and disorders of the eyes, ears, nose, and throat. Students practice diagnostic and treatment procedures. Discussion on how doctors of chiropractic can participate in the management of patients with E.E.N.T. disorders.

#### 14220 Embryology

2.00 credits (30 hours): 30 lecture hours

Co-requisite: Gross Anatomy 2

The early human embryology (fertilization through the three germ layers) and the special embryology of the major organ systems as well as special sense organs.

#### 25570 Emergency Procedures

2.50 credits (52.5 hours):22.5 lecture hours;30 laboratory hoursPrerequisites:

Physical Diagnosis, Infection Control

Basic techniques of assessment and management of patients experiencing airway, breathing and circulatory emergencies. Customized for the chiropractic physician who may encounter situations with adults or pediatric patients in clinical or field environments. Students receive A.H.A. Health Care Provider C.P.R. certification and First Responder Certification from the State of Minnesota. Upon successful completion, students are eligible to challenge the National Registry First Responder exam.

#### 23670 Endocrinology

1.50 credits (22.5 hours):

22.5 lecture hours

Prerequisite: Physical Diagnosis

Discussion of the presentation, diagnosis, and treatment of common endocrine disorders and complaints, including the chiropractor's role in the management of patients with these disorders.

#### 23562 Gastrointestinal/Genitourinary Systems

4.50 credits (75 hours):

45 lecture hours;

15 laboratory hours; 1 credit of directed independent study

Prerequisites:

Physical Diagnosis, Clinical Pathology I Co-requisite: Clinical Pathology 2

Discussion of the presentation, diagnosis, and treatment of common gastrointestinal and genitourinary disorders and complaints. Students practice diagnostic and treatment procedures, and discuss how doctors of chiropractic can participate in the management of patients with these disorders.

#### 13010 Gross Anatomy 1

5.50 credits (120 hours):45 lecture hours;75 laboratory hours

An in-depth study of the human skeletal and muscular systems, regional anatomy of the extremities, and an introduction to the nervous system. Laboratory includes human dissection.

#### 13120 Gross Anatomy 2

5.50 credits (105 hours): 60 lecture hours:

45 laboratory hours

Prerequisite: Gross Anatomy 1

Co-requisites: Histology 2, Embryology

The gross anatomy of the special sense organs and the nervous, circulatory, digestive, respiratory, urogenital, and endocrine systems; systemic and regional interrelationships. Laboratory includes human dissection.

#### 25690 Health and the Older Person

2.00 credits (30 hours): 30 lecture hours

Prerequisite: Physical Diagnosis

Diagnosis and care of elderly patients, with emphasis on the most common conditions and complaints, especially those likely to be present in chiropractic offices. Discussion of normal aging versus disease, theories of aging, demographic trends, and special features of geriatric history taking, examination, diagnosis, and chiropractic care.

### 15010 Histology 1

3.75 credits (67.5 hours): 45 lecture hours;

22.5 laboratory hours

Microanatomy of cells and tissues. This course surveys the microscopy and ultrastructure of cells, introduces the four basic tissue types, and stresses the functional anatomy of epithelium, connective tissues, muscles, and nerve tissue.

### 15120 Histology 2

3.50 credits (60 hours):45 lecture hours;15 laboratory hoursPrerequisite: Histology 1

The functional microanatomy of the organs of the circulatory, digestive, respiratory, urinary, reproductive, endocrine and immune systems.

#### 22710 Infection Control

0.20 credit (3 hours): 3 lecture hours

Students will learn the principles of infection control, bloodborne pathogens and OSHA regulations and apply

them to both classroom and clinical settings.

#### 25150 Infectious Diseases

2.00 credits (30 hours):30 lecture hours

Prerequisite: Microbiology

Discussion of infectious disease, with emphasis on common pathogens and the diseases they cause. Discussion of the presentation, diagnosis and treatment of common complaints of infectious diseases.

#### 41050 Introduction to Clinical Chiropractic

1.00 credit (15 hours): 15 lecture hours

This course assists the student through the transition from the classroom to the clinical environment by introducing the patient care and record-keeping procedures of the University Health Service. Web site resources augment lecture and small group discussion sessions covering all aspects of documentation and the clinic procedures students will follow during their initial patient care experiences in the subsequent term.

### 47190 Legal Aspects of Chiropractic

**Health Care** 

2.00 credits (30 hours): 30 lecture hours

Overview of the legal environment of chiropractic service. Topics include malpractice, the chiropractic report, contracts, legal entities, direct and cross examination, chiropractic statutes, scope of practice and ethics. Material covers the statutes and ethics that govern chiropractic practice, how to legally begin business, how to prepare a legal case report, and how to obtain malpractice insurance.

#### 25380 Maternal and Infant Health

2.00 credits (30 hours): 30 lecture hours

This course covers the physiologic and biomechanical changes normal to pregnancy. Those behaviors that maximize health in pregnancy for the mother and her unborn child will be addressed in depth. Health aspects of the first year of life are also discussed.

#### 26170 Mental Health 1

2.00 credits (30 hours):30 lecture hours;

Examination of important psychological theories, assessment tools, and conditions. Discussion of common presentations of psychological disorders, how to screen for these conditions in the chiropractic office, and fundamentals of treatment. Diagnostic categories and syndromes are reviewed.

#### 26280 Mental Health 2

3.00 credits (45 hours): 45 lecture hours; One credit of directed independent study

Prerequisite: Mental Health 1

The student will develop his/her own unique theory of helping by looking at different styles of doctor-patient relationships, issues of professional boundaries, and attributes of an effective helping relationship. Development of skill, knowledge, and attitudes necessary for influencing patient recovery and maintaining the mental health of the patient and chiropractic clinician is discussed.

#### 33010 Methods 1: Analysis Skills 1

1.00 credit (30 hours): 30 laboratory hours

The fundamental terminology and skills used by the chiropractor during patient assessment (PARTS) are introduced; including patient observation and postural assessment; visual recognition and palpation of topographical landmarks; segmental motion palpation; and the physical and radiographic recognition of vertebral dysrelationships.

#### 33120 Methods 2: Analysis Skills 2

2.00 credits (45 hours):15 lecture hours;30 laboratory hoursPrerequisite: Methods 1

Development and integration of skills necessary to detect various manifestations of spinal subluxation and/or dysfunction, including static and motion palpation (active, passive, end feel); radiographic marking and mensuration; and postural examination.

# 33230 Methods 3: Cervical and Thoracic Manual Therapies

3.25 credits (75 hours): 22.5 lecture hours; 52.5 laboratory hours Prerequisite: Methods 2

Introduction to applied adjustive procedures using highvelocity, low-amplitude thrusts in the cervical and thoracic regions. Methods derived from various technique systems (e.g. Gonstead, Thompson, Faye, Diversified) are practiced under direct supervision after PARTS evaluation has identified segments for which adjustments are indicated.

# 33340 Methods 4: Lumbopelvic Manual Therapies

3.25 credits (75 hours): 22.5 lecture hours; 52.5 laboratory hours Prerequisite: Methods 3

Introduction to applied adjustive procedures using high velocity, low amplitude thrusts in the lumbar and pelvic regions; continued development of same in the cervical and thoracic regions. Methods derived from various technique systems (e.g. Gonstead, Thompson, Faye, Diversified) are practiced under direct supervision after PARTS evaluation has identified segments for which adjustments are indicated.

#### 34150 Methods 5: Practicum 1

2.00 credits (45 hours):15 lecture hours;30 laboratory hoursPrerequisite: Methods 4

Continued development of psychomotor skills introduced in previous methods courses, with emphasis on modifications necessary to fit specific doctor and/or patient needs. Management strategies of common axial and appendicular conditions are discussed and practiced.

#### 34260 Methods 6: Practicum 2

2.00 credits (45 hours):15 lecture hours;30 laboratory hoursPrerequisite: Methods 5

Continued development of chiropractic diagnostic and adjustive skills used in previous courses. Complete management strategies of common axial and appendicular conditions are discussed and practiced. Emphasis is given to modification necessary to fit specific doctorpatient needs.

#### 34xxx Methods 7: Selectives

.75 credits each (22.5 hours):

0 lecture hours;

45 laboratory hours total

Prerequisite: Completion of Methods 1

through 6

The capstone of the Methods sequence is a selection of mini-courses in various techniques. Students are required to complete two such mini-courses to satisfy their Methods 7 requirement. Selectives vary by term: offerings include Activator Methods, structure-based spinal and extremity techniques, flexion-distraction and passive motion techniques, advanced motion-assessment techniques, advanced soft-tissue techniques, upper cervical specific techniques, and adjustments/manipulation variants.

#### 16040 Microbiology

5.00 credits (90 hours):60 lecture hours;30 laboratory hoursPrerequisite: Biochemistry 1

Prerequisite: Biochemistry 1 Recommended: Pathology 1,

Histology 2

The theoretical and practical basis of clinical microbiology: structure, classification, genetics, control, cultivation, and identification of typical species of bacteria, viruses, fungi, and parasites. The normal immune defenses and pathological interactions between microbes and human host are stressed.

#### 21140 Neurodiagnosis

3.00 credits (56.25 hours):
30 lecture hours;
22.5 laboratory hours; 0.25 credits of directed Independent study
Prerequisites: Neuroscience 1;
Neuroscience 2

Discussion of the presentation, diagnosis and treatment of common disorders and complaints of the peripheral and central nervous systems. Students practice diagnostic techniques and treatment procedures, and discuss how doctors of chiropractic can participate in the management of

# 12120 Neuroscience 1: Peripheral Nervous System

patients who have nervous system disorders.

4.00 credits (60 hours): 60 lecture hours Prerequisite: Gross Anatomy 1 Co-requisite: Physiology 1

In-depth study of the organization of the nervous system followed by a detailed study of neurophysiology, including receptor pharmacology; spinal nerves, with major emphasis on visceral and somatic afferent and efferent PNS pathways; reflex arcs; common segmental innervations; and dermatomes.

#### 12230 Neuroscience 2: Central Nervous System

3.00 credits (45 hours):45 lecture hours

Prerequisite: Gross Anatomy 1 and 2

The anatomy and function of the brain and spinal cord.

# 36030 Neuromusculoskeletal System 1: Principles and Overview

3.00 credits (45 hours): 45 lecture hours

Prerequisites: Spine and Pelvis, Skeletal Radiology 1, Neuroscience 1 Co-requisite: Physical Diagnosis

Discussion of the integral relationship between neuromusculoskeletal structure and function and the healthy function of all other body systems and organs. Introduction to the evaluation and treatment of neuromusculoskeletal responses to common postural and traumatic insults and to pathologies in the neuromusculoskeletal system and other body systems. Students practice diagnostic and treatment procedures, and discuss how chiropractors can participate in the management of patients who have N.M.S. disorders.

# 36140 Neuromusculoskeletal System 2: Spinal Disorders

4.50 credits (75 hours): 60 lecture hours; 15 laboratory hours Prerequisites: NMS 1; Physical Diagnosis; Skeletal Radiology 2

Discussion of the presentation, diagnosis, and treatment of spinal and paraspinal conditions and complaints. Students practice diagnostic and treatment procedures, and discuss how doctors of chiropractic can participate in the management of patients who have spinal and paraspinal disorders.

# 34540 Neuromusculoskeletal System 3: Extremity Disorders

4.50 credits (90 hours):30 lecture hours;45 laboratory hours;1.0 credits of directed independent studyPrerequisites: NMS 1; Gross Anatomy 1 and 2; Physiology 1 and 2

Discussion of the biomechanics of the extremities; and the presentation, diagnosis, and treatment of common complaints and disorders. Students practice diagnostic and treatment procedures, including adjustments and manipulations, and discuss how doctors of chiropractic can participate in the management of patients with extremity disorders.

#### 17030 Pathology 1

3.00 credits (45 hours): 45 lecture hours

Prerequisites: Histology 1 and 2;

Biochemistry 1

Concepts of general pathology including cellular and tissue reactions to injury, mechanisms of inflammation; role of complement; immunology; hypersensitivity; concepts of neoplasia; and hemodynamic disorders.

### 17140 Pathology 2

3.00 credits (45 hours):

45 lecture hours

Prerequisite: Pathology 1

Study of the pathologic changes in specific body organs and systems in autoimmune, environmental, infectious, degenerative, and neoplastic diseases.

#### 41040 Patient Interviewing

1.00 credit (15 hours):

15 hours lecture

Prerequisites: Professional Issues,

**Physical Diagnosis** 

Examines all areas of patient interviewing, such as record keeping, problem-oriented history taking, narrative format histories, nonverbal communication, and patients with special problems. Small group sessions involving interviews of simulated patients are utilized.

#### 25980 Pharmacology

2.00 credits (30 hours): 30 lecture hours

Major drug classifications and their most common applications. The rationale for pharmacological intervention in common disorders. Discussion of patient compliance issues, drug abuse, drug side effects and adverse reactions, and basic concepts regarding pharmacodynamics and kinetics, the therapeutic window, and toxicity.

#### 21030 Physical Diagnosis

4.00 credits (75 hours):45 lecture hours;30 laboratory hours

Prerequisites: Gross Anatomy 1 and 2;

Physiology 1

Co-requisite: Physiology 2

Students learn and practice assessment, with emphasis on performing and interpreting comprehensive physical examination procedures of the non-neuromusculoskeletal systems in the adult patient.

# 35151 Physiological Therapeutics 1: Modality Applications

2.25 credits (52.5 hours):15 lecture hours;37.5 laboratory hours

Theories and application of heat, cold, traction, and electrical modalities as adjuncts to patient management. Discussion of indications, contraindications, and modifications of physiological therapeutics based on various conditions and situations.

# 33561 Physiological Therapeutics 2: Soft Tissue Techniques

1.50 credits (45 hours): 0 lecture hours; 45 laboratory hours

The primary focus of this course is the rehabilitation of damaged soft tissue that occurs with injuries frequently encountered by chiropractic clinicians. Methods to decrease pain, increase range of motion, increase muscle strength and endurance, as well as increasing aerobic health, are discussed.

# 35170 Physiological Therapeutics 3: Exercise and Rehabilitation

1.50 credits (30 hours):15 lecture hours;15 laboratory hours

Discussion of the role of exercise in the comprehensive conservative management of commonly encountered conditions. Principles of exercise therapy and exercise psychology. Concepts and skills relative to exercise techniques, and emphasis on spinal stabilization. Specific protocols regarding the prescription of exercise.

#### 11120 Physiology 1

4.50 credits (75 hours):60 lecture hours;15 laboratory hoursCo-requisite: Neuroscience 1Recommended: Gross Anatomy 2,Histology 2

Study of cell membrane physiology and electrophysiology. Survey of the physiology of neuronal functions: in-depth study of skeletal, smooth and cardiac muscle physiology. The electrocardiogram, blood groups, hemostasis, and hemodynamics.

#### Physiology 2 11230

4.50 credits (75 hours): 60 lecture hours: 15 laboratory hours

Prerequisites: Physiology 1 or instructor

consent; Biochemistry 1

The function of vascular, digestive, respiratory, urogenital, and endocrine systems.

#### 31010 Principles and Philosophy 1: History and Fundamentals of

Chiropractic

1.00 credit (15 hours): 15 lecture hours

A historical perspective of the Principles on which chiropractic was founded and developed, emphasizing the role of philosophy in health care science.

#### 31120 Principles and Philosophy 2: **Essential Principles of Chiropractic**

2.00 credits (30 hours): 30 lecture hours Prerequisite: Principles and Philosophy

The scientific tenets that guide the philosophy of chiropractic health care are discussed, with emphasis on the concepts that alterations of body structure can influence neurological function, which in turn can impact body physiology and homeostatic balance.

#### 37030 Principles and Philosophy 3: **Survey of Chiropractic Techniques**

2.00 credits (30 hours): 30 lecture hours

Discussion and critical appraisal of chiropractic technique systems. Emphasis is on the person who developed each technique; the biomechanical principles upon which it is based; and how patients are evaluated and treated using the technique. The current research status of each technique is also discussed.

#### 22040 Principles and Philosophy 4: Chiropractic Science and Practice

2.00 credits (30 hours): 30 lecture hours

Discussion of current scientific literature regarding chiropractic principles and philosophy of the subluxation model. Neuromusculoskeletal and visceral conditions are discussed with the subluxation model of facilitation and adaptation in mind. Particular emphasis is placed on evidence related to the reciprocal influence between dysfunction of the neuromusculoskeletal system and related dysfunction in other systems. The influences of subluxation and the effects of chiropractic care and the adjustment on the health of the entire body are also stressed.

#### 24760 Principles and Philosophy 5: **Professional Ethics**

1.00 credit (15 hours): 15 lecture hours

Presentation of key ethical issues encountered in the professional setting. Emphasis is on those issues commonly occurring in the chiropractic patient-care environment.

#### 32030 **Principles of Evidence-Based Health Care**

1.00 credit (15 hours): 15 lecture hours

This course provides an introduction to clinical decisionmaking using the "best" available evidence. Students will learn to pose relevant questions, locate and search appropriate sources of information and appraise their methodological quality. Accordingly, students will be introduced to commonly encountered research designs and statistical principles used to answer questions encountered on a clinical and professional level.

#### **Public and Preventive Health** 25250

2.00 credits (30 hours): 30 lecture hours

Introduction to major public health concepts and topics, with delineation of the role and responsibilities of the chiropractic physician.

#### 20460 **Radiation Physics and Safety**

2.50 credits (45 hours): 30 lecture hours; 15 laboratory hours

Introduction to the safe production of quality radiographs. Students discuss the physics of X-ray production, the principles of radiobiology and radiation protection, and regulations regarding the use of ionizing radiation equipment as typified by those of the Minnesota Department of Health.

#### 20570 Radiographic Technology and **Positioning**

1.50 credits (30 hours): 15 lecture hours; 15 laboratory hours Prerequisite: Radiation Physics and

Safety

Learn and practice the skills necessary to produce diagnostic radiographs of skeletal and related body components, including measurement, positioning, radiation protection, technique factor calculation, and equipment set-up and operation. Emphasis is on the projections commonly used in chiropractic practice.

#### 20661 Radiology of the Chest and Abdomen

2.50 credits (45 hours): 30 lecture hours;

15 laboratory hours

Co-requisites: Cardiopulmonary System; Gastrointestinal/Genitourinary Systems

Differentiation of normal from abnormal radiographic anatomy of the chest and abdomen using plain film. Correlation of X-ray findings with patient history, exam and lab findings. Discussions of the uses of and indications for advanced imaging techniques such as intravenous pyelography, barium studies, ultrasonography, computerized tomography, and magnetic resonance imaging.

#### 20010 Skeletal Radiology 1

1.50 credits (30 hours): 15 lecture hours;

15 laboratory hours

Co-requisites: Spine and Pelvis;

Gross Anatomy 1

Identification of radiographic projections and normal radiographic anatomy and selected developmental variants of the spine, extremities, chest, and abdomen.

### 20130 Skeletal Radiology 2

2.50 credits (45 hours):30 lecture hours;15 laboratory hours

Prerequisite: Skeletal Radiology 1

Assessment of spinal biomechanics, congenital anomalies and normal variants, with emphasis on correlation of radiographic findings with patient history, exam and lab findings. Discussion of various methods of chiropractic X-ray marking and measurement, and the benefits and limitations of each as supported by current literature.

#### 20240 Skeletal Radiology 3

2.50 credits (45 hours):30 lecture hours;15 laboratory hours

Prerequisites: Skeletal Radiology 1

and 2

Radiographic interpretation of skeletal trauma using a regional approach. Presentation of degenerative, inflammatory and metabolic arthritides. Correlation of radiographic findings with those from patient history and physical examination and lab. Discussion of various concerns regarding case management.

#### 20350 Skeletal Radiology 4

2.50 credits (45 hours):30 lecture hours;15 laboratory hours

Prerequisites: Skeletal Radiology 1,

2 and 3

Discussion of neoplastic, infectious and metabolic diseases and their associated radiographic findings. Skeletal dysplasias, hematologic and nutritional disorders will be covered. Emphasis will be on correlating anatomic-clinical-radiological findings, with appropriate discussion of physical exam, laboratory, and diagnostic imaging findings. Indications for and routes of appropriate referral for follow-up will be discussed.

#### 34010 Spine and Pelvis

3.00 credits (45 hours): 45 lecture hours

Introduction to the functional anatomy of the spinal column and pelvis. Special consideration is given to highlight areas that are of clinical importance to chiropractic. This course is intended to form a foundation for clinical science courses.

#### 23570 Women's Health

2.25 credits (37.5 hours): 30 lecture hours; 7.5 laboratory hours

Prerequisite: Physical Diagnosis

Emphasis on lifestyles and behaviors which enhance and promote health in women. The unique aspects of caring for women are discussed. Introduction to breast and pelvic examination. Discussion of chiropractic and medical management of women's health problems.

#### **ELECTIVES**

56055 E.M.T.- Basic

2.50 credits (60 hours):15 lecture hours;45 laboratory hoursPrerequisites:

**Emergency Procedures**;

current First Responder Certification;

Current Health care Provider

**CPR Certification** 

A continuation of Emergency Procedures, this course further addresses the assessment and management of emergency patients, including medication administration and transportation of patient to medical facilities. Also provides students with training in advanced airway management and IV set-up. This course consists of lecture, skill practice and clinical experience at a local hospital. This course is approved by the Minnesota Emergency Medical Services Regulatory Board. Participants who successfully complete the course will be eligible to take the National Registry of E.M.T.'s practical and written examinations.

