UWS Catalog

2013-14

UNIVERSITY OF WESTERN STATES

Integrating Health and Science

2900 NE 132nd Avenue | Portland, Oregon 97230 | www.uws.edu

Catalog Provisions
The UWS Catalog is provided in order to serve prospective students, students, faculty, and staff members as a reference explaining institutional mission, curricula, and a number of the university's policies and procedures that pertain particularly to students. This catalog is subject to change as new and more efficient policies, procedures, and/or curriculum revisions are adopted. It does not serve as a contract, but as a source of information to interested parties and students. All changes apply both to prospective students and to those who have already enrolled, unless specifically exempted. Suggestions are welcome and may be submitted in writing to the office of admissions.

Reservation of Rights and Notice of Non-Discrimination
The University of Western States reserves the right, without notice, to modify the requirements for admission or graduation; to change the arrangements or content of courses, the instructional materials used, the tuition and other fees; to alter any policy affecting the student body; to refuse admission or readmission to any student at any time, or to dismiss any student at any time, should it be in the interest of the university or the student to do so. The university also reserves the same right as to any other material in this application and the catalog. It is the duty of the student to inquire as to whether any change has been made. The University of Western States offers equal opportunity to all persons without regard to race, color, gender, sexual orientation, marital status, national origin, national citizenship, religion, age, disability, veteran status, or other protected classes. This applies to all University of Western States policies and programs.

If you have any questions, please contact:

Patrick Browne, EdD
Vice President for Enrollment and Student Services
University of Western States
2900 NE 132nd Avenue
Portland, Oregon 97230
pbrowne@uws.edu
800-641-2812

Phone Numbers

Main campus phone	503-256-3180	
General fax	503-251-5723	
Academic Affairs	503-847-2593	
Admissions	800-641-5641	503-251-5734
Bookstore	503-251-5763	
Business Office	503-251-5701	
Cafeteria	503-251-2815	
Campus Safety	503-206-3206	
Clinics main phone	503-847-2564	
Career Services	503-847-2554	
Financial Aid	503-256-3180	
Health Center - Campus	503-255-6771	
Health Center - Downtown	503-223-2213	
Health Center – East Portland	503-808-7979	
Health Center - Gresham	503-512-1040	
Health Center - Salem	503-223-2213	
Information Technology	503-251-2831	
Library	503-251-5752	
Registrar	503-847-2560	
Research	503-251-2840	
Student Services	503-251-2802	

2900 NE 132nd Avenue
Portland, OR 97230-3099
(503) 256-3180

Table of Contents

Message from the President

Welcome to the University of Western States. For over a century, the institution has been a leader in the development of conservative health care education and practices. UWS is committed to providing a diversified education for students while serving the community as an integrated health care resource.

Western States offers a doctor of chiropractic degree along with a number of health-related bachelor's and master's degrees. We also offer an accredited certificate program in therapeutic massage, and extensive continuing education courses for practicing professionals. Our evidence-informed curricula are solid and progressive, incorporating current health studies with the art of clinical care. "For the Good of the Patient" is the UWS motto that embodies who we are and what we do. UWS students consistently demonstrate academic distinction, exemplary service to their professions, and provide the highest quality of health care.

The future of health care will focus on integrating disciplines, preparing competent professionals, providing effective care, and promoting health and wellness. UWS graduates exemplify the competencies and attributes necessary to meet our individual and collective responsibilities to society.

I know that in electing to share the UWS vision you have made the best choice available in integrative health care education. I wish you the best as you pursue your dreams and achieve your personal goals.

Joseph Brimhall, DC, FICC
President

For the Good of the Patient™

"For the Good of the Patient" is the University of Western States motto. It captures the intent behind much of what happens at the university. UWS exists to improve the health of society through its educational programs, research, and clinical services. At the core of university decision-making is the greater professional responsibility to the patients (also referred to as clients or health care consumers) who ultimately benefit from the fulfillment of the university mission. This responsibility drives UWS programs, employees, students, and graduates.

UWS Mission, Vision, Goals, and Values

Mission

The mission of the University of Western States is to improve the health of society and advance the science and art of integrated health care through leadership and excellence in health sciences education, service, and the enhancement of knowledge through research and scholarship.

Vision

UWS is committed to improving the quality of human life. We will be a leader in education and health care, renowned for our programs, facilities, and people. We will achieve excellence through transformative practices in teaching and learning, scholarship, wellness promotion, and by fostering professional and community relationships.

Core Themes – Essential Mission Elements

Health Sciences Education
Service and Patient Care
Research and Scholarship

Institutional Goals

A. To be a vital institution of higher learning distinguished as a caring, rewarding, and enjoyable place to learn, work, grow, and engage.

B. To develop a health services model that excels in the development and delivery of integrated care and training.

C. To be an exemplar in teaching, learning, evaluation, and scholarship.

D. To ensure institutional stability, sustainability, and significance.

UWS Logo

The circle medallion represents a complete and well-rounded curriculum to equip graduates with the tools they need to succeed. The graphic symbols within the medallion represent the letters “UWS.” The design is intended to communicate the institution serves as the vessel for the knowledge it provides. The color selection was made to honor the long history and tradition of the University of Western States, as well as to convey the richness of experience and acknowledgement of the value that the university brings to the lives of all those participating therein.

Values

The patient
The highest priority at UWS is the consumer of the health care delivered by the university's faculty, students, and graduates. From the recipient of a simple health care screening, to a massage therapy client, to a patient receiving care from a physician, there can be no greater importance than the needs and trust of the person receiving that care.

Teaching excellence and lifelong learning
As an institution of higher education, the university is committed to excellence in teaching and the promotion of a supportive and innovative learning environment that guides, enhances, and nurtures student learning and understanding. Faculty and students desire to work collectively to develop habits of self-inquiry, discovery, sharing of knowledge, and self-directed learning that will guide a lifetime of increasing knowledge and skills.

Intellectual freedom
The university vigorously supports the freedom to access, explore, and express ideas relevant to the institution's mission without restriction, and seeks to provide a neutral setting that balances respect, integrity, curiosity, and accountability.

Service
The university accepts and respects its responsibility to serve its constituents, including clinic patients and clients, students, alumni, the health professions, and the community.

Collaboration
Partnerships and collaborations with other institutions, professionals, and the community are vital to the growth and significance of the university. We also seek to promote collaborative efforts within the university between faculty, staff, and students.

Conservative and integrated health care
Inherent in the university's health care philosophy is an emphasis placed upon conservative care that minimizes risk and cost and that encourages interaction between various health care providers and disciplines to provide the most appropriate care. The university believes that the health care consumer is best served through the practitioner's integration of evidence and reason-based knowledge, clinical expertise and judgment, logical thinking, and attention to patient-specific factors and variants.

Tradition
The university cherishes its long and respected history of educating chiropractic physicians. As new programs are added to the university's academic portfolio, we will not neglect our heritage, nor will we allow our traditions to lessen the value and importance of new ideas and programs.

Integrity and Ethics
UWS strives to be an exemplar of professionalism, honesty, integrity, and ethical conduct. It believes these traits should characterize and permeate the institution, its employees, and its students. The university also values sincere and frank introspection and reflection, and incorporates these values into its accreditation and assessment practices.

Stewardship
As a steward of human, physical, fiscal, and environmental resources, the university shall sustain and enhance these resources, and ensure their availability to future generations, through a commitment to trust, ethics, social and fiscal responsibility, and sound financial judgment.

Scholarship
The university values the development and sharing of knowledge, and supports the implementation of scholarship in teaching, research, and clinical practice by its faculty, staff, and students. It is a core responsibility of UWS to contribute to the expansion of understanding of the art, practice, and sciences related to health care and education.

Leadership
UWS has a tradition of promoting and providing leadership and seeks to continue to develop, nurture, and attract leaders in its students and employees. To this end, the university encourages its students, faculty, staff, and graduates to commit to caring, meaningful communication, prudent exercise of authority, acceptance of responsibility, and motivate and provide direction to others

University Overview

Organization

The University of Western States is organized into three academic units:

College of Chiropractic
College of Graduate Studies
College of Undergraduate Studies

The college of chiropractic offers the professional doctor of chiropractic (DC) degree program, the institution's oldest degree program. Prior to 2010, when the institution was reorganized into a university, the college was known as the Western States Chiropractic College.

The college of graduate studies offers master's degrees and residencies/fellowships in the health sciences. The college offers an MS in exercise and sports science, an MS in human nutrition and functional medicine, an MS in diagnostic imaging with a residency program, and a fellowship in sports science. Additional master's programs are under development.

The college of undergraduate studies offers a certificate program in massage therapy, a bachelor's completion degree in human biology, and an extensive selection of continuing education programs for health care professionals. Additional bachelor's degree programs are under consideration.

The university includes a division of research that oversees health sciences research. The division of research includes the Center for Outcomes Studies, which conducts high-quality studies, primarily randomized controlled trials. UWS is actively involved in collaborative relationships and cooperative research projects with other health professions, academic institutions, and health care organizations.

Governance

The University of Western States is incorporated as a private, nonprofit institution of higher learning in the state of Oregon with academic programs leading to undergraduate, graduate, and professional degrees. The control of the university is vested in a Board of Trustees. Members of the board are selected on their ability, experience, integrity, and interest in the development and growth of the university. The current list of trustees and officers of the board can be found on the UWS website. The board appoints the university president, who serves as the chief executive officer of the institution. The current list of administrators is included in the personnel directory portion of this catalog and on the website (www.uws.edu).

Accreditation

Accreditation is the voluntary process by which institutions of higher education assure and continuously improve the quality of their academic programs and supporting systems. UWS has both regional institutional accreditation and programmatic accreditation for the doctor of chiropractic program and massage therapy program.

Regional accreditation is managed by eight accrediting organizations, of which the Northwest Commission on Colleges and Universities oversees the accreditation of approximately 180 institutions in Oregon, Washington, Idaho, Montana, Alaska, Nevada, and Utah. Regional accreditation provides institutions and students with eligibility to access federal financial aid and research funds.

The Northwest Commission on Colleges and Universities (NWCCU) accredits the University of Western States. NWCCU is located at 8060 165th Avenue N. E., Suite 100, Redmond, WA 98052. Tel: 425-558-4224. For further information on NWCCU, please go to www.nwccu.org.

Specialized programmatic accreditation offers an additional level of accreditation for certain academic programs. Specialized accreditation organizations are approved by the U.S. Department of Education Office of Postsecondary Education to evaluate and accredit degree and certificate programs using very specific criteria.

The doctor of chiropractic degree program at the University of Western States is awarded programmatic accreditation by the Council on Chiropractic Education (CCE), 8049 North 85th Way, Scottsdale, AZ 85258-4321. Tel: 480-443-8877, Website: www.cce-usa.org.

The UWS massage therapy program is accredited by the Commission on Massage Therapy Accreditation (COMTA), 5335 Wisconsin Avenue NW, Suite 440, Washington, DC 20015. Tel: 202-895-1518; Email: info@comta.org, Website: www.comta.org.

Degree Authorization – State of Oregon

The Oregon Office of Degree Authorization approves the University of Western States to award degrees. The Oregon Department of Justice is the agency to which students may file a complaint for Oregon.

Campus Facilities

The 22-acre UWS campus is located in a pleasant, residential neighborhood ten miles northeast of downtown Portland, near the western end of the Columbia River Gorge and National Scenic Area, offering majestic views of Mount Hood and Mount St. Helens. Campus facilities include state-of-the-art lecture halls and classrooms, laboratories, library, bookstore, cafeteria, a campus health center, and study and recreation areas. The UWS campus is a smoke-free environment.

Hampton Hall is a 16,000-square foot multipurpose facility in the center of campus. It houses three large, amphitheater-style multimedia lecture rooms each seating 100-150 students, a conference room, and a relaxing reception area.

East and **West Halls** contain lecture rooms and teaching laboratories specially equipped for chiropractic technique and massage instruction. West Hall also contains an x-ray technique lab used for providing hands-on instruction in radiographic positioning and technique.

The **Science Building** houses laboratories for instruction in biochemistry, histology, microbiology, and clinical laboratory diagnosis. This building also houses a specialty exercise physiology laboratory, the Fireside Student Lounge, and a lecture room.

The **Gymnasium** building houses a large multipurpose room used for indoor recreational activities, such as basketball and volleyball, and for campus convocations and assemblies. The building also has two technique laboratories, some faculty offices, the bookstore, a fitness center, and the Spinal Tap coffee kiosk.

The UWS **Bookstore and Spinal Tap coffee kiosk are** housed within the gymnasium building. The bookstore offers new textbooks and reference materials, medical supplies, school supplies, study guides, UWS apparel, giftware, and food.

The **Student Assessment Center** houses faculty offices, the standardized patient training program, the campus massage clinic, and specialty rooms for teaching and learning patient examination skills. Clinical competency examinations are conducted in this facility.

The **Anatomical Sciences Building** is the newest facility on campus, completed in spring 2011. It houses a state-of-the-art gross anatomy dissection laboratory equipped with multimedia instructional technology, a sophisticated air exchange system, lockers for students, a conference room, and offices for basic sciences faculty.

The **Administration Building**, located on the east side of the campus, houses the office of the president, administrator offices, university relations, public relations, registrar, student services, admissions, financial aid, business office, human resources, several faculty offices, and the campus dining facility.

The **W.A. Budden Library**, within **Elliott Hall**, provides access to one of the largest health sciences collections in the Pacific Northwest. In addition to the extensive array of textbooks and print journals, the library has a broad range of electronic resources, including bibliographic databases, hundreds of online full-text scientific and medical journals, and streaming video instructional materials.

The **UWS Massage Program-Salem** occupies nearly 5,800-square feet of space in the Health Sciences Building #8 on the Campus of Chemeketa Community College in Salem, Oregon (4000 Lancaster Drive NE). The space includes classrooms for massage instruction and office space.

Health Centers of UWS

University facilities include a network of clinic facilities on and off-campus for the delivery of health care services to students, employees, and the public.

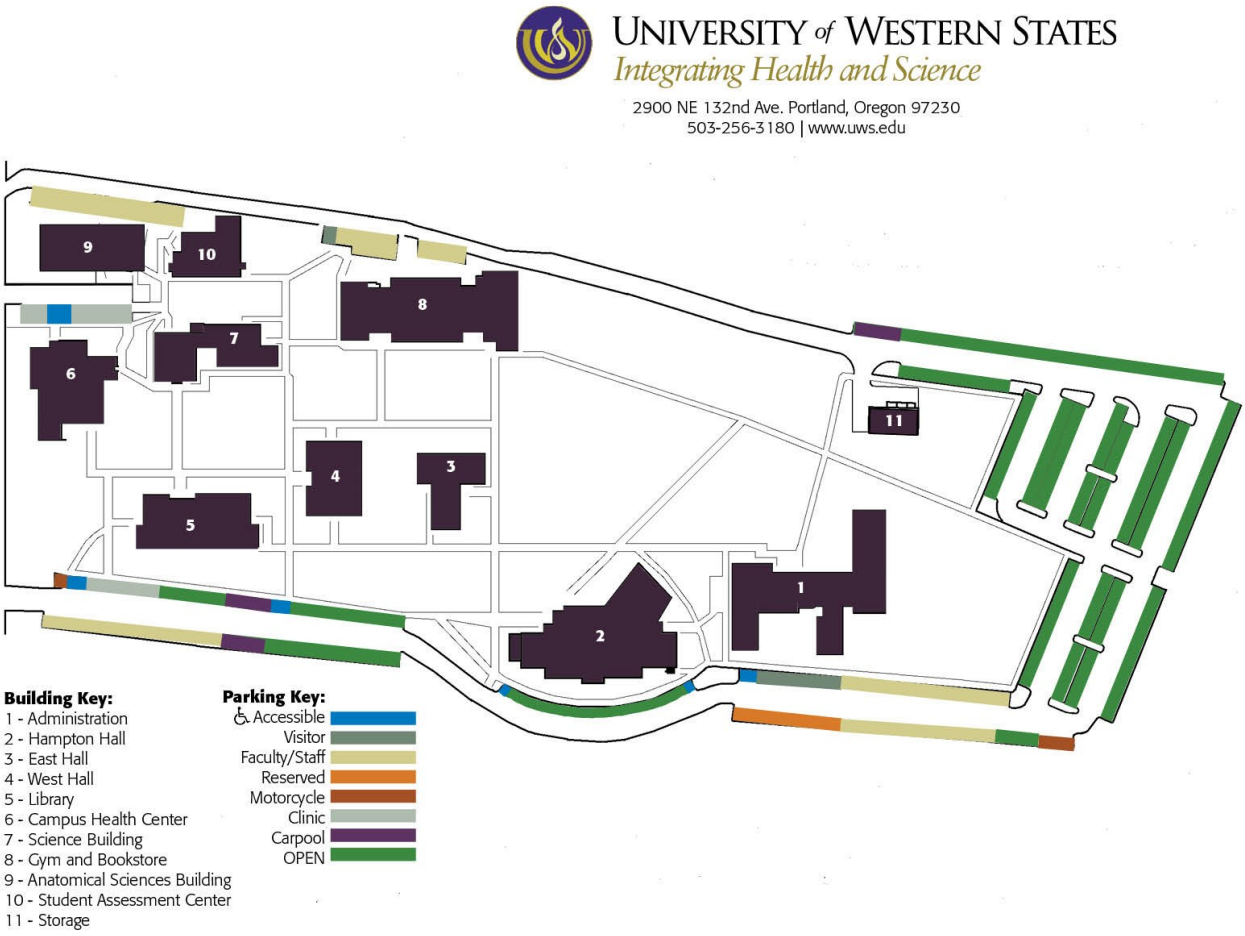
The **Campus Health Center (CHC)** is equipped and staffed to provide health and wellness services to the UWS community. The facility contains patient reception and business areas, evaluation and treatment rooms, clinical laboratory and radiology facilities, a rehabilitative exercise room, and an intern workroom. It houses the offices of clinic administrators, faculty members, and staff.

The clinic system extends to off-campus locations throughout the Portland metropolitan area.

- **Gresham Integrated Care**
- **Health Centers of UWS – Northeast Portland**
- **Health Centers of UWS – Downtown Portland** is a member of the Coalition of Community Health Clinics, a group of 14 non-profit clinics that serve the healthcare needs of the uninsured and underinsured in Multnomah County.
- **Health Centers of UWS – Salem** is on the campus of Chemeketa Community College.

The UWS clinic system further extends its reach by partnering to provide services at multiple clinic sites owned and operated by other entities throughout the region.

Campus Map



Campus Visits

UWS invites all prospective students to visit campus, particularly while classes are in session. While visiting campus, prospective students are welcome to observe classes and speak with students and faculty members to gain an appreciation of the university, its mission, and exceptional instruction.

UWS also hosts a variety of campus recruiting events throughout the year. A complimentary night's stay at an area hotel is available for visitors traveling from outside the region. For additional information, please contact the office of admissions at admissions@uws.edu or (800) 641-5641.

Visitor Parking

Visitors should register and obtain a parking permit from the business office if they will be on campus for more than the 30-minute visitor space time limit. Visitor parking spaces are available in front of the administration building and east of the gym building.

Student Parking

Because UWS is located in a residential area, parking is regulated and monitored by the City of Portland. The terms established by the city prohibit on-street parking. The neighborhood agreement also requires that the university promote utilization of alternative transportation to curtail the amount of traffic to and from the university. To comply, the university pays student public transportation fees, requires all employees and students to file quarterly transportation/parking declarations, and charges parking fees. For occasional driving to campus, the business office, Chiro Café, and bookstore offer daily parking passes for $1.

Students may park in unmarked parking spaces. Students parking in marked parking spaces designated for faculty and staff, reserved, visitor, handicapped, clinic, and loading zones will be fined. Motorcycle and scooter parking is available in the rear corner of the parking lot. Bicycle parking places are located in a number of locations on campus, including covered bike parking at the gymnasium building.

History of Western States

D.D. Palmer founded the chiropractic profession in 1895 and opened his first school in Davenport, Iowa, in 1898. Some of the first graduates of that program, Drs. John and Eva Marsh, brought chiropractic education to Portland in 1904 when they opened the Marsh Chiropractic School and Cure. One of its first graduates, Dr. William Powell, joined with Dr. John Marsh to incorporate and expand the Marsh's school in 1907, changing its name to Pacific College of Chiropractic.

Dr. D.D. Palmer, who had visited Oregon in 1902, and Dr. John LaValley founded a second chiropractic school, the D. D. Palmer College of Chiropractic, in 1908. In 1911, Dr. LaValley reorganized the college, changing the name to Oregon Peerless College of Chiropractic-Neuropathy. It was here that human dissection was first placed on the curriculum of an Oregon chiropractic school. In 1913, Peerless College merged with the Pacific College of Chiropractic, becoming the Pacific Chiropractic College. In 1932, the Pacific Chiropractic College was reorganized and became Western States College. In 1937, the Health Research Foundation was formed as a non-profit organization under which Western States College operated. The college also offered a degree in naturopathy from the mid-thirties through the mid-fifties. In 1946, the college relocated to southeast Portland, and then, in 1973, moved to its current 22-acre campus in northeast Portland. In 1967, the school's name changed to Western States Chiropractic College (WSCC).

WSCC has pioneered many facets of chiropractic education. It was the first chiropractic college to establish a four-year course of study; one of the first to be transferred from private ownership to non-profit status; the first to require two years of pre-professional requirements to enroll; one of the first to adopt a curriculum inclusive of all the basic sciences; and the first to be awarded a federal research grant.

In 2010, Western States Chiropractic College became the University of Western States (UWS). This transition fulfilled the board and administration's plan to expand the institution's educational offerings at the undergraduate and graduate levels to establish a diversified spectrum of offerings in integrated health care.

Presidents of Western States include Drs. W.A. Budden (1929-1954), Ralph Failor (1954-1956), Robert E. Elliot (1956- 1974), Samuel G. Warren (1975-1976), Richard H. Timmins (1976-1979), Herbert J. Vear (1979-1986), William H. Dallas (1986-2003), and Joseph Brimhall (2003-present).

Tuition and Fees

The Board of Trustees approves tuition rates and fees annually. New tuition rates and fees are ordinarily effective at the beginning of the summer term. However, tuition and fees are subject to change without prior notice. The university makes every effort to keep costs to students at the lowest level consistent with its commitment to the highest quality educational preparation for professional practice.

Tuition and Fee Assessment

Tuition and fees are assessed for all students on the first day of each term of enrollment in accordance with the applicable program tuition and fee schedules. Tuition and fee schedules for the current academic year may be found on the UWS website and in the offices of admissions, business, and financial aid. Students enrolled in the DC and massage programs are charged a flat tuition rate as long as they are at or above the full-time credit load. Students taking single subject courses, or those enrolled in master's programs, are charged on a per-credit basis.

Tuition and fees are not adjusted for course exemptions. See Policy 1209 – Course Exemption or contact the registrar for more information.

Course Registration and Enrollment Confirmation

The process for quarterly course registration and confirmation of enrollment is transitioning to an electronic format. Students will be able to log in to *myUWS* to confirm their enrollment, tuition, and fees each term. A student on "hold" status must clear any holds in order to register. The office of the registrar will disseminate information on registration/confirmation procedures as available.

Tuition and Fee Payment

Students are personally responsible for meeting their financial obligations to the university. Prior to matriculation, students are required to sign a statement of financial responsibility that will remain in effect for the duration of their attendance at the university. With this statement, students acknowledge their personal responsibility for the tuition, fees and other university charges assessed or incurred. Policy 3025 – Student Financial Responsibility

Payment of tuition and fees is due on or before the first day of the term. Interest begins accruing on the first day of the term. However, a grace period is granted until the last business day of the first month of the term in order to make payment arrangements with the business office. On the last business day of the first month of the term, a full month's interest at 18 percent per annum will be assessed on the entire unpaid balance. Interest will continue to accrue each subsequent month where a balance remains. Students who fail to make tuition and fee payment arrangements with the business office by the end of the first month of the term may be prohibited from attending classes.

Audit Tuition and Fees

Under special circumstances, the dean may authorize a student to audit a course. In such cases, tuition is charged at one-half the regular rate, plus any other applicable fees. Grades are not awarded for course audit.

Tuition Deferment Plan

The tuition deferment plan offers currently enrolled students the option of paying for their quarterly education costs in up to three installments over the course of the term. A one-time fee of $30 is due at time of application, when utilizing this payment method. The current tuition and fees are allocated equally over the number of installments chosen (up to three). Each payment is due to the business office by the last day of the month or last day of the quarter, depending upon the terms of payment. When making regularly scheduled payments under this plan, no interest will be charged to the student's account. In the event of a late or missed payment, interest will be charged to the account on the total past due balance. All balances must be paid by the last day of each quarter.

Residual Checks

Financial aid and other payments received by the university are applied to student accounts within three business days of receipt. If payments are received in excess of tuition, fees, and other student account charges, a residual check will be issued to the student. These residual funds are intended to assist with the cost of books, supplies, and other living expenses for the term. Residual checks are issued only upon the completion of the mandatory check-in process. If financial aid or other payments are received, but the student does not check in for the term, all funds will be returned to the lender or sponsoring agency.

Past-Due Debt
Any balance due to the university after the first month of the term constitutes a past due debt. Payment of past-due debts, including but not limited to accrued interest and/or late fees, must be made to the university prior to continued attendance or receipt of a diploma. Any past-due debt to the university or any of its departments or auxiliary services is grounds for termination of campus privileges regularly granted to students or alumni. In extreme cases, past-due student account balances may be turned over to a collection agency.

Tuition and Fee Refunds
Students may drop some or all of their courses, without financial penalty during the first five days of the term, known as "the drop period." After the drop period, students cancelling enrollment from the university during the term may be eligible for a prorated refund of certain tuition and fees.

Enrollment cancellation or deferral may result from withdrawal, leave of absence, or dismissal. When enrollment is cancelled during the first 60 percent of the term, the university will apply refunds to student accounts, calculated on a pro rata basis, in accordance with Policy 3021 – Tuition and Fee Refunds. After 60 percent of the term has elapsed, students are no longer eligible for a refund for that term. Refunds will first be applied to any outstanding balance owed to the university.

The student is responsible for any unpaid tuition and fee charges due to the university, and where applicable, federal regulations determine the portion of federal student aid funds that must be returned to the lender or program in cases of withdrawal and/or leaves of absence. The student must repay to UWS all federal student aid returned on his or her behalf, in accordance with federal regulations, as determined by the U.S. Department of Education's Federal Student Aid programs. Please refer to the "Impact of Withdrawals and Leaves of Absence on Financial Aid" section in the financial aid portion of this catalog for more information on federally-mandated requirements on returning federal student aid funds.

Financial Aid
University of Western States administers an extensive program of student financial aid. The goal of the program is to enable students to pursue their desired education, regardless of their personal financial situations. Recognizing that professional education is costly, students should consider the expense of their total education and research available sources of funding. At UWS, financial aid is available primarily in the form of loans. Student employment is also available on campus. The university does not currently participate in the federal work-study program.

Eligibility for U.S. Federal Student Aid
To qualify for U.S. financial aid, students must meet the following requirements:

1. Be a U.S. citizen or an eligible non-citizen (possess an Alien Registration Receipt Card I-151 or I-551).
2. Complete a FAFSA each academic year for which financial aid is required, and provide all requested documents to the Financial Aid Office.
3. Be registered with Selective Service, if the student is male and was born on or after January 1, 1960.
4. Not owe a refund to any federal student grant program, nor be in default on any federal student loan.
5. Maintain Satisfactory Academic Progress (SAP) for the student's program of study under Policy 3804 – Satisfactory Academic Progress for Financial Aid Eligibility.
6. Other rules may apply.

How to Apply
Eligible students may apply for financial aid by completing and submitting a Free Application for Federal Student Aid (FAFSA). Applying online at www.fafsa.ed.gov is recommended. If a paper application is preferred, contact the office of financial aid.

The FAFSA is available in January of each year for the upcoming school year. The priority-filing deadline for UWS is March 1 of each year. When completing the FAFSA, enter UWS's Federal School Code: 012309.

As part of the application review and verification process, the student may be asked to submit a copy of his/her completed federal income tax return, W-2s, verification worksheets, and/or other documents to the office of financial aid. Successful use of the "IRS Data Retrieval Tool" while filing the FAFSA may reduce the likelihood of needing to submit additional documentation. The office of financial aid will notify the student if further information is needed after the FAFSA is filed.

Calculating Eligibility
The information provided on the FAFSA is used to determine the student's expected family contribution (EFC). This number appears in the upper right hand corner of the Student Aid Report (SAR). The EFC functions as an eligibility index that determines eligibility for certain aid programs.

Cost of Attendance (COA or "budget")
The cost of attendance is the estimated total cost of the student's program of study. It includes charges assessed by the school (tuition and fees), as well as other expenses not charged by the school but which a typical student may incur while attending school including books and supplies, room and board, transportation, and other miscellaneous personal expenses.

The cost of attendance represents the maximum the student may receive in all forms of educational funding, including student loans, scholarships, stipends, and grants. Any funding received that is dependent upon student status is considered educational funding, and students are required to report all such funding to the Financial Aid Office; this includes 'alternative' loans borrowed from private lenders. Current cost of attendance figures are available on the UWS website.

Individual student living arrangements and personal spending habits vary widely. With careful planning and budgeting, it is possible to spend significantly less than the estimated expenses, enabling students to minimize indebtedness.

Award Process
Review of financial aid applications takes place in March of each year in preparation for award in the following summer quarter. If additional information has been requested, such as tax returns, verification worksheets, etc., the application will be reviewed after all requested documents are received. Financial aid applications are reviewed on a continuous basis throughout the academic year.

Once the application has been reviewed and the student has been admitted to a program of study at UWS, the office of financial aid will send the student a financial aid package. New students will receive the award package by mail, including two copies of the financial aid award letter, along with instructions on completing the necessary steps to receive those funds. Continuing students will receive an email containing an electronic copy of his/her award, and an instruction sheet. Students should review all of the information included with their financial aid package and follow all instructions to ensure timely delivery of funding each term.

Financial Aid Awards

Federal- and State-Funded Financial Aid Programs
Federal- and state-funded financial aid eligibility is dependent upon factors specific to an individual applicant, primarily your academic program of study. Students are considered for all award types available to them. Information on available aid is listed by academic program in this catalog and on the UWS website. Click the link for your program of study.

Scholarships for New Students
A variety of scholarship opportunities are available to new students. Current opportunities are listed by academic program on the UWS website. Scholarships and grants awarded to eligible students enrolled at less than full-time status will be prorated.

Community Service Scholarships for Current Students
An important element of the University of Western States mission is to encourage students to participate in activities and projects that provide meaningful service to the campus, their chosen profession, and the community. The UWS Community Service Scholarship was established to support student engagement in such activities.

Scholarships will be awarded to recipients selected by the Scholarship Committee. Scholarship amounts will be determined based on a number of factors, including available funds and the strength of applications received each award cycle. This opportunity will be offered twice in the 2013-14 academic year. Current students will be notified of this opportunity by email.

Other Non-Federal Sources of Funding
Admitted students in all programs may be eligible for non-federal sources of funding such as the following:

Scholarships from external sources

- A number of private organizations offer scholarships. Each organization will have its own deadlines, criteria, and application processes.
- www.fastweb.com is a good resource to help students get started on their search for scholarships.

Veterans Educational Benefits

- Students who are veterans or the dependent of a veteran may qualify for benefits.
- Call 1-888-GI-BILL-1 or go to www.gibill.va.gov for more information.

Alternative Loans (non-federal loans borrowed through private lenders)

- Can be borrowed to cover the entire cost of attendance, minus any other financial assistance.
- Credit check required; co-signer may be required in some cases.
- Typically have higher interest rates and less favorable repayment terms than government-funded student loan programs.
- Displaces federal student aid. It is recommended that the student exhaust federal student loan options prior to borrowing alternative loans.

Satisfactory Academic Progress for Financial Aid Eligibility

Federal regulations require all students receiving federal student aid to make satisfactory academic progress (SAP) toward a degree or certificate in order to retain eligibility for financial aid. Failure to maintain SAP, including minimum cumulative GPA and adequate progress toward degree completion, will result in the disqualification from federal student aid programs at UWS. See Policy 3804 – Satisfactory Academic Progress for Financial Aid Eligibility.

Impact of Withdrawal or Leave of Absence on Financial Aid

Policy 1239 – Leave of Absence and Withdrawal describes the processes for taking an approved leave of absence (up to one year) and for permanent withdrawal from the university. Students who withdraw, take a leave of absence, or cease attending classes during a term of enrollment may face financial aid eligibility consequences in accordance with Policy 3804 – Satisfactory Academic Progress for Financial Aid Eligibility, which may include repayment of all or a portion of the financial aid received for that term.

U.S. Department of Education regulations require the Financial Aid Office to perform a "Return to Title IV" (R2T4) calculation for any aid recipient who ceases enrollment while a term is in progress. The calculation of funds that must be returned is based chiefly upon the percentage of the term attended by the student, establishing the percent of aid considered "earned" by the student. The R2T4 must be performed and funds must be returned regardless of the manner in which a student withdraws. For example, if a student ceases attendance at UWS but does not complete the official withdrawal paperwork with the registrar, the office of financial aid must research an appropriate last date of attendance, or date, on which the student indicated his or her intent to withdraw to any university staff or faculty member.

"Unearned" funds must be returned to the U.S. Department of Education. Refunded tuition/fees may be applied to the balance owed to cover unearned aid funds. However, the business office will bill the student for any remaining balance. Questions about refunds should be directed to the office of financial aid or the business office for clarification.

Questions about refunds should be directed to the office of financial aid and/or business office for clarification. See Policy 3021 – Tuition and Fee Refunds.

Emergency Loans

The H.H. Peters Loan Fund has been established to assist doctor of chiropractic students who demonstrate a "real, necessary, and identifiable need, no other source of funds, and can show an ability to repay the loan on time." Eligibility criteria for emergency loans include academic standing, enrollment, and other requirements under Policy 3801 – Emergency DC Student Loans. Application for emergency loans may be made with the business office. All Peters' loans must be paid in full prior to registering for the next quarter, prior to the end of Q12, or prior to 60 days from the issuance date, whichever is sooner.