#### **BACCALAUREATE RESEARCH COURSES**

SQS3901 Health Sciences Research 1:

Numerical Reasoning

2.00 credits (30 hours): 30 lecture hours

Prerequisite: College-level algebra or

instructor permission

The purpose of this course is to help students make intelligent decisions based on the analysis of numerical information. The course examines basic concepts of data sets, data organization, and elementary analysis.

SQS3902 Health Sciences Research 2:

Research Design

2.00 credits (30 hours): 30 lecture hours

Prerequisite: Health Sciences Research 1

This course is a continuation of Health Sciences Research 1. Topics include sampling, measurement issues, statistical analysis, and interpretation of results.

SQS3903 Health Sciences Research 3:

**Evaluating Health Information** 

1.00 credit (15 hours): 15 lecture hours Prerequisite: Health Sciences Research 2

or instructor permission

This course addresses the reliability of health information on the Internet and in the media from both consumer and professional perspectives. Methods for evaluating peerreviewed research articles and meta-analyses are presented.

SQS4971 Comprehensive Project Development

1.00 credit (15 hours): 15 lecture hours

Prerequisite: Completion of Health

Sciences Research 1, 2 and 3

Research questions will be identified and research designs to answer the questions will be explored. Issues involving human subject research will be discussed.

SQS4972 Comprehensive Project in

**Human Biology** 

3.00 credits in directed independent study

Prerequisite: Comprehensive

**Project Development** 

Students complete a comprehensive project in human biology under the supervision of a faculty advisor.

SQS4973 Continuous Registration:

Comprehensive Project in

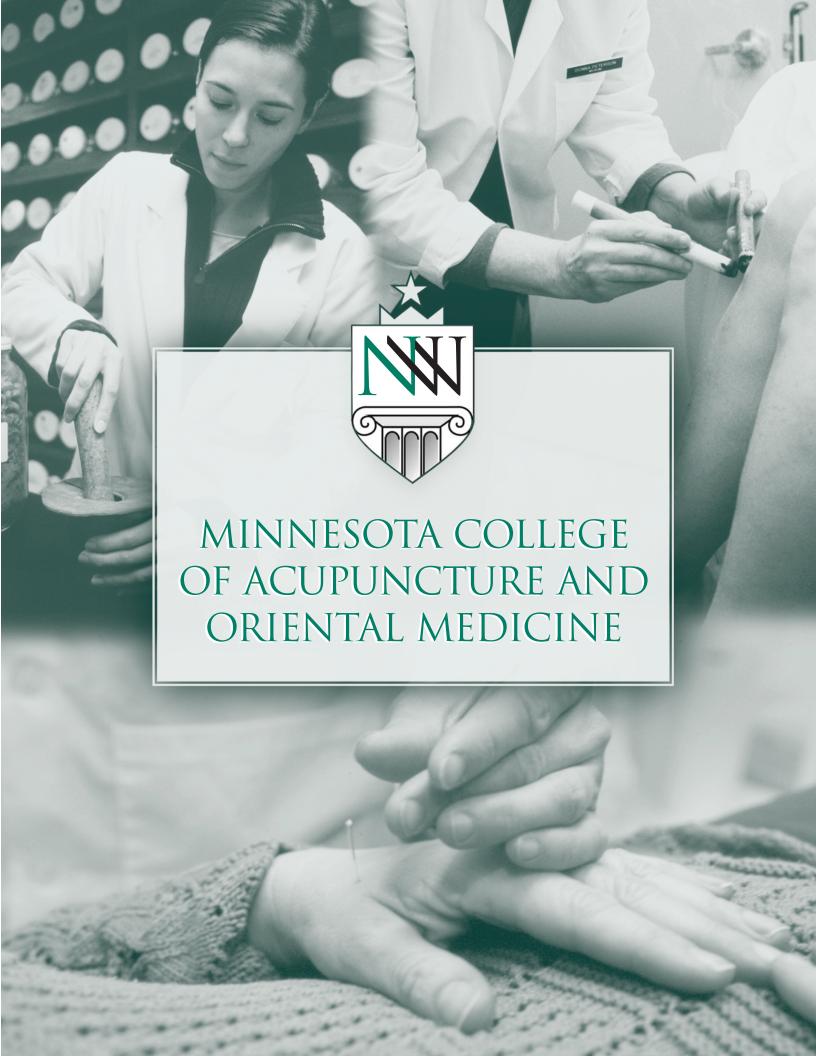
**Human Biology** 

0.00 credits Prerequisite:

Comprehensive Project in

**Human Biology** 

This is a continuation of the comprehensive project during the student's final term in residence.



"I feel the most crucial part of any program is the people doing the teaching. The group of instructors, professors, and administrators at Northwestern have a tremendous passion for their profession and it shines through everyday."

"Being part of a University, with its variety of programs, has helped me learn how to be a well rounded doctor and how to really understand how each different health care option can help my patient."

Northwestern offers a very well-rounded education in the sciences as well as the philogophy of chiropractic.
They continue this through property all experience and externships."

The projession of health early formative on traditional and alternative towards integrative. This programme administrator to fully integrated from the control of the practitioner or "With the clubs, student sense of the dances, intramunal sports," there really is something for everyone.

"In the Twin cities there is always something to do for a study break. There are many theaters, takes, casks, hiking trails, sports teams, museums and conderts. Plus there are a lot of events and activities free hor students, which is impurtant too.

"The financial aid and registral staff have always been very recentive to helping with my questions. They we all very nice people.

"The alumni office has arranged speakers to come in on a variety of topics.

It is great to have someone making those connections for as."

"Northwestern offers great networking opportunities among the programs.

Having all of the different programs allows MCAOM to get a lot \_\_\_\_\_

more benefits like the cadaver lab and great clinic opportunities."

# Why the Minnesota College of Acupuncture and Oriental Medicine?

## **Master's Degrees And Nationally-Trained Faculty**

"Northwestern offers great networking opportunities among the programs. Having all of the different programs allows MCAOM to get a lot more benefits like the cadaver lab and great clinic opportunities."

-Amy Theis, acupuncture and Oriental medicine student

#### **STATEMENT OF PURPOSE**

The purpose of the Minnesota College of Acupuncture and Oriental Medicine at Northwestern Health Sciences University is to offer professional, accredited Master's degree programs in acupuncture and Oriental medicine, graduating practitioners who are committed to competent and compassionate patient care. In so doing, we support and promote the growth of acupuncture and Oriental medicine and its integration into the health care system of the United States.

#### **PHILOSOPHY**

At the Minnesota College of Acupuncture and Oriental Medicine (M.C.A.O.M.), we believe a good health care practitioner is distinguished by:

- A broad range of relevant knowledge and skills;
- Demonstrated ability to translate education into clinical practice;
- Sensitivity to the individual patient's needs;
- Appreciation of the patient as a whole person;
- A centered and caring style within professional boundaries;
- A well-developed sense of professional ethics; and
- Appreciation of skills available from other professions.

M.C.A.O.M.'s fundamental philosophy is based on a belief in the importance of integrating mind, body, and spirit in the treatment of every patient.

#### **GOALS**

These activities are necessary to fulfill our purpose:

- 1. Convene a faculty of experts in their respective fields who are also skilled educators;
- Provide accredited programs that meet national educational standards and reflect the College's unique character as part of a multi-disciplinary university of health sciences;
- Recruit a student body with the academic skills, maturity, and personal commitment that will help them develop into competent and caring practitioners;
- 4. Maintain a learning environment and academic standards that will ensure that students can acquire the knowledge, skills and attributes necessary for the competent and responsible practice of acupuncture and Oriental medicine;
- 5. Provide a Clinical Internship with adequate patient numbers and individualized supervision, enabling students to gain experience in the practical application of their knowledge and skills, preparing them for independent practice;
- 6. Provide continuing education for our graduates and other practitioners in the community;
- Bring acupuncture and Oriental medicine to the general population by way of public education and the offering of affordable services through the teaching clinic;
- Respond to the needs of the community by developing new programs as needed, encouraging public service, and supporting and cooperating with other persons or institutions with similar goals and standards.

#### PROGRAMS OF STUDY

M.C.A.O.M. offers two programs leading to the Master of Acupuncture and Master of Oriental Medicine degrees.

The Master of Oriental Medicine program is a fulltime program that may be completed in three calendar years (nine consecutive trimesters).

The Master of Acupuncture program is a full-time program that may be completed in two and two-thirds calendar years (eight consecutive trimesters).

#### **EDUCATIONAL OBJECTIVES**

In addition to meeting the University Assessment Learning Outcomes, a graduate of M.C.A.O.M. will be able to:

- Demonstrate a thorough knowledge of Oriental medical theory and apply that knowledge effectively in a clinical setting;
- Demonstrate appropriate skills in diagnosis, treatment planning, and treatment, including appropriate referral;
- Approach the diagnostic and treatment planning process with appreciation for the patient as a whole person rather than as a collection of symptoms;
- 4. Demonstrate professional, ethical behavior;
- Demonstrate sufficient knowledge of Western medicine and sufficient competency in Western medical screening to make appropriate referrals and be able to communicate and collaborate with Western medical practitioners;
- 7. Pass National Board examinations and be eligible for licensing and practice in Minnesota;
- Design a professional plan for clinical practice following graduation;
- 9. Demonstrate competence, compassion and care in the service of patients.

#### **ADMISSION INFORMATION**

#### **Admission to the College**

Northwestern admits individuals qualified by previous education and experience to meet the school's academic challenges and rigor in order to become a practitioner of acupuncture and Oriental

medicine. New students are admitted in September and January of each academic year. Transfer students may be admitted at the beginning of any trimester. (See "Transfer Application" section.)

Applications for admission are available either online at www.nwhealth.edu or from the Office of Admissions. The application for admission must be accompanied by a non-refundable application processing fee of \$50 (U.S. dollars). It is the responsibility of the applicant to read this catalog and comply with all provisions and instructions.

#### **Entrance Requirements**

Admission requirements for the Master of Acupuncture and Master of Oriental Medicine programs include satisfactory completion of at least two academic years (60 semester credits or 90 quarter credits) at the baccalaureate level in an institution accredited by an agency recognized by the U.S. Secretary of Education. This education must be appropriate preparation for graduate-level work.

The following credits must be part of the 60 semester credits required for entrance:

<b>Subject</b> Humanities	<b>Description</b> History, Political Science, Science, Anthropology, Religion, Philosophy, and Sociology	Sem. Credits 15
English/ Communication	Composition, Literature, Skills and Speech	6
Psychology	General/Principles of/ Introduction to Psycholog	3 3y

These courses must be passed with a grade of "C" or better. Applicants must have earned a cumulative G.P.A. of at least 2.0 on a 4.0 scale. Applicants should realize that this G.P.A. is a minimum. To ensure acceptance, a more competitive grade point is desirable. Courses in chemistry, biology, Asian Studies, and Chinese language are strongly recommended.

#### Qualifications

Students must demonstrate sufficient maturity to undertake a health care profession, including the capacity to manage professional boundaries ethically and responsibly.

A student must possess the following abilities, with or without reasonable accommodation, for completion of the Master of Acupuncture or Master of Oriental Medicine degree program:

- Ability to apply acupuncture and accessory techniques, such as cupping, moxibustion and tui na, over the full range of a patient's body, utilizing appropriate physical positioning in relation to the patient, for periods of up to one hour without interruption. Such abilities require standing, leaning, reaching, stooping, kneading, grasping, twisting both body and wrists, and applying pressure with hands;
- Ability to place acupuncture needles precisely in a patient's body and manipulate needles within a minute range of motion;
- Ability to see and hear, with or without reasonable accommodation, in order to interview
  patients, conduct patient intakes, elicit necessary
  diagnostic indicators, maintain patient records,
  provide instructions to patients, perform appropriate examinations, and provide routine patient
  treatment and safety services;
- Ability to perform in all laboratory and clinical settings without posing a threat to herself/himself, to the safety and well-being of fellow students, or to patients;
- 5. Ability and willingness to receive acupuncture and accessory treatment. Much of the technical instruction in the programs requires reciprocal application of the techniques of acupuncture and Oriental medicine, such as acupuncture needling, moxibustion, tui na bodywork, etc. Receiving techniques is necessary in order for the student to learn proper procedures and to receive and provide learning feedback. Reciprocal application of technique is also useful for developing sensitivity to patient needs. The College may temporarily excuse a student from receiving acupuncture or other modalities provided that specific medical contraindication information is provided by a licensed medical professional.

In addition to the abilities required of students in the Master of Acupuncture program (stated above), a student must possess the following abilities, with or without reasonable accommodation, for completion of the Master of Oriental Medicine degree program:

- Ability to identify the odors, tastes, colors and other physical properties of herbs and other organic and mineral substances utilized in Oriental medical therapy;
- Ability to document and prepare herbal formulae, in accordance with Oriental medical therapeutic principles, including but not limited to reading, writing, chopping, reaching, mixing, and grasping.

All students, with or without reasonable accommodation, must carry out clinical assignments and diagnostic interpretation. Qualified persons with disabilities, with or without reasonable accommodation, must be able to pass oral, written and practical examinations and meet all of the program's clinical requirements.

It is in the best interest of both the student and the University to assess the degree of limitation caused by disability. However, the University will make the final determination of whether or not an individual meets all qualifications for study at the University.

Persons who have been convicted of any felony or misdemeanor of a violent or sexual nature may be prohibited from professional health care practice in many jurisdictions. Northwestern Health Sciences University will deny admission to applicants with such convictions. The University reserves the right to conduct a criminal background check on applicants.

#### **Responsibility of Applicant**

It is the responsibility of the applicant to be aware of the entrance requirements and ensure that those requirements are met prior to enrollment. If the College determines at any time that requirements are not met in full, the student will not be allowed to enroll or to continue at Northwestern.

The Office of Admissions personnel are available to help prospective students plan their pre-ccupuncture and Oriental medicine curricula.

#### **Minnesota Immunization Requirement**

All students born in 1957 or later must comply with the Minnesota State College Immunization Law (Minn. Stat. 135A.14). An admitted student must show proof of DPT immunization within the last 10 years, as well as measles, mumps, and rubella immunization after his/her first birthday. However, exemptions are permitted for philosophical or medical reasons. Further information is included with letters of acceptance to Northwestern.

Some clinical environments outside the University Clinic system may establish immunization and/or health screening requirements exceeding the Minnesota State College Immunization Law. In addition, some clinical environments outside the University Clinic system may not accept placement of interns who have not received or are not in the process of receiving certain immunizations and/or health screenings.

#### **Application Procedure**

The first step in the application process is to submit a fully-completed application for admission. Applications are available online at www.nwhealth.edu or from the Office of Admissions. The application must include:

- 1. An application processing fee of \$50 (U.S. dollars). This fee is non-refundable;
- Official transcripts from all colleges attended; (NOTE: These transcripts must be sent directly to Northwestern from those colleges.)
- Names and addresses of two references.
   Northwestern will send character reference forms to those persons listed on the application as references. Those persons should complete the form and return it to the University. Relatives are not accepted as references;
- A completed essay (see application form for instructions);
- 5. A current resumé.

#### **Selection of Candidates**

The Admissions Committee in general seeks to admit students who best suit the philosophies and goals of the University. Northwestern attempts to select students who have strong academic records and who demonstrate the motivational and personal characteristics suitable for a career in acupuncture and Oriental medicine. Willingness to provide service and a caring attitude are important characteristics of a successful practitioner. The University employs a rolling admissions process. Therefore, early application could increase the applicant's probability for acceptance. Students are strongly encouraged to apply at least two months prior to the first day of their first academic term. Students interested in seeking transfer credit should apply as far in advance as possible, in order to assure that any required additional information may be obtained or challenge examinations completed prior to the first day of class. The University encourages campus visits for all applicants and reserves the right to require an interview.

#### **Tuition Deposit Policy**

Applicants will be notified in writing of the Admissions Committee's decision regarding their application following receipt and review of all information and materials. Upon notification of acceptance, a non-refundable tuition deposit of \$300 (U.S. dollars) is required to secure a place in the program. The tuition deposit will be applied to the first trimester tuition.

The tuition deposit should be submitted as soon as possible after notification of acceptance since processing of financial aid is initiated only after receipt of the deposit.

First trimester students who have been accepted and paid their \$300 (U.S. dollars) tuition deposit must pay the balance of their first trimester tuition on the first day of class. If the student has been awarded financial aid for the first trimester at Northwestern, then those funds will be credited against the student's Northwestern account. It is important to note that because of the limited space available in each class, scheduling priorities, and the cost of education, the institutional refund policy does not apply to the \$300 (U.S. dollars) tuition deposit.

#### **International Applicants**

All classes are taught in English. An international applicant may verify competency in English in the following manner:

- Applicants from English-speaking countries (excluding the Canadian province of Quebec) may include with their application a copy of their birth certificate. Or, these applicants may complete an English competency verification form, which can be obtained from the Office of Admissions. We reserve the right to request proof of English proficiency of any applicant.
- 2. All other foreign applicants (including those from the Canadian province of Quebec) must complete a T.O.E.F.L. (Test Of English as a Foreign Language) examination. Applicants completing the paper-based examination must earn a score of 540 or higher. Applicants completing the computer-based examination must earn a score of 207 or higher. Results of the T.O.E.F.L. must be sent directly to Northwestern from the testing agency. T.O.E.F.L. information can be obtained online at www.toefl.org, or from: T.O.E.F.L., P.O. Box 6151, Princeton, NJ 08541-6151, U.S.A.

Applicants must provide evidence of having financial resources to complete a minimum of one year of education. An official bank statement indicating sufficient funds is required. International transcripts must be evaluated by an international transcript evaluation service, such as World Education Services, Inc., (P.O. Box 745, Old Chelsea Station, New York, NY 10013) with official copies of the course-bycourse evaluation being forwarded directly to both Northwestern and the student. Contact the Office of Admissions for a W.E.S. application form or names of other accepted transcript evaluation services.

#### **Transfer Application**

A student wishing to transfer from another acupuncture or Oriental medicine program must:

- Follow the same application procedures as a new student (see Admission Information above);
- Submit an official transcript from the acupuncture or Oriental medicine program(s) previously attended;
- Submit two letters of recommendation from faculty members of the acupuncture or Oriental medicine program previously attended, as well as a letter from that college's registrar indicating the student applicant is leaving that college in good standing and would be allowed to continue studies at their present acupuncture or Oriental medicine program;
- The applicant's academic record must further allow for the student to be admitted without probation or other restriction, as defined by Northwestern policies;
- Transfer credit may be granted for courses completed with a grade of "C" or better from another acupuncture or Oriental medicine institution. Those courses must have content similar to corresponding M.C.A.O.M. courses. The M.C.A.O.M. dean or designee will determine that comparability;
- All credits that the student wishes to transfer to the Northwestern program must be applied for and posted to the applicant's Northwestern records no later than one year from matriculation;
- Excessive indebtedness as a result of financial aid borrowing will be a factor in the Admissions Committee's decisions regarding acceptance of a transfer student. The Student Records and Financial Services Office will set upper limits of previous indebtedness;

These policies are subject to updating and modification. Contact the Office of Admissions for current information.

#### **Transfer Credits Policy**

At the discretion of the Dean, credit may be granted for equivalent courses taken and passed in another program. Considerations may include the institution offering the courses, the course description and/or syllabus for each course, the length of time since completing the course, and life experience. The student may be required to pass a challenge examination. Students have three options to complete

graduation requirements without taking every required course: Transfer Credit for equivalent courses, Transfer Credit for life experience, and/or Waivers of Requirement.

#### **Transfer Credits**

#### For Equivalent Courses

A transfer student must complete at least three fulltime trimesters of resident study in the Northwestern program prior to graduation. To be considered for transfer credits, courses must be equivalent to those offered at M.C.A.O.M. based on an evaluation of the student's official transcript by M.C.A.O.M.'s academic administration. A syllabus or other detailed course description and a copy of the catalog from the original institution may be required. Normally, the course must be an academic course from an accredited institution at the baccalaureate level or above and passed within the last five years with a grade of "C" or better. A grade of "C-" is not acceptable if the awarding college states that the numerical equivalent is less than 2.0 (when "A" is 4.0). Occasionally, a course may need to have been passed within a shorter time frame. If the institution is not accredited or the course not passed within the time frame allowed (see below for life experience exception), the student must pass a challenge exam given by M.C.A.O.M. to have the transfer credit granted. Accreditation must be from an agency recognized by the U.S. Secretary of Education.

#### Equivalent Course/Life Experience

Transfer credit may be given to a student who has taken an equivalent course (which meets the above referenced standards) prior to the last five years if life work or experience has enabled the student to use the skills learned in that course within the last 10 years, e.g. nurse, chiropractor, doctor, physical therapist, etc.

#### Maximum Transfer Credit

Transfer credit is granted for a maximum of the number of hours that the M.C.A.O.M. equivalent course earns. For example, a 180-hour course in Anatomy and Physiology from another school will be worth 135 hours at M.C.A.O.M., if 135 hours is the length of the M.C.A.O.M. course.

#### **Waivers of Requirement**

Occasionally, a waiver of requirement may be granted in lieu of a required course or course sequence. Credit will be given according to the above noted guidelines for maximum credit/hours

allowed. Normally, a waiver of requirement is based on educational or professional experience that may not be able to be documented to the extent required for transfer credit. A challenge exam may be required of the student to demonstrate competency in the subject involved.

#### **Non-Program Students**

Space permitting, and subject to other conditions, persons who are not enrolled in a complete degree program are welcome to apply to take certain classes. Non-program students must meet the admissions requirements and have completed the prerequisites for the courses in which they are interested. Required as part of the application process is a plan of study, including purpose and rationale. Minnesota-licensed acupuncture practitioners are welcome to enroll in any course as continuing education.

#### **GRADUATION**

#### **Graduation Requirements**

The Master of Acupuncture or Master of Oriental Medicine degree is granted to those candidates who have:

- Completed the required course of study, of which at least one academic year has been in residence at Northwestern Health Sciences University;
- Demonstrated competency in clinic and completed internship requirements;
- 3. Earned satisfactory (passing) grades in all required courses;
- 4. Fulfilled all financial obligations to the University;
- 5. Been recommended for graduation by the faculty.

#### **Graduation Rate**

More than 90 percent of Northwestern's Acupuncture and Oriental Medicine students graduate within five years of matriculation.

#### **CERTIFICATION AND LICENSURE**

Graduates of M.C.A.O.M. master's degree programs exceed the eligibility requirements for the comprehensive national certification programs offered by the National Commission for the Certification of Acupuncture and Oriental Medicine (N.C.C.A.O.M.). Graduates of the Master of Acupuncture program

are eligible to take the acupuncture certification program exam modules which include Foundations of Oriental Medicine, Acupuncture, Point Location, and Biomedicine. Graduates of the Master of Oriental Medicine program are eligible to take the Oriental Medicine certification program exam modules which include the four listed above plus Chinese herbology. Students agree to provide M.C.A.O.M. with copies of their N.C.C.A.O.M. examination results for use in program assessment.

Licensure requirements for the practice of acupuncture and Oriental medicine vary from state to state. In Minnesota, eligibility for acupuncture licensure is based upon active certification by the N.C.C.A.O.M. in acupuncture. Additional information about Minnesota acupuncture licensure may be obtained from the Minnesota Board of Medical Practice, University Park Plaza, 2829 University Ave. SE, Suite 400, Minneapolis, MN 55414-3246.

#### THE PROGRAMS

#### **Master of Oriental Medicine**

The curriculum for the professional Master of Oriental Medicine program provides comprehensive education and training in the following areas:

- Cultural and philosophical foundations of traditional Chinese medicine;
- Traditional Chinese medical concepts (physiology, pathology, diagnostics, point location and point energetics);
- Acupuncture treatment principles and practical skills;
- Tui Na:
- Traditional Chinese herbal medicine and dietary therapy;
- Related studies, including introductory Chinese language skills;
- Qi Development /Qi Gong;
- Nutrition:
- Western medical studies to a level required for competence in contemporary practice of acupuncture and Oriental medicine;
- · Clinical internship;
- Clinical herbal internship.

Clinical requirements include a minimum of 150 hours of observation/assistantship and 720 hours of supervised clinical practice.

#### **Master of Acupuncture**

The curriculum for the Professional Master of Acupuncture program is similar to that of the Oriental medicine program but does not include herbal studies past an introductory level.

Clinical requirements include a minimum of 150 hours of observation/assistantship and 525 hours of supervised clinical practice.

#### The M.C.A.O.M. Clinical Experience

M.C.A.O.M. students begin clinical training in their second trimester with Clinical Observation/Assistantship. Clinical internship begins in the fifth trimester and takes place in the Edith

Davis Teaching Clinic on the University campus or in the Natural Care Centers of Northwestern Health Sciences University. Subsequent supervised internships may include assignment in other clinics (i.e. public service organizations and/or medical facilities) which have established relationships with Northwestern.

Clinic interns perform all aspects of patient care relevant to their degree program. Interns are closely supervised and evaluated by M.C.A.O.M. clinical faculty members and are progressively given more responsibility as their competence increases. The exceptionally low intern-to-supervisor ratio ensures a high degree of personal attention in both acupuncture and/or Oriental medicine. By the end of their internship, they are ready to enter private practice.

#### MINNESOTA COLLEGE OF ACUPUNCTURE AND ORIENTAL MEDICINE COURSE LIST

## PROFESSIONAL MASTER'S DEGREE in ACUPUNCTURE First Year

#### TRIMESTER 1

INIIVIESIEN	1				
Course Number	Course Description	Didactic Credits	Lab Credits	Clinic Credits	Contact Hours
AAC3214	TCM Pathology and Diagnosis 1	5.00			75.00
AAC4025	Acupuncture Point Location 1		2.00		60.00
AWM3011	Anatomy and Physiology 1	4.00	0.50		75.00
ACH3010	Introduction to Chinese Language	1.00			15.00
ACH3030	Qi Gong 1		0.50		15.00
TOTALS: Tri	mester 1, 1st year	10.00	3.00	0.00	240.00
TRIMESTER	2				
Course Number	Course Description	Didactic Credits	Lab Credits	Clinic Credits	Contact Hours
AAC3215	TCM Pathology and Diagnosis 2	4.00			60.00
AAC4026	Acupuncture Point Location 2		2.50		75.00
AHB3010	Introduction to Chinese Herbal Medicin	e 1.00			15.00
AWM3012	Anatomy and Physiology 2	2.00	0.50		45.00
ARS4040	Ethics in Health Care	1.00			15.00
ACL3020	Clinical Observation			1.00	30.00
TOTALS: Tri	mester 2, 1st year	8.00	3.00	1.00	240.00
TRIMESTER	3				
Course Number	Course Description	Didactic Credits	Lab Credits	Clinic Credits	Contact Hours
AAC4255	Needling Techniques 1		1.6		48.00
AAC3216	Diagnostic Analysis in Chinese Medicine	1.00			15.00
AAC4230	Acupuncture Treatment Strategy	3.00			45.00
AAC4250	Accessory Techniques		1.50		45.00
AAC4257	Medical Asepsis and Risk Management		0.40		12.00
AWM4031	Pathophysiology 1	2.00			30.00
AWM4034	Needling Anatomy 1	1.00	.50		30.00
ACL3020	Clinical Observation			1.00	30.00

7.00

4.00 1.00 255.00

TOTALS: Trimester 3, 1st year

#### **Second Year**

#### TRIMESTER 4

Course Number	Course Description	Didactic Credits	Lab Credits	Clinic Credits	Contact Hours
AAC4030	Pre-Clinical Workshop	3.00			45.00
AAC4256	Needling Techniques 2	1.00	2.00		75.00
AWM4032	Western Pathophysiology 2	2.00			30.00
AWM4041	Western Medical Screening 1	2.00	0.50		45.00
AWM0150	CPR		0.20		6.00
AWM4035	Needling Anatomy 2	1.00	0.50		30.00
ARS5060	Interactive Skills	1.00			15.00
ACL3020	Clinical Observation			1.00	30.00
TOTALS: Tri	mester 4, 2nd year	10.00	3.20	1.00	276.00
TRIMESTER	5				
Course Number	Course Description	Didactic Credits	Lab Credits	Clinic Credits	Contact Hours
AAC5151	Acupuncture Clinical Medicine 1	3.00			45.00
AAC5060	Tui Na		1.00		30.00
AWM4042	Western Medical Screening 2	2.00	0.50		45.00
AWM5075	Western Clinical Medicine 1	3.00			45.00
ACL3020	Clinical Observation			1.00	30.00
ACL5040	Clinical Internship			4.00	120.00
ACL5050	Clinic Seminar	1.00			15.00
TOTALS: Trimester 5, 2nd year		9.00	1.50	5.00	330.00
TRIMESTER	6				
Course Number	Course Description	Didactic Credits	Lab Credits	Clinic Credits	Contact Hours
AAC5152	Acupuncture Clinical Medicine 2	3.00			45.00
AAC4245	Advanced Needling Techniques		1.00		30.00
AWM5076	Western Clinical Medicine 2	3.00			45.00
AWM5080	Pharmacology	2.00			30.00
ACL3020	Clinical Observation			1.00	30.00
ACL5040	Clinical Internship			4.00	120.00
ACL5050	Clinic Seminar	1.00			15.00
TOTALS: Tri	mester 6, 2nd year	9.00	1.00	5.00	315.00

#### **Third Year**

#### TRIMESTER 7

Course Number	Course Description	Didactic Credits	Lab Credits	Clinic Credits	Contact Hours
Number         Description         Credits         Credits		45.00			
AAC5291	Musculoskeletal Treatment		1.50		45.00
AAC6220	Classics – The Nei Jing	2.00			30.00
ARS5091	Practice Management 1	2.00			30.00
AHB5130	Traditional Oriental Food Therapy	2.00			30.00
AAC6160	Pharmacology and Oriental Medical A	Arts 1.00			15.00
AWM5077	Western Clinical Medicine 3	Credits Credits  Clinical Medicine 3 3.00  al Treatment 1.50  Nei Jing 2.00 gement 1 2.00 ental Food Therapy 2.00 and Oriental Medical Arts 1.00 al Medicine 3 3.00  Chip ar 13.00 1.50  Didactic Credits  Credits  Review and Synthesis 2.00 gement 2 2.00 sal of the Literature 1.00 al Medicine 4 2.00 al Medicine 4 2.00 chip ACU chip ar 10.00 AM 76.00 17.20  115.70 2331.00			
ACL5040 Clinical Internship  TOTALS: Trimester 7, 3rd year 13.00 1.5  TRIMESTER 8  Course Course Description Credits Credits  AAC6110 Acupuncture Review and Synthesis 2.00  ARS5092 Practice Management 2 2.00				4.00	120.00
TOTALS: Tri	mester 7, 3rd year	13.00	1.50	4.00	360.00
TRIMESTER	8				
					Contact Hours
AAC6110	Acupuncture Review and Synthesis	2.00			30.00
ARS5092	Practice Management 2	2.00			30.00
ARS6030	Critical Appraisal of the Literature	1.00			15.00
AWM5078	Western Clinical Medicine 4	2.00			30.00
AWM5060	Nutrition	3.00			45.00
ACL6060	Clinical Internship ACU			1.50	45.00
ACL5040	Clinical Internship			4.00	120.00
TOTALS: Tri	mester 8, 3rd year	10.00		5.50	315.00
TOTALS FOR	R ENTIRE PROGRAM	76.00	17.20	22.50	2331.00
	Total Credits	115.70			
	Total Hours	2331.00			
AAC6220       Classics – The Nei Jing       2.00       30.00         ARS5091       Practice Management 1       2.00       30.00         AHB5130       Traditional Oriental Food Therapy       2.00       30.00         AAC6160       Pharmacology and Oriental Medical Arts 1.00       15.00         AWM5077       Western Clinical Medicine 3       3.00       45.00         ACL5040       Clinical Internship       4.00       120.00         TRIMESTER 8         Course Course Poescription       Didactic Credits       Lab Clinic Credits       Contact Credits       Contact Credits       Contact Credits       Annual Credits       Annual Credits       Annual Credits       30.00       30.00         ARS5092       Practice Management 2       2.00       30.00       30.00         ARS6030       Critical Appraisal of the Literature       1.00       30.00       30.00         AWM5078       Western Clinical Medicine 4       2.00       30.00       45.00         ACL6040       Clinical Internship ACU       1.50       45.00         ACL5040       Clinical Internship       76.00       17.20       22.50       231.00         TOTALS FOR ENTIRE PROGRAM       76.00       17.20       22.50       231.00<					
AAC5285	Acupuncture Diversity Therapeutics 1	1.00	0.50		30.00
AAC5286	Acupuncture Diversity Therapeutics 2	1.00	0.50		30.00
ACH3033	Qi Gong 2		0.50		15.00

### PROFESSIONAL MASTER'S DEGREE in ORIENTAL MEDICINE

#### First Year

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TRIMESTER	1				
Course Number	Course Description	Didactic Credits	Lab Credits	Clinic Credits	Contact Hours
AAC3214	TCM Pathology and Diagnosis 1	5.00			75.00
AAC4025	Acupuncture Point Location 1		2.00		60.00
AWM3011	Anatomy and Physiology 1	4.00	0.50		75.00
ACH3010	Introduction to Chinese Language	1.00			15.00
ACH3030	Qi Gong 1		0.50		15.00
TOTALS: Tri	mester 1, 1st year	10.00	3.00	0.00	240.00
TRIMESTER	2				
Course Number	Course Description	Didactic Credits	Lab Credits	Clinic Credits	Contact Hours
AAC3215	TCM Pathology and Diagnosis 2	4.00			60.00
AAC4026	Acupuncture Point Location 2		2.50		75.00
AHB3010	Introduction to Chinese Herbal Medicin	e 1.00			15.00
AWM3012	Anatomy and Physiology 2	2.00	0.50		45.00
ARS4040	Ethics in Health Care	1.00			15.00
ACL3020	Clinical Observation		1.0		30.00
TOTALS: Tri	mester 2, 1st year	8.00	3.00	1.00	240.00
TRIMESTER	3				
Course Number	Course Description	Didactic Credits	Lab Credits	Clinic Credits	Contact Hours
AAC4255	Needling Techniques 1		1.6		48.00
AAC3216	Diagnostic Analysis in Chinese Medicine	1.00			15.00
AAC4230	Acupuncture Treatment Strategy	3.00			45.00
AAC4250	Accessory Techniques		1.50		45.00
AAC4257	Medical Asepsis and Risk Management		0.40		12.00
AWM4031	Pathophysiology 1	2.00			30.00
AWM4034	Needling Anatomy 1	1.00	0.50		30.00
AHB4021	Materia Medica	4.00			60.00
ACL3020	Clinical Observation			1.00	30.00
TOTALS: Tri	mester 3, 1st year	11.00	4.00	1.00	315.00

#### **Second Year**

#### TRIMESTER 4

I KIIVIES I EK	4				
Course Number	Course Description	Didactic Credits	Lab Credits	Clinic Credits	Contact Hours
AAC4030	Pre-Clinical Workshop	3.00			45.00
AAC4256	Needling Techniques 2	1.00	2.00		75.00
AWM4032	Western Pathophysiology 2	2.00			30.00
AWM4041	Western Medical Screening 1	2.00	0.50		45.00
AWM0150	C.P.R.		0.20		6.00
AWM4035	Needling Anatomy 2	1.00	0.50		30.00
ARS5060	Interactive Skills	1.00			15.00
AHB4022	Materia Medica 2	5.00			75.00
ACL3020	Clinical Observation			1.00	30.00
TOTALS: Tri	mester 4, 2nd year	15.00	3.20	1.00	351.00
TRIMESTER	5				
Course Number	Course Description	Didactic Credits	Lab Credits	Clinic Credits	Contact Hours
AAC5151	Acupuncture Clinical Medicine 1	3.00			45.00
AAC5060	Tui Na		1.00		30.00
AWM4042	Western Medical Screening 2	2.00	0.50		45.00
AWM5075	Western Clinical Medicine 1	3.00			45.00
AHB5035	Herbal Formulas and Strategies 1	4.00			60.00
ACL3020	Clinical Observation			1.00	30.00
ACL5040	Clinical Internship			4.00	120.00
ACL5050	Clinic Seminar	1.00			15.00
TOTALS: Tri	mester 5, 2nd year	13.00	1.50	5.00	390.00
TRIMESTER	6				
Course Number	Course Description	Didactic Credits	Lab Credits	Clinic Credits	Contact Hours
AAC5152	Acupuncture Clinical Medicine 2	3.00			45.00
AAC4245	Advanced Needling Techniques		1.00		30.00
AWM5076	Western Clinical Medicine 2	3.00			45.00
AWM5080	Pharmacology	2.00			30.00
AHB5036	Herbal Formulas and Strategies 2	5.00			75.00
ACL3020	Clinical Observation			1.00	30.00
ACL5040	Clinical Internship			4.00	120.00
ACL5050	Clinic Seminar	1.00			15.00
TOTALS: Tri	mester 6, 2nd year	14.00	1.00	5.00	390.00

#### Third Year

#### TRIMESTER 7

INIIVIESIEN	/				
Course Number	Course Description	Didactic Credits	Lab Credits	Clinic Credits	Contact Hours
AAC5153	Acupuncture Clinical Medicine 3	3.00			45.00
AAC5291	Musculoskeletal Treatment	3.00	1.50		45.00
AAC6220	Classics–The Nei Jing	2.00	50		30.00
ARS5091	Practice Management 1	2.00			30.00
AHB5130	Traditional Oriental Food Therapy	2.00			30.00
AAC6160	Pharmacology and Oriental Medical A				15.00
AWM5077	Western Clinical Medicine 3	3.00			45.00
AHB5091	Herbal Clinical Medicine 1	3.00			45.00
ACL5040	Clinical Internship			4.00	120.00
TOTALS: Tri	mester 7, 3rd year	16.00	1.50	4.00	405.00
TRIMESTER	8				
Course Number	Course Description	Didactic Credits	Lab Credits	Clinic Credits	Contact Hours
AAC6110	Acupuncture Review and Synthesis	2.00			30.00
ARS5092	Practice Management 2	2.00			30.00
ARS6030	Critical Appraisal of the Literature	1.00			15.00
AWM5074	Western Clinical Medicine 4	2.00			30.00
AWM5060	Nutrition	3.00			45.00
AHB5092	Herbal Clinical Medicine 2	3.00			45.00
ACL6081	Clinical Internship OM			2.00	60.00
ACL5040	Clinical Internship			4.00	120.00
TOTALS: Tri	mester 8, 3rd year	13.00		6.00	375.00
TRIMESTER	9				
Course Number	Course Description	Didactic Credits	Lab Credits	Clinic Credits	Contact Hours
AHB6040	Herbal Review and Synthesis	4.00			60.00
AHB6050	Herbal Pharmacy Management	1.00			15.00
AHB6060	Herbal Classics	3.00			45.00
ACL6081	Clinical Internship OM			2.00	60.00
ACL5040	Clinical Internship			4.00	120.00
TOTALS: Tri	mester 9, 3rd year	8.00	0.00	6.00	300.00
TOTALS FOR	R ENTIRE PROGRAM	108.00	17.20	29.00	3006.00
	Total Credits	154.20			
	Total Hours	3006.00			
Electives					
AAC5285	Acupuncture Diversity Therapeutics 1	1.00	0.50		30.00
AAC5286	Acupuncture Diversity Therapeutics 2	1.00	0.50		30.00
ACH3033	Qi Gong 2		0.50		15.00

#### **COURSE DESCRIPTIONS**

#### AAC4250 Accessory Techniques

1.50 credits (45 hours):
45 laboratory hours
Prerequisites:
Acupuncture Point Location 1 & 2,
Anatomy and Physiology 1 & 2
Co-requisite: Medical Asepsis
and Risk Management

Students develop skills in applying common accessory techniques used by modern acupuncturists, including cupping, guasha, plum-blossom, bleeding, moxibustion, auricular acupuncture, and electro-acupuncture. Emphasis is placed on safe practice techniques and risk management.

#### AAC5151 Acupuncture Clinical Medicine 1

3.00 credits (45 hours): 45 lecture hours Prerequisites: Acupuncture Point Location 1 & 2, Acupuncture Treatment Strategy, Anatomy and Physiology 1 & 2, Diagnostic Analysis in Chinese Medicine, Needling Techniques 1 & 2, TCM Pathology and Diagnosis 1 & 2

In this first course of a three-course sequence in Acupuncture Clinical Medicine, students learn the traditional Chinese method of analyzing disease, and determining acupuncture and accessory treatment through differential diagnosis of main presenting symptoms.

#### AAC5152 Acupuncture Clinical Medicine 2

3.00 credits (45 hours): 45 lecture hours Prerequisites: Acupuncture Point Location 1 & 2, Acupuncture Treatment Strategy, Anatomy and Physiology 1 & 2, Diagnostic Analysis in Chinese Medicine, Needling Techniques 1 & 2, TCM Pathology and Diagnosis 1 & 2

The second class of a three-course sequence in Acupuncture Clinical Medicine.

#### AAC5153 Acupuncture Clinical Medicine 3

3.00 credits (45 hours): 45 lecture hours Prerequisites: Acupuncture Point Location 1 & 2, Acupuncture Treatment Strategy, Anatomy and Physiology 1 & 2, Diagnostic Analysis, Needling Techniques 1 & 2, TCM Pathology and Diagnosis 1 & 2

The final class of a three-course sequence in Acupuncture Clinical Medicine.

#### AAC4025 Acupuncture Point Location 1

2.00 credits (60 hours): 60 laboratory hours Co-requisite: Anatomy and Physiology 1

The first of a two-course laboratory sequence in point location. Students learn acupuncture points one channel at a time, focusing on location techniques designed to ensure maximum accuracy in various body regions and various body types. The Point Location sequence is taught in an interactive manner with visually-assisted demonstrations led by the instructor, coordinated group exercises, and supervised hands-on location with student pairs.