Loan Repayment Responsibilities

As the primary beneficiary of his/her education, the student bears the primary responsibility for meeting educational costs. Prospective student borrowers should seriously consider the repayment obligations they assume prior to borrowing to finance their school and living expenses. Students must repay any and all student loans borrowed, and comply with any provisions agreed to in obtaining those loans.

Cost of borrowing, loan repayment, and debt management information is available from the office of financial aid. All entering student borrowers are given debt management and repayment information, along with other loan information, as part of their online entrance interview. Several different loan repayment plans are available to help borrowers successfully manage repayment of their loans. Loan forgiveness options may be available under certain specific provisions in the law.

Borrowers are also required to have an exit interview upon graduation, withdrawal, leave of absence, or dismissal. Whenever possible, this exit interview should be completed prior to separation from the university. Exit interviews may be completed online or in person. In addition, it is the student's responsibility to notify the office of financial aid of any change in enrollment status, such as switching from full- to part-time enrollment.

The base repayment period for federal loans including Federal Perkins is a 10-year standard rate plan billed on a monthly basis with a $50/month minimum. Actual payments depend on the total borrowed while at UWS. Non-federal student loans have terms that vary based on the specific contract you sign. Any student who is considering applying for a non-federal student loan is advised to consult with the financial aid staff members about his/her situation and options.

Loan Consolidation

By consolidating loans following graduation or withdrawal from UWS, a student may combine multiple federal loans, including Perkins, into a single federal student loan with a single servicer and interest rate. Loan consolidation after graduation can simplify managing of your repayment. Depending on the amount borrowed, borrowers can arrange to have up to 30 years for repayment of their loans, and may choose from a variety of repayment plans to best suit their financial situation. Additional information is available from the office of financial aid.

Veterans Benefits

Students at UWS are eligible to use most veterans' benefits they would be eligible to use at a college or university, including vocational rehabilitation. UWS also participates in the Yellow Ribbon program. Students who are veterans or dependents of veterans may qualify for benefits. Call 1-888-GI-BILL-1 or go to www.gibill.va.gov for more information.

Students eligible for veterans' educational benefits must complete an enrollment certification form and submit a copy of their eligibility letter to the registrar. Students may begin this process prior to entry, but no funds will be released until they register for and begin attending classes. Veterans must be making satisfactory academic progress and be in good academic standing in accordance with the academic policies described in this catalog. Contact the office of the registrar for processing or the student's regional Veterans Affairs office for more information on available programs.

Academic Policies

University of Western States academic policies are designed to ensure orderly, organized, fair, and focused progress through university programs. All students are required to be familiar and compliant with all university policies and procedures, as published by the university. These include policies for conduct, grooming and dress, academic standing, and other matters crucial to the development of professionalism. The policies and expectations listed in this catalog are not all-inclusive. Students are directed to the university policy portal for all policies relevant to student life.

Academic Standing

The University of Western States seeks to maintain the highest academic standards for students enrolled in its academic programs and recognizes the need to identify students who are unable to achieve or maintain satisfactory academic standing. Students must pass all requirements of a program and conduct themselves in a manner that is consistent with the expectations of the university to qualify for graduation from that program. Students failing to meet the criteria below will be placed on the appropriate level of academic sanction.

Academic Probation
A student with a term GPA below 2.0 will be placed on academic probation.

Permanent Academic Probation
A student will be placed on permanent academic probation when s/he:

- Earns an unsatisfactory grade for the same course for the second time.
- Non-DC Programs: Earns a term GPA below 2.0 for the second time. The two terms need not be consecutive.
- DC Program: Earns a term GPA below 2.0 for the second time after the first academic year. The two terms need not be consecutive.

Academic Dismissal
A student will be academically dismissed when s/he:

- Earns a term GPA less than 1.25 in the first term of enrollment.
- Earns a term GPA less than 2.0 for the second time during the first three terms of enrollment (DC and massage students only).
- Earns a term GPA less than 2.0 in any subsequent term following permanent academic probation.
- Fails to pass a course on the third attempt.
- Fails to successfully repeat coursework within the prescribed time period.

For complete policy information, see Policy 1233- Academic Standing on the university policy portal.

Class Attendance

A professional duty for health care practitioners includes ongoing engagement in learning opportunities. The university takes this responsibility seriously. Beyond the professional responsibility lies the public trust and regulatory body expectations that students (future health care providers) satisfactorily complete the coursework for the programs in which they are enrolled. See Policy 1204 – Attendance and Tardiness.

Religious Observance

Any student who, because of religious beliefs, is unable to attend classes on a particular day will be excused from attendance requirements and from any examination or other assignment on that day. The student must work with the course instructor to schedule a makeup examination or other assignment prior to the religious observance. Any such makeup examination or assignment shall not create an unreasonable burden upon the university. No adverse or prejudicial effects will occur as a result of a student's inability to participate in the program during such observances.

Leave of Absence

When students wish to interrupt their studies for a period of time, with the specific intention of returning to complete the program, they should apply for a leave of absence with the registrar. A leave of absence, if granted, is for a specific period of time, after which the student is scheduled to return to the university and continue with his/her studies. The university may place specific conditions that must be met for return after the leave. See Policy 1239 – Leave of Absence and Withdrawal.

Withdrawal

By withdrawing from a program, a student terminates his or her association with the program and affirms he or she has no intention to return. A student who withdraws and later wishes to return to that program must apply for readmission and the acceptance decision will be based on admission standards in effect at the time of re-application, as well as the former student's previous performance at UWS. Forms and instructions are available electronically and can be accessed via the office of the registrar. See Policy 1239 – Leave of Absence and Withdrawal.

Compelled Administrative Leave

The university has expectations of student behavior reflective of emotional, psychological, and social soundness, and recognizes its obligation to protect students, employees, and patients from fear, harm, and harassment because of the psychological or physical condition or conduct of individuals or groups of students. Under Policy 1225 – Involuntary Withdrawal, when a student may be endangering the safety or academic progress of him/herself or others due to his/her physical, emotional, or behavioral status, the chief academic officer or other duly authorized personnel may elect to suspend or compel leave of absence of a student. This may include, but not be limited to, prohibition from communicating with campus constituents, being present on campus, and attendance at UWS-sponsored events, regardless of their location.

Cognitive and Non-Cognitive Academic Review

The university recognizes a responsibility to identify, notify, and remediate or discipline students who are demonstrating inappropriate performance or conduct. Under Policy 1235 – Student Performance Review, the Student Progress Committee evaluates students with regard to both cognitive and non-cognitive performance. Sustained or repeated unprofessional behavior may be grounds for disciplinary action up to and including course failure, suspension, required remediation, or dismissal from their program or from the university. Examples of non-cognitive areas of concern include, but are not limited to, dishonesty, interpersonal conflicts, deportment/demeanor deficiencies, unprofessional behavior (on or off campus), and inappropriate communications.

Examination Procedures

To ensure fairness and objectivity in the student examination process, Policy 1217 – Examination Administration describes the behaviors to which students are required to adhere before, during, or in the wake of examinations. Failure to do so may constitute a violation of expected conduct, which may result in dismissal from the university. More detail on expected student conduct is available in Policy 9001 – Student Conduct.

Online Exam Proctoring with ProctorU

ProctorU is a service online students use to take examinations by appointment at any location while still ensuring the academic integrity of the exam for the university. Using a web cam and computer, students taking courses online can take exams anywhere they have internet access, seven days a week. www.proctoru.com, Support (205) 870-8122.

Inappropriate Test-taking Behavior

Under Policy 9001 – Student Conduct, UWS prohibits all forms of academic cheating. UWS defines inappropriate test taking as actions that constitute cheating, promote cheating, or actions that create the appearance of cheating on an examination. Not all inappropriate test-taking activities are cheating, but all cheating is a form of inappropriate test-taking behavior. For example, a student who habitually quietly reads or talks out loud to himself while taking a test could appear to be telling his neighbors answers to questions on a test, which is inappropriate for a testing situation. Despite no active intent to share answers, creating the potential is unacceptable behavior. This also applies to online testing environments.

UWS defines cheating as any act or support mechanism employed after, during, or prior to a test that provides unfair or unauthorized advantage to a student, fellow test takers, or future students in the class. This definition includes unauthorized access to past testing materials, all active and passive behaviors used alone or in collusion with others during a test (e.g., "crib sheets," signaling other test takers, digital or electronic communications between students during a test, etc.), any behavior that would alter a completed test instrument after it has been handed to the proctor, or any attempt to preserve items from the test for future classes.

Students are expected to be mindful of their behavior in preparing for, taking, and following completion of the exam in order to avoid all forms of inappropriate test-taking behavior. Accusations of all forms of inappropriate test-taking behavior will be investigated and appropriate remediation/disciplinary actions taken in circumstances where the accused is responsible for conduct that does not remain above the appearance of impropriety.

Make-up Examinations

Make-up exams are available to students who miss a test due to verifiable and legitimate circumstances in accordance with Policy 1223 – Make-up Examinations. Faculty and/or program deans will determine available times and dates for make-up tests. Students who need to request a make-up exam need to first communicate with the lead instructor of the affected course/s.

Normal Progress

UWS programs are highly structured, by design, to ensure logical and effective accomplishment of required abilities and competencies. Therefore, under Policy 1226- Normal Course Load and Progress, students are expected to enroll for a full quarter's course work every term, until all requirements for graduation have been completed. In some instances, courses must be taken in sequence, including any courses where client/patient care is delivered. Deviation from the prescribed sequence of academic progress can be achieved only through approval of the dean. Students are not permitted to unilaterally drop or not enroll for a course to lighten their course load, nor are they allowed to drop a core curriculum course because they are performing poorly, unless authorized by the dean.

Program sequencing is available within the individual program sections of this catalog. Many legal, academic, medical, financial and other institutional requirements exist in order for students to begin enrollment, progress through and complete the academic programs. If one or more obligations to the university have not been met, a hold may be placed on a variety of campus privileges, including but not limited to, access to attendance, graduation, diplomas or transcripts.

Electives and Workshops

Electives are occasionally offered in addition to the prescribed course of study within a program. In some cases electives are optional, while in others, students are expected to select a certain number of elective courses from a menu of options. Electives are offered at times that may not subscribe to typical course scheduling norms. Tuition for elective courses is not included in base tuition costs; enrolling in elective courses will require paying additional

tuition. Elective courses are reflected on the student's transcripts with the name of the course, when taken, and the grade received.

Workshops are occasionally taught under the umbrella of a program, but are focused on enrichment rather than contributing to the core program. Thus, they are not reflected on a student's transcript. They are offered at times, arranged through the office of the registrar, with approval of the dean or program director, and may not subscribe to typical course scheduling structures. Tuition for workshops is not included in base tuition costs; enrolling in workshops may require paying additional tuition. See Policy 1240 – Electives and Workshops.

Exempting Courses/Advanced Standing

UWS recognizes that students may have completed courses and achieved required competencies in specific areas prior to entering their program that are comparable to courses taught in the curriculum at UWS. Students with such academic credentials and competencies may be granted credit (advanced standing) for previously completed coursework if approved by the dean. See Policy – 1209 – Course Exemption.

Directed/Independent Study

The university does not normally accept any substitution for regular enrollment, attendance, and successful completion of every required course in the curriculum. Policy 1236 – Directed (Independent) Study describes the terms under which a student may substitute directed study, with authorization of the dean.

Grading System

Under Policy 1207- Grading System, the UWS grading scale is as follows:

Grade	Definition	Quality Points
A	Excellent	4
B	Good	3
C	Satisfactory	2
D	Poor	1
F	Failure	0
P	Passing	-
NP	Not Passing	-
I	Incomplete	-
IP	In Progress	-
R	Remediation Required	-
W	Withdrawal	-
T	Transfer Credit	-
X	Credit by Exemption	-
AU	Audit (not for credit)	-
AW	Administrative Withdrawal	-

Incompletes must completed by week four of following term

Students must repeat courses for which unsatisfactory grades are earned. Unsatisfactory grades include:

- NP or F in any course
- D in any course other than DC and massage program basic science courses

A grade of P, NP or R may be used only in courses for which those grades are permitted. A list of such courses is available in the office of the registrar.

A grade of W is recorded on a student's official record if the student officially withdraws after the end of the first week of the term.

Only grades assigned for UWS courses will be used in computation of term and cumulative grade point averages.

Change of Grade

Policy 1218 – Grade Change describes the circumstances under which a change of grade may be approved.

Dean's List and Honors at Graduation

In accordance with Policy 1242- Dean's List and Graduation Honors, students who achieve a term grade point average of at least 3.50, without any I, F, or N grades, or a D in a DC program clinical or chiropractic science course, are named to the Dean's List. Graduation honors are conferred on the basis of the following cumulative grade point averages:

Honors	GPA
summa cum laude	3.85-4.00
magna cum laude	3.75-3.84
cum laude	3.50-3.74

All students, including transfer students, are eligible to receive honors at graduation.

Privacy of Student Records

UWS protects the privacy of student academic records in accordance with the Family Educational Rights and Privacy Act of 1974 (FERPA) and its amendments. For more information, see Policy 1232 – Student Record Privacy.

Student Directory Information

UWS may be required by law to provide directory information in accordance with the provisions of the Family Educational Rights and Privacy Act (FERPA). Information pursuant to legally required disclosure will be limited to the extent required by law. The university shall make a good faith effort to notify individuals who have had FERPA-protected information disclosed under this requirement.

Directory information may include: student name, address, telephone number, email address, date and place of birth, photograph, dates of attendance, enrollment status, degrees and awards received, and most recent previous educational agency or institution attended by student. Any student who does not wish to disclose his/her information must notify the registrar in writing. The office of the registrar or student services can provide appropriate forms to opt out of specific information disclosures.

Record Review

Under FERPA, students have the right to inspect and review information contained in their education records, to challenge the contents of their education records, to have a hearing if the outcome of the challenge is unsatisfactory, and to submit explanatory statements for inclusion in their files if they disagree with the outcome of the hearing. Information on how to request a review of records or to initiate a hearing process is available in the office of the registrar.

Transcript Requests

University of Western States provides official and unofficial transcripts upon receipt of a signed, written request to the office of the registrar. The Transcript Request form may be found on the university website or in the office of the registrar. Requests for official transcripts must be accompanied by payment in the form of check, cash, or charge in the amount of the current transcript fee (also posted on the website). Official transcripts bear the registrar's signature and UWS seal.

Requests for transcripts will be honored only when the student or graduate is in good financial standing (has no indebtedness the university). Policy 1237 – Transcripts

UWS Assistance in Applying for Licensure Examinations

Licenses, certifications, or applications pursuant to practice eligibility may necessitate assistance by the university, particularly the registrar's office. These processes often require institutional verifications or other information. Students are encouraged to communicate with the registrar far in advance of posted deadlines in order to ensure that necessary filings, materials, and other requirements are met.

The office of the registrar is available to assist DC program students in the proper completion of NBCE applications, which require official certification by the registrar, notary certification of identity, and a current photograph. The university generally arranges a date and time, in advance of the application deadline, in which these requirements can be completed.

Immunizations

Under Policy 9010 – Student Immunizations, and in conformity with state and federal legislation, the university enforces the immunization requirements for measles and hepatitis-B. More details on this requirement are available through the office of student services.

Admissions

University of Western States welcomes application for admission from prospective students who are interested in our educational programs. Acceptance to the university will be offered to students who are considered desirable applicants under the terms of the selection criteria listed below.

Admission Criteria

The goal of the admissions process is to recruit and admit candidates who are most likely to succeed in the UWS educational programs, will go on to pass licensing exams, and will succeed as health care professionals. The application process is designed to afford maximum opportunity for prospective students to present the fullest picture of themselves.

Qualification is based on assessment of all available information. The applicant's academic record is important. The university looks for achievement and consistency, especially in academic performance. Students' formal and informal presentations of themselves through written materials, phone contact, campus visits, and interviews are also important. It is hoped that applicants can make a logical and articulate connection between their employment, volunteer, academic, and other experiences and the desire to pursue education at UWS. The university values conscientious, ethical, and mature handling of admissions and other interactions. The university looks for informed thoughtfulness and commitment, as well as evidence that there is a good match between the character, expectations, and goals of the prospective student and those of UWS programs. In addition, the university looks for indications that the student is prepared for the responsibilities to society inherent in being a licensed health care professional.

Evaluation for admission begins when a complete application package has been received. Applicants will be accepted on the basis of the professional judgment of the admissions staff, as well as the availability of space. UWS reserves the right to deny admission for any reason other than those prohibited by law and, based on updated information, to reconsider and retract any candidate's acceptance prior to enrollment.

Candidates for admission must possess physical and other abilities that allow them to meet performance standards required of all UWS students. For details of these requirements, refer to the technical standards below.

Policy of Non-discrimination

University of Western States offers equal opportunity to all persons without regard to race, color, gender, sexual orientation, marital status, national origin, national citizenship, religion, age, disability, veteran status, or other protected classes. This applies to all UWS policies and programs. Policy 1013 (B) – Equal Opportunity and Non-discrimination.

Diversity

UWS seeks to enroll a diverse student body, to reach out to students from underrepresented groups, to promote gender balance in its programs, and to assure the university and health professions are strengthened through contributions from the different socio-economic, cultural, and ethnic backgrounds that reflect modern society.

Additionally, in pursuit of its goal of academic excellence, UWS is committed to maintaining a campus climate that recognizes and values diversity. Each member of the UWS community has a responsibility to support a pluralistic, inclusive campus in which to work, study, teach, research, and serve.

Technical Standards

UWS requires students, depending on the course of study in which they are engaged, to demonstrate the physical, cognitive, emotional/professional, and social capacity to be a competent practitioner in their discipline. The demonstration of capacity begins at the onset of their program and evolves throughout their educational process to the end point of being a sound, competent practitioner.

Students should review the technical standards that apply to the educational program in which they intend to enroll and ensure they are able to meet the standards (with or without reasonable accommodations) of that program. See Policy 1206 – Technical Standards for requirements.

If students demonstrate documented need for accommodation in any of these areas, the university will determine the extent to which it can reasonably accommodate the student's needs. Regardless of disability status or accommodation, all students must successfully complete the requirements of their program.

Notification of Admission Decisions

Applicants are reviewed on an ongoing basis when the necessary documents have been received and assembled in the office of admissions. The review process of a completed file typically takes less than two weeks and leads to one of these decisions: acceptance, conditional acceptance, denial.

- **Acceptance**
  Documentation confirms that all prerequisites have been met and evaluation shows the applicant meets all objective and subjective selection criteria.

- **Conditional Acceptance**
  The file includes enough information for the admissions staff to judge that the applicant seems likely soon to meet the standards for acceptance even though some prerequisites still remain to be completed. Full acceptance will subsequently be offered once all conditions have been fulfilled and the student continues to meet the selection standards.

- **Denial**
  The information presented does not meet UWS selection criteria. To put a "denial" in perspective, applicants should carefully read the selection criteria section of the catalog and compare it to their perceptions of their own application. Except in the case where a rejection is the result of failure to meet objective prerequisite minimums, the decision will not be open to discussion. A denied applicant may choose to update their credentials and resubmit an application at a later time. In such cases, candidates are advised to do so only when they have a clear strategy for strengthening their application.

On occasion, even when all necessary documents have been received, some questions may still remain. This situation may arise, for instance, when the amount of completed science coursework at the time of application to the DC program is insufficient for the admissions staff to assess relevant academic strength. In such instances, the applicant will be given opportunity to update his/her file prior to a decision being made.

Provisional Enrollment

Provisional enrollment is intended for applicants who meet the academic admission requirements for a specific UWS program but are missing some of the required admissions materials, which include but are not limited to official transcripts, TOEFL, GRE or MAT test scores, and/or letters of recommendation.

The office of admissions determines academic eligibility for provisional enrollment. Students admitted under provisional enrollment must submit all outstanding items prior to the last day of the first term of enrollment. Provisionally admitted students who do not meet the end-of-quarter deadline will be ineligible to enroll in the next term. Extended deficiency may lead to dismissal from the university. See Policy 2008 – Provisional Enrollment for details.

Tuition Deposits

When an offer of acceptance is made, applicants are expected to pay a non-refundable tuition deposit in order to secure a space in that entering class. The tuition deposit is applied toward the first term's tuition. If the deposit is not received or arrangements made with the admissions office by the stated deadline, the offer of acceptance may be withdrawn.

Deferment or Transfer of Entry Date

When an applicant is offered acceptance, it is for a specific entering class. Written requests to transfer the acceptance to a different entry date are considered on a case-by-case basis. If approved, the student will be expected to pay a non-refundable deferment deposit that will be recorded as additional credit toward the student's tuition for his/her first enrolled term.

Criminal Record

All applicants and enrolled students must reveal any criminal record and cooperate by providing full information for review as it may pertain to the health professions program and licensure. Following the guidelines of the professional licensing agencies, UWS holds that felony convictions – and certain non-felony convictions – are probable grounds for denial of admission or of continued enrollment. In some instances, a criminal record may also disqualify a student from financial aid eligibility, in accordance with federal student aid regulations.

Readmission

Under Policy 2006 – Readmission, an individual who has withdrawn, taken an unauthorized leave of absence, failed to return from an authorized leave of absence as agreed, failed to enroll in courses, or been dismissed may apply for readmission. The student must submit an application, with the required application fee, and meet the admission and degree requirements at the time of readmission. The request for readmission must address the events associated with the lapse, a critical analysis of these events, and a plan to ensure that similar actions will not reoccur should the individual be readmitted. The Admissions Committee will consider the merits of an application for readmission and make a recommendation to the vice president of enrollment. The readmission application should include:

- Completed application
- Petition for readmission explaining the student's circumstance
- Official transcripts of any intervening education
- Application fee
- At least one UWS faculty member recommendation

If a student is accepted for readmission, special terms and restrictions may be applied. Restrictions may include, but are not limited to, the courses which will be accepted back into the program toward degree credit, or the student may have limited access to financial aid for repeating course work previously attempted.

Appeal of the outcomes of the readmission process must be, in writing, to the vice president of enrollment, whose decision is final. There is no obligation on the part of the university to readmit any individual to a program from which he/she has withdrawn or been dismissed, or who has voluntarily withdrawn from a university program.

Campus Visits

UWS invites all prospective students to visit campus, particularly while classes are in session. While visiting campus, prospective students can gain a personal appreciation of the university, its mission, and exceptional instruction and students by observing classes and speaking with students and faculty.

UWS also hosts a variety of campus recruiting events, including evening open houses for the massage therapy program and Saturday education forums for the DC program. A complimentary night's stay at an area hotel is available for visitors traveling to campus from outside the region. For additional information, please contact the office of admissions at admissions@uws.edu or (800) 641-5641.

College of Chiropractic

The doctor of chiropractic (DC) degree program is offered through the college of chiropractic. The DC program is the oldest and largest degree program at UWS. Prior to the institution's transition from college to university in 2010, UWS was known as the Western States Chiropractic College.

The purpose of the DC program is to provide training for students to develop the knowledge, skills, values, and behaviors necessary to become primary care chiropractic physicians who apply best evidence, critical thinking, effective procedures, and professional integrity in the delivery of patient-centered care.

The DC program is a rigorous 12-quarter, first professional degree program. Graduates have demonstrated mastery of the program's competencies, all of which support the development of the knowledge, skills, critical thinking, and professionalism expected of competent, caring chiropractic physicians. Through demonstration of the program's competencies, the graduate chiropractic physician from the DC program is prepared to positively impact their patients, communities, and the chiropractic profession.

Graduation Requirements - DC Program

The doctor of chiropractic degree is conferred upon the individual who has fulfilled the following DC program requirements:

1. Successful completion, with a minimum cumulative GPA of 2.0 of all required coursework.
2. Successful completion of all quantitative and qualitative clinic competency requirements.
3. Successful completion of each clinical skills assessment (formerly OSCE).
4. Freedom from all indebtedness and other obligations to UWS.

The DC program must be completed within six calendar years of the date of matriculation, including leaves of absence and any other period of non-enrollment. Students who have transferred from another DC program must earn the final 25 percent of the total credits required for the DC program at UWS. Policy 1220 – Graduation Requirements, DC Program

Admission to the DC Program

Application Procedure

UWS admits new students into the DC Program each fall (October) and winter (January). Prospective students are encouraged to begin the formal application process up to 12 months in advance of their anticipated entry date.

It is not necessary for candidates to have completed all prerequisites prior to application (see section on Provisional Acceptance). The admissions staff routinely processes applications from students who are still completing prerequisites.

The application packet includes a list of the material that must be submitted for official consideration of an applicant's file. Applicants should carefully review the program's selection criteria to ensure they are making the best possible presentation of their qualifications. The application for admission is available on the UWS website.

Prerequisites

The doctor of chiropractic (DC) program is a rigorous, first-professional doctoral degree program whose graduates are trained as primary care chiropractic physicians. Admission requirements are guided by the prerequisites established by the Council on Chiropractic Education (CCE). UWS admission requirements also reflect institutional expectations of candidates. Applicants are expected to have undergraduate preparation similar to that of other first professional health care professions. Applicants should also be aware that individual state licensing boards might have different educational requirements for licensure.

Total Credits and GPA

All DC matriculates must have completed the equivalent of three academic years of undergraduate study (90 semester or 135 quarter hours) of appropriate pre-professional education courses at an institution or institutions accredited by an agency recognized by the Secretary of the U.S. Department of Education or an equivalent foreign agency. Matriculates must have earned a cumulative grade point average of at least 3.0 on a 4.0 scale.

The 90 hours must include a minimum of 24 semester hours in life and physical science courses. At least half of these courses must have a substantive laboratory component. The student's undergraduate preparation also

includes a well-rounded general education program in the humanities and social sciences, and other coursework as indicated below.

Prerequisites	General Suggestions	Semester Hours	Quarter Hours
Life and Physical Sciences	UWS recommends a "pre-medical" foundation as the best preparation for the doctor of chiropractic curriculum. Such courses typically include a full-year sequence of biology, general chemistry, organic and/or biochemistry, and physics with related laboratory. Courses should be designed for pre-professional or science majors.	24	36
Life and Physical Sciences Labs	At least half of the required life and physical science coursework above must include a substantive laboratory component.		
Humanities and Social Sciences	Anthropology, art appreciation, comparative religions, English, economics, foreign language, geography, history, philosophy, political science, psychology, sociology, speech communication, women's studies, writing, etc.	66	99
Additional Courses	Courses that are in the student's area of interest		
	Total Credits Required	**90**	**135**

- No grades below 2.00 on a 4.00 scale may be accepted.
- If more than one course is taken to fulfill the requirement, the course contents must be unduplicated.

Life and Physical Sciences (24 semester credits)

Courses completed to fulfill entry requirements should be designed for pre-professional or science majors; courses designed for non-science majors are not acceptable. Survey courses are strongly discouraged.

In most cases, an applicant should complete a full-year sequence including laboratory experience in biology, general chemistry, organic chemistry, and physics. Individual courses must be completed with a minimum C grade. A "pass" grade will not normally be accepted in fulfillment of any science lecture. A pass grade is acceptable for the lab component.

Life Science

Life sciences include any of the branches of science that study the structural and functional organization of living organisms and their relationships to each other and the environment. Examples include: biology, anatomy, physiology, biomechanics, and zoology.

Physical Science

Physical sciences include any of the branches of science that study the nature and properties of energy and nonliving matter. Examples include: chemistry, physics, and statistics.

Humanities and Social Sciences

Students are expected to have a well-rounded distribution of humanities and social science coursework. There is no minimum credit requirement for this prerequisite area.

Humanities courses typically include art history, literature, music, philosophy, religious thought, foreign language, and performing arts. Social sciences typically include anthropology, economics, geography, history, political sciences, psychology, and sociology. Courses must be completed with at least a C grade.

Transfer Credit

Policy 2007 – Transfer Credit details the requirements for transfer credit. In general, coursework in the basic sciences at an accredited health science or chiropractic college will be acceptable for transfer credit at UWS, as long as the credit hours are equivalent. Transfer credit will only be awarded for courses with a grade of C or better. Examination of course descriptions for content and hours, course syllabi, and faculty credentials are criteria that may be used in the evaluation of courses for transfer credit.

Directed study course work may be assigned to satisfy certain credit and/or hours of instruction requirements, or to ensure that the student is fully prepared for advanced coursework. In most cases, these assignments can be done concurrently with the regular courses of the student's initial term at UWS. It may be necessary for some students to take written or oral examinations to verify that they have adequate preparation for the UWS DC program curriculum.

Transfer students must meet the same standards for admission as new students, including prerequisite courses and cumulative GPA. Students must be in good academic standing with the program from which they seek to transfer, and are expected to have a minimum GPA of 2.50 in all work completed at the previous professional program attended. Students wishing to inquire about or to begin the transfer process should consult with a representative of the office of admissions. Applicants for transfer may begin their studies at UWS in any term - fall, winter, spring, or summer. See Policy 2003 – Admission of Transfer Students.

Transfers from Other Health Professions Schools
UWS gives full consideration to all applicants for admission desiring to transfer from other health-professions programs. Transfer can ordinarily be accomplished with minimal difficulty. However, students who decide to transfer should do so as soon as possible, as any delay may create unnecessary complications.

Developing an Enrollment Plan
By carefully following their customized enrollment plan, students who transfer with one year or less of coursework from another chiropractic program may be able to complete the program at UWS in the same length of time as they would have if they had not transferred. However, this depends upon the student's unique situation. Students who transfer with more than one year of work at another DC program may need additional time to meet all graduation requirements due to variations in credit value, term length (semester/trimester/quarter differences), and placement of courses (e.g., some programs introduce adjusting courses later than UWS).

Transferring students should bear in mind that graduation requirements are set by both UWS and the Council on Chiropractic Education (CCE) and stipulate specific numbers of both credit and instruction hours. Students who transfer may have to complete additional instruction hours or credit hours, or may need to take some course work from lower quarters, resulting in a mixed schedule for one or more terms. UWS requires that students successfully complete at least the last three academic quarters at UWS to be eligible to earn a diploma.

The dean of the college of chiropractic, in consultation with the faculty department chairs, will assess individual courses for transfer credit. The registrar maintains a copy of remaining course and credit hour graduation requirements for each transfer student, along with a specific enrollment plan for meeting those requirements.

Credit by Examination
As stipulated by the Council on Chiropractic Education (CCE), UWS recognizes credits in the humanities and social sciences completed by examination. Testing programs include, but are not limited to, the College Level Examination Program (CLEP), institutional proficiency exams such as DANTES, NY Board of Regents College Examinations, or college challenge exams. For acceptance, courses and credit hours must be listed on a transcript from an institution with regional accreditation.

Credit by examination is generally not allowed for biology, chemistry, or physics courses completed to satisfy the minimum entry requirements in those areas.

Age of Courses
Based upon the experience of previous entering students, UWS prefers that at least half of the biology and organic chemistry coursework be completed within five years of entry into the DC program. When age of coursework is an issue, consideration is given on an individual basis; job-related experiences in biology or organic chemistry may be assessed as a compensating factor.

Vocational Coursework
UWS will accept up to 12 quarter credits of vocational coursework toward the minimum credit requirement.

Technical Standards and Required Abilities for Admission
UWS requires DC students to demonstrate the physical, cognitive, emotional/professional, and social capacity to be a competent practitioner in their discipline. The demonstration of capacity begins at the onset of their program and evolves throughout their educational process to the end point of being a sound, competent practitioner.

DC applicants should review the technical standards that apply to the DC program to ensure they are able to meet the standards with or without reasonable accommodations. See Policy 1206 – Technical Standards for requirements.

If students demonstrate documented needs for accommodations in any of these areas, the university will determine the extent to which it can reasonably accommodate the student's needs. Regardless of disability status or accommodation, all students must successfully complete the requirements of their program.

Articulation Agreements

UWS maintains articulation agreements with a number of undergraduate colleges and universities. These agreements are designed for students who intend to pursue a chiropractic education at UWS and also wish to receive a degree from their undergraduate institution. To achieve this, UWS DC credits are transferred back to the undergraduate institution to fulfill requirements for completion of the baccalaureate degree, thus allowing the student to complete their baccalaureate degree and doctor of chiropractic degree in one year less than the normal time to complete each degree individually. This relationship enables students to save both time and money.

Current articulation agreements include:

Avila University, Kansas City, MO
Fairleigh Dickinson University, Teaneck, NJ
Portland State University, Portland, OR
Oregon State University, Corvallis, OR
Viterbo University, LaCrosse, WI
Simon Fraser University, Vancouver, BC, Canada

International Applicants

UWS encourages international students to apply for admission to the DC program. One-fifth or more of recent entering classes have come from outside the US, primarily from Canada. Our diverse student body includes individuals from Hong Kong, India, Korea, Japan, Switzerland, and Iran.

To be eligible for admission, international students must have completed coursework equivalent to that outlined in the section on prerequisites.

The office of admissions processes English language applications from Canadian students as efficiently as those from US students. Candidates whose education has been completed outside the United States or Canada must have their educational credentials evaluated by a NACES-affiliated international education evaluation service and the results forwarded directly to the office of admissions.

Prospective students for whom English is not their native language must also provide proof of adequate English language skills. UWS expects a minimum score of 80 on the internet-based Test of English as a Foreign Language (TOEFL iBT). A paper-based version of the test is available in areas where TOEFL iBT testing is not possible. TOEFL scores may be reported directly to UWS using institutional code number 4979.

Additional individual assessment is made during the admissions process regarding the applicant's demonstrated competence in reading, writing, and speaking English. If questions arise regarding competency in language skills, further testing may be required before entrance.

International Students Studying in the U.S.

International students, including Canadian citizens, accepted into the DC program must meet US Department of Homeland Security guidelines for studying in the US prior to crossing the border to enroll at UWS. [For example, international students are required to present evidence of sufficient funds to finance at least the first year of education and living expenses.] Students should initiate this process with plenty of lead-time, preferably several months before leaving home. Questions about enrolling as an international student should be directed to the office of admissions.

Financial Aid Awards - DC Program

All DC students are automatically considered for all types of aid, in the order listed below. Students are awarded the maximum amount of each type of aid, based on their eligibility as calculated by the U.S. Department of Education. These are the types of federal aid available:

Federal Perkins Loans

Perkins loans are based on EFC, timely FAFSA application, and availability of funding.

- Amounts vary depending on funds available to award.
- UWS is the lender; the university's servicer, ECSI, will handle students' billing for this loan.
- No interest accrues and no payments are required while the student is enrolled at least halftime.
- Grace period: students have nine months after graduation or leaving school before repayment begins.
- Fees: 0.0 percent. Fixed interest rate: 5.0 percent.