#### AAC4026 Acupuncture Point Location 2

2.50 credits (75 hours):75 laboratory hoursPrerequisite: Acupuncture PointLocation 1, Anatomy and Physiology 1Co-requisite: Anatomy andPhysiology 2

The second course of a two-course laboratory sequence in point location. Students complete the meridian-by-meridian location of points begun in Acupuncture Point Location 1, and go on to locate Extra Points. To consolidate their knowledge, students re-examine locations of groups of major points based on specific anatomical regions, classical category, and general function.

#### AAC6110 Acupuncture Review and Synthesis

2.00 credits (30 hours): 30 lecture hours Prerequisites: Accessory Techniques, Acupuncture Clinical Medicine 1-3, Acupuncture Point Location 1 & 2, Acupuncture Treatment Strategy, Advanced Needling, Anatomy and Physiology 1 & 2, Clinic Internship (300 hours), Clinical Observation (100 hours), Diagnostic Analysis in Chinese Medicine, Ethics in Health Care, Interactive Skills, Needling Anatomy 1 & 2, Needling Techniques 1 & 2, Musculoskeletal Treatment, Pathophysiology 1 & 2, Pre-Clinic Workshop, Tui Na, TCM Pathology and Diagnosis 1 & 2, Western Clinical Medicine 1-3, Western Medical Screening 1 & 2

This class emphasizes clinical problem-solving skills. Lectures and other learning experiences allow students to improve areas of weakness, consolidate clinical skills, integrate knowledge from the various disciplines of the program, and achieve their fullest potential before graduation.

#### AAC4230 Acupuncture Treatment Strategy

3.00 credits (45 hours): 45 lecture hours Prerequisites: Acupuncture Point Location 1 & 2, TCM Pathology and Diagnosis 1 & 2

Students explore the classical theories of meridian and point function and apply these concepts within the framework of modern Chinese clinical experience, assembling point prescriptions for specific symptoms and TCM patterns.

#### AAC4245 Advanced Needling Techniques

1.00 credit (30 hours): 30 laboratory hours

Prerequisites: Accessory Techniques, Acupuncture Point Location 1 & 2, Acupuncture Treatment Strategy, Anatomy and Physiology 1 & 2, Diagnostic Analysis in Chinese Medicine, Needling Anatomy 1 & 2, TCM Pathology and Diagnosis 1 & 2, Medical Asepsis and Risk Management, Needling Techniques 1 & 2.

Students continue hands-on skill development in manipulation techniques covered in previous classes, and learn more advanced techniques as determined by the instructor.

#### AWM3011 Anatomy and Physiology 1

4.50 credits (75 hours): 60 lecture hours; 15 laboratory hours

This class is the first course in a two-course sequence concerning the anatomy and physiology of the human body, from a systems-based biomedical perspective. Students will learn the structure and function of the skeletal, muscular, nervous and integumentary systems. The laboratory experience will enhance student understanding of surface anatomy, in order to facilitate the study of point location. The laboratory experience may include observation of human cadavers.

#### AWM3012 Anatomy and Physiology 2

2.50 credits (45 hours): 30 lecture hours; 15 laboratory hours

Prerequisite: Anatomy and Physiology 1

This class is the second course in a two-course sequence concerning the anatomy and physiology of the human body, from a systems-based biomedical perspective. Students will learn the structure and function of the cardiovascular, respiratory, gastrointestinal, genitourinary, endocrine and immune systems, and the sensory organs. The laboratory experience may include observation of human cadavers.

#### AWM0150 CPR (Cardiopulmonary Resuscitation)

0.20 credit (6 hours): 6 laboratory hours

Students are required to obtain provider-level CPR certification unless they have specific physical impediments. Certification may be accomplished by successful completion of this course. If C.P.R. certification is obtained elsewhere, the student must supply evidence of certification, and transfer credit will be granted. The course is usually held on a Saturday.

#### AAC6220 Classics – The Nei Jing

2.00 credits (30 hours): 30 lecture hours Prerequisites: Acupuncture Point Location 1 & 2, Acupuncture Treatment Strategy, Diagnostic Analysis in Chinese Medicine, TCM Pathology and Diagnosis 1 & 2

Students become familiar with this famous medical classic and have the opportunity to review Chinese medical theory and its origins in the context of the greater underlying philosophy and world view of ancient China.

#### ACL5040 Clinical Internship

4.00 credits (120 hours): 120 clinical hours (Repeatable) Prerequisites: Accessory Techniques, Acupuncture Point Location 1 & 2, Anatomy and Physiology 1 & 2, Ethics in Health Care, Diagnostic Analysis in Chinese Medicine, Interactive Skills, Needling Anatomy 1 & 2, Needling Techniques 1 & 2, Western Medical Screening 1, Pathophysiology 1 & 2, Pre-Clinic Workshop, TCM Pathology and Diagnosis 1 & 2, passing scores on all pre-clinical entrance examinations Co-requisite: Western Medical Screening 2 and a minimum of 60 hours of clinic observation

Under direct supervision of a licensed clinical faculty supervisor, interns perform patient interviews, assessment, treatment-planning, treatment, and outcome evaluation in the teaching clinic.

#### ACL 6060 Clinical Internship (Acupuncture Only)

1.5 credits (45 hours): 45 clinical hours Prerequisite: Same as ACL5040

This course is taken in the final term of the Acupuncture Only course of study in order to complete the clinic hours required to graduate.

#### ACL 6081 Clinical Internship

(Oriental Medicine Only)

2.00 credits (60 hours): 60 clinical hours

(repeatable)

Prerequisite: Same as ACL5040 Clinic

Internship

This course is taken in the final two terms of the Oriental Medicine course of study in order to complete the clinic hours required to graduate.

#### ACL3020 Clinic Observation

1.00 credit (30 hours):30 clinical hours (Repeatable)Prerequisite: Anatomy and Physiology1, TCM Pathology and Diagnosis 1

In the beginning of their clinical education, students are required to observe supervisors, senior interns, and graduates caring for patients in the school's teaching clinics. Once they have become familiar with the operations of the clinics, observers are asked to provide assistance with general clinical tasks. Observation in later trimesters may be completed at pre-approved outside clinical locations.

#### ACL5050 Clinic Seminar

1.00 credit (15 hours): 15 lecture hours

(Repeatable)

Co-requisite: Clinical Internship

Students participate in weekly group case-study sessions. Students research and present cases for discussion, with particular emphasis on complex or difficult cases.

#### ARS6030 Critical Appraisal of the Literature

1.00 credit (15 hours): 15 lecture hours

Students learn to manage and utilize information generated from health-care research, including peer-reviewed journal articles, professional and consumer-oriented media, and Internet content, through structured appraisal techniques. Students learn to identify problems in methodology that impact the credibility and utility of information, and learn to assess the reliability of information sources.

#### AAC3216 Diagnostic Analysis in Chinese Medicine

1.00 credit (15 hours): 15 lecture hours Prerequisite: TCM Pathology and Diagnosis 1 & 2

This course continues the study of the Four Examinations, undertaking an in-depth analysis of signs and symptoms with an emphasis on the development of diagnostic skills.

#### ARS4040 Ethics in Health Care

1.00 credit (15 hours): 15 lecture hours

Students learn basic principles of ethics and jurisprudence as a foundation for problem-solving in health-care practice.

#### AHB6060 Herbal Classics

3.00 credits (45 hours): 45 lecture hours Prerequisites: Herbal Formulas and Strategies 1 & 2, Introduction to Chinese Herbal Medicine, Materia Medica 1 & 2

Students explore the classic works of Chinese herbal medicine, such as the Shang Han Lun, the Jin Gui Yao Lue, and the Wen Bing Tiao Bian.

#### AHB5091 Herbal Clinical Medicine 1

3.00 credits (45 hours): 45 lecture hours Prerequisite: Introduction to Chinese Herbal Medicine, Materia Medica 1 & 2, Herbal Formulas and Strategies 1 & 2

This class is the first course in a two-course sequence providing a foundation for the clinical practice of Chinese herbal medicine. Students learn the Chinese method of analyzing disease and determining treatment by the differential diagnosis of main presenting symptoms. Case studies are presented to reinforce lecture material.

#### AHB5092 Herbal Clinical Medicine 2

3.00 credits (45 hours): 45 lecture hours Prerequisite: Introduction to Chinese Herbal Medicine, Materia Medica 1 & 2, Herbal Formulas and Strategies 1 & 2, Herbal Clinical Medicine 1

This class is the second course in a two-course sequence providing a foundation for the clinical practice of Chinese herbal medicine.

#### AHB5035 Herbal Formulas and Strategies 1

4.00 credits (60 hours): 60 lecture hours Prerequisite: Introduction to Chinese Herbal Medicine, Materia Medica 1 & 2

This class is the first course in a two-course sequence concerning the principles of classical herbal formulation and therapeutic functions. Major formulas currently used in Chinese medicine will be covered. Students will learn to analyze a formula according to the classical hierarchy of its ingredients, and will learn to modify it to suit specific needs. Students will learn the therapeutic actions and clinical indications of each formula, including prohibitions and contraindications

#### AHB5036 Herbal Formulas and Strategies 2

5.00 credits (75 hours): 75 lecture hours Prerequisite: Introduction to Chinese Herbal Medicine, Materia Medica 1, Herbal Formulas and Strategies 1

This class is the second course in a two-course sequence concerning the principles of classical herbal formulation and therapeutic functions.

#### AHB6050 Herbal Pharmacy Management

1.00 credit (15 hours): 15 lecture hours Prerequisite: Introduction to Chinese Herbal Medicine, Materia Medica 1 & 2, Herbal Formulas and Strategies 1 & 2, Herbal Clinical Medicine 1 & 2

Students build on the skills they have developed throughout their herbal program and learn the details of operating a working herbal pharmacy.

#### AHB6040 Herbal Review and Synthesis

4.00 credits (60 hours): 60 lecture hours Prerequisite: Introduction to Chinese Herbal Medicine, Materia Medica 1 & 2, Herbal Formulas and Strategies 1 & 2, Herbal Clinical Medicine 1 & 2

This class is designed to consolidate the knowledge acquired in earlier herbal classes and to extend the student's mastery of Chinese herbal medicine to include the finer points of diagnosis, formulation, and modification. Students will learn to construct treatment plans for complicated, difficult, or unusual cases, while focusing on their individual learning needs.

#### ARS5060 Interactive Skills

1.00 credit (15 hours): 15 lecture hours Prerequisite: Ethics in Health Care

This experiential course emphasizes development of positive patient-practitioner interaction, listening, and communication skills.

## AHB3010 Introduction to Chinese Herbal Medicine

1.00 credit (15 hours): 15 lecture hours

Students become familiar with the unique clinical and theoretical features that characterize the field of Chinese herbology. Subjects include botanical and pharmacological taxonomy and nomenclature, introduction to traditional Chinese analysis of herb function, comparative methods of dose delivery, and an introduction to phytochemistry.

#### ACH3010 Introduction to the Chinese Language

1.00 credit (15 hours): 15 lecture hours

Students learn to use the dictionary, to count, to speak simple phrases, to recognize characters for numbers, and to recognize basic Chinese medical vocabulary. The tones and pronunciation of spoken Chinese and the formation of written characters are introduced.

#### AHB4021 Materia Medica 1

4.00 credits (60 hours): 60 lecture hours Prerequisite: Introduction to Chinese Herbal Medicine

This class is the first course in a two-course sequence examining the major single herbs of the Chinese herbal pharmacopoeia. Students learn the flavor, Qi, actions, clinical indications, dosage, and contraindications of the major herbs used in modern clinical practice.

#### AHB4022 Materia Medica 2

5.00 credits (75 hours): 75 lecture hours Prerequisite: Introduction to Chinese Herbal Medicine, Materia Medica 1

This class is the second course of a two-course sequence examining single herbs.

## AAC4257 Medical Asepsis and Risk Management for Acupuncturists

0.50 credit (12 hours): 12 laboratory

This class is designed to establish a training and performance standard for the safe application of Chinese medical techniques. Students learn the basic standards of care for acupuncture in the United States, including the principles and practice of Clean Needle Technique and the modern process of risk management. Emphasis is placed on achieving consistency with the aseptic standards recognized by modern biomedicine.

#### AAC5291 Musculoskeletal Treatment

1.50 credits (45 hours):
45 laboratory hours
Prerequisites: Acupuncture Point
Location 1 & 2, Accessory Techniques,
Acupuncture Treatment Strategy,
Anatomy and Physiology 1 & 2,
Diagnostic Analysis in Chinese
Medicine, Medical Asepsis and Risk
Management, Needling Anatomy 1 &
2, Needling Technique 1 & 2, TCM
Pathology and Diagnosis 1 & 2, Tui Na

Students learn and apply treatment strategies synthesizing Acupuncture and Tui Na for common musculoskeletal disorders. Emphasis is placed on developing Chinese treatment principles for specific orthopedic problems.

#### AAC4255 Needling Techniques 1

1.6 credits (48 hours): 48 lab hours; Prerequisite: Acupuncture Point Location 1& 2, Anatomy and Physiology 1 & 2, TCM Pathology and Diagnosis 1 & 2, Medical Asepsis and Risk Management

Co-requisite: Needling Anatomy 1

This class is the first course of a two-course laboratory sequence training students in the needling of major points of the body. Students practice needle insertion on the most common treatment points. Emphasis is placed on refinement of point location skills and development of special insertion and manipulation techniques.

#### AAC4256 Needling Techniques 2

3.00 credits (75 hours): 15 lecture hours; 60 laboratory hours
Prerequisite: Acupuncture Point
Location 1& 2, Anatomy and Physiology
1 & 2, Medical Asepsis and Risk
Management, Needling Anatomy 1,
Needling Technique 1, TCM Pathology
and Diagnosis 1 & 2
Co-requisite: Needling Anatomy 2

This class is the second course of a two-course laboratory sequence training students in the needling of major points of the body. Emphasis is placed on developing skills in increasingly sophisticated needling techniques.

#### AWM5060 Nutrition

3.00 credits (45 hours): 45 lecture hours

This course provides students with a foundational understanding of Western nutritional and dietary principles. Students are introduced to macro- and micro-nutrients, supplements, popular diets and their clinical applications. They also examine the principles for the promotion of health, wellness, and longevity through diet.

#### AWM4031 Pathophysiology 1

2.00 credits (30 hours): 30 lecture hours Prerequisite: Anatomy and Physiology 1 & 2

This class is the first course in a two-course sequence concerning disease processes of the body. Students will compare and contrast normative and pathological states, including indications and symptomology. Topics covered in this course include health vs. disease states, inflammation, neoplasia, platelet disorders, red blood cell disorders, and white blood cell disorders.

#### AWM4032 Pathophysiology 2

2.00 credits (30 hours): 30 lecture hours Prerequisite: Anatomy and Physiology 1 & 2, Pathophysiology 1

This class is the second course in a two-course sequence concerning disease processes of the body. Topics covered in this course include the biology of infectious agents, infectious disease, HIV/AIDS, and dermatology.

#### AWM4034 Needling Anatomy 1

1.5 credits (30 hours): 15 lecture hours; 15 laboratory hours Prerequisite: Anatomy and Physiology

This class is the first course in a two-course sequence studying the cross-sectional anatomy of the body as it relates to the position of specific acupuncture points. Special attention is paid to those points located over organs, arteries, or other sensitive tissues that may be at specific risk during the needling process. Observation of human cadavers is required during the laboratory experience.

#### AWM4035 Needling Anatomy 2

1.5 credits (30 hours): 15 lecture hours;15 laboratory hoursPrerequisite: Anatomy and Physiology1 & 2, Needling Anatomy 1

This class is the second in a two-course sequence studying the cross-sectional anatomy of the body as it relates to specific acupuncture points. Special attention is paid to those points whose underlying anatomy may be at specific risk during the needling process. Observation of human cadavers is required during the laboratory experience.

#### AWM5080 Pharmacology

2.00 credits (30 hours): 30 lecture hours

Students learn the rationale for pharmacological intervention for selected drugs, the use of drug information sources, proper interaction with the patient and their provider, recognition of adverse drug reactions and drug abuse, and the basic principles of pharmacology and toxicology in humans.

## AAC6160 Pharmacology and the Oriental Medical Arts

1.00 credit (15 hours): 15 lecture hours Prerequisite: TCM Pathology and Diagnosis 1 & 2, Introduction to Chinese Herbal Medicine, Pharmacology

This course explores the clinical issues that arise when herbal medicine is co-administered with Western medications and nutritional supplements, with a special focus on the risk of harmful interactions. In addition, the safety and toxicology of select herbal substances will be explored from a Western pharmacological perspective.

#### ARS5091 Practice Management 1

2.00 credits (30 hours): 30 lecture hours

The first of a two-course sequence, this class provides students with the necessary knowledge and skills to open and manage a practice. This course may be co-taught by a variety of lecturers, each of whom has experience in particular aspects of practice management.

#### ARS5092 Practice Management 2

2.00 credits (30 hours): 30 lecture hours Prerequisites: Practice Management 1

This class is the second course of a two-course sequence.

#### AAC4030 Pre-Clinic Workshop

1.50 credits (45 hours):
45 laboratory hours
Prerequisites: Accessory Techniques,
Acupuncture Point Location 1 & 2,
Acupuncture Treatment Strategy,
Anatomy and Physiology 1 & 2,
Diagnostic Analysis in Chinese
Medicine, Needling Anatomy 1,
Pathophysiology 1, TCM Pathology and
Diagnosis 1 & 2
Co-requisites: Needling Anatomy 2,
Pathophysiology 2, Western Medical
Screening 1

This course ensures that students have the diagnostic acumen and communication skills necessary to begin supervised Clinic Internship. A strong emphasis is placed on patient interviewing. Teaching techniques may include role-playing, modeling, and simulation exercises. In addition, students are trained in clinical procedures and protocols followed in the University clinical system. These protocols include charting and record keeping, confidentiality requirements, and crisis management. Comprehensive written and practical examinations are included and passage of both examinations is required prior to beginning supervised Clinic Internship.

#### ACH3030 Qi Gong 1

0.5 credit (15 hours): 15 laboratory hours

This course presents the classical practice of Qi Gong in the context of health care. Students learn basic movements and exercises directed toward awareness and development of Qi. The goal is to help the students achieve a state of equanimity and balance in their personal lives as well as their work with patients.

#### AHB5130 Traditional Oriental Food Therapy

2.00 credits (30 hours): 30 lecture hours Prerequisite: TCM Pathology and Diagnosis 1 & 2

The properties of specific foods are studied according to Oriental therapeutic principles. Different approaches to food therapy are examined. Methods of preparing foods and their influence on therapeutic actions of foods are explored. Dietary recommendations are given for various patterns of disharmony. Students learn how to prepare a selection of therapeutic recipes.

#### AAC3214 TCM Pathology and Diagnosis 1

5.00 credits (75 hours): 75 lecture hours

This course introduces students to the basic ideas that form the framework of Oriental medical thought, including the theories of Yin-Yang, the Five Phases, the vital bodily substances, and the functions of the Zang-Fu organs. The students then apply this knowledge to the study of pathology, including the Three Causes, the Eight Parameters, and disorders of Qi, blood, and body fluids. In addition, students begin the study of organ patterns.

#### AAC3215 TCM Pathology and Diagnosis 2

4.00 credits (60 hours): 60 lecture hours Prerequisite: TCM Pathology and Diagnosis 1

This course is a continuation of TCM Pathology and Diagnosis 1. After completing the study of organ patterns, students move on to study febrile disease, including Cold and Warm Disease theories and begin the study of the Four Examinations.

#### AAC5060 Tui Na

1.00 credit (30 hours): 30 laboratory hours Prerequisites: Acupuncture Point Location 1 & 2, Acupuncture Treatment Strategy, Anatomy and Physiology 1 & 2, TCM Pathology and Diagnosis 1 & 2

Students learn the principles and techniques of Chinese manual therapy via lecture, demonstration and hands-on practice. Focus is placed on developing skill in the most basic manipulation techniques used in Tui Na.

#### AWM5075 Western Clinical Medicine 1

3.00 credits (45 hours): 45 lecture hours Prerequisite: Anatomy and Physiology 1 & 2, Pathophysiology 1 & 2, Western Medical Screening 1 & 2

This class is the first course in a four-course sequence in the study of major health conditions and their pathogenic mechanisms as defined by Western biomedicine. Particular attention is paid to conditions with a high risk of significant adverse outcomes for which effective Western treatments are available, and to serious conditions requiring physician referral. Topics covered in this course include orthopedics, cardiology and pulmonology.

#### AWM5076 Western Clinical Medicine 2

3.00 credits (45 hours): 45 lecture hours Prerequisite: Anatomy and Physiology 1 & 2, Pathophysiology 1 & 2, Western Medical Screening 1 & 2

This class is the second course in a four-course sequence in the study of major health conditions and their pathogenic mechanisms as defined by Western biomedicine. Topics covered in this course include genitourinary disorders in men and women, obstetrics and pediatrics.