Federal Direct Loans (known as Stafford or Direct Loans)

- The U.S. Department of Education is the lender.
- Students are eligible to borrow up to the annual limit for every nine consecutive months of study at UWS.
- Annual Direct Loan limit: $33,000.
- Aggregate (lifetime) Direct Loan limit: $224,000.
- Interest accrues from the time of disbursement on unsubsidized Direct loans.
- No payments are required while students are enrolled at least halftime.
- Grace period: Students have six months after graduation or leaving school before repayment begins.
- Fees: approximately 1 percent (deducted from each loan disbursement). Fixed interest rate: 5.41% for loans first disbursed between July 1, 2013, and June 30, 2014.

Federal Direct Grad PLUS loans

- Annual limit: Cost of Attendance minus other financial assistance, such as loans and scholarships.
- Credit check required; co-signer may be required in some cases.
- The U.S. Department of Education is the lender. The DOE will assign a servicer.
- Fees: approximately 4.2 percent (deducted from each loan disbursement). Fixed interest rate: 6.41 percent for loans first disbursed between July 1, 2013, and June 30, 2014.

Other Non-Federal Sources of Funding

Admitted students in all programs may be eligible for non-federal sources of funding. Please refer to the catalog section on Tuition and Financial Aid Overview for information on non-federal sources of funding.

Satisfactory Academic Progress for Financial Aid Eligibility (SAP) – DC Program

Federal regulations require all students receiving federal student aid to make satisfactory academic progress (SAP) toward a degree or certificate in order to retain eligibility for financial aid. Failure to maintain SAP, including minimum cumulative GPA and adequate progress toward degree completion, will result in the disqualification from federal student aid programs at UWS. See Policy 3804 – Satisfactory Academic Progress for Financial Aid Eligibility.

Professional Responsibilities of Students

Chiropractic is a licensed profession in all 50 states and the Canadian provinces. In Oregon, as in most other states, when a profession is licensed, only those individuals who have a valid license, or are operating under the direct supervision of a licensed UWS faculty member, are allowed to practice. An individual is likewise forbidden to make it appear that she or he is licensed, if she or he is not in fact licensed, or to mislead the public in any way regarding the issue of licensure or competence to practice the licensed profession.

Students need to be acutely aware of this legal boundary and behave accordingly, both on campus and off. It is illegal for students to diagnose and/or engage in any form of treatment of individuals unless they are being supervised under the authority of the university or a duly designated agent of the university. This usually means that evaluation and care are being pursued in university facilities and/or under the direct supervision of an Oregon-licensed doctor of chiropractic who is a faculty member at UWS.

Chiropractic Licensure

The doctor of chiropractic program is designed to offer students chiropractic education sufficient to qualify for licensure in all 50 states and in foreign jurisdictions. UWS students regularly score among the highest on national board examinations, state licensure examinations, and Canadian board examinations. Graduates of UWS practice successfully across the country and internationally. Licensure regulations vary from one jurisdiction to another and are subject to change. Students should contact individual licensing boards and consult the Federation of Chiropractic Licensing Boards (FCLB) website for updated information regarding licensure requirements in each state.

Students applying to the chiropractic degree program are responsible for contacting the chiropractic examining boards for the states in which they are interested in practicing to become aware of those states' licensure requirements, particularly as they pertain to pre-chiropractic educational requirements.

The National Board of Chiropractic Examiners

The National Board of Chiropractic Examiners (NBCE) is recognized throughout the United States. Its stated purpose is to evaluate the entry-level competencies of applicants for chiropractic licensure. The chiropractic program graduates must pass NBCE Parts I, II, III, and IV to be eligible to sit for the chiropractic licensing exam in

most states. UWS does not require students to take the national board examinations. However, failure to do so will make a student ineligible for licensure in most states. National Board scores cannot be used to replace grades earned in courses at UWS.

Additional details regarding the National Board examinations are available in the office of the registrar, the university library, or directly from the National Board of Chiropractic Examiners, in Greeley, Colorado at www.nbce.org.

The most recent two-year NBCE first-time pass rates are available on the UWS website.

Canadian Licensure

Canada's Council on Chiropractic Education (CCE-Canada) has chiropractic program admission prerequisites slightly different from those of CCE-USA. Canada requires three full years in a university program or at an institution or institutions recognized at the university level by a provincial Ministry of Education. Further, each province has the authority to set its own requirements for licensure, which are not necessarily linked to CCE-Canada's prerequisites. It is important that Canadian students entering the UWS DC program contact the chiropractic examining boards for the Canadian provinces in which they are interested in practicing, to become aware of each province's licensure requirements.

Abilities and Competencies – DC Program

The graduate of the University of Western States doctor of chiropractic program is an individual who possesses the capacity to serve as a primary care chiropractic physician. Graduates have demonstrated mastery of the program's competencies, all of which support the abilities expected of competent, caring chiropractic physicians. Through demonstration of the program's competencies that collectively result in the following abilities, the graduate chiropractic physician from UWS is prepared to positively impact their patients, communities, and chiropractic profession.

Ability 1: Basic Sciences Knowledge
An in-depth understanding of basic sciences knowledge is essential to the UWS graduate. They are able to recall basic sciences knowledge and integrate that knowledge across basic sciences disciplines. UWS graduates are also able to apply and integrate basic sciences knowledge into clinical circumstances, particularly as it relates to the formation of rational evaluation and treatment approaches for the benefit of patients.

Ability 2: Evaluation/Diagnosis of the Patient
Graduate chiropractic physicians from UWS possess the knowledge, skill, critical thinking, and professionalism to perform, collect, interpret, integrate, and/or synthesize evaluation data on patient problems. UWS graduate physicians are able to perform these tasks and determine whether the conditions they encounter in their offices are appropriate for chiropractic care or in need of referral.

Ability 3: Management of Patient Problems and Needs
Graduate chiropractic physicians from UWS are able to integrate clinical findings to establish a plan of action that addresses the patient's needs and health concerns. They routinely and competently implement that plan. They are able to incorporate scientific evidence with their own clinical experience and the needs and preferences of patients. They are routinely able to perform these functions for common conditions and problems presenting in their offices.

Ability 4: Successful Business Practices
Graduate chiropractic physicians from UWS are able to operate their practices as successful businesses. UWS graduate physicians demonstrate use of ethical and accepted techniques, processes and procedures to ensure long-term viability of their practices, as well as continuous growth of their presence in their communities.

Ability 5: Professional Communication
Graduate chiropractic physicians from UWS are able to truthfully, accurately, thoroughly, and efficiently communicate with a broad diversity of constituencies. They are able to conduct professional and ethical communication using verbal, written, and other forms of communication commonly employed in society. UWS graduate physicians are consistently able to communicate in a manner befitting their responsibility as stewards of the public trust. They are able to enhance public and interpersonal trust and appreciation for themselves and the chiropractic profession in all circumstances.

Ability 6: Evidence-informed Practice (EIP) and Information Literacy
Graduate chiropractic physicians from UWS are life-long learners. They incorporate findings from high quality evidence into their practice habits and demonstrate active interest in the contemporary concepts and debates of the profession in their professional lives.

Ability 7: Critical Thinking/Clinical Reasoning
Graduate chiropractic physicians from UWS are able to use clinical reasoning and critical thinking to work through diagnostic, therapeutic, and other health care dilemmas, arriving at rational conclusions that are appropriately informed by science, logic, reason, and their practice experiences. UWS graduate physicians routinely integrate basic sciences, clinical sciences, and clinical experiences to solve clinical problems. They employ techniques, procedures, and processes that are safe, resource-efficient, and responsible to the patient and society.

Ability 8: Ethics, Integrity, and Professionalism
UWS graduate chiropractic physicians possess honesty, integrity, and professionalism that are demonstrated by their behaviors, perspectives, and interactions - even as students. UWS physicians are knowledgeable of and adherent to the laws, regulations, standards, and expectations of their conduct. UWS graduates are not tolerant of unethical, unprofessional, or dishonest conduct on the part of other health care providers, including other chiropractors. They are informed by chiropractic's philosophical roots and history as a part of the profession's identity, but embrace contemporary views and expectations of society in their practices and professional lives.

Ability 9: Public Health, Disease Prevention, and Wellness
Graduate chiropractic physicians from UWS are committed to the promotion of health and wellness through treatment and prevention of disease. They engage in best practices regarding prevention and early detection of illnesses and utilize evidence and science to encourage health-seeking behaviors in themselves, their patients, and the communities they serve.

Ability 10: Professional Identity
Graduate chiropractic physicians from UWS possess an appreciation for the rich and diverse history of chiropractic as a unique and distinct profession. They are able to contextualize the role and impact chiropractors have in the larger health care milieu, as well as the alternative medicine communities. They appreciate and can articulate the traditions of the profession and understand the role contemporary science and knowledge have as factors that shape the evolution of the profession from within.

DC Course of Study

Explanation of Course Identifiers

The three-letter abbreviation that begins each course designation indicates its academic area:

BSC = Basic Sciences
CHR = Chiropractic Sciences
CLI = Clinical Education
CSC = Clinical Sciences
RAD = Radiology
ELE = Electives

First-year course numbers begin with the numeral 5. Second-year courses begin with the numeral 6. Third-year courses begin with 7 and fourth-year begin with 8. The second digit in the course number indicates which of the three terms within the academic year the course is normally taught.

UWS credits are the total of lab hours plus lecture hours. Clock hours (also called contact hours), rather than credit hours, are the guideline typically used in the evaluation of chiropractic degree transcripts.

Following is the current list of courses and the quarters in which they are offered. Additional non-credit courses may be elected for further study in a specialized interest area.

DC Program Curriculum Sequence

Qtr.	Course #	Course Name	Lecture	Lab	Clinical	Clock	Credit	Grade
1	BSC 5102	Spinal Anatomy	1	1	0	22	1.5	G
1	BSC 5103	Gross Anatomy I	4	6	0	110	7	G
1	BSC 5112	Biochemistry I	3	1	0	44	3.5	G
1	BSC 5116	Cell Biology	3	1	0	44	3.5	G
1	CHR 5121	Philosophy and Principles of Chiropractic I	2	0	0	22	2	P/F
1	CHR 5125	Biomechanics/Palpation I Lecture	1	0	0	11	1	G
1	CHR 5136	Biomechanics/Palpation I Laboratory	0	3	0	33	1.5	P/F
1	CLI 5241	Clinical Topics I	1	0	0	11	1	P/F
1	RAD 5182	Radiographic Anatomy I	1.5	1.5	0	33	2.25	G
		Q1 Totals	**15.5**	**13.5**	**0**	**319**	**22.25**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clinical**	**Clock**	**Credit**	**Grade**
2	BSC 5203	Gross Anatomy II	4	3	0	77	5.5	G
2	BSC 5213	Biochemistry II	5	1	0	66	5.5	G
2	BSC 5217	Histology	4	2	0	66	5	G
2	CHR 5222	Philosophy and Principles of Chiropractic II	1	0	0	11	1	P/F
2	CHR 5226	Biomechanics/Palpation II Lecture	2	0	0	22	2	G
2	CHR 5231	Adjustive Psychomotor Skills	0	2	0	22	1	P/F
2	CHR 5234	Biomechanics/Palpation II Laboratory	0	4	0	44	2	P/F
2	CSC 5243	Evidence-informed Practice – Information Mastery	1	1	0	11	1	G
2	RAD 5283	Radiographic Anatomy II	1	1	0	22	1.5	G
		Q2 Totals	**18**	**13**	**0**	**341**	**24.5**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clinical**	**Clock**	**Credit**	**Grade**
3	BSC 5302	Neuroanatomy	6	2	0	88	7	G
3	BSC 5304	Gross Anatomy III	4	3	0	77	5.5	G
3	BSC 5309	Physiology I	4	2	0	66	5	G
3	BSC 5314	Human Development	3	0	0	33	3	G
3	CHR 5321	Adjustive Technique I Lecture	2	0	0	22	2	G
3	CHR 5323	Philosophy and Principles of Chiropractic III	1	0	0	11	1	P/F
3	CHR 5332	Adjustive Technique I Laboratory	0	4	0	44	2	P/F
		Q3 Totals	**20**	**11**	**0**	**341**	**25.5**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clinical**	**Clock**	**Credit**	**Grade**
4	BSC 6102	Neurophysiology	6	0	0	66	6	G
4	BSC 6109	Physiology II	5	0	0	55	5	G
4	BSC 6112	Microbiology, Immunology and Public Health	5	1	0	66	5.5	G
4	BSC 6117	General Pathology I	6	0	0	66	6	G
4	CHR 6124	Soft Tissue Therapies/Rehabilitation I	1	2	0	33	2	P/F
4	CHR 6122	Adjustive Technique II Lecture	1	0	0	11	1	G
4	CHR 6133	Adjustive Technique II Laboratory	0	3	0	33	1.5	P/F
4	CLI 6143	Clinical Topics II	1	0	0	11	1	P/F
4	CSC 6177	Evidence-informed Practice I - Clinical Reasoning in Diagnostic Assessment	2	0	0	22	2	G
4	RAD 6184	Radiographic Anatomy III	1	1	0	22	1.5	G
		Q4 Totals	**28**	**7**	**0**	**385**	**31.5**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clinical**	**Clock**	**Credit**	**Grade**
5	BSC 6203	Nutrition	4	0	0	44	4	G
5	BSC 6207	Genetics	4	0	0	44	4	G
5	BSC 6213	Clinical Microbiology and Public Health	5	2	0	77	6	G
5	BSC 6218	General Pathology II	4	0	0	44	4	G
5	CHR 6223	Adjustive Technique III Lecture	1	0	0	11	1	G
5	CHR 6224	Philosophy and Principles of Chiropractic IV	1	0	0	11	1	P/F
5	CHR 6227	Biomechanics/Palpation III	2	0	0	22	2	G
5	CHR 6234	Adjustive Technique III Laboratory	0	3	0	33	1.5	P/F

5	CLI 6262	Physical Diagnosis I - Lecture	4	0	0	44	4	G
5	CLI 6263	Physical Diagnosis I – Lab	0	2	0	22	1	P/F
5	CSC 6275	Dermatology and Infectious Disease	2	0	0	22	2	G
5	CSC 6276	Evidence-informed Practice II - Critical Appraisal of the Literature	2	0	0	22	2	G
		Q5 Totals	**29**	**7**	**0**	**396**	**32.5**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clinical**	**Clock**	**Credit**	**Grade**
6	CHR 6322	NMS Diagnosis and Treatment I Lecture	6	0	0	66	6	G
6	CHR 6325	NMS Diagnosis and Treatment I Laboratory	0	2	0	22	1	P/F
6	CHR 6324	Adjustive Technique IV Lecture	1	0	0	11	1	G
6	CHR 6329	Biomechanics/Palpation IV Lecture	2	0	0	22	2	G
6	CHR 6331	Biomechanics/Palpation IV Laboratory	0	2	0	22	1	P/F
6	CHR 6336	Adjustive Technique IV Laboratory	0	5	0	55	2.5	P/F
6	CHR 6337	Adjustive Technique V (intro)	0	3	0	33	1.5	P/F
6	CLI 6343	Clinical Topics III	1	0	0	11	1	P/F
6	CLI 6363	Physical Diagnosis II - Lecture	4	0	0	44	4	G
6	CLI 6364	Physical Diagnosis II – Lab	0	2	0	22	1	P/F
6	CSC 6367	Clinical Laboratory	3	2	0	55	4	G
6	RAD 6386	Radiographic Technique I	4	1	0	55	4.5	G
		Q6 Totals	**21**	**17**	**0**	**418**	**29.5**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clinical**	**Clock**	**Credit**	**Grade**
7	CHR 7123	NMS Diagnosis and Treatment II Lecture	3	0	0	33	3	G
7	CHR 7126	NMS Diagnosis and Treatment II Laboratory	0	1	0	11	0.5	P/F
7	CHR 7127	Taping and Splinting I	0	1	0	11	0.5	P/F
7	CHR 7137	Adjustive Technique V (adv)	0	2	0	22	1	P/F
7	CHR 7138	Adjustive Technique VI	0	3	0	33	1.5	P/F
7	CHR 7162	Chiropractic Physiological Therapeutics I	3	2	0	55	4	G
7	CLI 7157	Clinic Phase I	2	2	0	44	3	P/F
7	CLI 7158	Clinic Internship I	0	0	2	22	.5	P/F
7	CSC 7163	Cardiorespiratory Diagnosis and Treatment	3	0	0	33	3	G
7	CSC 7164	Narrative Report Writing	1	0	0	11	1	G
7	CSC 7167	Clinical Pathology	3	0	0	33	3	G
7	CSC 7171	Patient/Practice Management I	2	0	0	22	2	G
7	CSC 7175	Emergency Care	1	0	0	11	1	P/F
7	RAD 7187	Radiographic Technique II	1	1	0	22	1.5	G
7	RAD 7192	Bone Pathology I	2	1	0	33	2.5	G
		Q7 Totals	**21**	**13**	**2**	**396**	**28**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clinical**	**Clock**	**Credit**	**Grade**
8	CHR 7224	NMS Diagnosis and Treatment III Lecture	3	0	0	33	3	G
8	CHR 7227	Soft Tissue Therapies/Rehabilitation II	0	3	0	33	1.5	P/F
8	CHR 7228	NMS Diagnosis and Treatment III Laboratory	0	1	0	11	0.5	P/F
8	CHR 7229	Taping and Splinting II	0	1	0	11	0.5	P/F
8	CHR 7265	Chiropractic Physiological Therapeutics II	3	2	0	55	4	G
8	CLI 7208	Clinic Internship II	0	0	6	66	2	P/F
8	CLI 7209	Clinic Phase II	2	2	0	44	3	P/F
8	CSC 7264	Gastroenterology Diagnosis and Treatment	3	0	0	33	3	G
8	CSC 7271	Clinical Nutrition and Botanicals I	4	0	0	44	4	G
8	RAD 7288	Radiographic Technique III	1	1	0	22	1.5	G
8	RAD 7293	Bone Pathology II	3	1	0	44	3.5	G
		Q8 Totals	**19**	**11**	**6**	**396**	**26.5**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clinical**	**Clock**	**Credit**	**Grade**
9	CHR 7327	Adjustive Technique VII Lecture	1	0	0	11	1	G
9	CHR 7338	Adjustive Technique VII Laboratory	0	2	0	22	1	P/F
9	CLI 7304	Clinic Phase III	2	2	0	44	3	P/F
9	CLI 7305	Clinic Internship III	0	0	10	110	3.25	P/F

9	NA	Clinical Skills Assessment – Year 3	0	0	0	0	0	P/NP
9	CSC 7324	Clinical Neurology	5	0	0	55	5	G
9	CSC 7365	Genitourinary Survey	5	0	0	55	5	G
9	CSC 7366	Jurisprudence and Ethics	2	0	0	22	2	G
9	CSC 7372	Clinical Nutrition and Botanicals II	1	0	0	11	1	G
9	CSC 7374	Clinical Pharmacology	3	0	0	33	3	G
9	RAD 7394	Bone Pathology III	1	1	0	22	1.5	G
		Q9 Totals	**20**	**5**	**10**	**385**	**25.75**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clinical**	**Clock**	**Credit**	**Grade**
10/11	CHR 8126	Philosophy and Principles of Chiropractic VI	1	0	0	11	1	P/F
10/11	CHR 8139	Adjustive Technique VIII	0	2	0	22	1	P/F
10	CLI 8157	Clinic Internship IV	0	0	25	275	8.25	P/F
10/11	CSC 8165	Correlative and Differential Diagnosis	4	0	0	44	4	G
10/11	CSC 8167	Minor Surgery/Proctology	2.5	0	0	27.5	2.5	G
10/11	CSC 8172	Patient/Practice Management II	2	0	0	22	2	G
10/11	CSC 8173	Obstetrics	2	0	0	22	2	G
10/11	CSC 8178	Minor Surgery Laboratory Elective	0	1	0	11	0.5	P/F
10/11	CSC 8177	Evidence-informed Practice III - Clinical Application	1	0	0	11	1	P/F
10/11	RAD 8199	Soft Tissue Interpretation	1	1	0	22	1.5	G
		Q10/11 Totals	**13.5**	**4**	**25**	**467.5**	**23.75**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clinical**	**Clock**	**Credit**	**Grade**
10/11	CHR 8225	Philosophy and Principles of Chiropractic V	2	0	0	22	2	P/F
10/11	CHR 8230	Adjustive Technique IX	0	2	0	22	1	P/F
10/11	CHR 8240	Adjustive Technique X	0	2	0	22	1	P/F
11	CLI 8258	Clinic Internship V	0	0	25	275	8.25	P/F
11	NA	Clinical Skills Assessment – Year 4	0	0	0	0	0	P/NP
10/11	CSC 8266	Clinical Pediatrics	3	0	0	33	3	G
10/11	CSC 8267	Clinical Geriatrics	2	0	0	22	2	G
10/11	CSC 8268	Clinical Psychology	3	0	0	33	3	G
10/11	CSC 8273	Patient/Practice Management III	2	0	0	22	2	G
10/11	CSC 8278	Evidence-informed Practice IV - Clinical Application	1	0	0	11	1	P/F
10/11	RAD 8295	Bone Pathology IV - Review	1	1	0	22	1.5	G
		Q10/11 Totals	**14**	**5.5**	**25**	**484**	**24.75**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clinical**	**Clock**	**Credit**	**Grade**
12	CLI 8359	Clinic Internship VI	0	0	25	275	8.25	P/F
12	CSC 8374	Patient/Practice Management IV	1	0	0	11	1	P/F
		Q12 Totals	**1**	**0**	**25**	**286**	**9.25**	
		Curriculum Totals	**221**	**105.5**	**93**	**4,614.5**	**304.25**	
Qtr.	**Course #**	**Elective**	**Lecture**	**Lab**	**Clinic**	**Clock**	**Credit**	**Grade**
10/11	CSC 8178	Minor Surgery Laboratory	0	1	0	11.0	0.5	P/NP

Chiropractic Techniques in the DC Program

The University of Western States is committed to quality, safety, and effectiveness in the care of patients. The university understands and appreciates the broad diversity of adjustive techniques that may have value for patients, and carefully considers which techniques will be taught within the core curriculum based on the available time to teach techniques, the best available evidence for approaches, and the consensus opinion of the faculty.

Electives in the DC Program

The curriculum of the DC program is tightly structured and contains the academic material and clinical experiences necessary to meet the standards of licensure boards and the demands of the profession. Electives are occasionally offered in addition to the prescribed course of study, but are not a requirement of graduation. They may be offered at special times, including during term breaks. Tuition for elective courses is not included in base tuition costs; enrolling in elective courses will require paying additional tuition.

DC Degree Program Course Descriptions

The numbers following each course description are the hours that each class meets per week during a typical 11-week quarter. The information is listed in the format of (lecture hours per week + lab hours per week)

Department of Basic Sciences

Kara Burnham, PhD, Chair

Basic Sciences Faculty

Kara Burnham, PhD – Microbiology, Immunology, Public Health, Histology
James Carollo, MS – Spinal Anatomy, Gross Anatomy, Neuroanatomy
Cara Fisher, MS – Gross Anatomy
James Gerber, MS, DC, DABCO, DACBN – Nutrition
Mark Kaminski, MS – Cell Biology, Genetics, Physiology, Histology
Paul Shervey, PhD – Gross Anatomy
Steve Taliaferro, DC – Pathology
Michael Weliky, PhD - Neurophysiology
Cortny Williams, PhD – Biochemistry, Physiology

Basic Sciences Course Descriptions

BSC 5102 Spinal Anatomy
This course is an introduction to the structure and function of the human vertebral column. Topics include study of the osteology, arthrology, syndesmology and the neurovascular supply of the spine. The occipital, cervical, thoracic, lumbar, and sacral regions of the spine are studied in the laboratory. The nomenclature of a limited number of clinical problems of the spine is introduced in the laboratory through the study of human vertebral columns. The laboratory also includes a number of unique cadaveric prosections that offer an opportunity to study the anatomy of the different vertebral regions. (1+1)

BSC 5103 Gross Anatomy I
This is the first of three sequential courses in human gross anatomy (see BSC 5203 and BSC 5304). In this course, students study the normal regional anatomy of the back, upper extremity and lower extremity. Particular attention is paid to the anatomical relationship of bones, joints, muscles, blood vessels, and peripheral nerves in these regions. The anatomical and functional aspects of the autonomic nervous system are also introduced. Lectures emphasize the concepts, terminology, and information needed to appreciate the normal organization of the region under study. Lectures also prepare the student for laboratory dissection of the human cadaver. The dissection labs provide a unique opportunity to dissect, visualize, and explore the anatomical structures of each region and to witness the individual variations that exist from person to person. (4+6)

BSC 5112 Biochemistry I
Biochemistry is taught as a two-quarter sequence (with BSC 5213) and covers the structure, function, and metabolism of the major biomolecules. In each class, special significance is given to the connections between biochemistry and nutrition, physiology and clinical lab diagnosis. This course focuses on the structure of amino acids, proteins, nucleotides, and nucleic acids. A brief review of acid-base chemistry is followed by studying amino acids and general issues of protein structure. A number of physiologically important proteins are described, and there is an investigation of the action of enzymes. Nucleic acids are studied, and their role in replication, transcription, and translation is emphasized. This course has an accompanying laboratory that parallels the lecture material. (3+1)

BSC 5116 Cell Biology
This course provides the student with a basic understanding of normal cellular structure and function. The course is presented in modules framed around ten clinical correlations. Each clinical disorder is presented at the beginning of a module and is then followed by a discussion of the relevant general cellular principles. The module is completed by discussing the specific cell biological basis for the disorder. Four modules are framed around the cell membrane, and other modules deal with endoplasmic reticulum, Golgi apparatus, lysosome, mitochondrion, cytoskeleton, and nucleus. The laboratory sessions consist of an introduction to light microscopy, basic cells and structure, and electron micrographs of the lecture material. (3+1)

BSC 5203 Gross Anatomy II
This course is the second in a series of three courses (with BSC 5103 and BSC 5304) that, together with the course in spinal anatomy (BSC 5102), examines in detail the gross anatomy of the human body. This course highlights the regional anatomy of the head and anterolateral neck. In lectures and dissection labs students learn the detailed anatomy of the muscles, nerves, bones, joints, vessels, organs of special sense, and visceral structures of the region. In lab all students will dissect human cadavers and study the anatomical variation in structures associated with the deep and superficial neck and head, including the cranial vault, oral and nasal cavities, pharynx, and larynx. The structural and functional features of the cranial nerves, the organization of the autonomic nervous system, and the innervation of the spine and paraspinal tissue are presented. (4+3)

BSC 5213 Biochemistry II
This course is the second of a two-course sequence (with BSC 5112) in biochemistry. Initially, the structure of the major carbohydrates and lipids are described, followed by the bulk of the coursework covering the various aspects of intermediary metabolism. Topics regarding carbohydrate metabolism include glucose uptake subsequent to feeding, glycolysis, aerobic metabolism, the pentose shunt, gluconeogenesis, glycogen metabolism, and fructose. With respect to lipid metabolism, the mobilization and oxidation of fatty acids, ketone body formation, fatty acid synthesis, triglyceride synthesis, phosphoglyceride synthesis, cholesterol synthesis, and lipid transport are studied. Regarding amino acid metabolism, emphasis is given to urea synthesis, catabolism of amino acid carbon skeletons, synthesis of non-essential amino acids, and abnormalities of amino acid metabolism. Nucleotide metabolism is summarized, and attention is given to purine catabolism and gout. As a final topic, special emphasis is paid to the biochemistry of vitamins. For each vitamin, its general function, coenzyme forms, role in specific pathways, and deficiency conditions are studied. This course has an accompanying laboratory with a special emphasis on topics and methods related to clinical laboratory. (5+1)

BSC 5217 Histology
In this course students will learn the microscopic anatomy of the following organ systems: integumentary, musculoskeletal, vascular, nervous, digestive, respiratory, lymphatic, urinary, and reproductive. Intervertebral and synovial joint histology is covered. Students learn the structure,

function, and location of each of the four basic tissue types (epithelium, connective tissue, muscle, nervous tissue) and how they each contribute to organ structure and function. Microscopic morphology, composition, organization, and resultant function are emphasized. In the associated labs students learn proper technique for using a microscope and thoroughly examine commercially prepared histological specimens from all relevant tissues and organs. (4+2)

BSC 5302 Neuroanatomy
This course describes the detailed anatomy and functional features of macro- and micro-anatomical structures in the brain and spinal cord. Prerequisite information to this course material is presented in the histology and gross anatomy courses. In this course, students first learn the basic structural and organizational features of the spinal cord and brain. Students then consider the interactions of spinal cord and brain structures that comprise major sensory and motor functional pathway systems. In lecture and in lab, course material includes discussion of neurological deficits associated with disturbances of brain and spinal cord structures. In the lab, students study whole and dissected human brain specimens and stained sections of the human brainstem and spinal cord that display normal and diseased structure. (6+2)

BSC 5304 Gross Anatomy III
This course completes the lecture and laboratory components of the gross anatomy series of courses (with BSC 5103 and BSC 5203). In this course, students study the normal regional anatomy of the thorax, abdomen, pelvis, and perineum, including discussions of the heart, lungs, digestive, urinary, endocrine, and reproductive systems. Particular attention is paid to the terminology, position, and relationship of these organs to each other in the body cavity, as well as their blood supply and innervation by the autonomic nervous system. In each case, the relationship of each organ to its vertebral level is discussed. The anatomical and clinical relationships of the bones, joints, muscles, blood vessels, and peripheral nerves of the body wall are also discussed. Each organ system includes special emphasis on the anatomy of referred pain, an important consideration in the field of chiropractic. The laboratory portion of this course continues the unique opportunity to dissect, visualize, and explore each of the four regions under study. (4+3)

BSC 5309 Physiology I
General physiology is taught as a two-course sequence (with BSC 6109). This course addresses cardiovascular, respiratory, and renal physiology. Approximately 60% of the course consists of cardiovascular concepts including blood, hemodynamics, cardiac cycle, electrocardiography, blood pressure, central nervous control, peripheral vasculature, systemic circulation, capillary dynamics, and the lymphatic system. Approximately 20% of the course consists of respiratory concepts including ventilation, gas exchange, gas transport, and the control of respiration. The remaining 20% of the course covers renal concepts including glomerular filtration, tubular exchange mechanics, urine formation, body fluid balance, and micturition. Relevant pathological concepts are presented whenever possible. The weekly laboratory sessions consist of observations and experiments on humans; some activities include the use of digital physiological recording equipment to explore the cardiac cycle and the electrocardiogram. Additionally, the lab portion of the course serves as an introduction to the clinical skills of heart auscultation and arterial blood pressure measurement. (4+2)

BSC 5314 Human Development
This lecture course explores the complex phenomena of human development. Emphasis is on the embryonic period (weeks 1-8) of development. The processes of gametogenesis, fertilization, implantation, embryogenesis, placentation, segmentation, and organogenesis are all discussed. The course provides an understanding of the development of adult body structures in relation to each other. Some general topics of interest include mechanisms for twin formation, heart and limb formation, gender determination, and influences affecting cellular differentiation. Detailed terminology regarding developmental processes and the timing of developmental stages are introduced. Discussions include congenital abnormalities and the factors that disrupt normal development. (3+0)

BSC 6102 Neurophysiology
This companion course to BSC 5302 is a limited scope neuroscience course in two parts. The systems neuroscience component covers a select set of clinically relevant cognitive neuroscience topics, including distributed functions of Hebbian assemblies underlying perception, movement, language, emotion, memory, global brain states, and pain. The cellular neuroscience component covers limited topical areas in cellular neuroscience that complement the presentations of the systems neuroscience component, including cellular electrophysiology and synaptic (Hebbian) plasticity processes. (6+0)

BSC 6109 Physiology II
This course is the second of the two-quarter sequence (with BSC 5309) in general physiology. The endocrine system is investigated in detail. Hormones from the pituitary, thyroid, adrenals, pancreas, and gonads, as well as those associated with calcium regulation, are studied. For each endocrine gland the following topics are covered: review of pertinent anatomy and histology, general chemical structure of hormones, hormone biosynthesis, actions of hormones, mechanism of action at target sites, and regulation of secretion. Major endocrine disorders are presented as case studies, and students learn the relevant pathology, clinical presentation, and laboratory diagnosis of each disorder. Gastrointestinal physiology is also studied, including topics of neural control in the gut, basic behavior of smooth muscle, motility, secretions, digestion, and absorption of nutrients. Metabolic physiology is discussed with emphasis given to measurement of metabolic rate, factors affecting basal metabolic rate, contributions to overall calorie expenditure, overall balance of calorie intake and expenditure, and regulatory mechanisms associated with food intake. Temperature regulation is discussed, with coverage of heat loss mechanisms, hypothalamic control, heat loss/gain mechanisms in response to hot and cold environments, and fever. (5+0)

BSC 6112 Microbiology, Immunology, and Public Health
This course is an introduction to the basic principles of microbiology and public health. Structure, metabolism, genetics, and antibiotic therapy of prokaryotic microorganisms are covered with emphasis on gram positive and enteric bacteria. Students develop a practical understanding of the importance of pathogenic bacteria in clinical practice and public health. Lectures cover topics such as health concerns for travelers, meningitis, streptococcal sore throat, pneumonia, anaerobic infections, diphtheria, tetanus, and enteric infections. Laboratory exercises include cultivation and diagnostic procedures using live bacteria. There is a comprehensive introduction to the principles of immunology, including development of the immune system, immune injury, and the use of immunization in prevention of infectious diseases. The public health component of the course addresses the basic principles of public health, disease prevention, epidemiology, and international health. Students are asked to find and assess literature concerning public health issues. This exercise reinforces the principles of evidence based practice. The role of the Chiropractic Health Section of the American Public Health Association and its significance to the chiropractic profession is discussed. (5+1)

BSC 6117 General Pathology I
This course is the first in a two-part series (with BSC 6218) to provide the student with an understanding of the key concepts and major themes of pathology (the study of disease), integrate these concepts with prior knowledge of anatomy and physiology, and prepare the student for the clinical phase of the chiropractic curriculum. The emphasis in this course is on the characteristics of cellular, tissue, and organ responses in disease. Topics of study include the gross and histological features of cell injury and necrosis, a review of metabolic, environmental, and degenerative conditions leading to tissue deposits of various substances, and the cellular and chemical features of acute and chronic inflammation. Characteristics of tissue regeneration and wound healing are reviewed. The etiology, pathogenesis, morphology, and functional aspects of benign and malignant neoplasms are examined. Disturbances of circulation including edema, hemorrhage, thrombosis, embolization, and infarction are described. Genetic disorders including chromosomal abnormalities and inborn errors of metabolism are explored. Disorders of the immune system are surveyed including

hypersensitivity reactions, autoimmune disease and immunological deficiencies. A review of pathologies related to environmental toxicity and nutritional diseases is included. Diseases of bone, joints, and muscle and major conditions affecting the organ systems are also reviewed. Topics include osteoporosis and osteomalacia, osteomyelitis and skeletal neoplasms. Structural and clinical features of arthritis (including osteo- and rheumatoid types) and diseases of muscle including the dystrophies and myasthenia gravis are described. (6+0)

BSC 6203 Nutrition
In this course the student applies basic biochemical and physiological knowledge to understand the principles of nutritional science and to develop an appreciation of nutrition's role in preventive and therapeutic health care. In reviewing the health issues surrounding each macronutrient and micronutrient, the student learns to assess dietary and other risk factors for diseases that may be preventable through nutritional intervention. Selected clinical applications in therapeutic nutrition are used to illustrate important concepts and to introduce the student to the practice of clinical nutrition. Term projects include practical experience in diet assessment and practice in locating and evaluating nutrition research from an evidence-based perspective. (4+0)

BSC 6207 Genetics
Genetics is rapidly emerging as the interdisciplinary link between all fields in the life sciences. This course represents a survey of this huge subject with an eye toward linking basic biology and pathology to clinical chiropractic. Core topics include chromosomes, the karyotype, meiosis, mutation, gene expression, genetic disease, heredity (autosomal, X-linked, and multifactorial), populations, and genetic counseling. All subject matter is placed in the context of human disease. Students learn to take a genetic history as well as construct and evaluate family pedigrees. The course includes substantial coverage of disorders commonly seen by chiropractors with an emphasis on major social questions surrounding recent discoveries. (4+0)

BSC 6213 Clinical Microbiology and Public Health
This course is a comprehensive review of pathogenic bacteria, fungi, parasites, and viruses. Emphasis is on epidemiology, pathogenesis, diagnosis, prevention, and treatment. Bacterial diseases include pertussis, sexually transmitted infections (STIs), Lyme disease, tuberculosis, leprosy, typhus, and legionnaire's disease. Medical mycology is explored with emphasis on fungal diseases such as dermatophytoses. The section on parasites includes amoebae, malaria, round worms, and tapeworms. The final section of the course is a comprehensive review of viral diseases, including smallpox, herpes, polio, influenza, measles, mumps, rubella, hepatitis, rabies, and HIV. Risks to travelers as well as preventive measures are discussed. The laboratory includes bacteriological staining exercises, examination of parasites, and cultivation of fungi. Important public health aspects, including immunizations, are discussed whenever relevant. (5+2)

BSC 6218 General Pathology II
This course, a continuation of BSC 6117, emphasizes diseases of the organ systems. Major diseases of the cardiovascular and hematopoietic organs, such as arteriosclerosis, aneurysms, ischemic heart disease, anemia, lymphoma, leukemia, and multiple myeloma, are discussed. Diseases of the liver, gall bladder, and pancreas are discussed along with pathological conditions of the gastrointestinal tract, including ulcers, neoplasms, and inflammatory conditions. A number of diseases affecting the nervous system including senile dementia, Parkinson's disease, multiple sclerosis, stroke, and peripheral neuropathies are explored. Conditions affecting the respiratory system, such as bronchitis, emphysema, and asthma are discussed. A variety of diseases involving the kidney and urinary tract as well as a host of pathologies of both male and female reproductive structures are presented. Endocrine diseases including pituitary, thyroid, parathyroid, adrenal, and pancreatic diseases are also reviewed. Overall, there is an increasing emphasis on developing an attitude and frame of mind conducive to success in the clinical phase of the chiropractic curriculum. (4+0)

Department of Chiropractic Sciences

David Peterson, DC, Chair

Chiropractic Sciences Faculty

Joel Agresta, PT, DC, CCSP – Chiropractic Physiological Therapeutics
Laura Baffes, DC, CCSP - Clinical Neurology
Karen Baranick, DC – Soft Tissue, Neuromusculoskeletal Diagnosis and Treatment, Biomechanics/Palpation, Adjustive Techniques
Shireesh Bhalerao, MCR, DC, CCSP – Neuromusculoskeletal Diagnosis and Treatment
Michael Carnes, MS, DC - Extremity Biomechanics
Catherine Cummins, DC, DABCO - Adjustive Techniques, Philosophy and Principles of Chiropractic
Carrie Ebling, DC, LMT – Soft Tissue and Rehabilitation
Ted Laurer, DC – Adjustive Techniques, Spinal Biomechanics, Neuromusculoskeletal Diagnosis and Treatment Laboratory
Betsy Mitchell, DC, DABCO, CCSP - Adjustive Techniques, Biomechanics
David Panzer, DC, DABCO - Adjustive Techniques, Neuromusculoskeletal Diagnosis and Treatment, Philosophy and Principles of Chiropractic
Lester Partna, DC - Adjustive Techniques, Spinal Biomechanics, Philosophy and Principles of Chiropractic
David Perham, DC – Adjustive Techniques, Neuromusculoskeletal Diagnosis and Treatment, Biomechanics/Palpation
David Peterson, DC - Adjustive Techniques, Spinal Biomechanics
Gary Schultz, DC, DACBR - Philosophy and Principles of Chiropractic
Mark Sepulveda, DC - Adjustive Techniques

Chiropractic Sciences Course Descriptions

CHR 5121 Philosophy and Principles of Chiropractic I
This course presents a historical survey of the healing arts, with an emphasis on the history and philosophy of chiropractic from its inception to its current basis in evidence based practice. Chiropractic is defined and its unique role in the health-care delivery system is presented. In addition, Western States' own contributions to the profession and its uniqueness are discussed. (2+0)

CHR 5222 Philosophy and Principles of Chiropractic II
This course explores the scope and standards of chiropractic practice. Topics include the range and variation of chiropractic examination and treatment procedures, professional ethics, and the profession's political and educational organizations and issues. (1+0)

CHR 5323 Philosophy and Principles of Chiropractic III
This course is devoted to the presentation and discussion of the theories of spinal motion segment dysfunction/subluxation. Topics include philosophy and its relationship to chiropractic theory and practice, the concept of the manipulable lesion, theoretic effects and mechanisms of adjustive therapy, and definitions, diagnosis, theoretic etiology, pathophysiology and health effects of spinal subluxation/dysfunction syndromes. (1+0)

CHR 6224 Philosophy and Principles of Chiropractic IV
This course focuses on various neurological models for spinal joint dysfunction and manipulation. A variety of mechanisms are presented related to the instigation of local and radiating pain, adverse neurological effects in the musculoskeletal system as well as the controversy regarding clinically significant visceral effects. (1+0)

CHR 8225 Philosophy and Principles of Chiropractic V
This course presents an advanced review, expansion and correlation of the clinical features of joint dysfunction/ subluxation syndromes, including causes, biomechanical and neurological effects, and treatment. Chiropractic management of common spinal conditions is reviewed and expanded, with emphasis on case-based problem solving and critical thinking. Current trends in chiropractic practice and managed care are surveyed. (2+0)

CHR 8126 Philosophy and Principles of Chiropractic VI
This course offers a series of companion lectures for Adjustive Technique VIII. Evaluation and an integrated treatment approach are presented in the treatment of common disorders of the cervical spine, temporomandibular joint, and cranium. Case scenarios are emphasized to assist problem solving and comprehensive management. (1+0)

CHR 5125 Biomechanics/Palpation I Lecture
This lecture course introduces the student to biomechanical and kinesiologic terms and concepts necessary for the development of observational and palpatory skills of the spine and extremities. (1+0)

CHR 5136 Biomechanics/Palpation I Laboratory
This lab course introduces the student to the fundamental examination skills of observation and palpation and instructs the student in the identification of normal bony and soft tissue landmarks of the spine and extremities. (0+3)

CHR 5226 Biomechanics/Palpation II: Spinal Kinematics
This course is devoted to the study of the functional anatomy and kinematics of the spine. Other topics presented include an introduction to the biomechanics of gait and a discussion of cavitation principles. (2+0)

CHR 5234 Biomechanics/Palpation II Laboratory
This lab course instructs the student in the physical assessment of spinal joint structure and function. Joint assessment procedures of static palpation, motion palpation, end feel, joint play, postural assessment, and range of motion assessment are presented. (0+4)

CHR 6227 Biomechanics/Palpation III: Tissue Mechanics
This course covers the biomechanical properties of muscles, nerves, and connective tissue and tissue injury and repair. Topics include stress-strain curves, length-tension relationships, hysteresis, types of loads and forces, and the response of various types of tissue. Additional emphasis is placed on the pathobiomechanics of low back and whiplash injuries. (2+0)

CHR 6329 Biomechanics/Palpation IV Lecture: Extremities
Biomechanics/Palpation IV Lecture is a lecture course devoted to the study of functional anatomy and kinematics of the extremities. Laboratory sessions instruct the student in the examination of the extremities with special emphasis on neuromusculoskeletal evaluation and measurement. (2+0)

CHR 6331 Biomechanics/Palpation IV Lab: Extremities
Biomechanics/Palpation IV Lab is a lab course devoted to the study of functional anatomy and kinematics of the extremities. Laboratory sessions instruct the student in the examination of the extremities with special emphasis on neuromusculoskeletal evaluation and measurement. (0+2)

CHR 5231 Adjustive Psychomotor Skills Lab
This two-hour lab course is devoted to developing the foundation of body mechanics and spinal adjusting psychomotor skills that are central to the safe delivery of adjustive therapy. The course focuses on instruction in adjustive body mechanics, spinal and extremity muscle stretching and endurance training, proprioceptive training and adjustive pre-tension, and adjustive thrust (impulse) drills. (0 + 2)

CHR 5321 Adjustive Technique I Lecture: The Thoracic Spine
Adjustive Technique I Lecture is the first of a four-course sequence devoted to topics in spinal adjustive technique. This two-hour lecture course is designed to provide the student with an anatomical, biomechanical, and pathophysiologic basis for chiropractic adjustive therapy. It is structured to reinforce methods covered in adjustive technique lab sessions. Topics will include definition and classification of manual therapies, adjustive technique terminology, general and specific thoracic adjusting mechanics, adjusting contraindications/complications, adjustive therapy decision analysis, and adjustive treatment guidelines. (2+0)

CHR 5332 Adjustive Technique I Laboratory
Adjustive Technique I Lab is a four-hour course devoted to developing foundation adjustive skills and the development of the knowledge, physical exam, and psychomotor skills necessary to provide effective chiropractic adjustments of the spine, with a focus on the thoracic spine. Adjustive techniques include prone, supine, sitting and standing procedures. (0+4)

CHR 6122 Adjustive Technique II Lecture: The Pelvis
Adjustive Technique II Lecture is a one-hour course devoted to the examination and treatment of pelvic manipulative disorders. It is designed to provide the student with an anatomical, biomechanical, and physiologic basis for the evaluation and adjustive management of pelvic subluxation/dysfunction syndromes. (1+0)

CHR 6133 Adjustive Technique II Laboratory
Adjustive Technique II Lab is a three-hour course devoted to the development of the psychomotor skills necessary for examination and adjustive treatment of pelvic dysfunction. Adjustive techniques include side posture, prone, and drop table procedures. Pubic symphysis adjustments and

pelvic blocking techniques are also presented. Additional time is scheduled to review and reinforce examination and adjusting psychomotor skills of the thoracic spine. (0+3)

CHR 6223 Adjustive Technique III Lecture: The Lumbar Spine
Adjustive Technique III Lecture is a one-hour course devoted to the examination and treatment of lumbar manipulative disorders. The course provides an anatomical, biomechanical, and pathophysiologic basis for chiropractic manipulative therapy of the lumbar spine. It is designed to complement presentations covered in lumbar technique laboratory sessions. Topics include functional anatomy, biomechanics, evaluation, terminology, adjustive mechanics, complications/contraindications, and adjustive therapy guidelines and decision-making relative to the lumbar spine. (1+0)

CHR 6234 Adjustive Technique III Laboratory
Adjustive Technique III Lab is a three-hour course devoted to the examination and treatment of lumbar subluxation/dysfunction syndromes. The laboratory sessions are devoted to the development of the knowledge, physical exam, and psychomotor skills necessary for effective chiropractic adjustments of the lumbar spine. Adjustive techniques include side posture, prone, and drop table procedures. Additional time is scheduled to review and reinforce examination and adjusting psychomotor skills of the pelvis and thoracic spine. (0+3)

CHR 6324 Adjustive Technique IV Lecture: The Cervical Spine
This one-hour lecture course is devoted to topics in spinal adjustive technique. The course provides an anatomical, biomechanical, and pathophysiological basis for cervical and thoraco-cervical manipulative therapy. It is meant to complement presentations covered in cervical adjustive technique laboratory sessions. Topics include biomechanics, selected conditions and treatment, evaluation, and adjustive mechanics. Specific focus is given to the topics of spinal manipulation and vertebrobasilar complications. (1+0)

CHR 6336 Adjustive Technique IV Laboratory
This five-hour lab course is devoted to the development of adjustive technique skills as applied to the cervical spine. It provides the opportunity for the practical application of palpation, examination, identification of dysfunction, and treatment of the occiput, cervical, and thoraco-cervical spine. Adjustive techniques are presented in the supine, prone, and sitting patient positions, along with selected drop table procedures. (0+5)

CHR 6337 Adjustive Technique V Introduction: Extremity Joint Play Laboratory
This three-hour course is devoted to the development of the knowledge, physical exam, and psychomotor palpation skills necessary for effective chiropractic joint play evaluation of the upper and lower extremities. (0+3)

CHR 7137 Adjustive Technique V Advanced: Extremity Adjusting Laboratory
This two-hour course is devoted to the development of the knowledge, physical exam, and psychomotor adjustive skills necessary for effective chiropractic adjustments of upper and lower extremities. (0+2)

CHR 7138 Adjustive Technique VI: Adjustive Review Laboratory
Adjustive technique VI is a three-hour review course designed to integrate and reinforce biomechanical assessment and adjustive technique skills covered in previous adjustive technique courses. (1+3)

CHR 7327 Adjustive Technique VII: Thoracic Spine and Upper Quarter Management
This course reviews and refines the integrated manipulative procedures and management of common disorders of the thoracic spine, anterior chest wall, and upper extremity. There is also integration of philosophy and principles of the subluxation complex. (1+0)

CHR 7338 Adjustive Technique VII Laboratory
This course reviews and refines adjusting skills utilized in the management of thoracic, rib, and other upper extremity disorders. Soft tissue techniques and mobilizations are also reviewed and refined. Case scenarios are presented to discuss management and problem-solving skills. (0+2)

CHR 8139 Adjustive Technique VIII: Head and Neck Management Laboratory
This companion lab for Philosophy and Principles VI reviews and refines the integrated manipulative procedures used in the treatment of common disorders of the cervical spine, temporomandibular joint, and cranium. (0+2)

CHR 8230 Adjustive Technique IX: Lumbar, Pelvis and Lower Quarter Management Laboratory
This course refines and integrates diagnosis, manipulation, and general chiropractic management of common disorders of the lumbar spine, pelvis, and extremities. Case scenarios are emphasized to assist diagnosis, comprehensive management, and patient communication. (0+2)

CHR 8240 Adjustive Technique X: Selected Topics Laboratory
Adjustive Technique X consists of a series of selected topics with demonstration of the manipulative procedures used for special problem cases or presentations followed by hands-on workshop. (0+2)

CHR 6124 Soft Tissue Therapies/Rehabilitation I
This course, the first of a two-part sequence, is devoted to the examination and treatment of the soft tissues of the body. Lecture presents evidence-based rationale for each of the soft tissue therapies. Laboratory topics include massage techniques, trigger point therapy, cross-fiber therapy, and muscle stretching techniques, with application of accepted protocols. (1+2)

CHR 7227 Soft Tissue Therapies/Rehabilitation II
This is the second of a two-course sequence devoted to treatment and rehabilitation of the soft tissues of the body. Topics include lumbar stabilization protocols, pain centralization protocols (based on McKenzie), muscle energy techniques, joint mobilization, distraction/decompression protocols (based on Cox), key movement patterns and sensory motor training. (0+3)

CHR 6322 Neuromusculoskeletal Diagnosis and Treatment I Lecture: The Spine
NMS I Lecture introduces the diagnostic and therapeutic knowledge necessary for the management of lesions, defects, or disorders of the neuromusculoskeletal system. Discussion of mechanical, congenital, or traumatic and neuromusculoskeletal disorders affecting the spine and its adjacent soft tissue are emphasized. (6+0)
CHR 6325 Neuromusculoskeletal Diagnosis and Treatment I Lab: The Spine
NMS I Lab introduces the diagnostic and therapeutic skills necessary for the management of lesions, defects, or disorders of the neuromusculoskeletal system. The skills of examination and management of mechanical, congenital, or traumatic and neuromusculoskeletal disorders affecting the spine and its adjacent soft tissue are emphasized. (0+2)

CHR 7123 Neuromusculoskeletal Diagnosis and Treatment II Lecture: Lower Extremity
NMS II Lecture is devoted to the examination, diagnosis, and management of lower extremity conditions, which may be mechanical, congenital, degenerative, or traumatic in nature. (3+0)

CHR 7126 Neuromusculoskeletal Diagnosis and Treatment II Lab: Lower Extremity
NMS II Lab is devoted to the development of the skills of examination, diagnosis, and management of lower extremity conditions, which may be mechanical, congenital, degenerative, or traumatic in nature. (0+1)

CHR 7224 Neuromusculoskeletal Diagnosis and Treatment III Lecture: Upper Extremity
NMS III Lecture is devoted to the examination, diagnosis, and management of upper extremity conditions, which may be mechanical, congenital, degenerative, or traumatic in nature. (3+0)

CHR 7228 Neuromusculoskeletal Diagnosis and Treatment III Laboratory: Upper Extremity
NMS III Lab is devoted to the development of the skills of examination, diagnosis, and management of upper extremity conditions, which may be mechanical, congenital, degenerative, or traumatic in nature. (0+1)

CHR 7127 Taping and Splinting I
This is a practical hands-on laboratory course intended to provide the chiropractic student with the basic knowledge and skills to appropriately select and apply necessary support and protection with athletic tape, elastic wraps, plaster splints, and OTC braces when treating common neuromusculoskeletal injuries and other common conditions of the lower extremity. (0+1)
CHR 7229 Taping and Splinting II
This is a practical hands-on laboratory course intended to provide the chiropractic student with the basic knowledge and skills to appropriately select and apply necessary support and protection with athletic tape, elastic wraps, plaster splints, and OTC braces when treating musculoskeletal injuries and other common conditions of the upper extremity. (0+1)

CHR 7162 Chiropractic Physiological Therapeutics I
This course introduces students to the adjunctive physiological therapeutic modalities available to the chiropractic physician. These modalities employ the use of heat, cold, water, electricity, light, and traction. The basic physics and physiological principles governing each modality are discussed, as well as indications, contraindications, and rationales for their application. The corresponding hands-on lab training develops proficiency in operating therapeutic equipment. Particular attention is given to understanding and application of the following: thermotherapy (hot packs, paraffin baths, heating pads, heat wraps, patches, infrared lamps, diathermy, ultrasound, etc.), cryotherapy (cold packs, ice massage, vapocoolants, etc.), hydrotherapy (whirlpool baths, contrast baths, sitz baths, hot and cold extremity baths, etc.), electrotherapy (low volt galvanism, high volt pulsed direct current, low volt alternating current, TENS, microcurrent, interferential current, Russian Stimulation, etc.), phototherapy (ultraviolet, low level laser therapy, etc.), and mechanotherapy (traction and gait appliances). Students learn which modality is most appropriate for particular disorders and conditions. (3+2)

CHR 7265 Chiropractic Physiological Therapeutics II
The emphasis of this course is on the principles and application of therapeutic exercise and rehabilitation of the locomotor system. A biopsychosocial model is presented in an effort to identify functional pathology and the consequences of deconditioning syndrome. Students learn how to perform a functional capacity evaluation for baseline assessment and outcomes assessment using goniometry, inclinometry, muscle length testing, muscle strength and endurance testing, key movement pattern testing, respiratory assessment, stability assessment, balance assessment, coordination assessment, and postural analysis. The student will learn the indications, contraindications, and application of specific exercise protocols for the purpose of improving range-of-motion, flexibility, strength, endurance, power, coordination, stability, aerobic conditioning, muscle balance, relaxation, proprioception, posture, gait, and functional locomotor control. (3+2)

Department of Clinical Education

Sean Herrin, DC, Chair

Clinical Education Faculty

Amanda Armington, DC – Attending Physician, Campus Health Center
Shawn Hatch, DC – Attending Physician, Campus Health Center
Sean Herrin, DC – Clinic Phase, Clinical Topics
Lorraine Ginter, DC - Attending Physician, Campus Health Center
Suzanne Lady, DC – Clinic Phase
Ron LeFebvre, DC - Clinic Phase
Ryan Ondick, DC, CCSP - Attending Physician, Campus Health Center
Karen Petzing, DC – Clinical Internship
Gary Schultz, DC, DACBR - Clinical Topics I
James Strange, DC – Attending Physician, Campus Health Center
Michael Tarnasky, DC - Attending Physician, Campus Health Center

Clinical Education Course Descriptions

CLI 5241 Clinical Topics I
The course begins the process of transforming students into future doctors. This transformation involves the understanding of professionalism, the doctor-patient relationship, ethics, personal and professional use of electronic media, tolerance of social, ethnic, religious or lifestyle differences, jurisprudence/HIPAA, communication/interpersonal skills, confrontational tolerance, touch and mindfulness. (1+0)

CLI 6142 Clinical Topics II
The purpose of the course is to teach students to take and appropriately chart a comprehensive patient history. Students will learn the legal requirements for charting, interviewing skills, clinical decision making, chief complaint history, review of systems, past health history, family health history, and personal and social history. By the end of this course students will be able to take and correctly chart a comprehensive patient history. (1+0)

CLI 6343 Clinical Topics III
This course introduces students to topics related to routine patient care and introduction to the requirements of patient charting. Learning exercises emphasize development of patient management plans, clinical thinking relating to charting and the documentation of patient evaluation, management and treatment. Students will complete a sample case project for use in CLI 7157. (1+0)

CLI 6262 Physical Diagnosis I - Lecture
This course is the first in a two-part series (see CLI 6363) on the procedures and protocols associated with conducting a systematic physical examination. Emphasis is placed on integration of knowledge previously acquired in the basic sciences curriculum, the need to critically assess the patient's history and risk factors, the correlation between pathophysiologic changes and resultant clinical findings, the significance of these findings, and the prioritization of the patient's health care needs. The course includes discussion on the assessment and evaluation of the vital signs, vascular system, thorax, lungs, abdomen, lymphatic system, thyroid gland, and ears. (4+0)

CLI 6263 Physical Diagnosis I - Lab
This course is the first in a two-part series (see CLI 6364) introducing the systematic examination and evaluation of the human body. Laboratory sessions provide instruction in the performance of various protocols and procedures associated with a routine physical examination. Students learn and demonstrate proficiency in the use of the stethoscope and sphygmomanometer in the evaluation of the vital signs, the arterial system, and the lungs and heart exam. Students also learn and demonstrate proficiency in the abdominal exam and the examination of the lymphatic system and thyroid gland. (0+2)

CLI 6363 Physical Diagnosis II - Lecture
This course is the second in a two-part series (see CLI 6262) on the procedures and protocols associated with conducting a systematic physical examination. Emphasis is placed on integration of knowledge previously acquired in the basic sciences curriculum, the need to critically assess the patient's history and risk factors, the correlation between pathophysiologic changes and resultant clinical findings, the significance of these findings, and the prioritization of the patient's health care needs. The course includes discussion on the assessment and evaluation of the visual system, the components and clinical application of the neurological exam, and the evaluation of the dizzy or vertiginous patient. (4+0)

CLI 6364 Physical Diagnosis II - Lab
In this, the second part of a two-part series (see CLI 6263), students continue learning physical examination protocols and procedures with associated treatment procedures. Students learn and demonstrate proficiency in performing routine examination of the eyes, ears, nose, mouth, throat, sinuses, the cranial nerves, and specific tests for assessing dizziness. Additionally, students learn to appropriately perform the following treatment procedures: ear irrigation, nasal specific, endonasal, Argyrol sinus treatment, and Epley's maneuver. (0+2)

CLI 7157 Clinic Phase I
The purpose of the course is to support the knowledge and skills required to deliver care in the Clinical Internship series. The first half of the lecture portion is designed to review effective history taking and physical examination procedures as they apply to performing a comprehensive general physical and health promotion interview. Students are introduced to basic clinic documentation and the processes of working through a differential diagnosis, management plan, and prognosis. The second half of the lecture portion introduces clinical reasoning strategies for diagnosing and assessing musculoskeletal conditions as well as building evidenced-informed practice and critical thinking skills. (2+2)

CLI 7207 Clinic Phase II
This course builds upon Clinic Phase I in the areas of effective history taking, physical examination, diagnosis and management planning, and evidence-informed practice skills. The overall goals of this course include increasing expertise in the realm of targeted exam skills, improving speed and efficiency in doing a clinical work up of a regional complaint (with a special emphasis on the spine), improving written communication skills in the arena of clinical impressions and narratives, and improving overall clinical decision making. Additionally, there is special focus on clinical problem solving, increasing the breadth and depth of knowledge regarding selected spinal conditions and synthesizing pre-appraised literature for a clinical problem. (2+2)

CLI 7304 Clinic Phase III
The purpose of this course is to continue the development of knowledge and skills in the domains of hands-on history and physical assessment, clinical decision making, diagnostic synthesis and management decisions, both for neuromusculoskeletal complaints and visceral complaints. This course is designed to build upon Clinic Phase II in the areas of effective history taking, physical examination procedures, diagnosis and developing management plans. Emphasis will be placed on selection of evaluation procedures, clinical problem solving, practice following the critical pathway to properly focus patient evaluation, selecting management strategies, and further refinement of basic clinical and documentation skills. (2+2)

CLI 7158 Clinical Internship I
This course is the first of a six-course series of Clinic Internship. The class consists of lab and clinic experiences. Lab exercises will provide simulations and direct experience in aspects of patient evaluation and recordkeeping. Students will also provide chiropractic treatments to fellow classmates in the Campus Health Center. Students enrolled in Clinical Internship 1 are encouraged to continue their regular care in the Campus Health Center as prescribed by their attending physician. An integral part of this lab class will be developing skill in assessing for and providing chiropractic care, learning how to conduct an office visit in an efficient manner, developing comfort with the provider role, communication with patients, as well as learning to correctly document findings and care provided to patients. Students will also perform a re-evaluation on a simulated patient case and incorporate those findings into a management plan. (0+2)

Department of Clinical Sciences

Gary Schultz, DC, DACBR, Chair

Clinical Sciences Faculty

Laura Baffes, DC, CCSP - Narrative Report Writing, Clinical Pediatrics, Emergency Care, Patient/Practice Management
Shireesh Bhalerao, MCR, DC, CCSP - Evidence-informed Practice
Angela Carter, ND – Minor Surgery
Mia Crupper, ND, LMT – Clinical Nutrition and Botanical Medicine, Dermatology and Infectious Disease, Obstetrics, Genitourinary Survey
Catherine Cummins, DC, DABCO - Clinical Geriatrics
James Gerber, MS, DC, DABCO, DACBN - Clinical Nutrition
Beverly Harger, DC, DACBR - Clinical Radiology Rounds
Henry Hirsh, RT - Radiographic Technique
Lisa Hoffman, DC, DACBR - Radiographic Anatomy, Bone Pathology
Dennis Hoyer, MT (ASCP), DC - Clinical Pathology, Clinical Laboratory, Correlative and Differential Diagnosis
Peter Macris, DC – Patient/Practice Management
Tyna Moore, ND, DC – Minor Surgery
David Panzer, DC, DABCO – Evidence-informed Practice
Allen Peters, JD - Jurisprudence and Ethics
Gary Schultz, DC, DACBR - Patient/Practice Management, Radiographic Technique
Mark Sepulveda, DC - Patient/Practice Management
Peter Shull, DC - Cardiorespiratory Diagnosis and Treatment, Gastroenterology Diagnosis and Treatment
Timothy Stecher, DC, DACBR - Bone Pathology
Edward Versteeg, PsyD - Clinical Psychology

Clinical Sciences Course Descriptions

CSC 5243 Evidence Informed Practice - Information Mastery
This course is designed to develop the search skills necessary to efficiently access health care literature and resources. Efficient search skills are a prerequisite to subsequent EIP courses and a skill that will be accessed frequently throughout the chiropractic program both in the classroom and during patient care. (1+0)

CSC 6177 Evidence Informed Practice I - Clinical Reasoning in Diagnostic Assessment
The course provides an introduction to evidence-informed chiropractic practice and clinical thinking, focusing on the realm of therapy. This course offers the student a conceptual framework to aid upcoming clinical studies. Hands on practice and application of key concepts will be used to encourage effective problem-solving strategies and future application of evidence-informed practice (EIP) in the clinical experience. (2+ 0)

CSC 6277 Evidence Informed Practice II - Critical Appraisal of the Literature
The course provides a continuation of evidence-informed chiropractic practice (EIP) and clinical thinking, focusing on the realms of diagnosis, harm and prognosis. This course offers the student a conceptual framework to aid upcoming clinical studies. Hands on practice and application of key concepts will be used to encourage effective problem-solving strategies and future application of evidence-based practice (EBP) in the clinical experience. (2+0)

CSC 8179 Evidence Informed Practice III - Clinical Application
This course is the first of two one hour journal club format courses designed to practice the application and refinement of evidenced-informed practice (EIP) skills first introduced in information mastery, EIP I and EIP II. These skills include accessing clinical research evidence, critical appraisal of relevant primary studies and pre-appraised reviews on diagnosis, treatment, harm (risk), and prognosis. Interpretation and assessment of study results, and application to patient care is integrated with clinical experience and patient preference. (1+0)

CSC 8279 Evidence Informed Practice IV – Clinical Application
This course is the second of two one hour journal club format courses designed to practice the application and refinement of evidenced-informed practice (EIP) skills first introduced in information mastery, EIP I and EIP II. These skills include accessing clinical research evidence, critical appraisal of relevant primary studies and pre-appraised reviews on diagnosis, treatment, harm (risk), and prognosis. Interpretation and assessment of study results, and application to patient care is integrated with clinical experience and patient preference. (1+0)

CSC 6367 Clinical Laboratory
This course introduces clinical laboratory procedures, including hematology, blood chemistry, urinalysis, and serology. Students learn the appropriate use of clinical laboratory tests as screening and/or diagnostic tools and the differences between and significance of “normal” and “abnormal” laboratory values. Students learn to understand the importance of the sensitivity and specificity of various laboratory tests in explaining why a particular laboratory value falls outside the normal reference range. In the corresponding laboratory sessions, students learn “universal precautions,” risks associated with exposure to blood borne pathogens, and proper procedures for collecting blood and other specimens, and perform simple laboratory procedures that can be utilized as in-office tests. (3+2)

CSC 7167 Clinical Pathology
In this sequel to CSC 6366 (Clinical Laboratory), students learn to synthesize clinical data in reaching a diagnostic conclusion. Students utilize detailed knowledge of common clinical laboratory procedures to diagnose, confirm clinical impressions, screen for disease, estimate prognosis, evaluate therapeutic progress, and relate laboratory findings to pathophysiological processes. They identify appropriate laboratory procedures for specific clinical situations and determine when an abnormal laboratory result is clinically significant. Students determine a differential diagnosis based upon laboratory findings in conjunction with associated historical facts and physical findings. Students must demonstrate knowledge of

specific diseases/disorders, including etiology, pathophysiology, epidemiology, clinical and radiological features, routine and special laboratory findings, current therapeutic approaches, and appropriate referral protocols when indicated. (3+0)

CSC 6275 Dermatology and Infectious Disease
This course is an introduction to common skin disorders frequently encountered in a chiropractic office. The structure, function, and immune reactions of skin are reviewed. Students acquire basic information necessary for differential diagnosis and treatment of common skin diseases. Benign, pre-malignant, and malignant tumors are covered, including squamous and basal cell carcinomas and malignant melanoma. Other topics include vascular lesions, birthmarks, and inherited diseases such as psoriasis and pemphigus. Differential diagnosis of eczema and dermatitis comprise a major portion of this course. Other common conditions include acne, bacterial and superficial fungal infections, connective tissue disease, and nail disorders. Students learn to provide conservative treatment and counseling to patients with a variety of skin diseases. (2+0)

CSC 7163 Cardiorespiratory Diagnosis and Treatment
This course discusses common cardiorespiratory pathologies, their etiologies, clinical presentations, and associated risk factors. It reinforces previously acquired knowledge of cardiopulmonary anatomy and physiology so that abnormalities within these systems and the associated manifestations may be better understood and evaluated in relationship to the health care needs of the patient. Students will recognize the need for an adequate history, be familiar with signs and symptoms of common cardiorespiratory pathologies, and relate these clinical presentations to associated body systems. Students will understand associated risk factors and be able to assess a patient's general cardiorespiratory health status. Case management of those conditions amenable to conservative care is discussed, as are the indications for appropriate referral. (3+0)

CSC 7175 Emergency Care
This course prepares chiropractors to respond to traumatic injuries and sudden severe illness in non-clinical settings. Each student is instructed and examined in basic life support and cardiopulmonary resuscitation for certification through the American Heart Association. Good Samaritan Laws, consciousness assessment, poisoning, cardiac emergencies, near drowning, burns, etc. are covered. (1+0)