#### AWM5077 Western Clinical Medicine 3

3.00 credits (45 hours): 45 lecture hours Prerequisite: Anatomy and Physiology 1 & 2, Pathophysiology 1 & 2, Western Medical Screening 1 & 2

This class is the third course in a four-course sequence in the study of major health conditions and their pathogenic mechanisms as defined by Western biomedicine. Topics covered in this course include gastrointestinal disorders and endocrinology.

#### AWM5078 Western Clinical Medicine 4

2.00 credits (30 hours): 30 lecture hours Prerequisite: Anatomy and Physiology 1 & 2, Pathophysiology 1 & 2, Western Medical Screening 1 & 2

This class is the final course in a four-course sequence in the study of major health conditions and their pathogenic mechanisms as defined by Western biomedicine. Topics in this course include stroke, headache, upper motor neuron disorders, epilepsy and seizure disorders, and dementia.

#### AWM4041 Western Medical Screening 1

2.50 credits (45 hours): 30 lecture hours;15 laboratory hoursPrerequisite: Anatomy and Physiology1 & 2, PathophysiologyCo-requisite: Pathophysiology

This class is the first course in a two-course sequence concerning Western medical techniques for physical examination, health screening, and care management. Course topical areas include measurement of vital signs and the musculoskeletal examination, common laboratory tests and radiologic studies, charting and medical record keeping, and the referral process. Students will learn to recognize serious health conditions, which, under Minnesota acupuncture regulations, require referral for Western medical care. The intention of this course sequence is to better prepare students for interaction with the Western medical care system.

#### AWM4042 Western Medical Screening 2

2.50 credits (45 hours): 30 lecture hours;15 laboratory hoursPrerequisite: Anatomy and Physiology1 & 2, Pathophysiology1 & 2, WesternMedical Screening

This class is the second course in a two-course sequence concerning Western medical techniques for physical examination, health screening, and care management.

#### **ELECTIVES**

#### AAC5285 Acupuncture Diversity Therapeutics 1

1.50 credits (30 hours): 15 lecture hours; 15 laboratory hours
Prerequisites: Accessory Techniques,
Acupuncture Point Location 1 & 2,
Acupuncture Treatment Strategy,
Anatomy and Physiology 1 & 2,
Diagnostic Analysis in Chinese
Medicine, TCM Pathology and
Diagnosis 1 & 2, Needling Techniques 1 & 2.

Students will explore a style or tradition of acupuncture chosen from outside mainstream TCM practice.

#### AAC5286 Acupuncture Diversity Therapeutics 2

1.50 credits (30 hours): 15 lecture hours; 15 laboratory hours
Prerequisites: Accessory Techniques, Acupuncture Diversity Therapeutics 1, Acupuncture Point Location 1 & 2, Acupuncture Treatment Strategy, Anatomy and Physiology 1 & 2, Diagnostic Analysis in Chinese Medicine, TCM Pathology and Diagnosis 1 & 2, Needling Techniques 1 & 2.

Students will continue to explore a style or tradition of acupuncture chosen from outside mainstream TCM practice.

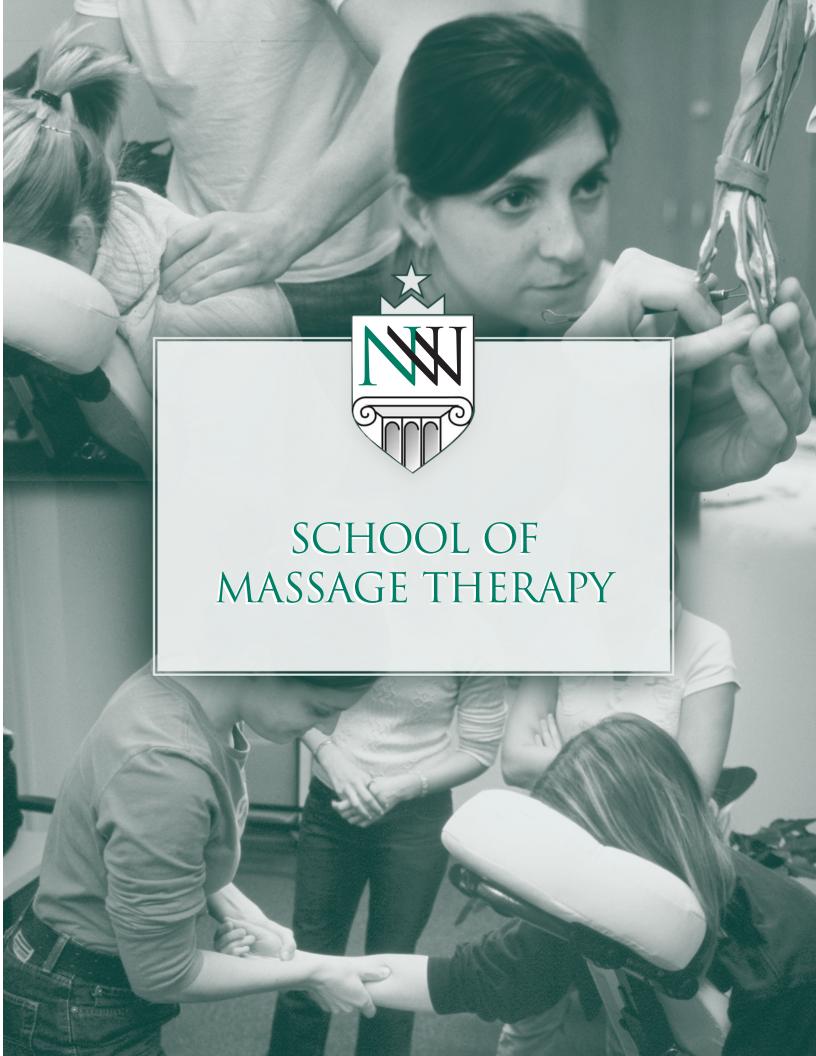
#### ACH3033 Qi Gong 2

0.50 credit (15 hours): 15 laboratory

nours

Prerequisites: Qi Gong 1

This course enhances the practices learned in Qi Gong 1.



"I feel the most crucial part of any program is the people doing the teaching. The group of instructors, professors, and administrators at Northwestern have a tremendous passion for their profession and it shines through everyday."

"Being part of a University, with its variety of programs, has helped me learn how to be a well rounded doctor and how to really understand how each different health care option can help my patient."

Northwestern offers a very well-rounded education in the sciences as well as the philogophy of chiropractic.
They continue this through property all experience and externships."

The projession of health early formative on traditional and alternative towards integrative. This programme administrator to fully integrated from the control of the practitioner or "With the clubs, student sense of the dances, intramunal sports,"

there really is something for everyone.

"In the Twin cities there is always something to do for a study break. There are many theaters, takes, casks, hiking trails, sports teams, museums and conderts. Plus there are a lat of events and activities free hor students, which is impurtant too.

"The financial aid and registral staff have always been very recentive to helping with my questions. They we all very nice people.

"The alumni office has arranged speakers to come in on a variety of topics.

It is great to have someone making those connections for as."

"Northwestern offers great networking opportunities among the programs.

Having all of the different programs allows MCAOM to get a lot \_\_\_\_\_

more benefits like the cadaver lab and great clinic opportunities."

## Why The School of Massage Therapy?

## **Comprehensive Science-Based Training**

"The School of Massage Therapy did a great job of preparing us so that we are confident in our knowledge and skills and we are ready to enter the profession."

- Sarah Wolf, massage therapy 2003 alumnae

#### **MISSION STATEMENT**

The mission of the School of Massage Therapy is to provide quality education and clinical development in the field of massage therapy.

#### **EDUCATIONAL OBJECTIVES**

Therapists who successfully complete the program of study offered by the School will be able to:

- Effectively and accurately assess the condition of a client, and develop and implement a therapeutic plan relevant to the client's needs and preferences;
- 2. Communicate effectively with clients and the general public;
- 3. Direct clients, when appropriate, to a spectrum of other resources;
- Develop and sustain a successful massage therapy practice;
- 5. Understand the psychological and professional boundary issues present in practice, and act based upon ethical standards of practice;
- Understand the importance of actively managing and maintaining one's own health and wellness, including the use of effective biomechanical practices:
- 7. Pass the National Certification Examination for Therapeutic Massage and Bodywork and related state and local examinations.

## MASSAGE THERAPY AS A HEALTH CARE PROFESSION

The program of study offered by the School of Massage Therapy is based upon two assumptions about massage therapy: that massage therapy is a type of health care and that massage therapy is a profession.

#### **Massage Therapy As Health Care**

The first assumption is that massage therapy is a type of health care. While we are respectful of the diversity of approaches to massage practice, the intention of the School of Massage Therapy is to prepare therapists to work with other natural and medical health care providers. While we offer thorough training in basic relaxation-oriented massage, we do so as preparation for more specific therapeutic work. Massage therapy practiced in health care environments tends to be more problem-based and more strongly focused on deep tissue work, or soft-tissue rehabilitative techniques. The majority of our technique training focuses on this type of work. As a natural health science university. Northwestern believes that natural health care practitioners should be trained together and will, in many instances, practice together. The University and the School view massage therapy as an integral part of natural health care.

#### **Massage Therapy As A Profession**

The second assumption is that massage therapy is a profession, as opposed to simply a career or a trade. As professionals, massage therapists should be expected to conduct themselves in the same professional manner as doctors, nurses, and other health care professionals in terms of their interactions with patients, clients, other providers, and the general

public. Professionals are generally held to higher and more specific ethical and behavioral expectations. Our Professional Studies course sequence provides specific preparation in the areas of communication skills, lifelong learning, ethical decision-making, legal and regulatory issues, and professional practice development.

#### **APPROACH TO LEARNING**

The School of Massage Therapy believes that the students and faculty should be continuously learning. Students learn from faculty, from each other, from their clients, and from sources of professional information. Faculty continue to learn in order to remain current on relevant information. The experiences of students and faculty result in the program evolving and growing. As in most professional programs, students in the School frequently learn by "doing." The School takes the holistic perspective of student as future practitioner rather than focusing solely on course-based demonstrations of performance, such as tests. As a result, students receive and respond to frequent objective and subjective performance feedback, from faculty, peers, and clients. This mirrors the experience of most therapists in practice, who must be dynamically responsive to client feedback in order to be clinically effective and professionally successful.

#### CLASS SIZE AND ATTENDANCE

The School believes that small class sizes are essential to effective learning of massage therapy techniques. Therefore, the School seeks to admit no more than 26 students in each entering class. The teacher:student ratio will typically not exceed 1:26 in lecture classes and 1:13 in lab classes. Because the School teaches technique through reciprocal application, the learning of every student can be impacted by the attendance patterns of other students. Course attendance is a demonstration of seriousness about the program of study, a demonstration of respect for the faculty and your colleagues, and a necessity for course success.

#### **ADMISSION INFORMATION**

#### **Admission to the School**

Northwestern admits as students women and men of good character and health who are qualified by previous education and experience to meet its academic challenges and to become a practicing massage therapist. New students are admitted at the beginning of each trimester of the academic year: September, January, and April. Applications for admission are available online on our web site at www.nwhealth.edu or they may be obtained by contacting the Office of Admissions. The application for admission must be accompanied by a non-refundable application processing fee of \$50 (U.S. dollars) and a criminal background check fee of \$20 (U.S. dollars). It is the responsibility of the applicant to read this catalog and comply with all provisions and instructions.

#### **Entrance Requirements**

Applicants must meet the following requirements:

- 1. All students must be at least 18 years of age at the time of admission;
- 2. Students must have an earned high school diploma, its foreign equivalent, or a General Equivalency Diploma. Successful completion of at least 60 semester credit hours in a college or university accredited by an accrediting agency recognized by the United States Department of Education will be recognized as equivalent to a high school diploma. Students are strongly recommended to take at least one year each of high school biology, chemistry, and physics; and mathematics through algebra.
- Students must demonstrate sufficient maturity to undertake a health care profession, including the capacity to ethically and responsibly manage professional boundaries.

Admission to the School of Massage Therapy is competitive. The University expects that most, if not all, students will exceed the minimum admission requirements.

#### **Qualifications**

A student must possess the following abilities, with or without reasonable accommodation, for completion of the professional certificate program in massage therapy:

- Ability to apply massage and adjunctive techniques over the full range of a client's body, including positioning clients, palpating, feeling with hands and fingers, pushing, pulling, kneading, grasping, twisting wrists, and lifting up to 10 pounds, for periods of up to one hour without interruption;
- 2. Ability to determine depth and intensity of manual pressure and force, as applied in the

performance of common massage and adjunctive procedures and techniques;

- Ability to see and hear, with or without reasonable accommodation, sufficient that the student can receive and record client histories; document treatment plans; provide instructions to clients; and provide routine client safety services;
- Ability to perform in all laboratory and clinical settings without posing a threat to herself/himself, to the safety and well-being of fellow students, or to clients;
- 5. Ability and willingness to receive massage and adjunctive treatment. Much of the technical instruction in the programs requires reciprocal application of the techniques of massage therapy, including trigger point therapy and cross fiber friction. In reciprocal laboratory experiences, receiving techniques is necessary in order to learn proper procedures, and to receive and provide learning feedback; reciprocal application of technique is also useful for developing sensitivity to client needs. The School may temporarily excuse a student from receiving massage therapy provided that there is a specific medical contraindication, as determined in writing by a licensed health care professional.

All students, with or without reasonable accommodation, must carry out laboratory and clinical assignments, including providing massage therapy services to clients. Qualified persons with disabilities, with or without reasonable accommodation, must be able to pass oral, written and practical examinations, and meet all of the clinical requirements of the University.

It is in the best interests of both the student and the University to assess the degree of limitation caused by disability. However, the University will make the final determination of whether or not an individual meets all qualifications for study at the University.

Persons who have been convicted of any felony or misdemeanor of a violent or sexual nature may be prohibited from professional health care practice in many jurisdictions. Northwestern Health Sciences University can deny admission to applicants with such convictions. The University reserves the right to conduct a criminal background check on applicants.

#### **Responsibility of Applicant**

It is the responsibility of the applicant to be aware of the entrance requirements and to ensure that they are met prior to enrollment. If the College determines at any time that requirements are not met in full, the student will not be allowed to enroll or to continue at Northwestern.

The Office of Admissions personnel are available to help prospective students plan their pre-massage therapy curricula.

#### **Minnesota Immunization Requirement**

All students born in 1957 or later must comply with the Minnesota State College Immunization Law (Minn. Stat. 135A.14). An admitted student must show proof of DPT immunization within the last 10 years, as well as measles, mumps, and rubella immunization after his/her first birthday. However, exemptions are permitted for philosophical or medical reasons. Further information is included with letters of acceptance to Northwestern.

Some clinical environments outside the University Clinic system may establish immunization and/or health screening requirements exceeding the Minnesota State College Immunization Law. In addition, some clinical environments outside the University Clinic system may not accept placement of interns who have not received or are not in the process of receiving certain immunizations and/or health screenings.

#### **Application Procedure**

The first step is to submit a fully-completed application for admission. You may obtain an application from the Office of Admissions. The application for admission must include:

- A properly completed application for admission. Please type or print neatly;
- 2. An application processing fee of \$50 (U.S. dollars). This fee is non-refundable and must be submitted with the application for admission;
- Official transcripts from all colleges attended sent directly to Northwestern from those colleges. High school transcripts or G.E.D. certificate are required only if the student has less than one year (36 semester credits) or do not have prior college work;

(Note: Please indicate on your application if your transcripts will be arriving under another name.)

4. Two completed character reference forms.
References should be people who have known you for a period of at least six months.
References from professors and natural health care professionals are preferred. Relatives are not accepted as references. Northwestern will send character reference forms to those references

- listed on the application, who should complete the form and return it to the University;
- A completed criminal background check.
   Northwestern will provide a consent form that must be completed and returned to the Office of Admissions;
- A completed essay (see Application Form for instructions).

#### **Selection of Candidates**

The Admissions Committee, in general, seeks to matriculate students who best suit the philosophies and goals of the University. Northwestern attempts to select students who have strong academic records and who demonstrate the motivational and personal characteristics suitable for a career in massage therapy. Service and a caring attitude are important characteristics of a future massage therapist. The University employs a rolling admissions process; therefore, early application could increase the applicant's probability for acceptance. Students are highly recommended to apply for the School of Massage Therapy at least two months before the first day of their first academic term. The University encourages campus visits for all applicants and reserves the right to require an interview.

#### **Tuition Deposit Policy**

Applicants will be notified in writing of the Admission Committee's decision regarding their application following receipt of all application materials and committee review. Upon notification of acceptance, a candidate must remit a tuition deposit of \$100 (U.S. dollars) to reserve a position in the entering class. This tuition deposit is non-refundable but is applied toward the first trimester tuition. First trimester students who have been accepted and paid their \$100 (U.S. dollars) tuition deposit must pay the balance of their first trimester tuition on the first day of class. If the student has a loan in progress for the first trimester at Northwestern, then the first trimester tuition will be credited against this loan. It is important to note that because of the limited space available in each class, scheduling priorities, and the cost of education, the institutional refund policy does not apply to the \$100 tuition deposit.

#### **Transfer Credit Policy**

The School of Massage will consider requests for transfer credit based on the following criteria:

- 1. An official transcript must accompany any request for transfer credit;
- The institution where the coursework was completed must be accredited by an accrediting

- agency recognized by the U.S. Department of Education;
- The course(s) completed at the other institution must have similar objectives and be of similar content and length as the course(s) being substituted at School of Massage Therapy. A course catalog and/or syllabus may be required to demonstrate course content;
- Students must have earned a "C" or better in any course being considered for transfer;
- Any coursework submitted for transfer must have been completed within five years of the date that a transfer application is submitted to the University;
- A maximum of 18 credits will be transferred per student;
- 7. The School of Massage Therapy reserves the right to offer transfer credit to students who demonstrate proficiency in course material based on submission of a portfolio demonstrating competency in the objectives of the course;
- 8. Requests for transfer credit will only be considered prior to matriculation into the School of Massage Therapy.

#### **International Applicants**

Northwestern Health Sciences University welcomes the diversity that international students bring to the University community. The University is a non-residential campus. Therefore, no housing is available to students, foreign or otherwise. Individuals in F-1 student status are not eligible to seek employment off campus. All classes at Northwestern are taught in English. A student may verify competency in English as follows:

- Students from non-U.S. English-speaking countries (excluding the Canadian province of Quebec) may include with their application a copy of their birth certificate. Or, these applicants may complete an English competency verification form, which can be obtained from the Office of Admissions.;
- 2. All other foreign applicants (including those from the Canadian province of Quebec) must complete a T.O.E.F.L. (Test of English as a Foreign Language) examination. Applicants completing the paper-based examination must earn a score of 540 or higher. Applicants completing the computer-based examination must earn a score of 207 or higher. Results of the T.O.E.F.L. must be sent directly to Northwestern from the testing agency. T.O.E.F.L. information can be obtained

online at www.toefl.org or from: T.O.E.F.L., P.O. Box 6151, Princeton, NJ 08541-6151, U.S.A.

Students must provide evidence of having financial resources to complete a minimum of one year of education. An official bank statement indicating sufficient funds is required.

International transcripts must be evaluated by an international transcript evaluation service, such as World Education Services, Inc., (P.O. Box 745, Old Chelsea Station, New York, NY 10013) with official copies of the course-by-course evaluation being forwarded directly to both Northwestern and the student. Contact the Office of Admissions for a WES application form or names of other accepted transcript evaluation services.

#### **Payment**

All tuition and fees owed are due and payable by the end of the third week of class each academic term. After the completion of the third week of class, if tuition has not been paid or if arrangements for payment have not been made with the Student Records and Financial Services Office, a \$100 late fee will be assessed and registration for that academic term will be cancelled. In order to be reinstated, the affected student must pay tuition in full or make payment arrangements with the Student Records and Financial Services Office. All tuition and fees owed by a student must be paid in full before registration begins for the subsequent academic term, or s/he will not be allowed to register. Any student with a balance due at the time of graduation will not receive a diploma, and copies of official transcripts will be withheld until the balance is paid in full.

#### Readmission

A student who is placed on administrative withdrawal may petition in writing for readmission to the School of Massage Therapy. A student who has been dismissed from the Program for academic reasons may petition in writing, once, for readmission to the School of Massage Therapy. Petitions for readmission must be submitted to the Dean. The following procedure applies:

- 1. A committee composed of faculty convenes to review the student's written request;
- 2. The committee, chaired by the Dean, either:
  - requests additional information; or
  - writes a report recommending or not recommending readmission based on review of the request;

- A recommendation for reinstatement shall include:
   Specific provisions for readmission (e.g., retaking a course or courses);a date for readmission (e.g., immediately or the following academic term);
- The Dean makes the final decision regarding readmission and communicates the decision in writing to the student. The decision of the Dean may be appealed to the Provost;
- 5. The Dean monitors the progress surrounding the stipulated provisions (if any) of any readmitted learner student and reports to the Dean if the learner has or has not satisfied the stipulated provisions (if any) for readmission;
- 6. The Dean communicates in writing to the student that all provisions (if any) for readmission have been met, or that provisions have not been satisfied and the student is dismissed.