CSC 7271 Clinical Nutrition and Botanicals I
This course helps the student understand the role of diet modification and nutritional and botanical supplementation in the management of commonly encountered health disorders. The course begins by introducing the science underlying the use of botanical therapies and reviewing several basic therapeutic programs that use diet and lifestyle changes as well as supplementation with micronutrients, botanicals, or nutraceuticals. Subsequently, a body systems approach is used to present specific nutritional therapies for a variety of cardiovascular, musculo-skeletal, psychoneurological, respiratory, and endocrine/metabolic disorders, including nutritional anemias. Additionally, cancer prevention and sports nutrition will be addressed. Discussions revolve around issues and controversies in current nutritional science. Assignments allow students to practice diet assessment, diet prescription, and the use of electronic resources for investigating scientific evidence for the efficacy and safety of nutritional and botanical interventions. (4+0)

CSC 7372 Clinical Nutrition and Botanicals II
This course continues to address the role of diet modification and nutritional and botanical supplementation in the management of commonly encountered health disorders. Disorders of the gastrointestinal, genitourinary, and gynecological systems will be covered. (1+0)

CSC 7324 Clinical Neurology
This course covers neurological diseases and disorders with a focus on the central nervous system. The presented conditions are differentiated by their history, signs, and symptoms, and x-ray and laboratory findings. Special attention is placed on conditions commonly encountered or amenable to chiropractic care. (5+0)

CSC 7374 Clinical Pharmacology
This course provides an introduction to the fundamental principles of pharmacology and toxicology. Students learn about common adverse side effects and other complications associated with drug use. Chiropractors are allowed to recommend over-the-counter drugs (OTCs) in most states and Canadian provinces. The course covers non-prescriptive drugs used to manage musculoskeletal complaints as well as allergies and gastrointestinal, respiratory, and skin disorders. Assignments expose students to the use of electronic resources for investigating issues of efficacy, safety, and drug interactions. (4+0)

CSC 7264 Gastroenterology Diagnosis and Treatment
Common gastroenteric pathologies, their etiologies, symptomatology, and associated risk factors are covered. Students learn the signs, symptoms, and clinical manifestations associated with abnormal changes in gastrointestinal anatomy and physiology. Emphasis is placed on the incidence, prevalence, etiology, natural history, progression, clinical presentation, and differential diagnosis of selected conditions. Case management of those conditions amenable to conservative care is discussed, as are the indications for appropriate referral. Previously acquired knowledge of anatomy, physiology, public health parameters, history, physical exam findings, laboratory and radiologic evaluation, clinical decision-making, and clinical nutrition is integrated. (3+0)

CSC 7365 Genitourinary Survey
This course surveys the female and male reproductive and urinary systems focusing on the most common conditions seen in a general practice. GU Survey compliments practical experience in Clinic Phase II and/or III where students perform gynecological and urological examinations on live patient simulators. This course prepares the student for clinical evaluation of normal and abnormal presentations of the genitourinary system, including a basic review of anatomy, reproductive pathophysiology, diagnostic testing, and basic conventional and CAM treatments of genitourinary diseases. Lecture, guest speakers, case studies, class participation, and audiovisual aids prepare the student with pertinent history taking skills, clinical decision making, basic care and management skills as well as appropriate referral recommendations. (5+0)

CSC 7366 Jurisprudence and Ethics
This course systematically reviews the legal and ethical considerations that relate to the practice of chiropractic. It provides students with an understanding of basic principles of law and ethical conduct, focusing on the rights, privileges, and obligations of practitioners of the healing arts as well as those of the patient and public. Rules of evidence, licensure laws, civil and criminal malpractice, informed consent, negligence, expert witness testimony, and other legal aspects of chiropractic practice are covered. Guest lecturers present common standards of professional and ethical conduct and moral judgment. Students learn to recognize potential legal risks and how best to avoid litigious pitfalls. (2+0)

CSC 7164 Narrative Report Writing
This course prepares students to write orthopedic and neurologic reports, to document procedures necessary to be in compliance with state law, and to communicate efficiently and effectively. Students review the basics of good technical writing and build on material previously presented in the student clinic. They learn to write the various required reports that document treatment decisions. They study the best options for communication with other health care professionals, third-party payers, attorneys, and consulting physicians. Particular emphasis is given to creating comprehensive orthopedic and neurologic reports, regional narrative reports, and written progress reports. Students create reports appropriate for specific situations or audiences, such as worker's compensation injury, personal injury, or auto accident injury. (1+0)

CSC 8165 Correlative and Differential Diagnosis
This course reviews a broad variety of diagnostic sciences, covering the more common clinical entities seen by chiropractic physicians, with extra emphasis on non-musculoskeletal complaints. Students refine their skill in clinical reasoning and increase their efficiency in obtaining data from and about patients. They learn to analyze data pragmatically to obtain the most appropriate diagnosis of a patient's condition. Particular attention is given to techniques for obtaining patient information through the interview process and strategies for clinical decision-making. Students distinguish between relevant and peripheral clinical issues; differentiate key clues from nonspecific findings; distill clinical information from a list of specific problems and create an appropriate diagnosis. Course material is presented in lectures, supplemented with discussions of case histories and role-playing of doctor/patient interactions. (4+0)

CSC 8167 Minor Surgery/Proctology
This course is a systematic review of pertinent pathological conditions as minor surgical presentations and their resolution through minor surgical means and procedures. It provides an opportunity to gain academic and practical insights into minor surgical and proctological presentations and knowledge and practical skills for minor surgical interventions. Students become familiar with the legal limitations of minor surgery and how to identify associated risk factors. Students are instructed in the appropriate use of sterile fields, administration of local anesthetics, closure of traumatic wounds, and elective surgical procedures. They cover the surgical management of lipomas, sebaceous cysts, inclusion cysts, growths, fibromas, lacerations, ingrown nails, and other presentations amenable to surgical intervention. Special attention is given to surgical interventions for various anorectal disorders, such as internal and external hemorrhoids, anal fissures, skin tags, cryptitis, and others. (2.5+0)

CSC 8178 Minor Surgery Lab Elective
This is the elective companion lab to CSC 8166 Minor Surgery/Proctology. Successful completion of both lecture and lab are required for chiropractic licensure in the state of Oregon. This hands-on lab provides practical experience in acquiring those skills necessary in minor surgical services. Students practice establishing sterile fields for the surgical instruments, the doctor, and the patient and practice appropriate infiltration techniques associated with the administration of local anesthetics. Appropriate suturing techniques are given special attention. (0+1)

CSC 8173 Obstetrics
This course reviews reproductive physiology and introduces the field of obstetrics and working with pregnant patients in the chiropractic setting. It lays a foundation for students who may later choose to pursue in depth study or co-manage pregnant clients in their practice. Lectures, guest speakers, and audiovisual aids familiarize the student with normal pregnancy and birth, variations from normal, and many of the available options for pregnant women/couples. Students will gain knowledge on how to counsel their pregnant or lactating patients regarding optimal nutrition, appropriate exercise programs, spinal care, and general patient well-being at all the stages from pre pregnancy to post partum. Warning indicators of pregnancy, labor, and post partum complications are also addressed. (2+0)

CSC 8266 Clinical Pediatrics
This course focuses on the normal growth and development of children and the most common issues in their health care. Students become familiar with developmental milestones and learn to identify individuals who are not developing within normal expectations. Particular attention is given to conducting a well child examination, identifying the most common childhood illnesses, and assessing and managing orthopedic conditions. Students learn how to communicate effectively and respectfully with children and how to identify risk factors, signs, and symptoms of child abuse and the laws regarding reporting of suspected abuse. Problems that can be managed with conservative chiropractic care and those that require appropriate referral are differentiated. (3+0)

CSC 8267 Clinical Geriatrics
This course provides an understanding of the unique characteristics of the elderly patient and explores the effects of aging and chronic degenerative processes. Students become familiar with the evaluation and conservative management of geriatric disorders, focusing on the normal physiologic changes associated with aging and normal variants in geriatric physical examination findings. Danger signals associated with life-threatening disorders are investigated, along with utilization of appropriate decision-making strategies for proper care of the patient. Tests and screening evaluations are investigated to determine those that best identify declining health related functions. Intervention options that restore and maintain the quality of life are discussed. Specific attention is given to nutritional inadequacies, deconditioning, gait and balance disorders, mental dysfunction, hearing and vision impairment, and medication-related problems. (2+0)

CSC 8268 Clinical Psychology
This course introduces domains of clinical psychology pertinent to chiropractic practice and emphasizes attaining interpersonal interview proficiencies requisite for success as a portal of entry physician. Students become familiar with the etiology and symptomatology of psychopathological states and the range of problems commonly encountered by health professionals. They inquire into the types and availability of various forms of mental health treatment and identify the clinical signs and symptoms associated with mood disorders, clinical depression, anxiety disorders, organic disorders, substance abuse, adjustment disorders, and personality disorders. (3+0)

CSC 7171 Patient/Practice Management I
This is the first of a four course series, designed to help prepare chiropractic students for private practice as a small business. This first course examines the fundamentals and complexities involved in effective patient communication and management. Along with interviewing skills learned in Clin Phase 1 (emphasis on the chief complaint) particular emphasis is given to developing interviewing skills for patients and to establish appropriate and effective doctor-patient relationships. Students learn the importance of building successful, mutually beneficial relationships within the context of the demands of the patient, society, the chiropractic profession, and the doctor. Corresponding mandatory, video recorded lab exercises provide an opportunity to demonstrate proficiency in conducting comprehensive patient interviews and reports of findings. Videos of each student's performances are reviewed to identify weaknesses and strategies for improvement. (2+0)

CSC 8172 Patient/Practice Management II
This second of a four-part series addresses the complexities of opening a successful chiropractic practice. The course continues the exploration of the developing role of the doctor of chiropractic in practice, examining practice options from solo practitioner to multi-disciplinary group practices. Particular attention is given to matching an office design to specific practice goals. Students learn to create a financial proposal or business prospectus. The advantages and disadvantages of leasing and/or purchasing are discussed. Students become familiar with a variety of billing procedure options from traditional peg-board systems to custom designed computer software programs. Legal considerations and ethical issues associated with marketing a professional practice are examined. (2+0)

CSC 8273 Patient/Practice Management III
This third in a four-part series addresses the analysis, planning, establishment, and maintenance of a functional business and successful practice. Students learn advanced marketing skills used in promoting an ethical, successful practice. Particular attention is given to issues related to insurance billing and collections as well as hiring and training office staff and support personnel. Students learn evaluation formulas useful in purchasing an existing practice and how to establish a fair purchase price. This course explores crucial issues such as malpractice insurance options, money management and retirement accounts, tax considerations, and business structures. Students are introduced to concepts of business management that increase their likelihood of success in practice. (2+0)

CSC 8374 Patient/Practice Management IV
This course, the last of a four-part series, is structured in a practical, distance-learning format. Students in their final term, whether working at the on-campus clinic or participating in a Community Based Internship or preceptorship in another state, apply the business and marketing skills introduced in PPM II and III. Specific task-oriented assignments are designed to help them meet some of the initial demands of entering practice. (0+1)

Radiology Course Descriptions

RAD 5182 Radiographic Anatomy I
This is the first in a series of three courses in the study of radiographic anatomy (see RAD 5283 and RAD 6184). Since plain film radiography is widely used in chiropractic practices, identification of key spinal and contiguous spinal structures seen on plain film radiography is the emphasis of this course. Basic anatomy of the spinal regions seen on computed tomography and magnetic resonance imaging is also studied. Lectures demonstrate the most important structures to identify on various imaging modalities. Lab sessions provide supervised radiograph and slide viewing with an opportunity to interact with the instructors. (1.5 + 1.5)

RAD 5283 Radiographic Anatomy II
This course is the second in a series of three courses in the study of radiographic anatomy (see RAD 5182 and RAD 6184). The identification of structures of the upper and lower extremities seen on plain film radiography is the emphasis of this course; the cranium is also reviewed. Basic anatomy of the upper and lower extremities and the cranium seen on computed tomography and magnetic resonance imaging is also studied. Lectures demonstrate the most important structures to identify on various imaging modalities. Lab sessions provide supervised radiograph and slide viewing with an opportunity to interact with the instructors. (1+1)

RAD 6184 Radiographic Anatomy III
This course is the last in a series of three courses in the study of radiographic anatomy (see RAD 5182 and RAD 5283). Identification of soft tissue structures of the head, neck, chest, abdomen, and pelvis seen on plain film radiography is the emphasis of this course. Basic anatomy of these regions seen on computed tomography and magnetic resonance imaging is also studied. Lab sessions provide supervised radiograph and slide viewing with an opportunity to interact with the instructors. (1+1)

RAD 6386 Radiographic Technique I
This is the first in a series of three courses in the study of radiographic technique (see RAD 7187 and RAD 7288). Since the majority of chiropractic physicians own and operate radiographic equipment in their offices, the skills acquired in these classes are essential for proper use and application within their clinical practices. Radiographic Technique I emphasizes radiation physics, x-ray production, radiobiology, radiation safety, exposure principles, and film processing. Students learn to assess film quality. (4+1)

RAD 7187 Radiographic Technique II
This course is the second in a series of three courses in the study of radiographic technique (see RAD 6386 and RAD 7288). Proper anatomical positioning is presented. Imaging of the cervical, thoracic, and lumbar spinal regions is emphasized. Positioning for chest and bony thorax is also covered. Principles of physics used in radiography are reviewed and discussed. The student will demonstrate skill in radiographic positioning technique and patient protection from ionizing radiation in the performance of mock radiographic exams. (1+1)

RAD 7288 Radiographic Technique III
This course is the last of the series in the study of radiographic technique (see RAD 6386 and RAD 7187). This course covers the proper anatomical positioning required to demonstrate the upper and lower extremities and pelvis. Positioning for plain film abdomen radiography is also covered. The student will demonstrate skill in radiographic positioning, technique, and patient protection from radiation in the performance of exams of the upper and lower extremities and pelvis. Students will perform mock radiographic exams on their peers. (1+1)

RAD 7192 Bone Pathology I
This is the first in a series of five courses covering the clinical application of diagnostic imaging modalities and interpretation. Knowledge and reasoning skills necessary for accurate interpretation and selection of diagnostic imaging modalities within clinical practice are emphasized in this series (see RAD 7293, RAD 7394, RAD 8199, and RAD 8295). Bone Pathology I is an introduction to a systematic approach to the radiographic interpretation and case management of normal variants, congenital anomalies, common miscellaneous acquired conditions, fractures, and dislocations. (2+1)

RAD 7293 Bone Pathology II
This is the second in the series of courses covering the clinical application of diagnostic imaging modalities and interpretation (see RAD 7192, RAD 7394, RAD 8199, and RAD 8295). Students are introduced to the radiologic, laboratory, and clinical manifestations of the more common neoplasms, infections, and arthritides. Appropriate management and/or patient referral for each disease are discussed. Various visual media are used in presenting course material. (3+1)

RAD 7394 Bone Pathology III
This is the third in the series of courses covering the clinical application of diagnostic imaging modalities and interpretation (see RAD 7192, RAD 7293, RAD 8199, and RAD 8295). This course covers the radiological manifestations, clinical and laboratory presentations, and management of osteochondroses, skeletal dysplasias, nutritional, metabolic, endocrine, and hematological conditions affecting the skeletal system. Students review special imaging procedures, such as computed tomography, magnetic resonance imaging, bone scan, discography, and myelography. Cases utilizing these modalities are presented. Appropriate indications and contraindications are reviewed with an emphasis on appropriate imaging decisions. (1+1)

RAD 8199 Soft Tissue Interpretation
This is the fourth course in the series covering the clinical application of diagnostic imaging modalities and interpretation (RAD 7192, RAD 7293, RAD 7394, and RAD 8295). This course covers diagnostic imaging of the chest and abdomen. A pattern approach to teaching common cardiorespiratory, gastrointestinal, and genitourinary conditions is used. The student is taught how to recognize abnormal radiographic patterns and is introduced to preliminary management protocols. Definitive diagnosis is often not possible due to limitations in scope of practice and access to specialized imaging and laboratory procedures. Therefore, the focus of this course is on recognition and preliminary management. (1+1)

RAD 8295 Bone Pathology IV
This is the last in a series of five courses covering the clinical application of diagnostic imaging modalities and interpretation (see RAD 7192, RAD 7293, RAD 7394, and RAD 8199). Diagnostic radiology is an integral part of chiropractic practice. This course provides the student with a review of all topics previously covered in the radiology courses. A review of the minimal diagnostic series and supplemental radiographic views are included for each area of the body. This review course near the end of the formal chiropractic education better prepares students for the realities of practice. (1+1)

Division of Clinic Affairs

Joseph Pfeifer, DC, Vice President of Clinic Affairs

Clinic Affairs Staff

Stanley Ewald, DC, MPH – Director of Clinic Operations
Owen Lynch, DC - Director, Downtown Portland Health Center
Aaron Montgomery, DC - Assistant Director, Gresham Integrated Care Health Center

Clinic Affairs Faculty

Daniel DeLapp, LAc, ND, DC, DABCO – Attending Physician, East Portland Health Center
Beverly Harger, DC, DACBR - Attending Physician, Campus Health Center
Anita Roberts, DC – Attending Physician, East Portland Health Center
Kristine Tallman, DC – Attending Physician, Charitable Clinic Rotations
Laurel Yancey, DC – Attending Physician, Downtown Portland Health Center
Devin Williams, DC – Attending Physician, Gresham Integrated Care Health Center

Radiology Resident

Jeff Holden, DC

Clinical Internship Course Descriptions

CLI 7208 Clinical Internship II
Interns are assigned to shifts in the Campus Health Center, where under the direct supervision of faculty attending physicians they provide care to the campus student body. This environment allows students to be engaged in the evaluation and management of a wider range of patient presentations and to experience greater continuity of care. (0+6)

CLI 7305 Clinical Internship III
Under the supervision of their assigned faculty attending physicians in the Campus Health Center, interns continue to provide care for student patients from the campus community. Clinical case conferences with faculty attending physicians supplement interns' patient encounters. After attaining required quantitative and qualitative milestones, typically during this course, interns begin providing care to non-student patients eligible to receive care in the CHC, further expanding the variety and complexity of cases in which interns are engaged. Students enrolled in Clinical Internship III must also complete the Year 3 Clinical Skills Assessment. (0+10)

CLI 8157 Clinical Internship IV
Interns continue to provide care in the Campus Health Center to students and other members of the campus community. After attainment of additional quantitative and qualitative requirements, typically during this phase of the clinical internship, student interns become eligible to begin participating in patient care in off-campus clinics and affiliated clinic sites. (0+25)

CLI 8258 Clinical Internship V
Interns continue to participate in the evaluation and management of patients in the university's clinics under the supervision and mentorship of faculty attending physicians as they acquire clinical experience and competencies. Students enrolled in Clinical Internship III must also complete the Year 4 Clinical Skills Assessment. (0+25)

CLI 8359 Clinical Internship VI
In this final clinical service course, interns complete the qualitative and quantitative clinical requirements for graduation. Upon successful completion of this course, interns will have demonstrated the competencies necessary for unsupervised chiropractic practice. (0+25)

College of Graduate Studies

The college of graduate studies offers master's degrees and residencies/fellowships in the health sciences. As of 2013, the university offers:

- Master of Science in Exercise and Sports Science
- Master of Science in Human Nutrition and Functional Medicine
- Master of Science in Diagnostic Imaging/Radiology Residency

Master of Science in Exercise and Sports Science

The MS in exercise and sports science (MS-ESS) is a graduate-level, professional master's degree program designed to provide students with advanced training in the prevention, evaluation, and management of injuries and disorders affecting athletes and others participating in sports activities. As a professional master's degree, it is targeted at students with prior training in the evaluation and management of neuromusculoskeletal disorders. This audience includes chiropractic degree program students, chiropractic physicians, athletic trainers, occupational therapists, physical therapists, and other health care providers. The program is designed to also satisfy most or all of the requirements of chiropractic specialty certification programs in sports medicine.

This program provides a level of experience and expertise necessary for either specialty care of sports injuries within a chiropractic practice, or for the prevention assessment, treatment, and rehabilitation of sports injuries in a multidisciplinary context. The university places an emphasis upon the appropriate use of scientific evidence and other legitimate sources of knowledge to inform and improve practice, to reduce errors in clinical settings, and to optimize clinical effectiveness for patients.

The MS-ESS is science based and clinically oriented. The curriculum is held to the highest standards of ethical and professional conduct. UWS has an extensive background in training chiropractic practitioners in the diagnosis and management of sports injuries. Within its chiropractic degree program, students are provided an extensive foundation in neuromusculoskeletal anatomy, physiology, biomechanics, and kinetics. The master's program builds on this foundation. The program provides exemplary instruction, drawing from doctors of chiropractic specializing in sports medicine, a variety of health care educators, and practitioners.

The master's program is offered over a minimum of 7 quarters (1.75 academic years). The program requires the completion of 57.5 quarter credits, 23.5 of which can be earned from the doctor of chiropractic degree curriculum. These 23.5 credits are dually attributable to the DC and MS degrees. The remaining 34 credits are from courses exclusively offered to MS degree students.

The program consists of a combination of lecture, laboratory exercises, seminars, and practical field-based experiences (practicums). The latter includes supervised interaction with athletes in training rooms, at sporting events, ambulatory care clinics, and sports injuries rehabilitation centers.

The master's degree program culminates with a capstone course, which may consist of a portfolio project requiring the student to evaluate and reflect upon significant practical experiences gained through the program, with the emphasis on analysis and critique of those experiences, case studies, review of literature, or other approved scholarly activities.

MS-ESS Hybrid Format

The MS-ESS hybrid format is designed for field practitioners and students who need a more flexible option than campus-based coursework. Course content and instructors are the same, but the didactic components of the program are delivered online. The hands-on laboratory components are provided in a condensed weekend format, whereby students will be required to be on the UWS campus for one or two weekends per term, depending on the number of courses taken. Practicum experiences can be completed through UWS-organized practicums or through pre-approved offsite practicum locations.

Graduation Requirements – MS Exercise and Sports Science

The MS in exercise and sports science degree is conferred upon the individual who has fulfilled the following requirements:

1. Seven quarters of resident study as a matriculated, graduate-degree-seeking student, with a minimum 2.0 grade point average and 57.5 quarter credits applicable to the MS program.
2. Maintenance of enrollment eligibility through satisfactory academic performance, professional development and behavior, and non-academic behavior.
3. Successful completion of all required courses, lectures, labs, practicums, and seminars.
4. Successful completion of minimum graduation requirements as officially communicated to students through the university catalog, student publications, and other official documents of the university.
5. Freedom from all indebtedness and other obligations to the university.

Competencies – MS Exercise and Sports Science

Competency 1 – Basic Sports Science Knowledge
Integrate basic sciences information pertaining to sports performance and athletic injuries into diagnosis, management, and prognosis assessment of athletes.

Competency 2 – Performance Enhancement
Integrate the principles of performance enhancement into the evaluation and management of athletes.

Competency 3 – Evaluation of Athletes
Effectively and efficiently evaluate athletes using best practices strategies to establish differential diagnoses and diagnoses for the purpose of planning treatment and performance enhancement programs for athletes.

Competency 4 – Management of Conditions and Treatment
Effectively and efficiently manage conditions affecting athletes using evidence-supported treatment and management strategies.

Competency 5 - Nutrition
Evaluate, identify, and implement specific nutritional plans and prescriptions to enhance healing and performance needs of athletes.

Competency 6 - Taping and Bracing
Identify and apply taping, supportive bracing, and appliances to prevent injury, to enhance injury healing, and to enhance athletic performance of athletes

Competency 7 – Emergency Management
Perform emergency management and triage of injured athletes on and off the field of competition.

Competency 8 – Special Population Athletes
Evaluate and manage the needs of athletes from common special populations.

Competency 9 – Professionalism and Ethics
Demonstrate knowledge and use of highly ethical and professional practice.

Admission to the MS in Exercise and Sports Science Program

Application Procedures

UWS admits new students into the MS Program each spring (April) and winter (January) hybrid.

The application packet includes a list of the material that must be submitted for official consideration of an applicant's file. Applicants should carefully review the program's selection criteria to ensure that they are making the best possible presentation of their qualifications. The application for admission is available on the UWS website.

Prerequisites:

- A bachelor's degree completed with a minimum cumulative 2.5 GPA from an accredited institution.

- Prior college coursework in biology (minimum 3 semester credits or 4 quarter credits), anatomy and physiology (minimum 3 semester credits or 4 quarter credits), and biochemistry or organic chemistry (minimum 3 semester credits or 4 quarter credits) are required. A course in nutrition is strongly recommended.
- Two letters of recommendation.
- Official transcripts from all colleges and universities attended.
- Prospective students for whom English is not their native language must provide proof of adequate English language skills. UWS expects a minimum score of 80 on the internet-based Test of English as a Foreign Language (TOEFL iBT).
- Must be able to interact with a computer format—physical requirements are described below.
- Applicants with special situations who do not meet these criteria may submit an application, which will be considered on a case-by-case basis.

Admission Requirements

A student entering the UWS MS program must have earned a bachelor's degree and have completed at least 120 semester credits (180 quarter credits) of undergraduate and/or professional degree coursework at a regionally-accredited college or university. Applicants must have a minimum cumulative grade point average (GPA) of 2.50 on a 4.00 scale.

Academic Preparation

Most students enrolled in the MS degree program in exercise and sports science are concurrently enrolled in the doctor of chiropractic degree program. Students who matriculated in the chiropractic program, without a bachelor's degree, may earn the UWS BS degree in human biology after successful completion of Q5 in the DC degree program and will, therefore, satisfy the undergraduate degree admission requirement for the MS-ESS program. DC students must have successfully completed these first five quarters of the DC curriculum prior to matriculation in the MS program.

The hybrid program requires a first professional degree or student status in good standing that meets the prerequisite requirements for entry into the program. Official transcripts from all colleges and universities attended and two letters of recommendation are required. Evaluation for transfer and advanced standing is conducted through the program director on a case-by-case basis and is based on graduate level coursework only.

Technical Standards and Required Abilities for Admission

UWS requires students to demonstrate the physical, cognitive, emotional/professional, and social capacity to be a competent practitioner in their discipline. The demonstration of capacity begins at the onset of their program and evolves throughout their educational process to the end point of being a sound, competent practitioner.

DC applicants should review the technical standards that apply to the DC program to ensure they are able to meet the standards with or without reasonable accommodations. See Policy 1206 – Technical Standards for requirements.

If students demonstrate documented needs for accommodations in any of these areas, the university will determine the extent to which it can reasonably accommodate the student's needs. Regardless of disability status or accommodation, all students must successfully complete the requirements of their program.

Financial Aid – Master of Science Programs

All fully-admitted, regular, degree-seeking MS students enrolled at least halftime (five credits or more per term) in the MS program are automatically considered for all types of aid in the order listed below. Students who were awarded aid for a given term but enroll in fewer than five credits must notify the office of financial aid.

Students are awarded the maximum amount of each type of aid, based on their eligibility as calculated by the U.S. Department of Education:

Federal Direct Stafford Loans – Also known as unsubsidized Stafford Loans

- The U.S. Department of Education is the lender; they will assign a servicer.
- Annual Direct Loan limit: $20,500.
- Aggregate (lifetime) Direct Loan limit: $138,500, certain loans borrowed in the DC or other medical programs may not count against the $138,500 limit.
- Interest accrues from the time of disbursement on unsubsidized Direct Loans.
- No payments are required while students are enrolled at least halftime.
- Grace period: students have six months after graduation or leaving school before repayment begins.

- Fees: approximately 1.0 percent (deducted from each loan disbursement). Fixed interest rate: 5.41 percent for loans first disbursed between July 1, 2013, and June 30, 2014.

Federal Direct Grad PLUS Loans

- Annual limit: Cost of Attendance minus other financial assistance, such as loans and scholarships.
- Credit check required; co-signer may be required in some cases.
- The U.S. Department of Education is the lender; they will assign a servicer.
- Fees: approximately 4.2 percent (deducted from each loan disbursement). Fixed interest rate: 6.41% for loans first disbursed between July 1, 2013, and June 30, 2014.

Other Non-Federal Sources of Funding

Admitted and non-admitted students in all programs may be eligible for non-federal sources of funding. Please refer to the catalog section on Tuition and Financial Aid Overview for information on non-federal sources of funding.

Satisfactory Academic Progress for Financial Aid Eligibility (SAP) – Master's Programs

Federal regulations require all students receiving federal student aid to make satisfactory academic progress (SAP) toward a degree or certificate in order to retain eligibility for financial aid. Failure to maintain SAP, including minimum cumulative GPA and adequate progress toward degree completion, will result in the disqualification from federal student aid programs at UWS. See Policy 3804 – Satisfactory Academic Progress for Financial Aid Eligibility.

MS in Exercise and Sports Science Course of Study

The three-letter abbreviation that begins each course designation indicates its academic area:

CHR = Chiropractic Sciences
MSE = Master of Science - Exercise

Following is the current list of courses and the quarters in which they are offered. There are no elective courses for the MS degree program. Courses with the CHR or CSC identifiers are in the DC degree curriculum. Courses with the MSE identifier are unique to the MS degree program. DC students who are dually enrolled in the MS degree program take 4-6 credits of MS coursework each quarter in addition to the DC coursework.

MS Exercise and Sports Science Course Sequence

Qtr.	Course #	Course Name	Lecture	Lab	Clinical	Clock	Credit	Grade
1	CHR 6322*	NMS Diagnosis and Treatment I Lecture	6	0	0	66	6	G
1	CHR 6325*	NMS Diagnosis and Treatment I Lab	0	2	0	22	1	P/F
1	CHR 6329*	Biomechanics/Palpation IV Lecture	2	0	0	22	2	G
1	CHR 6331*	Biomechanics/Palpation IV Lab	0	2	0	22	1	P/F
1	MSE 6311	Exercise Physiology	3	2	0	55	4	G
		Q1 Totals	**11**	**6**	**0**	**187**	**14**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clinical**	**Clock**	**Credit**	**Grade**
2	CHR 7123*	NMS Diagnosis and Treatment II Lecture	3	0	0	33	3	G
2	CHR 7126*	NMS Diagnosis and Treatment II Lab	0	1	0	11	.5	P/F
2	CHR 7127*	Taping and Splinting I	0	1	0	11	.5	P/F
2	MSE 7111	Emergency Management	1	2	0	33	2	G
2	MSE 7121	Sports Equipment Seminar	1	0	0	11	1	G
2	MSE 7131	Special Populations	1	0	0	11	1	G
		Q2 Totals	**6**	**4**	**0**	**110**	**8**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clinical**	**Clock**	**Credit**	**Grade**
3	CHR 7227*	Soft Tissue Therapies/Rehabilitation II	0	3	0	33	1.5	G
3	CHR 7224*	NMS Diagnosis and Treatment III Lecture	3	0	0	33	3	G
3	CHR 7228*	NMS Diagnosis and Treatment III Lab	0	1	0	11	.5	P/F
3	CHR 7229*	Taping and Splinting II	0	1	0	11	.5	P/F
3	CSC 7265*	Chiropractic Physiological Therapeutics II	3	2	0	55	4	G
3	MSE 7211	Advanced Sports Medicine I (LR)	4	2	0	66	5	G
		Q3 Totals	**10**	**9**	**0**	**209**	**14.5**	

Qtr.	Course #	Course Name	Lecture	Lab	Clinical	Clock	Credit	Grade
4	MSE 8111	Advanced Sports Medicine II (UR)	4	2	0	66	5	G
4	MSE 7332	Practicum I	0	0	3	33	1	P/F
		Q4 Totals	**4**	**3**	**0**	**77**	**5**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clinical**	**Clock**	**Credit**	**Grade**
5	MSE 7311	Professional Practice Topics	1	0	0	11	1	G
5	MSE 7321	Sports Nutrition	3	0	0	33	3	G
5	MSE 8122	Practicum II	0	0	3	33	1	P/F
		Q5 Totals	**4**	**2**	**3**	**99**	**5**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clinical**	**Clock**	**Credit**	**Grade**
6	MSE 8211	Sports Performance Enhancement	3	2	0	55	4	G
6	MSE 8222	Practicum III	0	0	3	33	1	P/F
		Q6 Totals	**3**	**2**	**3**	**88**	**5**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clinical**	**Clock**	**Credit**	**Grade**
7	MSE 8312	Advanced Sports Medicine III (Rehabilitation/Active Care)	2	2	0	44	3	G
7	MSE 8322	Practicum IV	0	0	3	33	1	P/F
7	MSE 8331	Capstone/Portfolio	1	0	0	11	1	P/F
		Q7 Totals	**3**	**2**	**3**	**88**	**5**	
		Curriculum Totals	**41**	**25**	**12**	**858**	**57.5***	

*** Includes 23.5 credits from courses offered through the DC program.**

MS Exercise and Sports Science Hybrid Program Course Sequence

Qtr.	Course #	Course Name	Lecture	Lab	Clock	Credit	Grade
1	MSE 7211	Advanced Sports Medicine I (LR)	4	2	66	5	G
		Q1 Totals	**4**	**2**	**66**	**5**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clock**	**Credit**	**Grade**
2	MSE 8111	Advanced Sports Medicine II (UR)	4	2	66	5	G
		Q2 Totals	**4**	**2**	**66**	**5**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clock**	**Credit**	**Grade**
3	MSE 6311	Exercise Physiology	3	2	55	4	G
3	MSE 7311	Professional Practice	1	0	11	1	G
		Q3 Totals	**4**	**2**	**66**	**5**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clock**	**Credit**	**Grade**
4	MSE 7321	Sports Nutrition	3	0	33	3	G
4	MSE 7111	Emergency Management	1	2	33	2	G
		Q4 Totals	**4**	**2**	**66**	**5**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clock**	**Credit**	**Grade**
5	MSE 8311	Advanced Sports Medicine III (Rehabilitation/Active Care)	2	2	44	3	G
5	MSE 7331	Practicum I	0	3	33	1	P/F
5	MSE 7121	Sports Equipment Seminar	1	0	11	1	G
		Q5 Totals	**3**	**5**	**88**	**5**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clock**	**Credit**	**Grade**
6	MSE 8211	Sports Performance Enhancement	3	2	55	4	G
6	MSE 8121	Practicum II	0	3	33	1	P/F
		Q6 Totals	**3**	**5**	**88**	**5**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clock**	**Credit**	**Grade**
7	MSE 8221	Practicum III	0	3	33	1	P/F
7	MSE 8321	Practicum IV	0	3	33	1	P/F
7	MSE 7131	Special Populations	1	0	11	1	G
7	MSE 8331	Capstone/Portfolio	1	0	11	1	P/F
		Q7 Totals	**2**	**6**	**88**	**4**	
		Totals	**24**	**24**	**528**	**34**	

Exercise and Sports Science Program Personnel

Craig Kawaoka, DC, DACBSP, CSCS, Director

Faculty

Steve Jaffe, DC - Professional Practice
James Gerber, MS, DC, DABCO, DACBN - Sports Nutrition
Brett Guimard, DC, DACBSP, CSCS, MAOM, L.Ac - Special Populations
Junggi Hong, PhD, AATC, CES, PES, KIEP – Exercise Physiology, Sports Performance
Rachel Jensen, ATC - Faculty, Equipment Fitting Seminar
Jun Kawaguchi, DC, ATC - Clinical Faculty, Emergency Management
Sara Mathov, DC, DACBR, ATC – Advanced Sports Medicine I and II
Nathan Sermersheim, DC, MS – Advanced Sports Medicine III
Gary Schultz, DC, DACBR – Capstone Course

MS Exercise and Sports Science Courses offered within the DC Program

See course descriptions in DC program section.

Qtr.	Course #	Course Name	Credits
6	CHR 6322	NMS Diagnosis and Treatment I Lecture	6.0
6	CHR 6325	NMS Diagnosis and Treatment I Lab	1.0
6	CHR 6329	Biomechanics/Palpation IV Lecture	2.0
6	CHR 6331	Biomechanics/Palpation IV Lab	1.0
7	CHR 7123	NMS Diagnosis and Treatment II Lecture	3.0
7	CHR 7126	NMS Diagnosis and Treatment II Lab	0.5
7	CHR 7127	Taping and Splinting I	0.5
8	CHR 7227	Soft Tissue Therapies/Rehabilitation II	1.5
8	CHR 7224	NMS Diagnosis and Treatment III Lecture	3.0
8	CHR 7228	NMS Diagnosis and Treatment III Lab	0.5
8	CHR 7229	Taping and Splinting II	0.5
8	CSC 7265	Chiropractic Physiological Therapeutics II	4.0
		Total DC Program Credits	**23.5**

MS Exercise and Sports Science Course Descriptions

The numbers following each course description are the hours that each class meets per week during a typical 11-week quarter. The information is listed in the format of (lecture hours per week plus lab hours per week). Hours listed for the laboratory portions are the minimum number awarded credit. Because many of the practical experiences (practicums) include sports competitions and other sporting events, actual clock hours may be greater than listed.

MSE 6311 Exercise Physiology (4 credits)
This course focuses on the physiological responses and adaptations to exercise experienced by the neuromuscular, cardiovascular, and thermoregulatory systems of the body. Data measurement and collection takes place in the laboratory component of this course regarding oxygen uptake, body composition, respiration, etc. (3+2)

MSE 7111 Emergency Management of Sports Injuries (2 credits)
This course prepares the student to handle emergency situations that arise with athletes during exercise or sporting events, such as cessation of breathing or circulation, shock, concussion, and spinal injuries. Students will learn to assess critical injuries and illnesses, follow procedures for providing care, and implement guidelines that affect decisions for allowing athletes to continue with activity. (1+2)

MSE 7121 Sports Equipment Seminar (1 credit)
This course focuses on practical information regarding the benefits of sport-specific protective gear and how to properly fit equipment to sports participants including age-appropriate gear and the ergonomic theory behind such equipment. The course includes discussion of the biomechanical and psychological effects of equipment and potential vulnerabilities of the athlete using the equipment. In addition to selection and fit, students will focus on the emergency removal of general protective and sport-specific protective athletic equipment. (1+0)

MSE 7131 Special Populations (1 credit)
This seminar program focuses on the evaluation and management of the needs of athletes with special considerations such as disabled Master's level and female athletes and those with chronic disorders like asthma and diabetes. Included in this course is the matching of physical activities with the physical abilities and corrective needs of these athletes. (1+0)

MSE 7211 Advanced Sports Medicine I (lower region) (5 credits)
This course focuses on the evaluation and management, including acute care, rehabilitation, and prevention, of injuries and disorders of the pelvis, hip, thigh, knee, calf, ankle and foot. (4+2)

MSE 7311 Professional Practice (1 credit)
In this course students explore issues regarding ethics and jurisprudence associated with working with athletes, as well as how to communicate with other members of the athlete's "team" of stakeholders. Students learn how to establish a sports injuries and rehabilitation practice. (1+0)

MSE 7321 Sports Nutrition (3 credits)
This course focuses on the dietary needs for physical activity and peak performance with a focus on nutritional assessment, metabolism, and use of supplements and botanicals in the management of sports injuries. In addition, intentional and non-intentional abuses of supplements and related compounds, and food/supplement interaction with regard to drug tests commonly mandated in the athletic competitions are discussed. (3+0)

MSE 8111 Advanced Sports Medicine II (upper region) (5 credits)
This course focuses on the evaluation and management, including acute care, rehabilitation, and prevention, of injuries and disorders of the cervical and thoracic spine, shoulder, arm, elbow, forearm, wrist and hand. (4+2)

MSE 8211 Sports Performance Enhancement (4 credits)
This course focuses on assessing the needs of the athletes who want to improve performance in strength, flexibility, speed, agility, etc., and the creation, implementation and monitoring of plans for achieving those goals. (3+2)

MSE 8311 Advanced Sports Medicine III (Rehabilitation/Active Care) (3 credits)
This course provides the knowledge of evidence based chiropractic care and rehabilitation. This class will focus on the role of rehabilitation and exercise on patient care and management. It will include a brief overview of muscle functions during movements, faulty/normal patterns of movements, functional exams, patient presentations, learning the clinical audit process, rehabilitation protocols, and reading research articles. Students will gain a detailed understanding of practical applications of various rehabilitation techniques and exercises used in daily practice. (2+2)

MSE 7332 Practicum I
MSE 8122 Practicum II
MSE 8222 Practicum III
MSE 8322 Practicum IV (1 credit each; 4 credits total)
This is a series of four field-based practicums in which students participate in the evaluation and management of athletes. The required practicum hours are achieved through a variety of clinical experiences in physician offices, rehabilitation clinics, and sports performance laboratories as well as through participation in sporting events. (0+3)

MSE 8331 Capstone/Portfolio (1 credit)
This course requires the student to produce an original a paper demonstrating their mastery of a specified subject that they endeavor to explore in a scholarly way. One example is creating a “portfolio” analysis paper. This project would require the student to analyze and reflect on their practicum experiences in a scholarly way, including the student's academic achievement, practical experiences, and personal growth throughout the master's program. These reflections should include a critical self-appraisal on clinical experiences that demonstrate mastery of professional skills in the assessment and management of sports injuries and in exercise prescription. Other acceptable scholarly work may include case studies, review of literature or original research projects including surveys, comparisons of procedures, N of one designs, etc. (1+0)

Master of Science in Human Nutrition and Functional Medicine

Functional medicine is a science-based health care field that focuses on assessment and management strategies to improve, maximize, and/or restore a patient's physiological, emotional/psychological, and physical health. The discipline takes a patient-centered approach to the clinical management of complex, chronic disorders that recognizes the interconnectedness of the physiological factors that influence health and contribute to the progression of disease. The core competencies of functional medicine are based on an understanding of the principles of molecular medicine and nutritional biochemistry as applied in a clinical setting. Functional medicine is discipline-blind and can be incorporated into patient management approaches rendered by medical physicians, chiropractic physicians, naturopathic physicians, nutritionists, nurse practitioners, and other healthcare practitioners.

The MS in human nutrition and functional medicine (MS-HNFM) focuses on the clinical management of chronic illnesses and conditions as the framework for presenting the nutrition subject materials. Students are provided effective, patient-centered management strategies by which to address the myriad of clinical disorders commonly manifest in the current health care system population. This approach allows training to occur in the same context the practitioner will be applying the knowledge. The required coursework combines traditional nutrition science courses with coursework based on the clinical application of functional medicine.

The MS-HNFM program consists of 50 quarter credits provided online. This allows healthcare practitioners to enroll in the program without having to sacrifice time from their clinical practices. The courses are offered with sufficient frequency to allow students to progress with flexibility in scheduling the number of credits they take each term.

Graduation Requirements

The MS in human nutrition and functional medicine degree is conferred upon the individual who has fulfilled the following requirements:

1. Maintenance of enrollment eligibility through satisfactory academic performance, professional development and behavior, and non-academic behavior.
2. Successful completion of all required courses, lectures, labs, practicums, and seminars.
3. Successful completion of minimum graduation requirements as officially communicated to students through the university catalog, student publications, and other official documents of the university.
4. Freedom from all indebtedness and other obligations to the university.

Competencies – MS Human Nutrition and Functional Medicine

With appreciation for the rapid advancements in the field of clinical nutrition and the increasingly respected role of nutrition in the maintenance of health and the prevention of disease, the master of science in human nutrition and functional medicine program prepares graduates to safely and effectively utilize nutrition, natural remedies and biopsychosocial therapies in the management of patients with complex health challenges at an advanced level beyond traditional nutritional programs. Graduates of the program will demonstrate the following competencies:

1. Professional Identity
    a. Functional Medicine
    b. Clinical Nutrition
    c. Integrative Practitioner
2. Basic Sciences Foundation
    a. Evidence-Based Nutrition
    b. Nutritional biochemistry
    c. Pharmacology
    d. Botanical remedies
    e. Information literacy
3. Functional Evaluation of Patients in Health and Disease
    a. Biotransformative and toxicity imbalances
    b. Hormone and neurotransmitter imbalances
    c. Immune and inflammatory imbalances
    d. Gastrointestinal imbalances
    e. Structural integrity imbalances
    f. Oxidative/reductive dynamics in health and disease
    g. Metabolic, autoimmune and chronic cardiovascular disorders

4. Treatment and Intervention
    a. Detoxification and Biotransformation
    b. Management of hormonal and biotransformative conditions
    c. Management of immune and inflammatory disorders
    d. Management of gastrointestinal disorders
    e. Management of structural integrity disorders
    f. Management of metabolic, endocrine and systemic illness
    g. Management of disorders of oxidative/reductive pathways
    h. Management of disorders of Metabolic, autoimmune and chronic cardiovascular origin
5. Integrated Health and Wellness Enhancement
    a. Supplementation in health and wellness
    b. Whole foods nutrition
    c. Psychology of well-being
    d. Fundamentals of mind-body medicine
    e. Drug-nutrient interactions
    f. Sports nutrition
    g. Management of nutritional needs of special populations
6. Integrated Clinical Patient Management
    a. Clinical case management
    b. Final Project

Admission - MS in Nutrition and Functional Medicine Program

UWS admits new students into the MS Program each fall (October) and spring (April).

The application packet includes a list of the material that must be submitted for official consideration of an applicant's file. Applicants should carefully review the program's selection criteria to ensure that they are making the best possible presentation of their qualifications.

The application for admission is available on the UWS website.

Prerequisites:

- A bachelor's degree completed with a minimum cumulative 2.5 GPA from an accredited institution, Graduate Record Examination (GRE) or Miller Analogies Test (MAT); these are waived for persons pursuing or holding a first professional degree or other master's degree.
- Prior college coursework in biology (minimum 3 semester credits or 4 quarter credits), anatomy and physiology (minimum 3 semester credits or 4 quarter credits), and biochemistry or organic chemistry (minimum 3 semester credits or 4 quarter credits) are required. A course in nutrition is strongly recommended.
- Two letters of recommendation.
- Official transcripts from all colleges and universities attended.
- Prospective students for whom English is not their native language must provide proof of adequate English language skills. UWS expects a minimum score of 80 on the internet-based Test of English as a Foreign Language (TOEFL iBT).
- Must be able to interact with a computer format—physical requirements are described below.
- Applicants with special situations who do not meet these criteria may submit an application which will be considered on a case-by-case basis.

Technical Standards and Required Abilities for Admission

UWS requires students to demonstrate the physical, cognitive, emotional/professional, and social capacity to be a competent practitioner in their discipline. The demonstration of capacity begins at the onset of their program and evolves throughout their educational process to the end point of being a sound, competent practitioner.

If students demonstrate documented needs for accommodations in any of these areas, the university will determine the extent to which it can reasonably accommodate the students' needs. Regardless of disability status or accommodation, all students must successfully complete the requirements of their programs.

Financial Aid – Master of Science Programs

All fully-admitted, regular, degree-seeking MS students enrolled at least halftime (five credits or more per term) in the MS program are automatically considered for all types of aid in the order listed below. Students who were awarded aid for a given term but enroll in fewer than five credits must notify the office of financial aid.

Students are awarded the maximum amount of each type of aid, based on their eligibility as calculated by the U.S. Department of Education:

Federal Direct Stafford Loans – Also known as unsubsidized Stafford Loans

- The U.S. Department of Education is the lender; they will assign a servicer.
- Annual Direct Loan limit: $20,500.
- Aggregate (lifetime) Direct Loan limit: $138,500, certain loans borrowed in the DC or other medical programs may not count against the $138,500 limit.
- Interest accrues from the time of disbursement on unsubsidized Direct Loans.
- No payments are required while students are enrolled at least halftime.
- Grace period: students have six months after graduation or leaving school before repayment begins.
- Fees: approximately 1.0 percent (deducted from each loan disbursement). Fixed interest rate: 5.41 percent for loans first disbursed between July 1, 2013 and June 30, 2014.

Federal Direct Grad PLUS Loans

- Annual limit: Cost of Attendance minus other financial assistance, such as loans and scholarships.
- Credit check required; co-signer may be required in some cases.
- The U.S. Department of Education is the lender; they will assign a servicer.
- Fees: approximately 4.2 percent (deducted from each loan disbursement). Fixed interest rate: 6.41% for loans first disbursed between July 1, 2013, and June 30, 2014.

Other Non-Federal Sources of Funding

Admitted and non-admitted students in all programs may be eligible for non-federal sources of funding. Please refer to the catalog section on Tuition and Financial Aid Overview for information on non-federal sources of funding.

Satisfactory Academic Progress for Financial Aid Eligibility (SAP) – Master's Programs

Federal regulations require all students receiving federal student aid to make satisfactory academic progress (SAP) toward a degree or certificate in order to retain eligibility for financial aid. Failure to maintain SAP, including minimum cumulative GPA and adequate progress toward degree completion, will result in the disqualification from federal student aid programs at UWS. See Policy 3804 – Satisfactory Academic Progress for Financial Aid Eligibility.

MS in Human Nutrition and Functional Medicine Course of Study

Qtr.	Course #	Course Name	Lecture	Lab	Clinical	Clock	Credit	Grade
1	MSN6100	Principles of Functional Medicine	5	0	0	55	5	G
1	MSN6101	Evidence-based Nutrition	3	0	0	33	3	G
		Q1 Totals	**8**	**0**	**0**	**88**	**8**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clinical**	**Clock**	**Credit**	**Grade**
2	MSN6200	Nutritional Biochemistry	2	0	0	22	2	G
2	MSN6301	Supplementation and Whole Food Nutrition	4	0	0	44	4	G
		Q2 Totals	**6**	**0**	**0**	**66**	**6**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clinical**	**Clock**	**Credit**	**Grade**
3	MSN6204	Gastrointestinal Imbalances	4	0	0	44	4	G
3	MSN7101	Structural Integrity	2	0	0	22	2	G
3	MSN7201	Fundamentals of Mind-Body Medicine and The Psychology of Well-being	2	0	0	22	2	G
		Q3 Totals	**8**	**0**	**0**	**88**	**8**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clinical**	**Clock**	**Credit**	**Grade**
4	MSN6300	Detoxification and Biotransformation Pathways and Imbalances	3	0	0	33	3	G
4	MSN6302	Hormone and Neurotransmitter Regulation and Imbalances	3	0	0	33	3	G
		Q4 Totals	**6**	**0**	**0**	**66**	**6**	

Qtr.	Course #	Course Name	Lecture	Lab	Clinical	Clock	Credit	Grade
5	MSN6201	Sports Nutrition and Fitness	3	0	0	33	3	G
5	MSN7100	Oxidative/Reductive Dynamics and Energy Production	4	0	0	44	4	G
		Q5 Totals	**7**	**0**	**0**	**77**	**7**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clinical**	**Clock**	**Credit**	**Grade**
6	MSN7200	Immune Imbalances and Inflammation	4	0	0	44	4	G
6	MSN7207	Nutritional Epidemiology and Clinical Research	4	0	0	44	4	G
		Q6 Totals	**8**	**0**	**0**	**88**	**8**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clinical**	**Clock**	**Credit**	**Grade**
7		Elective/s Choose from the list of electives below *	4	0	0	44	4	
7	MSN7203	Final project and comprehensive examination	3	0	0	33	3	G
		Q7 Totals	**7**	**0**	**0**	**77**	**7**	
		Curriculum Totals	**50**	**0**	**0**	**550**	**50**	

***Electives - Four credits of electives are required, which may be taken in any quarter.**								
	MSN8100	Botanical Medicine	2	0	0	22	2	G
	MSN8101	Nutrition in Special Populations	2	0	0	22	2	G
	MSN8102	Advanced Practices (modules from IFM; each)	2	0	0	22	2	G
	MSN8103	Pharmacology and Drug-Nutrient Interactions I	2	0	0	22	2	G
	MSN8104	Pharmacology and Drug-Nutrient Interactions II	2	0	0	22	2	G
	MSN8105	Hypertension and Metabolic Syndrome	2	0	0	22	2	G
	MSN8106	Functional Medicine for Autoimmune Diseases	2	0	0	22	2	G
	MSN8108	Advanced Topics: Psychology of Eating and Wellness	2	0	0	22	2	G
	MSN8109	Comparative Therapeutics	2	0	0	22	2	G
	MSN8110	On-location Practicum	4	0	0	44	4	P/F

Nutrition and Functional Medicine Program Personnel

Michael Haneline DC, MPH, Director, MS Human Nutrition and Functional Medicine

Faculty

Pedro Carrera Bastos, MS
Umahro Cadogan, BS
Walter Crinnion, ND
Paz Etcheverry, PhD
Maelan Fontes, MS
Alan Goldhamer, DC
Michael Gonzalez, MS, MHSN, DSc, PhD
David Haase, MD
Jason Hawrelak, ND, BNat (Hons), PhD
Richard Lord, PhD
Michelle Niesley, ND, MS, FABNO
Sandra Scheinbaum, PhD
David Scotten, ND
Darcy Vavrek, ND, MS

Teaching Assistants

Christine Farlow, DC
Nick Karapssas, DC
Peter Knight, ND

Course Descriptions – MS Human Nutrition and Functional Medicine

The first course students take in the program is Principles of Functional Medicine, which provides the overview and paradigm for the Functional Medicine model. The second course is "Evidence-Based Nutrition" (EBN), which introduces and reviews the clinical use of diet and nutritional therapy in the prevention and treatment of common health disorders. The third course to be taken is "Nutritional Biochemistry." Students can take each course separately or take the Principles course with EBN, or take the Principles course alone and then combine EBN with Nutritional Biochemistry; thereafter, students can take available courses alone or in combination.

Course descriptions are subject to periodic revision to meet the needs of students and to keep pace with ongoing progress in scientific research and clinical practice.

MSN6100 Principles of Functional Medicine

This course presents the fundamental concepts of functional medicine, including genetic predisposition to illness, biochemical individuality, environmental factors (nutrition/diet, xenobiotics, exercise, physical trauma, psychosocial changes), physiologic functions and imbalances, triggers and mediators of illness, common clinical imbalances (oxidative and reductive stress, energy production, structural integrity, assimilation, immune surveillance and inflammation, other defense mechanisms, hormone and neurotransmitter regulation, detoxification and biotransformation, nutritional genomics, and the relationships of mental, emotional and spiritual elements to health and healing). The personalized, whole-person, integrated systems approach of functional medicine will be compared and contrasted to conventional approaches to healthcare. Specialized clinical

assessments, diagnostic functional tests and measures/biomarkers of allostatic load will be explored, along with some of the core therapeutic approaches used in many patients. This course lays the foundation for many of the subsequent courses in this degree program and must be taken in the first quarter of the program. (5 credits; 55 hours)

MSN6101 Evidence-based Nutrition
This course provides core knowledge in evidence-based nutrition with a focus on the role of nutrition in health optimization and disease treatment. Students will gain a detailed understanding of the practical application of various nutrients and dietary strategies used in clinical practice. Discussions will also incorporate the three components of evidence-based healthcare (clinical expertise, patient preference, research evidence) into the decision-making and data-analysis process. (3 credits; 33 hours)

MSN6200 Nutritional Biochemistry
This course provides an overview of essential concepts in human biochemistry and links those concepts to specific applications in clinical nutrition. The course will examine the biological roles of macro- and micronutrients and their metabolism using basic knowledge in physiology, biochemistry and molecular biology. Topics include carbohydrates and energy metabolism, protein and amino acids, bioactive peptides, enzymes, fiber, lipids, the arachidonic acid cascade, minerals, water-soluble and fat-soluble micronutrients, along with an introduction to energy production, reduction-oxidization balance, and biochemical individuality. Students will explore the relationships of nutrients to major health disorders, including cardiovascular disease, diabetes and cancer. (2 credits; 22 hours)

MSN 6201 Sports Nutrition and Fitness
This course focuses on nutrition considerations and applications in exercise, athletes, performance enhancement, and weight management. Fitness-promoting programs are compared and contrasted, and the evidence supporting various programs is evaluated. Pre-participation guidelines are reviewed. (3 credits; 33 hours)

MSN6204 Gastrointestinal Imbalances
This course presents an overview of the metabolism of the gastrointestinal system, with an emphasis placed on the nutritional implications of dysfunctional digestion or absorption, intestinal membrane integrity and permeability, alterations in GI microbiological flora and gut ecology, hepatoenteric cycles, hydrochloric acid and digestive enzymes, assimilation of nutrients, and the GI immune system. Nutritional support of GI function and repair is emphasized. Health disorders reviewed include inflammatory bowel diseases, irritable bowel syndrome, gluten sensitivity, autism, and disorders of systemic inflammation. (4 credits; 44 hours)

MSN6300 Detoxification and Biotransformation Pathways and Imbalances
This course examines the metabolic pathways that are involved in the conversion of exogenous and endogenous toxins and waste compounds and molecules into excretable substances. Phase I and II reactions, regulation of detoxification pathways, genetic variations, and functional assessment of these mechanisms are detailed. Nutritional support and the effect of drugs on detoxification pathways are reviewed, as well as the disturbed physiology and eventual pathology that results from imbalances in detoxification and biotransformation. (3 credits; 33 hours)

MSN6301 Supplementation and Whole Food Nutrition
This course covers concepts relating to functional foods, industrial agriculture, raw foods, cooked foods, organic foods, processed foods, synergistic interactions in whole foods, extraction and concentration of bioactive compounds from functional foods, and synthetic and "natural" supplements. Specific applications and controversies relating to use of functional foods and high-dose nutrient supplementation in the management of chronic disorders will be explored. (4 credits; 44 hours)

MSN6302 Hormone and Neurotransmitter Regulation and Imbalances
This course examines the actions, interrelationships, control mechanisms and imbalances of neurotransmitters, neuroendocrine factors, hormones and immune mediators. Particular emphasis is placed on the hypothalamic-pituitary-adrenal (HPA) axis, thyroid metabolism, and sex hormones. The effects of toxins, free radicals, stress, diet, nutrient deficiencies, digestive disorders, drugs and specific foods on neurotransmitters and hormones are analyzed. Laboratory testing of the various substances, including precursors and metabolites is included. (4 credits; 44 hours)

MSN7100 Oxidative/Reductive Dynamics and Energy Production
This course examines the mechanisms leading to oxidative or reductive stress and the impact of those reactions on the development of chronic disease. Production of free radical and reactive oxygen species, and the nitric oxide cycle are covered in depth. Mitochondrial dysfunction and other mechanisms of abnormal energy production are reviewed. Relevance to conditions such as neurodegenerative disorders, chronic fatigue, and fibromyalgia will be emphasized. (4 credits; 44 hours)

MSN7200 Immune Imbalances and Inflammation
This course explores inflammation and immune dysfunction as common pathogenic mechanisms in many chronic disorders, such as diabetes mellitus, hypertension, allergy, and autoimmunity. Dietary and (phyto)nutritional influences on the inflammatory process, including both proinflammatory and anti-inflammatory effects, are explored in depth. Case studies will include autoimmune diseases, allergies, and metabolic disorders. Risks, benefits, and nutritional interactions associated with common anti-inflammatory medications are reviewed. (4 credits; 44 hours)

MSN7101 Structural Integrity
This course examines the interrelationship between structure, function, well-being and chronic pain syndromes. Structural integrity is considered throughout the spectrum, from cellular membranes and receptors up through neuromusculoskeletal system and whole body structure. Somatovisceral, viscerosomatic, and mind-body interactions are explored. Nutrients closely related to membrane integrity, prostaglandins (and leukotrienes, prostandoids, resolvins, docosatrienes), transport and signaling mechanisms (such as NF-kappaB), fluid dynamics, pain mediation, bone metabolism, and acid-base balance are discussed. Selected orthopedic examination procedures are reviewed so that practitioners can directly assess and treat areas of dysfunction for common pain syndromes; included in this physical assessment is the "nutritional physical" by which clinicians can appreciate physical manifestations of internal imbalances and nutrient insufficiencies. (2 credits; 22 hours)

MSN 7201 Fundamentals of Mind-Body Medicine and the Psychology of Well-being
This course examines the key psychological and psychosocial factors that influence health outcomes. Important concepts in mind-body therapies and mindfulness practices to improve biopsychosocial factors, promote psychophysiological coherence, and influence health outcomes are reviewed. Core concepts of self-esteem (per Nathaniel Branden PhD), the human shadow (per Carl Jung PhD and Robert Bly), shame (per John Bradshaw), clinical psychology (per Jeffrey Kottler PhD), and performance enhancement (per Jim Loehr and Tony Schwartz) are included. (2 credits; 22 hours)

MSN 8110 On-location Practicum
This course is designed to provide students face-to-face interaction with professors and experts in their respective fields. This course will be comprised of approximately 33 hours of on-location instruction followed by 22 hours of review and evaluation. (5 credits; 55 hours) [Students who have taken IFM's AFMCP course or its equivalent (as approved by program director) within the past 5 years can submit their attendance certificate to satisfy 3 credits (33 hours) of this course with the balance of 2 credits (22 hours) of UWS-administered review and evaluation of a reflective learning journal.]

MSN7205 Final Project and Comprehensive Examination
This is the capstone course in the degree program and is taken concurrently with the last quarter of study or the following quarter. Each student, working with a faculty advisor, produces a narrative literature review or case study encompassing one of the fundamental, core principles covered in the program. Students also complete a digital learning portfolio in which they describe, reflect on, and seek feedback on their learning experiences. This portfolio is compiled by the student throughout the degree program. A several-hour comprehensive final examination covering all aspects of the required coursework must be taken at the conclusion of this course. (1 credit; 11 hours)

MSN7207 Nutritional Epidemiology and Clinical Research
This course is an introduction to the principles of epidemiology and their application to nutrition. This course addresses the role of nutrition in investigating the epidemiology of many chronic diseases. The course also stresses clinical research design methods utilized in nutrition research as well as general clinical research designs such as clinical trials, cohort studies, case-control studies, and other pragmatic designs.

Elective Courses - MS-HNFM

MSN8100 Botanical Medicine
This course presents a practical overview of medical botany/herbology, including history, composition, safety, and therapeutic use of the most commonly used botanical medicines. Each of these agents is reviewed regarding its classification, bioactive components, herb-drug-nutrient interactions, mechanism of action, metabolism, indications and contraindications, toxicology, methods of administration, and dosage. (2 credits and 22 hours)

MSN8101 Nutrition in Special Populations
This course looks at nutritional needs and interventions in special populations, such as young children, the elderly, pregnant women, post-surgical patients, patients with terminal illnesses, and disabled persons who may have mental or physical conditions that affect their basic nutritional needs and their ability to utilize food normally. (2 credits; 22 hours)

MSN8103 Pharmacology and Drug-Nutrient Interactions I
This course provides a practical overview of pharmacologic therapy used in the management of ambulatory patients with chronic illnesses or non-life threatening acute illnesses. The student will study the effects of drugs on organ systems and diseases and the mechanism of action (pharmacodynamics), the absorption, distribution, metabolism and excretion of drugs (A.D.M.E. of pharmacokinetics), potential toxic effects of medications, factors affecting the effectiveness of drugs, and interactions with drugs, botanical compounds, foods, and nutritional supplements. (2 credits; 22 hours)

MSN8104 Pharmacology and Drug-Nutrient Interactions II
This course is the second of a 2-part series on pharmacology. It expands on the subject material presented in part I by expanding the list of drugs, examining in more detail the pharmacokinetics, pharmacodynamics, and pharmacogenomics of medications. (2 credits; 22 hours)

MSN8105 Hypertension and Metabolic Syndrome
Obesity, diabetes mellitus type two, and hypertension are epidemic problems in Americanized societies and increasingly worldwide. Approximately 1/3 to 1/2 of Americans are obese and/or diabetic and/or hypertensive. Whereas diabetes and hypertension had previously been found almost exclusively among older adults, we find these conditions occurring more commonly among children; this trend indicates a clear change in "the total environment" and directs us away from so-called genetic causes of these conditions. This course specifies the diagnostic criteria, history, physical exam, laboratory assessment, and treatment plans for the related conditions of obesity, diabetes mellitus type two, metabolic syndrome, chronic hypertension and high blood pressure. Course materials will be delivered via PDF documents and peer-reviewed articles, printed materials, prerecorded video lectures, and live sessions. Successful completion of the course requires passing scores on quizzes which will be delivered online and in multiple-choice format and which may also include a verbal exam administered by phone, webinar, Proctor U or Skype. (2 credits; 22 hours)

MSN8106 Functional Medicine for Autoimmune Diseases
The prevalence of autoimmune diseases is increasing rapidly worldwide and, as with other health ailments such as hypertension and diabetes, these conditions are becoming particularly more common in westernized societies. Rapid changes in disease prevalence point to a change in the patient's "environment" rather than to genetic causes, to which these conditions have traditionally been described in so-called conventional medicine. Likewise, these conditions that were once considered "idiopathic" have now been described and researched to such an extent that we are able to decipher the illusions and phenomenalistic perspectives that previously guided therapeutic intervention. This course will review the major autoimmune diseases, their unique and common ideologies, laboratory assessments, physical exam findings, and nutritional and integrative interventions, including pharmacologic drugs. Course materials will be delivered via PDF documents and peer-reviewed articles, printed materials, prerecorded video lectures, and live sessions. Successful completion of the course requires passing scores on quizzes which will be delivered online and in multiple-choice format and which may also include a verbal exam administered by phone, webinar, Proctor U or Skype. (2 credits; 22 hours)

MSN8107 Primary Research Project: Clinical Trial and Publication (description pending; 4 credits; 44 hours)

MSN8108 Advanced Topics: Psychology of Eating and Wellness (description pending; 2 credits; 22 hours)

MSN8109 Comparative Therapeutics
Most conditions respond to variety of therapies. Criteria for selecting the most appropriate therapies include benefit, risk and cost. The relative importance of these criteria varies with the patient and the condition. This course teaches students how to assess and compare therapies for diverse conditions and individual patients using benefit, risk and cost factors. It then uses case studies to demonstrate the value of comparing therapies and consulting with patients concerning the therapies most appropriate to their unique circumstances. Emphasis is placed upon such therapies as nutrition, pharmacology, exercise and fitness, surgical interventions and life style modification. At the conclusion of the course, students will have developed an instrument for use in their practices that will assist them and their patients in comparing, contrasting and selecting appropriate therapies. (2 credits and 22 hours)

Master of Science in Diagnostic Imaging

The MS in diagnostic imaging produces clinician-scholar specialists in the field of diagnostic imaging. Graduates from the program will possess general competencies as a chiropractic radiologist with sub-specialty level ability in neuromusculoskeletal imaging. The program represents an area of specialty practice skills development coupled with expectation of the participant's scholarly production. Graduates of the MS in diagnostic imaging program are eligible to obtain specialty recognition through the American Chiropractic Board of Radiology (ACBR), which is the designated recognizing body for certifying expertise in diagnostic imaging.

The program consists of 2,723.5 clock hours and 114.5 quarter credits, which spans three calendar years. Diagnostic imaging students are employed full-time as graduate residents at the university during the program. The program represents a "learning by immersion" opportunity in which residents engage in teaching and learning, scholarship and professional socialization within the specialty of diagnostic imaging. Because of the unique nature of radiology as a specialty practice, this model is the most effective approach to developing the core competencies necessary to practice as a consultant/specialist in this field.

The program is currently structured for a maximum of three residents. The university will admit one to two residents per year. Participants maintain full-time employment with the university during the program as graduate residents. As a condition of employment, the resident must demonstrate satisfactory performance and progress throughout the duration of the program.

Program Goals:

1. Graduate radiologists of the highest skill, integrity, and professionalism who obtain board certification on their initial attempt.
2. Produce competent consultants who are able to offer counsel and support for practicing DC practitioners and their patients.
3. Produce competent scholars within the specialty of radiology.
4. Produce competent practitioners who are successful in their radiology practices.
5. Produce competent educators on subjects related to diagnostic imaging at the DC program level as well as the postgraduate and continuing education level.

Program Requirements

Students in the MS in diagnostic imaging are expected to:

1. Demonstrate proficiency in imaging interpretation.
2. Demonstrate proficiency in imaging report writing.
3. Produce high-quality radiographs.
4. Master radiation use and safety procedures.
5. Conduct student tutorials.
6. Conduct, complete and publish the findings of a research or scholarly project (thesis).

Core Competencies - MS in Diagnostic Imaging

1. Interpretation of Diagnostic Images
2. Recommendation/Acquisition of Appropriate Studies
3. Teaching
4. Scholarship and Information Literacy
5. Professionalism as a practitioner and a consultant to physicians and patients
6. Clinical Radiology Practice

During the last year of the program, students work in the UWS clinic system, interpreting diagnostic images and generating imaging reports. Successful completion of the program qualifies the student to sit for the examinations of the American Chiropractic Board of Radiology.

Admission to the MS in Diagnostic Imaging Program

Prerequisites

Applicants must have an earned bachelor's degree from a regionally accredited college or university and a DC degree from a chiropractic program accredited by the Council on Chiropractic Education.