#### **Non-Program Students**

Students not currently admitted to a program may enroll in a course for credit, if they meet the prerequisites, space is available, and approval for attendance in the course has been granted by the course instructor and the program administrator.

Students that are granted approval to enroll in a course should contact the Office of the Admission for registration instructions.

#### **ACADEMIC POLICY**

The following academic policies and procedures refer specifically to the School of Massage Therapy. The University Student Handbook contains general policies and procedures that apply to all students of the University.

#### **Academic Policy Credits**

The academic calendar includes Fall, Winter, and Summer academic terms of 15 weeks each. In general, one credit in the School of Massage Therapy represents 15 lecture hours, 30 laboratory hours, or 45 clinical hours during a 15-week term.

#### **Advanced Placement**

Students may seek advanced placement for courses completed at another institution that satisfy the requirements of the School of Massage Therapy. The following requirements apply:

1. Any course submitted for advanced placement must have been completed within five years of

- the date that a request for advanced placement is submitted to the University;
- Any course submitted for advanced placement must meet or exceed the requirements for a comparable course in the School of Massage Therapy;
- Students must earn at least a "C" or 75 percent of possible points in any course submitted for advanced placement;
- 4. Advanced placement will only be awarded on a course-by-course basis;
- Requests for advanced placement must be made prior to matriculation into the School of Massage Therapy. Requests for advanced placement made following matriculation will not be accepted;
- Students must submit a transcript, notarized statement of grades from the awarding institution, or other official evidence that a course submitted for advanced placement was successfully completed.

The School of Massage Therapy reserves the right to require a challenge examination prior to the awarding of advanced placement, in any instance where satisfaction of the above requirements is in question. The examination may be oral, written, and/or clinical in nature.

Advanced placement hours will be indicated on student transcripts, along with the name of the originating institution. Final advanced placement approval will be granted by the Dean, or by the Associate Dean(s) as delegated.

Advanced placement may not substitute for more than nine semester credit hours of the School of Massage Therapy.

Fees for filing and review of a Request for Advanced Placement, advanced placement award, and challenge examinations will be established annually, and made available through the Student Records and Financial Services Office.

#### **Grading Policy**

The School of Massage Therapy uses a grade point system to evaluate the overall quality of course work. Clinical science and professional development courses are graded A, B, C, or F. Basic Sciences courses may be graded A, B, C, D, or F, at the discretion of the faculty member. Clinical experiences are graded S or U. The number of grade points earned in a given course is the number of credits for that course multiplied by the grade point corresponding to the grade recorded in that course, as indicated here:

Grade	Grade Points	Suggested Achievement Level
Α	4	90 – 100 percent of points; outstanding.
В	3	80 – 89 percent of points; superior.
С	2	70 – 79 percent of points; satisfactory.
D	1	60 – 69 percent of points; minimally satisfactory;
F	0	this grade may be awarded by Basic Sciences faculty only. 69 percent of points or fewer; unsatisfactory (may be 59 percent of points or fewer in some Basic
S	N/A	Sciences courses). Satisfactory (C or above; competency successfully demonstrated).
U	N/A	Unsatisfactory (D / F; competency not successfully demonstrated).
1	N/A	Incomplete.
W	N/A	Withdrawal.
Т	N/A	Transfer; used to indicate courses for which the learner received advanced standing or transfer credit.

#### **Notes on Grading:**

- 1. Instructors assign letter grades as appropriate according to the students's achievement level;
- Students enrolled in the School of Massage
   Therapy must maintain a 2.0 ("C") grade point
   average unless otherwise stipulated. Students
   may receive grades lower than C and remain in
   good standing if they maintain a 2.0 grade point
   overall. However, students must satisfactorily
   complete all courses in order to graduate from
   the School of Massage Therapy;
- Pluses and minuses are not part of the official grading system and are not figured into a student's grade point average;
- 4. The Satisfactory/Unsatisfactory grade option is intended for clinical experiences and other work where a letter grade cannot be appropriately assigned. Credits under this option are counted toward the total number of credits required for graduation, but are not used in determining a student's grade point average;
- A student must earn a grade of A, B, C, or S in order to fulfill clinical sciences, clinical experience, or professional studies program requirements.

#### Use of the Grade "I"

The grade of "I" (incomplete) indicates that work was not completed prior to the last day of the term or learning contract, and is intended to reflect circumstances beyond the student's or instructor's control. It is the responsibility of the student to consult with the instructor to determine the work still remaining to be completed. Incomplete work must be satisfactorily completed during the first four weeks of the next academic term. After that time, a grade of "I" will automatically become a grade of "F". Students experiencing extenuating circumstances may seek a waiver of the time limit from the program administrator, who may choose to grant the waiver, refuse the waiver, or refer the request to the Academic Standards Committee. The University reserves the right to require the Student to provide evidence of extenuating circumstances to the satisfaction of the University. Under no circumstances will a waiver be awarded that extends beyond the conclusion of the student's next academic term.

#### **Academic Honors**

Students receiving a G.P.A. of 3.50 or above are placed on the Dean's List. Academic honors are determined according to the following grade point levels:

Honor	G.P.A. Range
Cum laude	3.50 - 3.69
Magna cum laude	3.70 - 3.89
Summa cum laude	3.90 - 4.00

#### **GRADUATION**

#### **Graduation Requirements**

The Certificate in Massage Therapy is granted to those candidates who have:

- 1. Completed the required course of study;
- Demonstrated competency in clinic and completed internship and field experience requirements;
- 3. Earned at least a 2.0 cumulative G.P.A.;
- 4. Fulfilled all financial obligations to the University.

#### **Graduation Rate**

More than 90 percent of Northwestern's Massage Therapy students graduate within one year of matriculation.

## Professional Licensure, Registration, or Certification

Statewide standards for massage therapy practice have been established in 34 states and the District of Columbia as of 2004. Each state has established slightly differing standards for professional eligibility. At this time, no statewide standard for professional licensure, registration, or certification exists for massage therapists in Minnesota. Many cities in Minnesota have established ordinances that regulate the practice of massage therapy, and some cities require practitioner registration.

The University makes no guarantees that an individual student will satisfy the licensure, registration or certification requirements of any particular state or other jurisdiction. It is the responsibility of an individual student to confirm the regulatory requirements that may apply in any jurisdiction in which that student intends to practice.

Students who complete the program of study offered by the School of Massage Therapy will be eligible to sit for the National Certification Examination in Therapeutic Massage and Bodywork. In many states with statewide standards, successful completion of this examination is a qualifying requirement for licensure, registration or certification. The University requires that all of its faculty in massage therapy successfully complete this certifying examination and continuously maintain certification.

#### **Study Time**

The time required outside of scheduled class time for homework and studying can vary considerably based on the individual student. However, as a general rule, students should plan on a minimum of one hour homework and studying outside of class for every four hours spent in class. This brings the minimum combined classroom and study time commitment to more than 1,000 hours.

#### **SCHOOL OF MASSAGE THERAPY**

#### **Course List**

#### Trimester 1

mmester	1						
Course Number	Title	Credits	Total	Lecture	Hours Lab	Clinic	
SBS1211	Human Anatomy and Physiology 1	4.50	75	60	15	0	
SBS1500	Medical Terminology	1.00	15	15	0	0	
SMT1511	Massage Therapy Principles and Practice 1	4.50	120	15	105	0	
SMT1151	Professional Studies 1	2.00	30	30	0	0	
SMT0050	First Aid/CPR	0	6	3	3	0	
TRIMESTE	R 1 TOTAL	12.00	246	123	123	0	
Trimester .	2						
Course Number	Title	Credits	Total	Lecture	Hours Lab	Clinic	
SMT1210	Applied Anatomy	2.00	45	15	30	0	
SBS1212	Human Anatomy and Physiology 2	2.50	45	30	15	0	
SMT1931	Massage Therapy Clinical Rotation 1	2.00	64	5	0	59	
SMT2512	Massage Therapy Principles and Practice 2	3.50	90	15	75	0	
SMT1152	Professional Studies 2	2.00	30	30	0	0	
TRIMESTE	R 2 TOTAL	12.00	274	95	120	59	
Trimester .	3						
Course Number	Title	Credits	Total	Lecture	Hours Lab	Clinic	
SNU1110	Human Nutrition	1.00	15	15	0	0	
SMT2932	Massage Therapy Clinical Rotation 2	2.00	64	5	0	59	
SMT2513	Massage Therapy Principles and Practice 3	3.50	90	15	75	0	
SMT2153	Professional Studies 3	2.00	30	30	0	0	
SMT2610	Special Topics in Massage Therapy	3.50	67	37	30	0	
TRIMESTE	R 3 TOTAL	12.00	266	102	105	59	
CURRICUL	UM TOTAL	36.00	786	317	345	118	

#### **COURSE DESCRIPTIONS**

#### SMT1210 Applied Anatomy

2.00 credits (45 hours): 15 lecture hours,

30 hours laboratory

Prerequisite: SBS1211 Human Anatomy

and Physiology 1

Students will enhance their knowledge of the major muscles of the body, their origins, insertions, tendons of attachment, and actions, as well as associated bones, bony landmarks and stabilizing ligaments for each joint and major structure. Students will learn about planes of movement, lever classification and action in the body, and relationship of levers to planes of movement. The laboratory portion of this course utilizes the Maniken Professional system (anatomy-in-clay).

#### SMT0050 First Aid/CPR

0.00 credits (6 hours): 3 lecture hours, 3 hours laboratory

This is a basic adult CPR and standard first aid class. Students will learn basic principles and skills of CPR and first aid including: bandaging, splinting and CPR, as well as how to manage sudden illness, wounds and burns. Students must have current certification in CPR and first aid upon graduation.

#### SBS1211 Human Anatomy and Physiology 1

4.50 credits (75 hours): 60 lecture hours, 15 hours laboratory

This is the first course of a two-course sequence in systems-based normal and abnormal human anatomy and physiology. Students will learn the design and function of the systems of the human body, with emphasis on the skeletal, muscular, nervous and integumentary systems. The laboratory includes observation of prosected human cadavers.

#### SBS1212 Human Anatomy and Physiology 2

2.50 credits (45 hours): 30 lecture hours, 15 hours laboratory

Prerequisite: SBS1211 Human Anatomy

and Physiology 1

This is the second course of a two-course sequence in systems based normal and abnormal human anatomy and physiology. Students will learn the design and function of the systems of the human body, with emphasis on the cardiovascular, endocrine, respiratory, digestive, urinary and reproductive systems and the sensory organs. The laboratory includes observation of prosected human cadavers.

#### SNU1110 Human Nutrition

1.00 credit (15 hours): 15 lecture hours

Students learn the fundamental principles of human nutrition. The course emphasizes the importance of proper nutrition as a component of self-care for therapists.

#### SMT1921 Massage Therapy Clinical Rotation 1

2.00 credits (64 hours): 5 lecture hours,

59 hours clinic

Prerequisite: SMT1511 Massage Therapy Principles and Practice 1

Students provide massage therapy treatment sessions in the School of Massage Therapy Teaching Clinic, under the supervision of School faculty. Clinical Rotation 1 focuses on the application of full body massage techniques, as presented in Massage Therapy Principles and Practice 1. Students participate in case conferences and/or seminars on professional issues, write clinical journals, and complete other projects as assigned.

#### SMT2922 Massage Therapy Clinical Rotation 2

2.00 credits (64 hours): 5 lecture hours, 59 hours clinic Prerequisite: SMT1921 Massage Therapy Clinical Rotation 1 SMT2512 Massage Therapy Principles

and Practice 2

Students provide massage therapy treatment sessions in the School of Massage Therapy Teaching Clinic, under the supervision of School faculty. Clinical Rotation 2 focuses on the application of advanced techniques, including trigger point therapy and cross fiber friction. Students participate in case conferences and/or seminars on professional issues, write clinical journals, and complete other projects as assigned.

## SMT2930 Massage Therapy Specialized Clinical Rotation (ELECTIVE)

1.00 credit (32 hours): 5 lecture hours, 27 hours clinic SMT2930 may be repeated once Prerequisite: SMT2922 Massage Therapy Clinical Rotation 2

Students provide a minimum of 15 massage therapy treatment sessions in a specialized clinical environment, under the supervision of School faculty. Students must successfully complete an individualized learning plan established between each student and their clinical supervisor. Learning plans in the Specialized Rotation are based on the needs of the specialized environment. Specialized rotations may take place in hospitals, hospices, long-term care centers, rehabilitation centers, community health centers, or other health care environments. Students may be required to meet requirements established by the School's clinical partners.

## SMT1511 Massage Therapy Principles and Practice 1

4.50 credits (120 hours):15 lecture hours,105 hours laboratoryCo-requisite: SBS1211 Human Anatomy and Physiology 1

Students learn techniques for full-body massage, including palpation skills. Students are introduced to correct body mechanics, injury prevention, table management, draping methods, and introductory charting and SOAP notation. The course includes massage therapy theory and history, and an introduction to the methods and principles of reflexology. In addition to laboratory sessions, learners are required to engage in practice massage sessions outside of scheduled class hours.

## SMT2512 Massage Therapy Principles and Practice 2

3.50 credits (90 hours): 15 lecture hours, 75 hours laboratory

Prerequisite: SMT1511 Massage Therapy Principles and Practice 1

Students learn the principles and methods of trigger point therapy and cross fiber friction, as applied to the upper body, including assessment, treatment and common symptomologies. In addition to laboratory sessions, learners are required to engage in practice massage sessions outside of scheduled class hours.

## SMT2513 Massage Therapy Principles and Practice 3

3.50 credits (90 hours): 15 lecture hours, 75 hours laboratory

Prerequisite: SMT1511 Massage Therapy Principles and Practice 2

Students learn the principles and methods of trigger point therapy and cross fiber friction, as applied to the lower body, including assessment, treatment and common symptomologies. In addition to laboratory sessions, learners are required to engage in practice massage sessions outside of

scheduled class hours.

#### SBS1500 Medical Terminology

1.00 credit (15 hours): 15 lecture hours

Students will learn general medical terminology, including basic Latin and Greek roots, prefixes and suffixes.

#### SMT1151 Professional Studies 1

2.00 credits (30 hours): 30 lecture hours

Students review postsecondary-level study skills, learn how to access and generally appraise clinical research and information. Students learn effective and appropriate communication techniques for management of the client-therapist relationship, and communication skills necessary for working with colleagues in the health care community.

#### SMT1152 Professional Studies 2

2.00 credits (30 hours): 30 lecture hours Prerequisite: SMT1151 Professional Studies 1

Students learn the principles of professional ethics and professionalism, focusing on the development and application of appropriate professional boundaries and the psychological dimensions of the client-therapist relationship. Students learn legal, regulatory and professional considerations for massage therapists.

#### SMT2153 Professional Studies 3

2.00 credits (30 hours): 30 lecture hours Prerequisite: SMT1152 Professional Studies 2

Students engage in goal-setting for practice, and develop a business plan. Students learn a variety of methods for managing and promoting a successful practice, and examine the strengths and liabilities of several employment settings and structures.

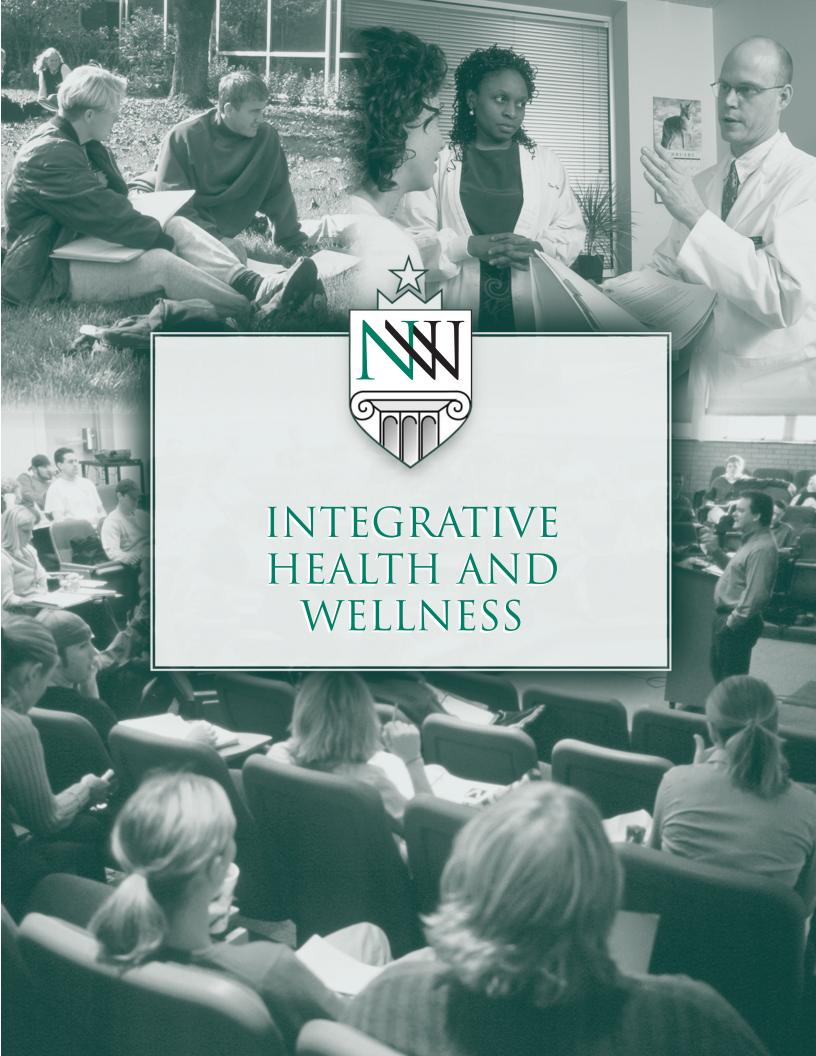
#### SMT2610 Special Topics in Massage Therapy

3.50 credits (67 hours): 37 lecture hours,

30 hours laboratory

Prerequisite: SMT1511 Massage Therapy Principles and Practice 1

Students learn additional massage therapy techniques and applications, including abdominal and sports massage. Students learn about the unique considerations for treating special populations, including older adults, persons with disabilities, and persons with terminal illnesses. Students are introduced to treatment issues for other populations, including women in pregnancy. Other topics may be included.



"I feel the most crucial part of any program is the people doing the teaching. The group of instructors, professors, and administrators at Northwestern have a tremendous passion for their profession and it shines through everyday."

"Being part of a University, with its variety of programs, has helped me learn how to be a well rounded doctor and how to really understand how each different health care option can help my patient."

Northwestern offers a very well-rounded education in the sciences as well as the philogophy of chiropractic.
They continue this through property all experience and externships."

The projession of health early formative on traditional and alternative towards integrative. This programme administrator to fully integrated from the control of the practitioner or "With the clubs, student sense of the dances, intramunal sports,"

there really is something for everyone.

"In the Twin cities there is always something to do for a study break. There are many theaters, takes, casks, hiking trails, sports teams, museums and conderts. Plus there are a lot of events and activities free hor students, which is impurtant too.

"The financial aid and registral staff have always been very recentive to helping with my questions. They we all very nice people.

"The alumni office has arranged speakers to come in on a variety of topics.

It is great to have someone making those connections for as."

"Northwestern offers great networking opportunities among the programs.

Having all of the different programs allows MCAOM to get a lot \_\_\_\_\_

more benefits like the cadaver lab and great clinic opportunities."

## Why Integrative Health and Wellness?

## **Two Distinct Tracks At Two Separate Levels**

"The profession of health care is changing from traditional and alternative towards integrative. This program enhances the ability of the practitioner or administrator to fully integrate their skills in a clinical setting."

-Eric Stevens, MA, MBA, CFO of Courage Center and instructor for the program

The Certificate Program in Integrative Health and Wellness is a unique program for health care providers and those interested in serving the health and wellness needs of society. With the changing needs of the consumer toward more natural approaches to health and towards self-managed care, there is a growing need for health professionals who are trained in the areas of health and wellness assessment and counseling. Northwestern's Certificate Program in Integrative Health and Wellness will provide the health care professional with the knowledge and skills necessary to meet this growing market. The certificate program benefits those just entering the field as well as experienced professionals seeking advanced knowledge and skill.

#### **STATEMENT OF PURPOSE**

The purpose of the Integrative Health and Wellness Program is to provide quality education and a context for students to learn and apply proven principles in integrative health and wellness. Consequently, we support and promote the field of integrative health and wellness and its integration into clinical and administrative practices in all health care settings.

#### **PHILOSOPHY**

The integrative health and wellness design and delivery approaches are cross-disciplinary and integrative, with a focus upon enhancing adult learners' ability and credentials to establish or work within an integrated health and wellness practice and settings. The program is built upon the interrelatedness of body, mind and spirit.

#### **GOALS**

A graduate of the program in Integrative Health and Wellness will be able to:

- 1. Understand the importance of and articulate a framework for integrative health and wellness;
- 2. Demonstrate knowledge of integrative health and wellness and apply that knowledge effectively in clinical or administrative settings;
- 3. Understand professional boundary issues present in practice, and demonstrate professional ethical behavior;
- Demonstrate competence, compassion and care in the service of patients and staff from all cultural/spiritual backgrounds;
- Be prepared to work in or develop and sustain a successful program in integrative health and wellness;
- 6. Understand the importance of actively managing and maintaining one's own health and wellness, including the integration of body, mind and spirit modalities.