Applicants must have earned a cumulative GPA of 3.0 or greater (on 4.0 scale) in the DC program, including a cumulative GPA of 3.0 or greater in DC program radiology courses, without receiving any grade lower than a C in any radiology course.

Applicants must hold an Oregon license to practice chiropractic or be eligible for licensure within six months of starting in the program. All residents must acquire an Oregon license before they can progress into the third quarter of their residency.

Application Procedure (Residency Program)

Applicants should contact the office of admissions to request an application packet, which includes:

- Residency Application Form
- Residency Handbook
- Resident Job Description

To apply to the program, the following materials must be submitted:

1. Letter of Intent.
2. Completed residency application form.
3. Current curriculum vitae.
4. Original, official transcripts from the applicant's DC program.
5. Three professional letters of recommendation, with one from a certified specialist in chiropractic radiology (DACBR).

Application Processing

Applicants must submit a completed application with supportive documentation, official transcripts, and letters of recommendations to:

University of Western States
Attention: Admissions Department
MS Diagnostic Imaging
2900 132nd Ave. Portland, OR 97230

Selection Process

The Residency Committee interviews and selects residents. This committee consists of:

- Director, MS Diagnostic Imaging and Residency (committee chair)
- Associate Provost (ex-officio)
- Vice President of Clinic Affairs
- Dean, Graduate and Undergraduate Studies
- Chair, Department of Clinical Sciences
- One teaching faculty – DACBR, appointed by committee chair
- One faculty member-at-large

The Residency Committee reviews all applications and related materials, and selects applicants for interviews on campus. Those chosen for interview for the Diagnostic Imaging Residency Program will be required to visit the campus (at the candidate's expense) for the purpose of an interview, presentation, and examination. Selected candidate(s) will receive details for on-campus interview. The visit will include:

- Interviews with committee members and departmental representatives.
- An oral examination including interpretations of films at the view box with members of the department of diagnostic imaging.
- A written examination on diagnostic imaging.

The Residency Committee recommends a single candidate after review of the application, transcripts, letters of recommendation, examination results and campus interviews. This recommendation is based on committee consensus.

Candidates will be notified in writing of the decision of the committee. The selected resident-candidate will receive a letter of acceptance and intent that shall be returned to the university within ten calendar days. In the event that the selected resident-candidate declines the appointment or fails to submit a letter of acceptance and intent, then the committee reserves the right to offer the position to another candidate.

Oregon License Requirement

Any resident who has not acquired an Oregon license by the beginning of Q3 of the program, shall be subject to immediate dismissal from the program without opportunity to return. Any resident who fails to maintain a sanction-free license to practice may be subject to termination of employment without opportunity to return.

MS Diagnostic Imaging Curriculum Sequence

Qtr.	Course #	Course Name	Lecture	Lab	Clock	Credit	Grade
1	MDI 7100	Radiation health and safety and physics of imaging	0	2	22	1.0	A-F
1	MDI 7110	Normal Variants, Congenital Anomalies, and Skeletal Dysplasia	2	1	33	2.5	A-F
1	MDI 7120	Clinical Radiology IA	0	6	66	2.0	P-NP
1	MDI 7130	Instructional Methods 1	1	2	33	2.5	P-NP
1	MDI 7140	Teaching Practicum 1A	0	1	11	0.5	P-NP
1	MDI 7150	Research Methodology	1	1	22	1.5	P-NP
		Q1 Totals	**4**	**13**	**187**	**10.0**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clock**	**Credit**	**Grade**
2	MDI 7200	Physical injury of the Musculoskeletal System	2	6	88	5.0	A-F
2	MDI 7210	Clinical Radiology IB	0	3	33	1.0	P-NP
2	MDI 7220	Instructional Methods II	1	1	22	1.5	P-NP
2	MDI 7230	Teaching Practicum 1B	1	2	33	2.0	P-NP
2	MDI 7240	Preparation of Thesis Proposal	0	3	33	1.0	P-NP
		Q2 Totals	**4**	**15**	**209**	**10.5**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clock**	**Credit**	**Grade**
3	MDI 7300	Arthritides	1	4	55	3.0	A-F
3	MDI 7310	Infectious Disorders of Bone	1	2	33	2.0	A-F
3	MDI 7320	Clinical Radiology IC	0	3	33	1.0	P-NP
3	MDI 7330	Instructional Methods III	0	1	11	0.5	P-NP
3	MDI 7340	Teaching Practicum 1C	1	2	33	2.0	P-NP
3	MDI 7350	Thesis Preparation I	1	3	44	2.0	P-NP
		Q3 Totals	**4**	**15**	**209**	**10.5**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clock**	**Credit**	**Grade**
4	MDI 7400	Neoplastic and Neoplastic-like Lesions of Bone	1.0	3	44.0	2.5	A-F
4	MDI 7410	Clinical Radiology ID	0.0	3	33.0	1.0	P-NP
4	MDI 7420	Instructional Methods IV	1.0	2	33.0	2.0	P-NP
4	MDI 7430	Teaching Practicum 1D	1.5	3	49.5	3.0	P-NP
4	MDI 7440	Thesis Preparation II	1.0	6	77.0	3.0	P-NP
		Q4 Totals	**4.5**	**17.0**	**236.5**	**11.5**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clock**	**Credit**	**Grade**
5	MDI 8100	Metabolic, Endocrine, and Nutritional Disorders of Bone	1	2	33	2.0	A-F
5	MDI 8110	Hematopoietic Disorders of Bone	0	1	11	0.5	P-NP
5	MDI 8120	Clinical Radiology 2A	0	6	66	2.0	P-NP
5	MDI 8130	Teaching Practicum 2A	1	3	44	2.5	P-NP
5	MDI 8140	Thesis Preparation III	1	6	77	3.0	P-NP
		Q5 Totals	**3**	**18**	**231**	**10.0**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clock**	**Credit**	**Grade**
6	MDI 8200	Magnetic Resonance Imaging of the Musculoskeletal System	2	4	66	4	A-F

6	MDI 8210	Clinical Radiology 2B	0	9	99	3	P-NP
6	MDI 8220	Teaching Practicum 2B	1	3	44	2.5	P-NP
6	MDI 8230	Thesis Revision and Submission	1	6	77	3	P-NP
		Q6 Totals	**4**	**22**	**286**	**12.5**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clock**	**Credit**	**Grade**
7	MDI 8300	Neuroimaging of the Spine, Brain and Head/Neck	1	4	55	3.0	A-F
7	MDI 8300	Clinical Radiology 2C	0	9	99	3.0	P-NP
7	MDI 8300	Teaching Practicum 2C	1	3	44	2.5	P-NP
7	MDI 8300	Thesis Submission and Final Draft	0	6	66	2.0	P-NP
		Q7 Totals	**2**	**22**	**264**	**10.5**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clock**	**Credit**	**Grade**
8	MDI 8400	Imaging of the Thorax (Chest)	1	4	55	3	A-F
8	MDI 8410	Clinical Radiology 2D	0	12	122	4	P-NP
8	MDI 8420	Teaching Practicum 2D	1	3	44	3	P-NP
		Q8 Totals	**2**	**19**	**221**	**10.0**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clock**	**Credit**	**Grade**
9	MDI 9100	Imaging of the Abdomen	1	4	55	3	A-F
9	MDI 9110	Clinical Radiology 3A	0	12	132	4	P-NP
		Q9 Totals	**1**	**16**	**187**	**7.0**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clock**	**Credit**	**Grade**
10	MDI 9200	Radiology Residency Review – Bone	1	2	33	2	A-F
10	MDI 9210	Clinical Radiology 3B	0	12	132	4	P-NP
		Q10 Totals	**1**	**14**	**165**	**6.0**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clock**	**Credit**	**Grade**
11	MDI 9300	Clinical Radiology 3C	0	24	264	8	P-NP
		Q11 Totals	**0**	**24**	**264**	**8.0**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clock**	**Credit**	**Grade**
12	MDI 9400	Clinical Radiology 3D	0	24	**264**	8	P-NP
		Q12 Totals	**0**	**24**	**264**	**8.0**	
		Curriculum Totals	**29.5**	**219.0**	**2,723.5**	**114.5**	

Course Descriptions – MS in Diagnostic Imaging

MDI 7100 Radiation Health/Safety and Physics of Imaging **0+2 (1 Credit)**
This course will focus upon the physical principles involved in obtaining plain films radiographs, radiation protection, radiobiology, and advanced imaging. The resident will also be lab assistant in Radiographic Technique I, a professional level course at UWS that explores the physical properties and production of x-rays, film and processing, x-ray technique formulation, radiobiology and radiation safety. At the completion of this course the resident will be expected to pass a written exam administered by the residency director.

MDI 7110 Normal Variants, Congenital Anomalies, and Skeletal Dysplasia **2+1 (2.5 Credits)**
This course will focus upon developmental and congenital anomalies of the skeletal system and skeletal dysplasias. The resident will be expected to recognize, adequately describe and discuss the clinical significance of the most common conditions affecting the skeletal system. Additional areas of study will include epidemiology and management and prognosis of the key congenital anomalies and skeletal dysplasias. The resident will also be expected to discuss the role of advanced imaging is these key conditions. Resident tutorial sessions and lab exercises will be expected. Upon completion of this course, the resident will be expected to pass a written and a practical exam administered by the residency director.

MDI 7120 Clinical Radiology Phase IA **0+6 (2 Credits)**
The resident will be expected to demonstrate proficiency in producing high quality radiographic images of all anatomic areas that are consistent with the state of the art and legal scope of chiropractic practice and the resident must participate in quality improvement/quality assurance activities. The resident upon completion of Clinical Radiology Phase IA will be assessed by the resident's supervisor for professional demeanor and deportment in a clinical setting.

MDI 7130 Instructional Methodology I **1+2 (2.5 Credits)**
This course is an introductory course on effective teaching, learning and assessment. As an introductory course it will explore various teaching, learning and assessment theories and paradigms. Residents will gain knowledge of various learning styles of students and explore the various types of teaching approaches that resonate with those styles. It will also provide entry-level information on basic curriculum design and instructional methods. Emphasis on effective methods to teach and evaluate knowledge type competencies will be coupled with practice in creating lecture-type instructional tools. Residents will create a formal lecture on a topic selected in the course as a part of the outcome of the course.

MDI 7140 Teaching Practicum 1A **0+1 (0.5 Credits)**
This course is a teaching practicum where the resident will be directing instruction of professional level courses at UWS. The resident will be the instructor and/or lab instructor of radiographic anatomy and will be directly supervised by the assigned primary instructor of diplomate status in chiropractic radiology. The resident will be evaluated by the assigned supervisor for teaching proficiency, professional demeanor and deportment and level of knowledge. Student evaluations will also be assessed.

MDI 7150 Research Methodologies **1+1 (1.5 Credits)**
This course will focus upon the fundamentals of research, including how research is conducted, evaluated, and applied to patient care. The resident will demonstrate proficiency in accessing medical information relevant to the patient's problem and demonstrate the ability to critically appraise the quality, relevance and usefulness of scientific information in accessing patient problems.

MDI 7200 Physical Injury of the Musculoskeletal System **2+6 (5 Credits)**
This course will focus upon trauma to the axial skeleton and the appendicular skeleton. The resident will be expected to recognize and accurately describe fractures and dislocations of the axial and appendicular skeleton and be able to distinguish stable from unstable injuries. Additional areas to be covered include terminology, advanced imaging, management and prognosis. Identification of plain film radiographic features will be emphasized. Resident tutorial sessions and lab exercises will be expected. The resident will also be lab assistant in Bone Pathology I, a professional level course at UWS that introduces a systemic approach to fracture management, case management of common fractures and dislocations of the axial skeleton and appendicular skeleton. Upon completion of this course, the resident will be expected to pass a written and a practical exam administered by the residency director.

MDI 7210 Clinical Radiology Phase IB **0+3 (1Credit)**
The resident will be expected to demonstrate proficiency in producing high quality radiographic images of all anatomic areas that are consistent with the state of the art and legal scope of chiropractic practice and the resident must participate in quality improvement/quality assurance activities. The resident upon completion of Clinical Radiology Phase IB will be assessed by the resident's supervisor for professional demeanor and deportment in a clinical setting.

MDI 7220 Instructional Methodology II **1+1 (1.5 Credits)**
This course will further explore learning environments germane to health care education, focusing on methodologies of skills development. It will also explore in greater depth issues related to curriculum design with emphasis on laboratory and skills development-type instructional methods. Residents will create a formal laboratory-learning module on a topic selected in the course as a part of the outcome of the course.

MDI 7230 Teaching Practicum 1B **1+2 (1.5 Credits)**
This course is a teaching practicum where the resident will be directing instruction of professional level courses at UWS. The resident will be the instructor and/or lab instructor of radiographic anatomy and will be directly supervised by the assigned primary instructor of diplomate status in chiropractic radiology. The resident will be evaluated by the assigned supervisor for teaching proficiency, professional demeanor and deportment, and level of knowledge. Student evaluations will also be assessed.

MDI 7240 Preparation of Thesis Proposal **0+3 (1 Credit)**
The focus of this course will be in selecting a thesis topic and formulate a thesis that is focused and significant and will add to the body of knowledge in diagnostic imaging. The thesis topic selected must be agreed upon by the Residency Committee.

MDI 7300 Arthritides **1+4 (3 Credits)**
This course will focus upon the arthritides affecting the skeletal system. Identification of plain film radiographic features will be emphasized. Resident tutorial sessions and lab exercises will be expected. The resident will also be lab assistant in Bone Pathology II, a professional level course at UWS that introduces chiropractic students to the radiologic, laboratory and clinical manifestations of the more common musculoskeletal neoplasms, infections and arthritides. Upon completion of this course, the resident will be expected to pass a written and a practical exam administered by the residency director.

MDI 7310 Infectious Disorders of Bone **1+2 (2 Credits)**
This course will focus upon the infectious disorders of bone. Identification of plain film radiographic features will be emphasized. Resident tutorial sessions and lab exercises will be expected. The resident will also be lab assistant in Bone Pathology II, a professional level course at UWS that introduces chiropractic students to the radiologic, laboratory and clinical manifestations of the more common musculoskeletal neoplasms, infections and arthritides. Upon completion of this course, the resident will be expected to pass a written and a practical exam administered by the residency director.

MDI 7320 Clinical Radiology Phase IC **0+3 (1 Credit)**
The resident will be expected to demonstrate proficiency in producing high quality radiographic images of all anatomic areas that are consistent with the state of the art and legal scope of chiropractic practice and the resident must participate in quality improvement/quality assurance activities. The resident upon completion of Clinical Radiology Phase IC will be assessed by the resident's supervisor for professional demeanor and deportment in a clinical setting.

MDI 7330 Instructional Methodology III **0+1 (.5 Credits)**
This course will explore teaching and learning environments with emphasis on critical thinking skills development-type instructional methods. Residents will create a formal learning module on a topic selected in the course as a part of the outcome of the course.

MDI 7340 Teaching Practicum 1C **1+2 (2 Credits)**
This course is a teaching practicum where the resident will be directing instruction of professional level courses at UWS. The resident will be the instructor and/or lab instructor of radiographic anatomy and will be directly supervised by the assigned primary instructor of diplomate status in chiropractic radiology. The resident will be evaluated by the assigned supervisor for teaching proficiency, professional demeanor and deportment, and level of knowledge. Student evaluations will also be assessed.

MDI 7350 Thesis Preparation I **1+3 (2 Credits)**
The student will select a thesis advisor approved by the Residency Committee. The resident will be supervised by and meet regularly with their thesis advisor. The thesis advisor will monitor the resident's progress on their thesis. Upon completion of the quarter, the resident will present portions and/or draft of their work to the residency director.

MDI 7400 Rad TBA Neoplastic and Neoplastic-Like Lesions of Bone **1+3 (2.5 Credits)**
This course will focus upon the neoplastic and neoplastic-like conditions of bone. Identification of plain film radiographic features will be emphasized. Resident tutorial sessions and lab exercises will be expected. The resident will also be lab assistant in Bone Pathology II, a professional level course at UWS that introduces the chiropractic student to the radiologic, laboratory and clinical manifestations of the more common musculoskeletal neoplasms, infections and arthritides. Upon completion of this course, the resident will be expected to pass a written and a practical exam administered by the residency director.

MDI 7410 Clinical Radiology Phase ID **0+3 (1 Credit)**
The resident will be expected to demonstrate proficiency in producing high quality radiographic images of all anatomic areas that are consistent with the state of the art and legal scope of chiropractic practice and the resident must participate in quality improvement/quality assurance activities. The resident upon completion of Clinical Radiology Phase IC will be assessed by the resident's supervisor for professional demeanor and deportment in a clinical setting.

MDI 7420 Instructional Methodology IV **1+2 (2 Credits)**
This course will explore formal and informal assessment methods in teaching and learning environments with emphasis on psychometrics and defensibility of assessment instruments. Residents will create and critique assessment plans and evaluation instruments as a part of the course.

MDI 7430 Teaching Practicum 1D **1.5+3 (3 Credits)**
This course is a teaching practicum where the resident will be directing instruction of professional level courses at UWS. The resident will be the instructor and/or lab instructor of radiographic anatomy and will be directly supervised by the assigned primary instructor of diplomate status in chiropractic radiology. The resident will be evaluated by the assigned supervisor for teaching proficiency, professional demeanor and deportment, and level of knowledge. Student evaluations will also be assessed by the residency director.

MDI 7440 Thesis Preparation II **1+6 (3 Credits)**
This course is a continuation of Thesis Preparation I. The resident will continue to meet with his/her thesis advisor and will focus upon completion of a draft thesis and preparing it for presentation to the Residency Committee. Upon the completion of this course the resident will begin to prepare for oral defense of his/her thesis.

MDI 8100 Metabolic, Endocrine, and Nutritional Disorders of Bone **1+2 (2 Credits)**
This course will focus upon the metabolic, endocrine and nutritional disorders of bone. Identification of plain film radiographic features will be emphasized. Resident tutorial sessions and lab exercises will be expected. The resident will also be lab assistant in Bone Pathology III, a professional level course at UWS that familiarizes students with the radiological manifestations, clinical and laboratory presentations, and management of nutritional, metabolic, endocrine, and hematological conditions affecting the skeletal systems. Upon completion of this course, the resident will be expected to pass a written and a practical exam administered by the residency director.

MID 8110 Hematopoietic Disorders of Bone **0+1 (.5 Credits)**
This course will focus upon the hematopoietic disorders of bone. Identification of plain film radiographic features will be emphasized. Resident tutorial sessions and lab exercises will be expected. The resident will also be lab assistant and/or primary instructor in Bone Pathology III, a professional level course at UWS that familiarizes students with the radiological manifestations, clinical and laboratory presentations, and management or the hematological disorders of bone. Upon completion of this course, the resident will be expected to pass a written and a practical exam administered by the residency director.

MDI 8120 Clinical Radiology Phase 2A **0+6 (2 Credits)**
The resident will be expected to dictate clear, detailed and accurate reports on imaging studies of patients within the Campus Health Center. These reports will be assessed for accuracy and clarity by an assigned radiologist. The resident will also be expected these reports in a timely fashioned as required under policy. Furthermore, the resident will be available for consultation with physicians and interns of the Campus Health Center. Evaluation will be based upon feedback from physicians and by the assigned radiologist assessing the resident's radiology reports.

MDI 8130 Teaching Practicum 2A **1+3 (2 Credits)**
This course is a teaching practicum where the resident will be directing instruction of professional level courses at UWS. The resident will be the instructor and/or lab instructor of bone pathology courses and will be directly supervised by the assigned primary instructor of diplomate status in chiropractic radiology. The resident will be evaluated by the assigned supervisor for teaching proficiency, professional demeanor and deportment, and level of knowledge. Student evaluations will also be assessed by the residency director.

MDI 8140 Thesis Preparation III- Oral Defense **1+6 (3 Credits)**
Upon completion of this course, the resident will present to Residency Committee members an oral defense of his/her thesis. Draft copies of the thesis will be provided to members of the committee at least 3 weeks in advance.

MDI 8200 Magnetic Resonance Imaging of the Musculoskeletal System **2+4 (4 Credits)**
This course will focus upon the clinical application of magnetic resonance imaging for the most common conditions affecting the musculoskeletal system. The basic technical information on how to obtain a quality examination, the normal and abnormal appearance of the musculoskeletal system and the clinical relevance of MRI findings will be covered. Resident tutorial sessions and lab exercises will be expected. The resident will also be lab assistant and/or primary instructor in Bone Pathology III, a professional level course at UWS that review special imaging procedures such as computed tomography, magnetic resonance imaging, bone scan, discography, myelography, ultrasound, tomography and thermography. Upon completion of this course, the resident will be expected to pass a written and a practical exam administered by the residency director. This examination will be a comprehensive written examination and a comprehensive practical examination of the main disease categories affecting the skeletal system previously covered.

MDI 8210 Clinical Radiology Phase 2B **0+9 (3 Credits)**
The resident will be expected to dictate clear, detailed and accurate reports on imaging studies of patients within the Campus Health Center. These reports will be assessed for accuracy and clarity by an assigned radiologist. The resident will also be expected these reports in a timely fashioned as required under policy. Furthermore, the resident will be available for consultation with physicians and interns of the Campus Health Center. Evaluation will be based upon feedback from physicians and by the assigned radiologist assessing the resident's radiology reports.

MDI 8220 Teaching Practicum 2B **1+3 (2.5 Credits)**
This course is a teaching practicum where the resident will be directing instruction of professional level courses at UWS. The resident will be the instructor and/or lab instructor of bone pathology courses and will be directly supervised by the assigned primary instructor of diplomate status in chiropractic radiology. The resident will be evaluated by the assigned supervisor for teaching proficiency, professional demeanor and deportment, and level of knowledge. Student evaluations will also be assessed by the residency director.

MDI 8230 Thesis Revision and Submission **1+6 (3Credits)**
Following oral defense of the thesis, the resident will make revisions as directed by the Residency Committee.

MDI 8300 Neuroimaging of the Spine, Brain And Head/Neck **1+4 (3 Credits)**
This course will focus upon neuroimaging of the spine, brain and head/neck. Basic technical information on how to obtain a quality examination, the normal and abnormal appearance and clinical relevance of the imaging findings of the spine, intracranial and head/neck regions will be covered. Resident tutorial sessions and lab exercises will be expected. Upon completion of this course, the resident will be expected to pass a written and a practical exam administered by the residency director.

MDI 8310 Clinical Radiology Phase 2C **0+9 (3 Credits)**
The resident will be expected to dictate clear, detailed and accurate reports on imaging studies of patients within the Campus Health Center. These reports will be assessed for accuracy and clarity by an assigned radiologist. The resident will also be expected these reports in a timely fashioned as required under policy. Furthermore, the resident will be available for consultation with physicians and interns of the Campus Health Center. Evaluation will be based upon feedback from physicians and by the assigned radiologist assessing the resident's radiology reports.

MDI 8320 Teaching Practicum 2C **1+3 (2.5 Credits)**
This course is a teaching practicum where the resident will be directing instruction of professional level courses at UWS. The resident will be the instructor and/or lab instructor of bone pathology courses and will be directly supervised by the assigned primary instructor of diplomate status in chiropractic radiology. The resident will be evaluated by the assigned supervisor for teaching proficiency, professional demeanor and deportment, and level of knowledge. Student evaluations will also be assessed by the residency director.

MDI 8330 Thesis Submission and Final Draft **0+6 (2 Credits)**

MDI 8400 Imaging of the Thorax (Chest) **1+4 (3 Credits)**
This course will focus upon how to obtain high quality examination of the chest, understanding of the key clinical indications for exam procedures, and knowledge of normal anatomy, The resident will be able to recognize abnormal radiographic patterns and know basic preliminary management of conditions affecting the thorax. The resident will also be lab assistant and/or primary instructor in Soft Tissue Interpretation, a professional level course at UWS that familiarizes the student with common conditions affecting the thorax. Upon completion of this course, the resident will be expected to pass a written and a practical exam administered by the residency director.

MDI 8410 Clinical Radiology Phase 2D **0+12 (4 Credits)**
The resident will be expected to dictate clear, detailed and accurate reports on imaging studies of patients within the Campus Health Center. These reports will be assessed for accuracy and clarity by an assigned radiologist. The resident will also be expected these reports in a timely fashioned as required under policy. Furthermore, the resident will be available for consultation with physicians and interns of the Campus Health Center. Evaluation will be based upon feedback from physicians and by the assigned radiologist assessing the resident's radiology reports.

MDI 8420 Teaching Practicum 2D **1+3 (2 Credits)**
This course is a teaching practicum where the resident will be directing instruction of professional level courses at UWS. The resident will be the instructor and/or lab instructor of bone pathology courses and will be directly supervised by the assigned primary instructor of diplomate status in chiropractic radiology. The resident will be evaluated by the assigned supervisor for teaching proficiency, professional demeanor and deportment, and level of knowledge. Student evaluations will also be assessed by the residency director.

MDI 9100 Imaging of the Abdomen **1+4 (3 Credits)**
This course will focus upon how to obtain high quality examination of the abdomen, understanding of the key clinical indications for exam procedures, and knowledge of normal anatomy, The resident will be able to recognize abnormal radiographic patterns and know basic preliminary management of conditions affecting the abdomen. The resident will also be lab assistant and/or primary instructor in Soft Tissue Interpretation, a professional level course at UWS that familiarized the student with common conditions that affect the abdomen. Upon completion of this course, the resident will be expected to pass a written and a practical exam administered by the residency director.

MDI 9110 Clinical Radiology Phase 3A **0+12 (4 Credits)**
The resident will be expected to dictate clear, detailed and accurate reports on imaging studies of patients within the off-site health centers. These reports will be assessed for accuracy and clarity by an assigned radiologist. The resident will also be expected these reports in a timely fashioned as required under policy. Furthermore, the resident will be available for consultation with physicians and interns of these clinics. Evaluation will be based upon feedback from physicians and by the assigned radiologist assessing the resident's radiology reports.

MDI 9200 Radiology Residency Review – Bone **1+2 (2 Credits)**
This course will focus upon preparing the resident for the part I written examination administered by the American Board of Chiropractic Radiologists. The course will emphasize the diagnostic criteria, clinical abnormalities, laboratory abnormalities, pathologic manifestations, radiographic findings, classic, advanced and uncommon manifestations of the most common musculoskeletal condition. Advanced imaging, management, prognosis, associated diseases and key differentials will also be reviewed.

MDI 9210 Clinical Radiology Phase 3B **0+12 (4 Credits)**
The resident will be expected to dictate clear, detailed and accurate reports on imaging studies of patients within the off-site health clinics. These reports will be assessed for accuracy and clarity by an assigned radiologist. The resident will also be expected these reports in a timely fashioned as required under policy. Furthermore, the resident will be available for consultation with physicians and interns of these clinics. Evaluation will be based upon feedback from physicians and by the assigned radiologist assessing the resident's radiology reports.

MDI 9300 Clinical Radiology Phase 3C **0+24 (8 Credits)**
The resident will be expected to dictate clear, detailed and accurate reports on imaging studies of patients within the off-site health clinics. These reports will be assessed for accuracy and clarity by an assigned radiologist. The resident will also be expected these reports in a timely fashioned as required under policy. Furthermore, the resident will be available for consultation with physicians and interns of these clinics. Evaluation will be based upon feedback from physicians and by the assigned radiologist assessing the resident's radiology reports.

MDI 9400 Clinical Radiology Phase 3D **0+24 (8 Credits)**
The resident will be expected to dictate clear, detailed and accurate reports on imaging studies of patients within the off-site health clinics. These reports will be assessed for accuracy and clarity by an assigned radiologist. The resident will also be expected these reports in a timely fashioned as required under policy. Furthermore, the resident will be available for consultation with physicians and interns of these clinics. Evaluation will be based upon feedback from physicians and by the assigned radiologist assessing the resident's radiology reports.

College of Undergraduate Studies

The college of undergraduate studies offers the following programs/course offerings:

- Certificate program in massage therapy.
- Bachelor of science in human biology degree completion program.
- Online undergraduate courses targeted at meeting specific prerequisite course requirements for the chiropractic degree program.
- Chiropractic assistant training program.

Massage Therapy Certificate Program

Massage Program Statement of Purpose

The purpose of the University of Western States massage therapy program is to educate students in the science and art of therapeutic massage with a focus on the knowledge, technical skills, ethics, and attitudes necessary for a successful career as a member of an integrated, multidisciplinary health care system. The program is also committed to fostering life-long learners who will support the advancement of research, education, and community involvement of the massage profession as a whole.

The Massage Therapy Program

The UWS massage therapy program seeks to give graduates the skills necessary to work within a multidisciplinary health care team and contribute meaningfully to the wellness of massage clients.

The UWS Massage Therapy Program is science-based and clinically oriented. The curriculum holds students to the highest standards of ethical and professional conduct. The program provides exemplary instruction, drawing from a variety of health care educators and practitioners, including physicians and experienced massage practitioners.

The massage program is a 47.5 credit certificate program (768 hours). The program is designed to be completed in one year (12 months). Credit hours are calculated in accordance with Policy 1210 - Credit Hour Definition on the university policy portal.

Students are admitted each fall and spring quarter. Classes at the Portland campus are typically held Monday through Thursday from 6-10 p.m. Classes at the Salem campus are typically held in the morning or early afternoon, depending on start date. Clinical rotations and open labs at both campuses are typically held during the day, one to two days a week. There are seminar classes and outreach events held on weekends approximately once a quarter. Students are required to complete 160 hours in the clinic doing massage or massage practice related activities (e.g., filing, scheduling, managing linens, etc.). Clinic hours are obtained through the UWS Outpatient Clinics or by supervised activities/internships.

Massage Therapy Program Educational Objectives

1. Graduates will take and pass the necessary licensing/certification examinations required to practice therapeutic massage in the State of Oregon.
2. Graduates will demonstrate the ability to work within a multi-disciplinary healthcare team.
3. Graduates will demonstrate scientific and technical knowledge of massage therapy and its effects on the human body.
4. Graduates will employ critical thinking skills to evaluate each massage session and will apply appropriate massage and bodywork methods.
5. Graduates will apply massage for both therapeutic benefit and general wellness.
6. Graduates will demonstrate appropriate self-care strategies, which include correct body mechanics.
7. Graduates will demonstrate the highest qualities of ethics and professionalism.
8. Graduates will demonstrate knowledge of appropriate business practices.

Completion Requirements

The massage therapy certificate is conferred upon the individual who has fulfilled the following requirements:

1. Four academic quarters of study as a matriculated student, two quarters of which must have been as a resident at the university, with a minimum 2.0 grade point average.

2. Maintenance of enrollment eligibility through satisfactory academic performance, professional development and behavior, and non-academic behavior.
3. Successful completion of all required courses, lectures, labs, clinical training, and seminars.
4. Successful completion of minimum clinic graduation requirements as officially communicated to students through the university catalog, student publications, and other official documents of the university.
5. Freedom from all indebtedness and other obligations to the university.

Student-to-Teacher Ratio

In order to ensure the highest quality educational experience and to make sure that students get the individualized attention they need, UWS maintains a 13:1 (or lower) student-teacher ratio for all classes that have hands-on or lab components. In lab classes where there are more than 13 students, qualified Teacher's Assistants (TAs) work with the instructor to make sure that every student gets individual coaching and instruction. The student-to-teacher ratio for lecture courses is limited to 60:1.

Admission - Massage Therapy Program

Application Procedure

UWS admits new students into the MT Program each fall and spring. Applications must be completed at least two weeks prior to expected start date.

The application packet includes a list of materials that must be submitted for official consideration of an applicant's file. Applicants are urged to carefully review the selection criteria to ensure that they are making the best possible presentation of their own qualifications. The application for admission is available on the UWS website.

Evaluation for admission begins when a complete application package has been received. Applicants will be accepted on the basis of the professional judgment of the admissions staff as well as the availability of space. UWS reserves the right to deny admission for any reason other than those prohibited by law and, based on updated information, to reconsider and retract any candidate's acceptance prior to enrollment.

A conditional acceptance can be offered to applicants who have supplied sufficient information supporting such a decision. Minimum needed information includes: a completed application with fee, transcripts from all previous academic placements, and the admission interview. Full acceptance will be offered once all admission conditions have been fulfilled and the student continues to meet the selection standards.

Massage therapy students should also refer to admissions information in the Academic Overview section of this catalog.

Academic Preparation

Western States will admit and enroll students who are likely to pursue massage therapy practice according to the UWS model. UWS enrolls students with a wide variety of educational experiences; therefore, it is recommended that applicants have at least a 2.0 GPA in their most recent educational setting or a sectional score of 450 or better on their state GED exam. Additionally, for best preparation, UWS recommends high school students complete at least one year of the following high school classes: biology, chemistry, physics, and math through algebra.

MT Admissions Requirements

1. Applicants must be at least 18 years old by the start of the program.
2. Applicants must submit official transcript or diploma showing completion of HS or GED.
3. Applicants must have an interview with admissions staff or program director.
4. Applicants must be physically able to perform all the job duties of a licensed massage therapist.
5. Applicants must submit one professional reference and proof they have received one massage from a licensed professional or through a UWS clinic.
6. Applicants must disclose any criminal background. UWS reserves the right to require a criminal background check for students applying to its program.

Technical Standards

UWS requires students, depending on the course of study in which they are engaged, to demonstrate the physical, cognitive, emotional/professional, and social capacity to be a competent practitioner in their discipline. The demonstration of capacity begins at the onset of their program and evolves throughout their educational process to the end point of being a sound, competent practitioner.

If students demonstrate documented needs for accommodations in any of these areas, the university will determine the extent to which it can reasonably accommodate the students' needs. Regardless of disability status or accommodation, all students must successfully complete the requirements of their program. See Policy 1206 – Technical Standards for requirements.

Exempting Courses and Advanced Standing

UWS recognizes students may have completed courses and achieved competency from another massage therapy program prior to enrolling at UWS. In the event students want to exempt courses or receive advanced standing for previous coursework, the following will need to occur:

- Students must apply and be accepted into the massage therapy program at UWS.
- Students must provide official transcripts and a course syllabus from the institution where credit was earned.
- UWS faculty will evaluate transcripts and syllabi to ensure similar content was covered and competency was achieved.
- Applicant may be required to pass written and/or practical exams with UWS faculty to demonstrate competency.
- Fees may apply and tuition will be adjusted accordingly.
- Advanced standing must be cleared prior to the start date for the course.