#### **PROGRAM OVERVIEW**

The Integrative Health and Wellness Program offers two distinct five-course certificate tracks: the clinical track or the administrative track. Both can be taken for undergraduate-level or graduate-level credit. Interested professionals can obtain an undergraduate-level certificate, which allows for advance training without needing a prior degree. The other option is to obtain a graduate-level certificate which requires a bachelor's degree as a prerequisite.

#### **Clinical Track**

The primary focus of the clinical certificate curriculum is to provide a knowledge base in integrative health and wellness at a level which increases the clinician's ability to work more effectively across disciplines and/or within an integrative setting.

#### **Administrative Track**

The primary focus of the administrative certificate curriculum is to provide a knowledge base in integrative health and wellness at a level which allows professionals to increase their ability to serve in an administrative role within an integrative setting or in a health care organization interested in moving toward an integrative practice.

#### **Directed Study**

For the Directed Study in each track, the student is encouraged to focus on an area of special interest or relevance for their work and career track. The Directed Study component allows the student to customize their learning and really understand what they want to accomplish in the field of integrative health and wellness.

#### **PROGRAM STRUCTURE**

Each certificate program is five trimesters, which takes one year and eight months to complete. Courses can be taken as stand alone as well as in order to complete either level of the two certificate tracks. The program is designed in a weekend format, which allows for working professionals to enhance their education while maintaining their professional careers.

The program is delivered in a nontraditional format in order to accommodate schedules of adult-learners. Courses will be held on Northwestern's campus and will require attending one weekend per month in combination with directed learning components. This format allows students to complete the program in less than two years.

#### **ADMISSION INFORMATION**

#### **Admission to the Program**

Northwestern admits as students women and men of good character and health who are qualified by previous education and experience to meet its academic challenges and to become practitioners of integrative health and wellness. New students are admitted at the beginning of each trimester of the academic year: September, January, and April. Applications for admission are available online on our web site at www.nwhealth.edu or they may be obtained by contacting the Office of Admissions. The application for admission must be accompanied by a non-refundable application processing fee of \$50 (U.S. dollars). It is the responsibility of the applicant to read this catalog and comply with all provisions and instructions.

#### **Entrance Requirements**

Applicants must meet the following requirements:

Courses can be taken at the graduate level as well as the undergraduate level.

- A bachelor's degree with a minimum GPA of 2.5 is required for the graduate level.
- For the undergraduate level, 30 semester credits of academic bachelor's degree coursework with a minimum GPA of 2.0 is required.

Admission to the Integrative Health and Wellness Program is competitive. The University expects that most, if not all, students will exceed the minimum admission requirements.

#### Qualifications

It is in the best interests of both the student and the University to assess the degree of limitation caused by disability. However, the University will make the final determination of whether or not an individual meets all qualifications for study at the University.

Persons who have been convicted of any felony or misdemeanor of a violent or sexual nature will be prohibited from professional health care practice in many jurisdictions. Northwestern Health Sciences University will deny admission to applicants with such convictions. The University reserves the right to conduct a criminal background check on applicants.

#### **Responsibility of Applicant**

It is the responsibility of the applicant to be aware of the entrance requirements and to ensure that they are met prior to enrollment. If the College determines at any time that requirements are not met in full, the student will not be allowed to enroll or to continue at Northwestern.

#### **Minnesota Immunization Requirement**

All students born in 1957 or later must comply with the Minnesota State College Immunization Law (Minn. Stat. 135A.14). An admitted student must show proof of DPT immunization within the last 10 years, as well as measles, mumps, and rubella immunization after his/her first birthday. However, exemptions are permitted for philosophical or medical reasons. Further information is included with letters of acceptance to Northwestern.

Some clinical environments outside the University Clinic system may establish immunization and/or health screening requirements exceeding the Minnesota State College Immunization Law. In addition, some clinical environments outside the University Clinic system may not accept placement of interns who have not received or are not in the process of receiving certain immunizations and/or health screenings.

#### **Application Procedure**

The first step is to submit a fully-completed application for admission. You may obtain an application from the Office of Admissions. The application for admission must include:

- 1. A properly completed application for admission. Please type or print neatly;
- 2. An application processing fee of \$50 (U.S. dollars). This fee is non-refundable;
- Official transcripts from all colleges attended sent directly to the Office of Admissions at Northwestern Health Sciences University from those colleges. High school transcripts are not required;

(Note: Please indicate on your application if your transcripts will be arriving under another name.)

- 4. Two completed character reference forms. References should be people who have known you for a period of at least six months. References must be from persons who can attest to your professional and/or academic skills. References from professors, instructors, employment supervisors, colleagues, or other health professionals are preferred. Relatives and personal friends are not accepted as references. Northwestern will send character reference forms to those references listed on the application, who should complete the form and return it to the University;
- Attach a 400-600 word essay describing your motivation for applying to the program in Integrative Health and Wellness and how this fits with your career goals.

#### **Selection of Candidates**

The Admissions Committee in general seeks to matriculate students who best suit the philosophies and goals of the University. Northwestern attempts to select students who have strong academic records and who demonstrate the motivational and personal characteristics suitable for a career in integrative health and wellness. Service and a caring attitude are important characteristics of future practitioners in integrative health and wellness. The University employs a rolling admissions process; therefore, early application could increase the applicant's probability for acceptance. Students are highly recommended to apply for the Integrative Health and Wellness Program at least two months before the first day of their first academic term. Transfer credit or advanced standing requests must be made at least two months before the first day of the first academic term of attendance. The University encourages campus visits for all applicants and reserves the right to require an interview.

#### **Tuition Deposit Policy**

Applicants will be notified in writing of the Admission Committee's decision regarding their application following receipt of all application materials and committee review. Upon notification of acceptance, a candidate must remit a tuition deposit of \$100 (U.S. dollars) to reserve a position in the entering class. This tuition deposit is non-refundable but is applied toward the first trimester tuition. First trimester students who have been accepted and paid their \$100 (U.S. dollars) tuition deposit must pay the balance of their first trimester tuition on the first day of class. If the student has a loan in progress for the first trimester at Northwestern, then the first trimester tuition will be credited against this loan. It is important to note that because of the limited space available in each class, scheduling priorities, and the cost of education, the institutional refund policy does not apply to the \$100 tuition deposit.

#### **Transfer Application**

A student wishing to transfer from another program must:

- Follow the same application procedures as a new student (see previous section in catalog);
- Submit an official transcript from the Integrative Health and Wellness Program previously attended;
- Submit two letters of recommendation from faculty members of the Integrative Health and Wellness Program previously attended, as well as a letter from that program's registrar or academic

officer indicating that the student applicant is leaving that program in good standing and could continue studies in their present Integrative Health and Wellness program;

- The applicant's academic record must further allow for the student to be admitted without probation or other restriction, as defined by Northwestern policies;
- A transfer student must complete at least two trimesters of resident study in the Northwestern program prior to graduation;
- Excessive indebtedness as a result of financial aid borrowing will be a factor in the Admissions Committee's decisions regarding acceptance of a transfer student. The Student Records and Financial Services Office will set upper limits of previous indebtedness.

Coursework submitted for transfer must meet the following requirements:

- Any coursework submitted for transfer must have been completed within five years of the date that a transfer application is submitted to the University;
- Any course submitted for transfer must meet or exceed the requirements for a comparable course in the Integrative Health and Wellness Program;
- Students must earn a grade of "C" or 75 percent of possible points in any course submitted for transfer. Courses submitted for transfer from programs within regionally accredited institutions will be accepted for transfer credit. Courses submitted from other programs may be accepted for advanced standing. Transfer credit or advanced standing may require successful completion of a competency examination, at the discretion of the Chair of the department. Competency examinations require time for appropriate planning, administration and evaluation. Therefore, the University will not accept requests for advanced standing or evaluation of transfer credit that is received within two months of a student's planned start date;
- Transfer credit will only be awarded on a courseby-course basis. Requests for transfer credit or advanced standing must be made prior to matriculation into the Integrative Health and Wellness Program. Requests for advanced standing made following matriculation will not be accepted. These policies are subject to updating and modification. Contact the Office of Admissions for current information.

### Articulation Agreement with Walden University

Under an articulation agreement between Northwestern Health Sciences University and Walden University, past and present NWHSU students can apply certain Integrative Health and Wellness certificate program credits towards either Walden's Master's degree in Public Health (MPH) or Master of Science degree in Public Health (MSPH) with a concentration in Integrative Health and Wellness.

#### **Payment**

All tuition, fees and other amounts owed are due and payable by the end of the third week of class each academic term. After the completion of the third week of class, if tuition has not been paid or if arrangements for payment have not been made with the Student Records and Financial Services Office, a \$150 late fee will be assessed and registration for that academic term will be cancelled. In order to be reinstated, the affected student must pay tuition in full or make payment arrangements with the Student Records and Financial Services Office. All tuition, fees, and other amounts owed by a student must be paid in full before registration begins for the subsequent academic term, or s/he will not be allowed to register. Any student with a balance due at the time of graduation will not receive a diploma, and copies of official transcripts will be withheld until the balance is paid in full.

#### Readmission

A learner who is placed on administrative withdrawal may petition in writing for readmission to the Integrative Health and Wellness Program. A student who has been dismissed from the Program for academic reasons may petition in writing, once, for readmission to the Integrative Health and Wellness Program. Petitions for readmission must be submitted to the Chair. The following procedure applies:

- 1. A committee composed of faculty convenes to review the learner's written request;
- 2. The committee, chaired by the department chair, either:
  - requests additional information; or
  - writes a report recommending or not recommending readmission based on review of the request;
- 3. A recommendation for reinstatement shall include:
  - specific provisions for readmission (e.g., retaking a course or courses);

- a date for readmission (e.g., immediately or the following academic term);
- 4. The Chair makes the final decision regarding readmission and communicates the decision in writing to the learner. The decision of the Chair may be appealed to the Vice President, Academic Affairs, or to the President;
- 5. The learner's adviser monitors the progress of any readmitted learner and reports to the Chair if the learner has or has not satisfied the stipulated provisions (if any) for readmission;
- 6. The Chair communicates in writing to the learner that all provisions (if any) for readmission have been met, or that provisions have not been satisfied and the learner is dismissed.

#### **Course list**

#### Clinical Track

IHW4/500 – Principles of Integrative Health, Wellness, and Practice (3 credits)

IHW4/510 – Healing Health and Culture (3 credits)

IHW4/530 – Health and Wellness Counseling (3 credits)

IHW4/550 - Directed Study (2 credits)

IHW4/560 – Exercise and Clinical Nutrition in Practice (5 credits)

#### Administrative Track

IHW4/500 – Principles of Integrative Health, Wellness, and Practice (3 credits)

IHW4/520 – Best Practices in Organizational Cultural Competency (3 credits)

IHW4/540 – Best Practices in Leadership, Supervision, and Organizational Transformation (3 credits)

IHW4/550 - Directed Study (2 credits)

IHW4/570 – Administrative Internship (3 credits)

#### **COURSE DESCRIPTIONS**

IHW 4/500 Principles of Integrative Health, Wellness, and Practice

3.00 credits (45 hours): 45 lecture hours

This course is designed to provide the learner with an introduction to the fundamental aspects of Integrative Health Sciences. Emphasis will be given to a holistic approach to health and health care dealing with the biological, psychological, social, spiritual effects of health. Relevant concerns regarding the integration of wellness concepts in clinical settings will be addressed and delivery models explored. Integrative care, which spans the biases of disciplines and cultures, addresses the holistic treatment of the patient. Integrative care also stresses prevention, self-care and establishing healing partnerships.

IHW 4/510 Healing, Health, and Culture

3.00 credits (45 hours): 45 lecture hours

This course will examine the cultural implications of health care practices in Minnesota within the framework of cultural competency. The course will focus on clinical implications of service design and delivery in a culturally diverse society and help students develop skills for effective cross-cultural interventions. The course will rely heavily on active class participation and timely completion of assignments.

	CLINICAL TRACK		ADMINISTRATIVE TRACK	
Fall 2004	IHW 4/500	Principles of Integrative Health, Wellness, and Practice	IHW 4/500	Principles of Integrative Health, Wellness, and Practice
Winter 2005	IHW 4/510	Healing, Health, and Culture	IHW 4/520	Best Practices in Organizational Cultural Competency
Summer 2005	IHW 4/530	Health and Wellness Counseling	IHW 4/540	Best Practices in Leadership, Supervision, and Organizational. Transformation
Fall 2005	IHW 4/550	Directed Study	IHW 4/550	Directed Study
Winter 2006	IHW 4/560	Exercise and Clinical Nutrition in Practice	IHW 4/570	Administrative Internship

#### IHW 4/530 Health and Wellness Counseling

3.00 credits (45 hours): 45 lecture hours

Health and Wellness Counseling provides an introduction to the major counseling theories as well as practical skills as applied to work with clients in health and wellness settings. The practice skills include connecting meaningfully to the client, motivational interviewing, assessment and diagnosis from an integrative health and wellness perspective, collaboratively engaging the client in the health and wellness process, best practice for addressing common barriers to client progress, and effective referral procedures. The course will include information as well as assessment and treatment approaches to address client non-compliance with treatment (diet and exercise program, medical prescription, etc.).

#### IHW4/550 Directed Study

2.00 credits (30 hours): 30 lecture hours

Directed study is intended to allow a student to focus on an area of interest or relevance which is not generally addressed in the regular course work. The focus must be within the area of integrative health and wellness.

### IHW 4/560 Exercise and Clinical Nutrition in Practice

5.00 credits (75 hours): 75 lecture hours

This unique course explores the fundamental concepts of exercise physiology and provides the learner with an understanding of how the variables of culture, age, gender, and nutritional needs affect physical activity and how exercise and physical activity affect health. It also addresses the topics of public health nutrition and basic applied clinical nutrition. Such topics as the role of diet in public health as well as the influence of "fad diets" on the obesity epidemic will be discussed.

### IHW 4/520 Best Practices in Organizational Cultural Competency

3.00 credits (45 hours): 45 lecture hours

Organizational Cultural competency provides an introduction to the major cultural competency concepts and models as well as practical skills as applied to work with clients in health and wellness settings. This course will offer tools to help managers and supervisors move from awareness and knowledge to developing skills in managing and implementing systems change processes. It will inform, educate and equip managers with tools to reevaluate their business practices. Helpful tips for understanding one's own culture, effectively managing diversity, and effectively implementing system-wide cultural competency initiatives will also be provided.

#### IHW 4/540 Best Practices in Leadership, Supervision, and Organizational Transformation

3.00 credits (45 hours): 45 lecture hours

Today, more than ever, organizations are going through constant change and need to respond with greater speed and agility. What is expected of a leader? And what qualities and characteristics are essential for a leader to be effective and get results? This course will draw upon best practices in leadership, supervision and organizational transformation in helping students understand the best of how it is done and how to do it as well as come into their own styles in leading and managing effectively in an integrated way. The course will rely heavily on active class participation and timely completion of assignments as well as utilize guest lecturers.

#### IHW 4/570 Administrative Internship

3.00 credits (45 hours): 45 lecture hours

The Administrative Internship is a practical learning experience available to students by applying to and being accepted by an approved internship site. Administrative Internship is available only to students enrolled in the administrative track.

## Why Northwestern?

### We Are A Community Of Caring

"I feel the most crucial part of any program is the people doing the teaching. The instructors, professors, and administrators at Northwestern have a tremendous passion for their profession and it shines through everyday."

- Michael Mohwinkel, massage therapy alumnus

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- D.C., National College of Chiropractic, 1963

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- M.S., University of Minnesota, 2001
- D.C., Northwestern College of Chiropractic, 1993
- B.A., University of Winnipeg, 1989

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- M.B.A., University of St. Thomas, 1988
- M.S., California Polytechnic State University, 1977
- B.S., California Polytechnic State University, 1972

**Max H. Hines,** Associate Vice President for Undergraduate and Graduate Education (2003)

• Ph.D., University of Minnesota, 1983

Dale K. Healey, Dean, School of Massage Therapy

- D.C., Parker College of Chiropractic, 1996
- B.S., Parker College of Chiropractic, 1996

**Mark McKenzie,** Dean, Minnesota College of Oriental Medicine

- Ma.O.M, Minnesota College of Oriental Medicine, 2002
- L.Ac.
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- D.A.C.B.N., 1987
- D.C., Northwestern College of Chiropractic, 1977
- B.A., College of St. Thomas, 1972

#### **Robert M. Scott,** Dean, College of Chiropractic

- M.Ed., University of Toronto, 1999
- D.C., Northwestern College of Chiropractic, 1992
- M.Sc., University of Guelph (Ontario), 1990
- B.Sc., University of Guelph (Ontario), 1986

#### Emily Tweed, Dean, Student Affairs

- M.A., University of Minnesota, 1998
- B.A., St. Olaf College, 1995

#### **ADMINISTRATION**

Gene C. Bangasser, Director, Physical Plant

Diana L. Berg, Director, Continuing Education

**Gert Bronfort,** *Director, The Neck and Back Research Program* 

- Ph.D., Vrije University of Amsterdam, 1997
- D.C., Canadian Memorial Chiropractic College, 1969

**Brady Forseth,** Director of Development

• B.A., Adelphi University, 1993

Sharon K. Frevik, Director, Clinics Billing

**Janet E. Halleen,** *Director, Purchasing and Bookstore* 

• B.A., University of Nebraska-Lincoln, 1976

**Jennifer Hart,** Director of Research Administration

• M.S., University of Minnesota, 2003

John W. Healy, Director, Communications

• B.S., University of Oregon, 1982

**Deborah C. Hogenson, Director, Human Resources** 

- S.P.H.R., 1991
- B.S., Arizona State University, 1982

Andrew S. Hoppin, Director, Financial Aid

- M.M.A., Metropolitan State University (Minnesota), 1998
- B.A., Iowa State University, 1977

**Norman M. Horns,** Director, Clinical Laboratory; Associate Professor

- B.C.A.C.P., 1963
- M.D., University of Minnesota, 1957
- B.S., University of Minnesota, 1955

Lynn C. Hvidsten, Director, Clinical Education

- C.C.S.T., 1999
- B.S., Northwestern College of Chiropractic, 1995
- D.C., Northwestern College of Chiropractic, 1986

Andrea Kodner-Wenzel, Chief Information Officer

• B.Mus., Indiana University, 1983

William M. Kuehl, Director, Admissions

• B.A., St. Olaf College, 1988

Deborah L. Miller, Clinic Administrator

L.P.N., Kahler Methodist School of Nursing, 1977

**Deborah Peterson,** Director, Alumni Relations and Career Services

Paul Simmons, Registrar

- M.A., University of Wisconsin, 1984
- B.A., University of Wisconsin, 1976

**Della J. Shupe,** *Director, Library Services; Assistant Professor* 

- M.A., University of Denver, 1973
- B.A., Bethel College, 1971

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- D.C., Northwestern College of Chiropractic, 1987
- B.A., Gustavus Aldolphus, 1973

**Debra J. Twite,** Comptroller

• B.S., Moorhead State University (Minnesota), 1984

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J. Lamoine De Rusha, D.C., F.I.C.C., Dean Emeritus\*

Charles H. Esch, D.C., Professor Emeritus

John B. Wolfe, D.C., President Emeritus\*

\* deceased

#### **FACULTY**

**James J. Amundson,** Associate Professor (1993)

- M.Ed., College of St. Scholastica, 2000
- C.S.C.S., 1996
- D.C., Northwestern College of Chiropractic, 1988
- B.S., Bemidji State University, 1973

Alfred V. Anderson, Research Associate (2002)

- M.D., University of Autonoma, 1977
- D.C., Northwestern College of Chiropractic, 1963

Katie M. Anderson, Associate Clinic Faculty (2002)

 Certificate, Cascade Institute of Massage Therapy, 2000

Nancy E. Anderson-Bierma, Associate Clinic Faculty (2002)

- Ma.O.M., Minnesota College of Acupuncture and Oriental Medicine, 1999
- L.Ac.
- Dipl. Ac. (N.C.C.A.O.M.)

David C. Armold, Assistant Professor (2000)

• D.C., Northwestern College of Chiropractic, 1985

#### Julia D. Bartlett, Associate Professor (1996)

- B.S., Northwestern Health Sciences University, 2002
- D.C., Northwestern College of Chiropractic, 1989

#### Mary E. Berg, Assistant Professor (2003)

• M.A., University of Minnesota, 1970

#### Thomas Bergmann, Professor (1981)

- D.C., National College of Chiropractic, 1977
- B.S., Northern Illinois University, 1969

#### Paula L. Bergs, Lecturer (2001)

- B.S., University of Minnesota, 1984
- B.A., Concordia College, 1982

#### Jennifer C. Blair, Associate Clinic Faculty, 1999

- Ma.O.M., Minnesota College of Oriental Medicine, 2001
- L.Ac.
- Dipl. Ac.

#### Krista R. Boline, Assistant Professor (2000)

• D.C., Northwestern College of Chiropractic, 1993

#### **Linda J. Bowers,** *Professor* (1981)

- D.A.C.A.N., 1992
- D.A.C.B.N., 1988
- D.A.B.C.I., 1987
- D.A.B.C.O., 1985
- D.C., Northwestern College of Chiropractic, 1981
- Certified M.L.T. (A.S.C.P.), 1978
- B.S., University of Minnesota, 1978

#### Karen A. Brezinka, Lecturer (2002)

• B.A., University of Minnesota, 1986

#### **Gert Bronfort, Professor (1988)**

- Ph.D., Vrije University of Amsterdam, 1997
- D.C., Canadian Memorial Chiropractic College, 1969

#### **Beth Burgan,** Assistant Professor (2001)

- Certificate, Sports Massage, 1994
- N.C.T.M.B., 1992
- Certificate, NeuroMuscular Therapist, 1991
- Certificate, Northern Lights School of Massage Therapy, 1988
- M.F.A., M.A., Kent State University, 1976

#### **Jennifer Connell,** Associate Clinic Faculty (2002)

- Ma.O.M., Minnesota College of Acupuncture and Oriental Medicine, 2001
- L.Ac.
- Dipl. Ac. (NCCAOM)

#### P. Thomas Davis, Lecturer (1989)

- D.C., Palmer College of Chiropractic, 1977
- M.U.P., University of Illinois, 1966
- B.A., Southern Illinois University, 1960

#### Sher Demeter, Associate Clinic Faculty (2003)

- Ma.Ac., Minnesota College of Acupuncture and Oriental Medicine, 2001
- L.Ac.
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 Doctor Naturopathic Medicine, Canadian College of Naturopathic Medicine, 2001

#### Renee M. DeVries, Associate Professor (1993)

- D.A.C.B.R., 1996
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- B.S., Northwestern College of Chiropractic, 1989

#### Donald L. Eggebrecht, Professor (1988)

- D.A.B.C.O., 1991
- D.C., Northwestern College of Chiropractic, 1986
- B.A., University of Minnesota, 1978

#### Joan R. Elder, Associate Clinic Faculty (2002)

- B.S., Northwestern College of Chiropractic, 1995
- D.C., Life Chiropractic College, 1981

#### William C. Elkington, Professor (1985)

- D.C., Northwestern College of Chiropractic, 1984
- B.A., Hamline College (Minnesota), 1974

#### Mikhail G. Epshteyn, Lecturer (2002)

Pharm.D., University of Minnesota, 2000

#### Terry A. Erickson, Associate Professor (1994)

- B.S., Northwestern Health Sciences University, 2002
- D.C., Palmer College of Chiropractic, 1988

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- M.S., University of Minnesota, 2001
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- M.S. (China), Traditional Chinese Medicine, Tianjin University, 2000
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- M.D., University of Minnesota, 1957
- B.S., University of Minnesota, 1955

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- C.S.C.S., 1997
- B.A., Carleton College (Minnesota), 1996

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- Ph.D., Iowa State University, 1985
- M.S., Iowa State University, 1982
- M.A., University of Iowa, 1975
- B.A., University of Iowa, 1967

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- C.C.S.T., 1999
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- B.S., Northwestern College of Chiropractic, 1995

### **Yongping Jiang,** Associate Professor, Chair of Herbal Medicine Department (2000)

- Ph.D. (China), Shandong University of Traditional Chinese Medicine, 1995
- M.Med (China), Shandong University of Traditional Chinese Medicine, 1992
- B.Med (China), Shandong University of Traditional Chinese Medicine, 1983
- L.Ac.
- Dipl.Ac. (N.C.C.A.O.M.)

#### Gary D. Johnsen, Lecturer (1995)

- M.A., St. Mary's (Minnesota), 1986
- B.A., Canadian Bible College, 1982

#### Valerie A. Johnson, Associate Clinic Faculty (2000)

- Certificate, NeuroMuscular Therapist, 1998
- Certificate, Northern Lights School of Massage Therapy, 1995
- B.S., University of Minnesota, 1974

#### Walter L. Johnson, Associate Professor (1983)

- Ph.D., University of Minnesota, 1972
- M.S., University of Minnesota, 1969
- B.A., Macalester College, 1963

#### Kevin E. Kalb, Assistant Professor (1985)

- D.C., Northwestern College of Chiropractic, 1983
- B.S., Clarkson College of Technology (New York), 1970

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- M.S., University of Illinois, 1995
- B.A., College of St. Catherine, 1994

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- D.A.C.B.S.P., Northwestern College of Chiropractic, 1993
- D.C., New York Chiropractic College, 1987
- M.S. in Ed., Queens College (New York), 1985

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 Ph.D., International School for Advanced Studies, 1999

#### **Dian Larson,** Assistant Professor (1991)

#### **Link P. Larson,** Associate Professor (1993)

- C.C.S.T., 1998
- D.C., Northwestern College of Chiropractic, 1986
- B.S., St. Mary's College, 1975

#### Mary E. Lasché, Lecturer (2004)

 Diploma, Centerpoint School of Massage Therapy, 1998

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• M.B.A., Webster University, 1993

#### **Zhaoping Li,** Associate Clinic Faculty (2000)

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#### **Charles A. Lininger,** *Instructor* (2000)

- B.A., Michigan State University, 1970
- Ι Δς
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- B.Med (China), Tianjin College of Traditional Chinese Medicine, 1988
- L.Ac.
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- Ph.D. (China), Tianjin College of Traditional Chinese Medicine, 2004
- M.Med (China), Tianjin College of Traditional Chinese Medicine, 2000
- B.Med (China), Tianjin College of Traditional Chinese Medicine, 1993

#### Anne H. Mackereth, Assistant Professor (2001)

• B.A., The College of St. Catherine, 1990

#### Michele Maiers, Research Fellow (2000)

- D.C., Northwestern Health Sciences University, 2000
- B.S., Northwestern Health Sciences University, 2000

#### Michael L. Mancini, Chiropractic Resident (2003)

 D.C., Northwestern Health Sciences University, 2002

#### Anita L. Manne, Associate Professor (1985)

- D.A.C.B.R., 1985
- D.C., Logan College of Chiropractic, 1981
- B.S., Logan College of Chiropractic, 1979

#### James E. McDonald, Associate Professor (1977)

- M.B.A., University of St. Thomas, 1988
- M.S., California Polytechnic State University, 1977
- B.S., California Polytechnic State University, 1972

#### Kren J. McManus, Assistant Professor (2000)

- B.S., Northwestern Health Sciences University, 2002
- D.C., Northwestern College of Chiropractic, 1996
- B.Mus., University of Massachusetts, 1988

#### Timothy J. Mick, Associate Professor (1989)

- D.A.C.B.R., 1989
- D.C., Northwestern College of Chiropractic, 1986

#### Warren L. Moe, Professor (1982)

- B.S., Los Angeles College of Chiropractic, 1982
- D.C., Los Angeles College of Chiropractic, 1980
- A.A., Waldorf College, 1970

### **Sanya S. Mortenson-Swanson,** Assistant Professor (1998)

- D.C., Northwestern College of Chiropractic, 1995
- B.S., Northwestern College of Chiropractic, 1995

#### Karen Norris, Research Associate (2002)

• D.C., Northwestern College of Chiropractic, 1999

#### Jeffrey J. Novak, Associate Clinic Faculty (2003)

D.C., Northwestern College of Chiropractic, 1997

#### **Amy L. Nystrom,** Associate Clinic Faculty (2001)

- L.Ac.
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#### Judith A. Olhauser, Associate Clinic Faculty (2001)

- MaO.M., Minnesota College of Acupuncture and Oriental Medicine, 2000
- L.Ac.
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#### Paul J. Osterbauer, Associate Professor (1998)

- M.P.H., University of Washington, 1993
- D.C., Northwestern College of Chiropractic, 1986
- B.S., Northwestern College of Chiropractic, 1986

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- M.Ac., New England School of Acupuncture, 2000
- L.Ac.
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### **Tolu A. Oyelowo-Lee,** Associate Professor (1995)

- D.C., Northwestern College of Chiropractic, 1989
- B.A., University of Minnesota-Duluth, 1983

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- D.C., Northwestern College of Chiropractic, 1991
- B.S., College of Saint Benedict (Minnesota), 1983

#### **Laverne S. Paulin,** *Lecturer (1955)*

- A.L.A., University of Minnesota, 1957
- D.C., Northwestern College of Chiropractic, 1953

#### **Donna E. Peterson,** *Lecturer* (2003)

- Pharm.D., University of Minnesota, 1983
- B.S., University of Minnesota, 1981

#### Rebecca A. Peterson, Instructor (1997)

• M.L.A., St. Paul Tech, 1975

#### Joel J. Pins, Assistant Professor (1997)

- Ph.D., University of Minnesota, 1997
- M.P.H., University of Minnesota, 1996
- M.S., University of Minnesota, 1995

### **John Pirog,** Associate Professor, Chair, Acupuncture Department (2000)

- M.S.O.M., Midwest Center for the Study of Oriental Medicine (Illinois), 1999
- L.Ac.
- Dipl.Ac. (N.C.C.A.O.M)

#### Michael J. Przeslawski, Associate Professor (1984)

- D.C., Northwestern College of Chiropractic, 1983
- B.S., Eastern Michigan University, 1976

### Krissa M. Pyrch, Associate Clinic Faculty (2004)

 Certificate, Connecticut Center for Massage Therapy, 2000

#### Lixin Qin, Associate Clinic Faculty (2004)

- B.S., Mankato State, 1995
- L.Ac.
- Dipl. Ac. (N.C.C.A.O.M.)

#### **Denise Radcliffe,** Assistant Professor (2001)

- N.C.T.M.B., 1993
- Certificate, Florida School of Massage, 1989
- M.S., Ohio University, 1988
- B.S., University of Rio Grande (Ohio), 1980

#### Paul J. Ratté, Associate Clinic Faculty (2003)

 N.D., National College of Naturopathic Medicine, 1997

#### Jane E. Richardson, Assistant Professor (1982)

- M.Ed., University of Minnesota, 1993
- B.S., University of Minnesota, 1972

#### Charles E. Sawyer, Professor (1977)

- D.A.C.B.N., 1987
- D.C., Northwestern College of Chiropractic, 1977
- B.A., College of St. Thomas, 1972

#### Susan M. Schoenheider, Associate Professor (1995)

- B.A., Concordia College, 1996
- D.C., Northwestern College of Chiropractic, 1973

#### Craig A. Schulz, Research Fellow (2001)

• D.C., Northwestern College of Chiropractic, 1999

#### **Della J. Shupe,** Assistant Professor (1997)

- M.A., University of Denver, 1973
- B.A., Bethel College, 1971

#### Lisa L. Simensen, Associate Clinic Faculty (2001)

- Ma.O.M., Northwestern Health Sciences University, 2002
- L.Ac.
- Dipl.Ac. (N.C.C.A.O.M.)

#### David J. Smith, Associate Professor (1996)

D.C., Northwestern College of Chiropractic, 1983

#### David E. Stude, Associate Professor (1989)

- D.A.C.B.S.P., 1998
- C.C.N., 1997
- D.A.C.B.N., 1996
- C.S.C.S., 1993
- D.C., National College of Chiropractic, 1984
- B.S., National College of Chiropractic, 1984
- M.S., Loyola University (Illinois), 1980
- B.S., St. John's University, 1977

#### Joseph J. Sweere, Professor (1986)

- D.A.B.C.O., 1974
- D.A.C.B.O.H., 1974
- D.C., Northwestern College of Chiropractic, 1961

#### Kim L. Swineheart, Associate Professor (1994)

- D.C., Northwestern College of Chiropractic, 1996
- B.S., Central Michigan University, 1980

#### Barry H. Taylor, Assistant Professor (2004)

- D.C., Northwestern Health Sciences University, 2004
- B.A., University of North Dakota, 1996

#### Jason C. Thoen, Assistant Professor (2002)

Ph.D., Purdue University, 2001

#### Stacy M. Thornhill, Assistant Professor (2000)

- A.C.C.R.S., 2002
- D.A.C.R.B., 2001
- D.C., National College of Chiropractic, 1998

#### Noni H. Threinen, Assistant Professor (1998)

- M.S., Capella University, 2003
- D.C., Northwestern College of Chiropractic, 1987
- B.A., Gustavus Adolphus College (Minnesota), 1973

### **Mary M. Tuchscherer,** Professor, Chair, Western Biomedicine Department (1985)

- D.C., Northwestern College of Chiropractic, 1991
- Ph.D., University of Minnesota, 1987
- M.S., University of Minnesota, 1983
- B.S., Saint Norbert College (Wisconsin), 1979

#### Brian J. Turner, Instructor (1996)

B.S., University of Minnesota, 1989

#### **Okokon O. Udo,** Assistant Professor, Chair, Integrative Health & Wellness Program (2002)

• Ph.D., Lutheran Seminary, 2001

#### Ghazala P. Usman, Associate Clinic Faculty (2003)

 D.C., Northwestern Health Sciences University, 2001

#### Blong B. Vang, Research Associate (2002)

 D.C., Northwestern Health Sciences University, 2002

#### Daniel H. Wallace, Professor (1978)

- Ph.D., University of Minnesota, 1977
- B.S., St. Cloud State College, 1972
- A.A., North Hennepin Junior College, 1970

#### Mei Wang, Associate Professor (2001)

- Ph.D. (China), Shandon University, 2002
- M.Med (China), Henan College of Traditional Chinese Medicine, 1999
- B.Med (China), Henan College of Traditional Chinese Medicine, 1986
- L.Ac.
- Dipl. Ac. (N.C.C.A.O.M.)

#### Sarah Weaver, Associate Clinic Faculty (2000)

- M.F.A., University of Minnesota, 2000
- Certificate, Northern Lights School of Massage Therapy, 1993
- B.A., Oberlin College (Ohio), 1989

#### **Orville L. Weiszhaar,** *Lecturer* (1993)

- Ph.D., University of Minnesota, 1978
- J.D., William Mitchell College of Law, 1965
- M.S., University of Minnesota, 1964
- B.A., University of South Dakota, 1959

### **Jennifer L. Wenborg,** Associate Clinic Faculty (2003)

- Ma.O.M., Minnesota College of Acupuncture and Oriental Medicine, 2003
- L.Ac.
- Dipl. Ac. (N.C.C.A.O.M.)

#### Jonathan C. Williams, Associate Professor (1993)

- F.A.A.C.P., 2001
- C.E.M., 2001
- D.A.B.C.I., 1996
- D.A.A.P.M., 1991
- D.C., Northwestern College of Chiropractic, 1989
- B.A., University of Plano, 1974

#### Jane E. Wittich, Professor (1981)

- Ph.D., University of Minnesota, 1981
- P.N.P.C., University of Minnesota, 1973
- B.S.N., University of Minnesota, 1970

#### Sarah L. Wolf, Associate Clinic Faculty (2003)

 Certificate, Northwestern Health Sciences University School of Massage Therapy, 2003

#### John B. Wolfe, Jr., Lecturer (1989)

- J.D., William Mitchell College of Law, 1989
- D.C., Northwestern College of Chiropractic, 1985
- B.A., Creighton University, 1981

## **Kurt W. Wood,** Professor, Chair, College of Chiropractic, University Compliance Officer (1987)

- D.A.B.D.A., 1998
- D.A.A.P.M., 1991
- D.C., Palmer College of Chiropractic, 1979

#### Zachary J. Zachman, Professor (1987)

- D.A.B.C.O., 1989
- B.S., Northwestern College of Chiropractic, 1988
- D.C., Northwestern College of Chiropractic, 1985

"I feel the most crucial part of any program is the people doing the teaching. The group of instructors, professors, and administrators at Northwestern have a tremendous passion for their profession and it shines through everyday."

"Being part of a University, with its variety of programs, has helped me learn how to be a well rounded doctor and how to really understand how each different health care option can help my patient."

Northwestern offers a very well-rounded education in the sciences as well as the philogophy of chiropractic.
They continue this through property all experience and externships."

The projession of health early formative on traditional and alternative towards integrative. This programme administrator to fully integrated from the control of the practitioner or "With the clubs, student sense of the dances, intramunal sports,"

there really is something for everyone.

"In the Twin cities there is always something to do for a study break. There are many theaters, takes, casks, hiking trails, sports teams, museums and conderts. Plus there are a lot of events and activities free hor students, which is impurtant too.

"The financial aid and registral staff have always been very recentive to helping with my questions. They we all very nice people.

"The alumni office has arranged speakers to come in on a variety of topics.

It is great to have someone making those connections for as."

"Northwestern offers great networking opportunities among the programs.

Having all of the different programs allows MCAOM to get a lot \_\_\_\_\_

more benefits like the cadaver lab and great clinic opportunities."

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The material contained in this catalog is for informational purposes only. Northwestern Health Sciences University has the right to add to, change, or deviate from this catalog at any time, with or without notice.

This catalog does not constitute, nor is it intended to constitute, a contract with any student.

This catalog replaces and supercedes all prior catalogs.

#### **NONDISCRIMINATION POLICY**

It is the policy of the Board of Trustees that Northwestern Health Sciences does not unlawfully discriminate on the basis of race, color, religion, national or ethnic origin, age, gender, marital status, sexual orientation, disability, veteran status, or status with regard to public assistance in administration of and access to the University's educational, research, and clinical programs, student organizations and events, employment, and other University-administered activities.

Further, it is the policy of the Board of Trustees of Northwestern Health Sciences University to maintain the University community as a place of work and study for staff, faculty, students, and patients free of racial or sexual harassment.

Inquiries regarding compliance and grievance procedures can be directed to: Deborah Hogenson, Human Resources Director, Northwestern Health Sciences University.

#### STUDENT RIGHT TO KNOW

In accordance with the Student Right to Know Act (Title I of Public Law 101-542), graduation rates for degree-seeking students are available to all current or prospective students from the Office of Admissions and will be provided upon request. However, as a general statement, Northwestern has very high graduation rates in all its programs.

In accordance with the Student Right to Know Act (Title II of Public Law 101-542), students may receive, on request, information about campus security including campus crime statistics from the Office of Admissions. However, as a general statement, Northwestern has an extremely low crime rate and an excellent security program.

# FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT (F.E.R.P.A.) AND STUDENT RECORDS

The Family Educational Rights and Privacy Act (F.E.R.P.A.) affords students certain rights with respect to their education records. They are:

1. The right to inspect and review the Student's education records within 45 days of the day that the University receives a request for access.

Students should submit to the Registrar, or other appropriate official, a written request that identifies the record(s) they wish to inspect. The Registrar, or other appropriate official, will make arrangements for access and notify the Student of the time and place where the records may be inspected. If the records are not maintained by the University official to whom the request was submitted, that official shall advise the Student of the correct official to whom the request should be addressed.

2. The right to request an amendment of the Student's education records that the Student believes are inaccurate or misleading.

Students may ask the University to amend a record they believe is inaccurate or misleading. They should write the University official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading.

If the University decides not to amend the record as requested by the Student, the University will notify the Student of the decision and advise the Student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the Student when notified of the right to a hearing.

 The right to consent to disclosures of personally identifiable information contained in the Student's education records, except to the extent that F.E.R.P.A. authorizes disclosure without consent.

One exception that permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by the University in any administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the University has contracted (such as an attorney, auditor, collection agent, or community-based mentor); a person serving on the Board of Trustees; or a Student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.

A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

Upon request, the University discloses education records without consent to officials of another school in which a Student seeks or intends to enroll. The University shall make reasonable efforts to notify a Student of such a record request.

4. The right to file a complaint with the United States Department of Education concerning alleged failures by the University to comply with the requirements of F.E.R.P.A. The name and address of the Office that administers F.E.R.P.A. is:

Family Policy Compliance Office U.S. Department of Education 400 Maryland Ave., S.W. Washington, DC 20202-4605

The following information is public information, unless the Student has requested non-disclosure:

- Name;
- Address;
- E-mail address;
- Telephone number;
- Dates of enrollment;
- Enrollment status (full-time, part-time, not enrolled);
- Major/course of study;
- Name of adviser/program director;
- Class/term;
- · Academic awards and honors;
- Degree(s) received;
- Photograph.

Students have the option to suppress directory information. If this option is selected, no information pertaining to attendance will be released, and the Student's name and other information will not appear in University directories. Students who receive financial aid provide consent for release of certain directory and other information to lenders and/or guarantors as a consequence of their financial aid contract(s).

Students must express, in writing, their wish to suppress directory information to the Office of the Registrar, or other appropriate official.

Under the Act, the University reserves the right to disclose educational records or components thereof, to parents of dependent Students as defined according to the Internal Revenue Code of 1954, Section 152 (as amended). All Students will be assumed to be independent unless a parent presents a certified copy of their most recent Federal Income Tax Form establishing the Student's dependent status.

No official transcript will be released if the Student or graduate is delinquent or in default either to the University or to any student loan-servicing agency handling any student loans undertaken while enrolled. Requests must be submitted one week prior to the date transcripts are needed. Official transcripts must be mailed directly to the designated recipient. They cannot be released to the Student.

A Student File is also kept on each Student from the time of application. These files are also confidential and are available for administration, faculty, and the individual Student. Students may examine their individual file at any time, but it may not be removed from the Registrar's office.