Coursework that was completed more than 5 years ago will not be considered. See Policy – 1209 – Course Exemption.

Transfer Credit from Another Educational Institution

Transfer credit is awarded according to Policy- 2007 - Transfer Credit.

Transfer students must meet the same requirements for admission as new students. Transfer students must be in good standing and earned a minimum cumulative GPA of 2.0 in all work completed at the previous massage school. Transfer credit may depend on the accreditation status of the school from which the student is transferring. Transfer students may be required to take one or more course competency exams to demonstrate competency prior to the acceptance of transfer credit/s.

Equivalency Tests

Transfer students may be required to take written, oral, and/or practical examinations to verify that they have adequate preparation for the UWS Massage Therapy curriculum.

Matriculation Date for Transfer Students

Transfer students may apply to begin at UWS for any term. The registrar will determine the actual term of matriculation.

Financial Aid – Massage Therapy Program

All massage therapy students are automatically considered for all types of aid in the order listed below. Students are awarded the maximum amount of each type of aid, based on their eligibility as calculated by the U.S. Department of Education. Grants are free money—no repayment is required. Loans must be repaid on time, in full, with interest. These are the types of federal and state aid available:

Pell Grants (based on level of enrollment and EFC)

- Up to $1,388 per term of enrollment (eligible EFC range: $0-$4,900).
- Not available to students who have previously earned a bachelor's degree or higher.

Federal Supplemental Education Opportunity Grants (FSEOG)

- Dependent upon Pell Grant eligibility.
- Amounts vary depending on funds available to award.

Oregon Opportunity Grants (OOG)
- Up to $333 per term of enrollment.
- Must meet Oregon residency requirements and meet need criteria determined by the Oregon Student Assistance Commission (OSAC).
- Funds are awarded by OSAC limited by FAFSA filing date.

Federal Perkins Loans (based on EFC, timely FAFSA application, and availability of funding)
- Amounts vary depending on funds available to award.
- UWS is the lender; the university's servicer, ECSI, will handle the student's billing for this loan.
- No interest accrues and no payments are required while the student is enrolled at least half-time.
- Grace period: the student has nine months after graduation or leaving school before repayment begins.
- Fees: 0.0 percent. Fixed interest rate: 5.0 percent.

Federal Direct Loans
Subsidized and Unsubsidized; also known as Stafford or Direct Loans
- The U.S. Department of Education is the lender.
- No credit check needed.
- Dependent student annual limit: $5,500, of which $3,500 is the maximum subsidized amount.
- Independent student annual limit: $9,500, of which $3,500 is the maximum subsidized amount.
- Dependent student aggregate/lifetime limit: $31,000, of which $23,000 may be subsidized.
- Independent student aggregate/lifetime limit: $57,500, of which $23,000 may be subsidized.
- Subsidized loans are interest-free while students are enrolled at least halftime.
- Interest accrues from the date of disbursement on unsubsidized direct loans. In some cases, subsidized loans will not accrue interest while the student is enrolled at least halftime.
- No payments are required while students are enrolled at least halftime.
- Grace period: students have six months after graduation or leaving school before repayment begins.
- Fees: approximately 1.0 percent (deducted from each loan disbursement).
- Fixed interest rate: 3.86 percent on Stafford loans first disbursed between July 1, 2013, and June 30, 2014.

Federal Direct Parent PLUS loans (only available for dependent students)
- The U.S. Department of Education is the lender.
- Credit check required; endorser may be required.
- Can be borrowed by a parent for a dependent student to cover the Cost of Attendance, minus any other financial assistance.
- Fees: approximately 4.2 percent (deducted from each loan disbursement).
- Fixed interest rate: 6.41 percent on PLUS loans first disbursed between July 1, 2013, and June 30, 2014.

Other Non-Federal Sources of Funding
Students in all programs may be eligible for non-federal sources of funding. Refer to the catalog section on Tuition and Financial Aid Overview for information on non-federal sources of funding.

Satisfactory Academic Progress (SAP) – Massage Therapy Program
Federal regulations require all students receiving federal student aid to make satisfactory academic progress (SAP) toward a degree or certificate in order to retain eligibility for financial aid. Failure to maintain SAP, including minimum cumulative GPA and adequate progress toward degree completion, will result in the disqualification from federal student aid programs at UWS. See Policy 3804 – Satisfactory Academic Progress for Financial Aid Eligibility.

Normal Progress Guidelines for Massage Therapy Students
UWS offers both full-time and part-time options. However, all courses are not available every term, and many courses must be taken in sequence. An incomplete or failed grade in a course must be removed as prerequisite to the next course in this sequence. Completion of the program requires a passing grade in all courses and a cumulative GPA of 2.0 or above. Credit will not be given for courses from which students withdraw.

Participation in the UWS massage therapy program may be required outside the typical school day. Students need to be prepared to be available whatever days of the week or hours of the day are necessary to meet the program requirements. See Policy 3804 – Satisfactory Academic Progress for Financial Aid Eligibility.

Academic Standing - Grades, Probation, and Dismissal

Students in the massage therapy program should refer to the Academic Policies section of this catalog for further information on grading, academic probation, and dismissal. Also see Policy 1233 – Academic Standing.

All massage therapy practical (hands-on) courses and Kinesiology I and II courses must be completed with a grade of C or better. If a lower grade is earned, the course will need to be repeated.

A grade of W is recorded on a student's official record if the student officially withdraws after the end of the third week of the term. Only A through F grades assigned for courses will be used in computation of either quarterly or cumulative grade point averages.

Class Attendance and Tardiness

Some certifications of eligibility to sit for state licensing examinations include confirmation that a student has not only passed the necessary coursework, but also that the student has met attendance requirements. To comply with these licensure requirements, see Policy 1204 – Attendance and Tardiness.

Students are expected to attend all classes. Work missed due to illness or emergencies must be made up after consultation with the instructor. It is the student's responsibility to make arrangements for make-up work.

Faculty members typically include attendance requirements in their course syllabi, which are distributed to students during the first week of the quarter. When the instructors' records indicate that students have missed more than ten percent of the total class time, or have exceeded the standard for their class as stated in the course syllabus, students are reported to the registrar. The registrar notifies those students that additional absence will result in failure of the course.

Due to the intensive nature of the massage therapy curriculum, tardiness is strongly discouraged. Instructors may refuse entry to tardy students when their entry would disrupt class proceedings.

Students are urged to make travel reservations well in advance of peak holiday demands so that there are no conflicts between course attendance requirements and travel schedules. Requests for changes in exam times, or absenteeism during the first week of class or other scheduled meetings cannot be accommodated.

Clinic Attendance

The clinical experience at UWS is the first opportunity students have to model behaviors that will be needed for future success as a massage practitioner. Poor attendance/tardiness for appointments in the professional world can have detrimental effects on one's career, and is also unfair to scheduled clients. Policy 1204 – Attendance and Tardiness requires students to be present for no less than 90 percent of each course/clinic. Specific clinic attendance policies are described, in detail, in the Clinic Handbook. Excused absences will be determined on a case-by-case basis by the clinic supervisor. Failure to give adequate notice for a tardy, absence, or no-call/no-shows for clinic shifts may result in a failing grade.

Outreach/Off Campus Events

Massage therapy students are required to participate in a minimum of 10 hours outreach/off-campus events during the program. Outreach is a graded assignment in MSG 4125 Clinic 4. The 10 hours may be accumulated throughout the program.

Makeup Exams/Coursework

In the event of a student's unavoidable absence, beyond the student's control, make-up exams may be administered in accordance with Policy 1223 – Make-up Examinations.

Articulation Agreement for Associates Degree Completion Programs

Graduates of the UWS massage therapy program are eligible to transfer credits earned with a grade of C or higher to Chemeketa Community College in Salem, Oregon. The credits may be applied towards the completion an Associate in General Studies (AGS) degree or an Associate of Arts Oregon Transfer (AAOT) degree. Students pursuing the AGS will be able to transfer 44 credits to Chemeketa Community College. The remaining 46 credits to complete the AGS will be fulfilled through Chemeketa Community College via online or face-to-face coursework. Students pursuing the AAOT will be able to transfer 29 credits with the remaining 61 credits fulfilled in accordance with Chemeketa Community College guidelines. (www.chemeketa.edu)

Boards and Licensure Information

In order to practice massage therapy in the State of Oregon, a therapist must have attended a school with a minimum of 500 clock hours or the equivalent number of credit hours of training; pass written and practical tests; and pay all fees associated with licensure.

Most UWS massage therapy students are from Oregon and Washington. The UWS massage therapy program has been approved by both states. Because licensure requirements vary from state to state, students are urged to review the licensure requirements for the state in which they wish to practice on the respective state regulatory website prior to applying to UWS. For states that do not require a license, local and municipal laws may apply. A list of the massage regulatory agencies for all states can be found at: www.amtamassage.org/regulation

License by Health Endorsement

The state of Oregon allows individuals who currently hold one of the following credentials: MD, ND, DC, PT, OT, RN, LPN, PA, and LAC to apply for an Oregon Massage License after completing a condensed massage program.

The UWS license by health endorsement program will prepare medical professionals to become licensed massage therapists. Our hands-on curriculum will provide extensive clinical experience and a sound foundation in Kinesiology and therapeutic massage techniques. Exceeding the Oregon Board's minimum standards for licensure, UWS graduates will be prepared to succeed in the conservative health care community. Contact the office of admissions at admissions@uws.edu for more information.

Massage Therapy Program Course of Study

Qtr.	Course #	Course Name	Lecture	Lab	Clinical	Clock	Credit	Grade
1	BIO 1121	Anatomy and Physiology I – Lecture	22	0	0	22	2	G
1	BIO 1122	Anatomy and Physiology I – Lab	0	22	0	22	1	P/F
1	BIO 1123	Medical Terminology	11	0	0	11	1	G
1	MSG 1108	Clinic I – Intro to Clinic	0	0	15	15	0.5	P/F
1	MSG 1120	Swedish/Chair Massage	22	22	0	44	3	G
1	MSG 1124	Communications and Ethics	33	0	0	33	3	G
1	MSG 1125	Kinesiology I	11	22	0	33	2	G
		Q1 Totals	**99**	**66**	**15**	**180**	**12.5**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clinical**	**Clock**	**Credit**	**Grade**
2	BIO 2121	Anatomy and Physiology II – Lecture	22	0	0	22	2	G
2	BIO 2122	Anatomy and Physiology II – Lab	0	22	0	22	1	P/F
2	BIO 2124	Pathology	33	0	0	33	3	G
2	MSG 2120	Deep Tissue Massage I	11	33	0	44	2.5	G
2	MSG 2123	Kinesiology II	11	22	0	33	2	G
2	MSG 2127	Clinic II	0	0	35	35	1	P/F
		Q2 Totals	**77**	**77**	**35**	**189**	**11.5**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clinical**	**Clock**	**Credit**	**Grade**
3	BIO 3120	Anatomy and Physiology III – Lecture	22	0	0	22	2	G
3	BIO 3121	Anatomy and Physiology III – Lab	0	22	0	22	1	P/F
3	MSG 3105	Massage for Cancer Patients	20	0	0	20	2	P/F
3	MSG 3122	Deep Tissue Massage II	11	33	0	44	2.5	G
3	MSG 3123	Ortho/Sports/Rehab Massage	11	33	0	44	2.5	G
3	MSG 3125	Clinic III	0	0	55	55	1.5	P/F
		Q3 Totals	**64**	**88**	**55**	**207**	**11.5**	
Qtr.	**Course #**	**Course Name**	**Lecture**	**Lab**	**Clinical**	**Clock**	**Credit**	**Grade**
4	MSG 4105	Professional Development	16	0	0	16	1	G
4	MSG 4122	Medical Massage	22	11	0	33	2.5	G
4	MSG 4123	Business Management	44	0	0	44	4	G
4	MSG 4125	Clinic IV	0	0	55	55	1.5	P/F
4	MSG 4126	Massage Capstone	11	11	0	22	1.5	P/F
4	MSG 4127	Survey of Modalities	11	11	0	22	1.5	G
		Q4 Totals	**104**	**33**	**55**	**192**	**12**	
		Curriculum Totals	**344**	**264**	**160**	**768**	**47.5**	

Massage Therapy Certificate Program Personnel

Program Directors

Peter J. Szucs, MAW, LMT
Eric Polgar, MBA, LMT

Faculty

Mark Belokonny, DMin
Tim Driscoll, DC
Carrie Ebling, LMT, DC
Collaine Faddis, LMT
Jenni Malm, BA, CA, LMT
Angela McKaye, LMT, DC
Eric Polgar, MBA, LMT
Geri Randles, LMT, CMLDT
Erich Steinmetz, BA, LMT
Autumn Sullivan, LMT
Peter Szucs, MAW, LMT
Molly Verschingel, BS, LMT

Clinic Supervisors

Rayna Dorsey, LMT, LMP, NCTMB
Carrie Ebling, LMT, DC
Collaine Faddis, LMT
Heidi Pannke, LMT
Geri Randles, LMT, CMLDT
Autumn Sullivan, LMT
Molly Verschingel, BS, LMT
Sofia Vidalis, LMT
Wendy Ryder, LMT

Teaching Assistants

Sharla Black, LMT
Wendy Ryder, LMT
Janey Clark, LMT
Tanneke Olund, LMT
Lavonne Perry, LMT
Tim Young, LMT

Massage Therapy Program Campus Locations

UWS Main Campus
2900 NE 132nd Avenue
Portland, Oregon, 97230

UWS Salem Campus
University of Western States - Chemeketa Community College-Salem Campus
4000 Lancaster Drive Northeast Building 8, Room 8123
Salem, Oregon 97305-1453

Massage Therapy Certificate Program Course Descriptions

BIO 1121 - Anatomy and Physiology I Lecture
This is the first of a three-part sequence to cover the basic structure and function of the human body. Particular attention will be paid to body organization, cell structure and function, tissues and membranes, and the skeletal and muscular systems.

BIO 1122 - Anatomy and Physiology I Lab
Lab time for Anatomy and Physiology I will include palpation, use of model skeletons and clay for building muscles as well as observation of prosected human cadavers with a focus on tissues, membranes, and the skeletal and muscular systems.

BIO 1123 - Medical Terminology
Massage therapists working in a healthcare setting need to be familiar with medical terminology that is commonly used. Greek and Latin root words and prefixes and suffixes are taught in this course. The basic rules behind defining and building medical words and the pronunciation of those words are covered.

BIO 2121 - Anatomy and Physiology II Lecture Prerequisites; A&P I Lecture A&P I Lab
This is the second part of a three-part course covering the structure and function of the human body and covers the integumentary, nervous, cardiovascular, respiratory, lymphatic and immune systems as well as discussion of HIV/AIDS. Lab time will include palpation, use of model skeletons and clay for building muscles as well as observation of prosected human cadavers.

BIO 2122 - Anatomy and Physiology II Lab Prerequisites: A&P I Lecture A&P I Lab
Lab time for Anatomy and Physiology II will include palpation, use of model skeletons and clay for building muscles as well as observation of prosected human cadavers with a focus on integumentary, nervous, cardiovascular, respiratory, lymphatic and immune systems.

BIO 2124 - Pathology
In order to practice massage safely and effectively, students are taught to assess indications and contraindications for massage with regard to disease, surgery, trauma, pain and the issues of sanitation and hygiene surrounding these conditions. Students will learn to modify session plans to accommodate clients with certain conditions. Signs and symptoms of disease, their modes of transmission and general sanitation recommendations will be taught using the Communicable Disease Guidelines for Massage Practitioners.

BIO 3120- Anatomy and Physiology III Lecture Prerequisites: A&P I and II
This is the third part of a three-part sequence covering the structure and function of the human body which covers the digestive, endocrine, genitourinary, and fascial systems.

BIO 3121 - Anatomy and Physiology III Lab Prerequisites: A&P II Lecture A&P II Lab
Lab time for Anatomy and Physiology III will include use of palpation, model skeletons and clay for building muscles as well as observation of prosected human cadavers with a focus on the digestive, endocrine, genitourinary and fascial systems and a musculoskeletal review.

MSG 1120 - Massage I: Chair/Swedish
Students learn manual massage techniques focusing on relaxation and stress reduction by relieving tension with the use of Swedish massage and chair massage. In additional to the practical applications, students learn the history and theory behind massage techniques and the physiological and psychological effects of touch. Students work on interviewing skills, note taking for client charts, keeping good records, and planning single and multiple sessions. Proper draping, lubrication, turning procedures, universal precautions, sanitation, and practitioner self-care are also of major importance.

MSG 1124 - Communication and Ethics
This course emphasizes written, verbal, and non-verbal communication skills and involves issues around massage therapist-client interaction as well as inter-professional communication (e.g. physicians, physical therapists, etc.). Ethical topics include boundaries, HIPAA regulations, special needs clients, sexual harassment, and licensing guidelines/responsibilities.

MSG 1125 - Kinesiology I
This is the first of a two-part course that gives students a basic understanding of how the body moves focusing on muscle groups, joints, ligaments and their actions. Students will learn the structure and function of joints and their classification and function. Students will learn to locate the origins, insertions and actions of the muscles as well as endangerment sites. This course teaches palpation techniques and range of motion principles, which are integral to massage therapy.

MSG 2120 – Deep Tissue Massage I Prerequisites: Massage I
The Deep Tissue Massage 1 course focuses on introducing deep tissue massage techniques such as trigger point/neuromuscular therapy, myofascial release, and pin and stretch. Students learn basic postural assessment and appropriate treatment to restore soft tissue balance.

MSG 2123 - Kinesiology II Prerequisites: Kinesiology I
Students continue learning about body movement and palpation of joints and muscles as well as muscle length/strength testing.

MSG 3105 - Massage for Cancer Patients Prerequisites: Pathology, Massage I
The use of complementary medicine in conjunction with allopathic treatments for cancer patients is on the rise. This course prepares the student for integrative medicine programs where they can use massage on patients in hospitals or hospice who are experiencing chronic pain, side effects caused by chemotherapy and radiation, and chronic diseases that get poor results with standard medicine. Massage students discuss the emotional and psychological aspects of cancer as well, including practitioner self-care.

MSG 3122 Deep Tissue Massage II Prerequisites: Deep Tissue Massage 1
Students will focus on integrating deep tissue, myofascial and trigger point techniques into massage practice and continue to discuss and demonstrate the role that these deeper, specific modalities have in addressing muscular pain and dysfunction. The course will build upon Deep Tissue Massage 1 to increase the student's ability to use posture and gait assessment as a visual tool in determining dysfunction and appropriate massage intervention. The skills learned in Massage I and Deep Tissue Massage 1 will be reinforced while working in the outpatient clinic under the supervision of a licensed massage therapist supervisor.

MSG 3123 - Ortho/Sports/Rehab: Prerequisites: Massage I, Deep Tissue Massage 1
Students will learn massage techniques used for orthopedic, sports and rehabilitation and the special conditions surrounding these types of massages. Topics include injury assessment, basic concepts of strength training, rehabilitation exercise and stretching to improve physical conditions following accidents, injuries, disease. Students learn postural assessment and gait analysis. Conditions such as bursitis, tendonitis, and rheumatoid arthritis are also discussed.

MSG 4105 - Professional Development Seminar
In addition to business operations, massage therapy students will learn how to build a resume, market themselves, and manage their time. Other topics include the role of professional associations for massage therapists; skill development through continuing education and advanced training programs.

MSG 4122 - Medical Massage Prerequisites: Pathology, Massage I
Students will learn methods for working with specific medical conditions such as lymphedema, chronic pain, pre and post-surgery, and scar tissue. Students will also learn indications/contraindications related to herbs and medications, discuss working in a hospital or medical setting and develop strategies for working with elderly clients.

MSG 4123 - Business Management
Students learn basic business and accounting practices, insurance billing, bookkeeping, income reporting, obtaining liability insurance, credentialing requirements, and other topics that are important in establishing and operating a massage therapy practice, or forming a partnership or contract with a corporation. Students will make a business plan including the legal requirements and tax structure of owning a small business.

MSG 4126 - Massage Capstone: Prerequisites: Ortho/Sports/Rehab, Kinesiology II, Clinic III
Students will demonstrate their preparedness for taking and passing licensure and certification examinations (both written and practical). Students will evaluate their personal learning styles and develop individualized plans for study.

MSG 4127 - Survey of Modalities Prerequisites: Pathology, Massage I
This is an overview and introduction to a number of different massage modalities which are not covered in the core curriculum.

Clinical Training Courses

MSG 1108 - Clinic I - Intro to Clinic	Prerequisites: None
MSG 2127 – Clinic II	Prerequisites: Clinic I
MSG 3125 - Clinic III	Prerequisites: Clinic II
MSG 4125 - Clinic IV	Prerequisites: Clinic III

In the first quarter of the program, students integrate and refine skills acquired in Q1 courses and prepare for Clinic II in which therapeutic massage treatments are available to the general public. Students become familiar with the aspects necessary in the giving of a safe, effective, and relaxing massage including all aspects of the therapeutic session, and clinic operations. In quarters 2-4, students perform massages on members of the general public in one of the university's integrated clinics. Students use the skills learned in courses such as interviewing clients, recording chart notes, performing physical assessments, and forming treatment plans. Licensed massage therapist (clinic supervisor) all clinic work Students are evaluated by the clinic supervisor and through client feedback.

Bachelor of Science in Human Biology

The University of Western States provides students with a solid foundation for careers in integrated health care, offering academic degrees and programs in the health and human sciences. The Bachelor of Science degree in human biology is a degree completion program that is available to all current UWS DC program students, as well as recent graduates. Students and graduates may wish to obtain a bachelor's degree for either personal or professional reasons. The design of the program is modeled after the general educational components of the traditional liberal arts biology major. Because UWS is regionally accredited, the Bachelor of Science degree fulfills most bachelor's degree requirements for graduate study, employment, or licensure. States that require a bachelor's degree for chiropractic licensure are listed and updated on the Federation of Chiropractic Licensing Board website.

For current DC program students, credits for the BS degree come from a student's previous undergraduate work (at least 135 quarter credits) and coursework from the basic sciences component of the chiropractic program, plus the first two evidence-informed practice courses. The credits from the DC program courses are dually attributed to both the BS and DC degree. Students must have a cumulative GPA of 2.0 or higher at the completion of the BS degree requirements to be eligible to receive the degree. Students can apply to the bachelor's program at any time and will receive a diploma when all requirements are met.

BS in Human Biology Learning Objectives

Students completing the bachelor's degree at the University of Western States will be able to:

1. Demonstrate sufficient language, reading, communication, computational, and social skills necessary to engage the expectations of a first professional doctorate program.
2. Demonstrate thorough knowledge of gross and microscopic human anatomy.
3. Demonstrate thorough knowledge of human physiology.
4. Demonstrate thorough knowledge of human genetics and cellular function.
5. Demonstrate thorough knowledge of human pathology.
6. Demonstrate the ability to locate and critically appraise health-related scientific literature.

Degree Requirements

A bachelor's degree traditionally represents a minimum of four years of undergraduate study with a core education of cultural and communication proficiency, a suitable depth of coursework in the major area, plus a breadth of general educational experience. This tradition is incorporated into the UWS bachelor's degree in human biology. Students obtain the general education and life and physical sciences credits prior to matriculation to UWS. The human biology major requirements are obtained while enrolled at UWS. All credit hours listed below are quarter credits. For purposes of conversion, 1.5 quarter credits equal 1 semester credit.

The bachelor's degree requires a total of at least 180 quarter credits distributed in the following areas:

General Education Requirements
Life and Physical Sciences – 36 quarter credits
Human Biology Major Requirements – at least 45 quarter credits
Electives

General Education Requirements

Students must have at least 45 quarter credits of general education coursework for the degree. Areas of study that satisfy general education requirements include humanities, social studies/social sciences, computer orientation, mathematics, writing, speaking, etc.

In addition, students need at least 36 quarter credits of life and physical sciences coursework for the BS degree. Courses that satisfy this requirement include biology, physics, chemistry, exercise physiology, anatomy, physiology, etc. At least half of these courses must include a laboratory experience. UWS courses that satisfy this requirement include courses from the massage program in anatomy and physiology and pathology. UWS also has science courses available online to satisfy this requirement. These courses include: biology, chemistry, physics, and biochemistry. Please see the UWS Catalog and/or website for the most up-to-date courses available.

Electives

Electives include courses in areas such as business, public administration, physical education, and relevant career/technical coursework (12 quarter credits maximum). Career/technical coursework may include courses from the UWS Massage Therapy certificate program.

Major Requirements

Human biology major requirements are obtained through successful completion of basic science courses and of the first two courses in the evidence-informed practice course series in the DC program. These courses are dually attributed to both the BS and DC degrees. These are upper division courses (senior year) for the bachelor's degree and students are not eligible to enroll in these courses until they have accomplished at least 135 quarter credits toward the BS degree. The following courses can be used to satisfy the requirement of 45 credits of upper division human biology major courses for the degree:

Course #	Course Name	Quarter Credits
BSC 5103	Gross Anatomy I	7
BSC 5314	Human Development	3
BSC 5116	Cell Biology	3.5
BSC 5203	Gross Anatomy II	5.5
BSC 5217	Histology	5
BSC 5304	Gross Anatomy III	5.5
BSC 5302	Neuroanatomy	7
BSC 5309	Physiology I	5
BSC 6109	Physiology II	5
BSC 6102	Neurophysiology	6
BSC 6203	Nutrition	4
BSC 6207	Genetics	4
CSC 6176	Evidence-informed Practice I	1
CSC 6276	Evidence-informed Practice II	3
	Total	**64.5**

*Course descriptions can be found in the DC Program section of this catalog.

Admissions Criteria

Students will need to complete an application form and pay an application fee. Applicants must have a cumulative GPA of 2.0 or above for admission into the bachelor's program. Students do not need to submit transcripts as they are already part of the student's academic record through the DC program application process. Alumni may need to submit transcripts.

Transfer Credit

Up to 135 credits toward the bachelor's degree are accepted from any regionally-accredited college or university. A maximum of 12 quarter credits of vocational/technical credits are accepted. Credit by examination through testing programs such as CLEP, DANTES, NY Board of Regents College Examination, or college challenge exams are accepted for humanities and social science credits. These credits must be listed on a transcript from an institution with regional accreditation.

The following types of credit are not accepted toward the degree:

- Courses numbered below college level (e.g., remedial courses or courses below 100 in the course numbering system)
- Repeated courses
- Courses completed at an institution that is not regionally-accredited
- Courses taken as non-credit
- ESL courses not completed at a regionally-accredited institution
- Continuing Education courses

Class Standing

A student's class standing is determined by the total number of transfer credits awarded, not by the number of years of college study or by the completion of an associate degree.

Class Awarded	Credits Needed
Freshman	0 – 44 credits
Sophomore	45 – 89 credits
Junior	90 – 134 credits
Senior	135+ credits

Academic Standing

A student must have a cumulative GPA of 2.0 or higher at the completion of the BS degree requirements to be eligible to receive the degree. Transfer credits from prior undergraduate courses will not contribute to the cumulative GPA, unless they are from courses offered through UWS (e.g., online undergraduate courses, courses from the massage program). For current chiropractic program students, continuing enrollment in the BS program is contingent upon eligibility for continuing enrollment in the DC program through the first five quarters of the program. See Policy 1233 – Academic Standing.

Students transferring to UWS from another chiropractic or health-professions school who apply to the bachelor's program will be assessed on a case-by-case basis.

Residency Requirement

Students must complete at least the last 25 percent of the credits for the degree while in residence as a matriculated student at UWS.

Tuition and Fees - BS Program

The UWS Board of Trustees establishes tuition for the BS program. There is a non-refundable application fee and a graduation fee. Current chiropractic program students do not pay any additional tuition as the courses are dually attributed. Alumni may be required to take additional courses (see below) at the current undergraduate tuition rate and pay a quarterly enrollment fee.

Enrollment Status and Financial Aid

Eligibility for financial aid will be determined by the Financial Aid office.

Requirements for Alumni

The bachelor's degree may also be an option for alumni. Degree applications submitted by alumni will be considered on a case-by-case basis. Graduates who have not completed the evidence-informed practice course sequence will be required to take additional courses in order to meet the learning objectives of the program. These additional courses are biostatistics, baccalaureate writing preparation, and the baccalaureate project preparation seminars. These courses must be taken in sequence except for biostatistics, which can be taken at any time. These additional courses are graded on a Pass/No Pass basis. These courses can be completed from a distance and take approximately 6 to 12 months to complete. Students can enroll in fall, winter, spring, or summer. It is possible to be exempt from the biostatistics course if an elementary statistics course was taken at another regionally-accredited institution and passed with a C or better and was not used to fulfill the physics requirement for entry into the chiropractic program. The other courses must be completed through UWS.

Course Descriptions – Bachelor of Science

HBI 4301: Biostatistics
Biostatistics is an online course designed to introduce the student to methods in statistical analysis of experimental data and their appropriate application in health-care research. Topics include simple probability, descriptive statistics, inferential statistics, and experimental design. Biostatistics is normally taken before the writing sequence, but this schedule is not mandatory. If you have already successfully completed a statistics course, check with the dean of undergraduate and continuing Education to see if it fulfills this requirement. (2 qtr. credits, pass/no pass)

HBI 4302: Baccalaureate Project Writing Preparation
Baccalaureate Project Writing Preparation is an online course designed to provide students the basic library research and writing tools necessary to undertake the baccalaureate writing project, which occurs during the subsequent three terms. Attention is given to style, format, and manuscript preparation. This course is a prerequisite for the BS Project Preparation Seminar. Credit for this course is not possible through exemption or transfer credit; it must be taken through UWS. (1 qtr. credit, pass/no pass)

HBI 4303-4305: Baccalaureate Project Preparation Seminars
Baccalaureate Project Preparation Seminars is a three-quarter sequence during which students work independently on their research projects under the guidance of the Dean of Undergraduate and Continuing Education. A broad range of topics is acceptable. The project may draw upon knowledge in the humanities, social sciences, and natural sciences to address some question in human biology, health care in general, or chiropractic in particular. The project should, in most cases, be 15 to 20 pages in length. This course sequence must be taken through UWS; transfer credit is not available for this series of classes. HBI4303 is worth 1 credit and HBI4304 and 4305 are each worth 2 credits. (5 credits, pass/no pass)

Prerequisite Program
The prerequisite online courses offered through UWS help prospective students fulfill the requirements for entrance into the doctor of chiropractic program. The credits gained through these courses also go toward the bachelor of science degree once a student is enrolled in the chiropractic program.

Special arrangements can be made for students who need fewer than the number of credits listed for each course below. Contact the office of admissions to discuss specific needs.

Note: Courses that include a laboratory component require the student to purchase a lab kit. Approximate cost is $200 plus S/H.

Online Prerequisite Courses

UCHM240 - General Chemistry I – 5 qtr. credits; online only
Prerequisite: high school chemistry recommended.

This is an introductory course on the fundamentals of chemical principles. Topics include: the components of matter, chemical equilibrium, chemical reaction types and solution chemistry, gas laws, thermochemistry, quantum theory, atomic structure, electron configurations, chemical bonding models. There is a laboratory portion of this course is completed using a home lab kit.

UOCH340 - Organic Chemistry 1 – 6 qtr. credits; online only
Prerequisite: General Chemistry 1 and 2. College level math, reading, writing, and study skills are strongly recommended.

This course presents concepts in the areas of organic and biological chemistry, solution properties, chemical kinetics, equilibrium, environmental chemistry, thermodynamics, electrochemistry, and nuclear chemistry. This course emphasizes critical skills and competency in the above topics. Laboratory experiments are performed using an at-home lab kit to demonstrate qualitative and quantitative analytical techniques.

UCHM250 - General Chemistry II - 5 qtr. credits; online only
Prerequisites: General Chemistry I. college-level math, reading, writing, and study skills are strongly recommended.

This course emphasizes critical skills and competency in organic and biological chemistry, solution properties, chemical kinetics, equilibrium, environmental chemistry, thermodynamics, electrochemistry, nuclear chemistry. Laboratory experiments demonstrate qualitative and quantitative analytical techniques through the use of a laboratory kit purchased for home use.

UBIO240 – Introduction to Biology – 5 qtr. credits; online only
Prerequisite: none

This is an introduction to various facets of human biology including cell structure and function, DNA structure and function, human development, common human pathogens, bacteria and viruses. The laboratory portion of the course is completed using a home lab kit.

UPHY250 - Introduction to Physics – 5 qtr. credits; online only
Prerequisite: Algebra

This is a course on general physics to help students master fundamental knowledge of physics concepts. Topics include kinematics, Newton's Laws, and work energy. The laboratory portion of the course is completed using a home lab kit.

UBCH240 – Introduction to Biochemistry – 5 qtr. credits; online only
Prerequisite: high school algebra and college-level chemistry required.

This is an introductory biochemistry course covering topics such as carbohydrate metabolism, proteins, enzymes, lipids, digestion and nutrition. There is no lab experience with this course.

USTA245 - Elementary Statistics – 4 qtr. credits; online only
Prerequisite: undergraduate mathematics course

This is an introductory course in the fundamentals of modern statistical methods. Topics include descriptive statistics, probability, random sampling, hypothesis testing, estimation, simple linear regression, and correlation. This course can be used to fulfill part of the physics prerequisite requirement for entrance into the doctor of chiropractic program.

USOC240 - Science and Health in Society – 4 qtr. credits; online only
Prerequisite: none

This course will examine texts that deal with health and science from a social, historical, and cultural perspective. Students will read books, articles, essays, and short stories, respond to their reading in writing, and explore issues raised in the texts. The course will encourage students to examine their own expectations and assumptions about the delivery of health care in their culture and to reflect on their own present and future roles within the health care system.

UANT242 - Anatomy and Physiology 1 – 6 qtr. credits; online only
Prerequisites: college-level biology

This course focuses on the interrelationship of structure and function of several organ systems. The class will cover basic anatomical terminology, cell structure and physiology, all the various tissue types seen in the human body, and then go into a more in depth look at the integumentary, skeletal, and muscular systems.

Distance Learning

At UWS, the term "distance learning" primarily relates to educational delivery via the Internet, but occasionally includes supplemental learning materials delivered on physical media such as DVD's or CD-ROM's. UWS also uses "blended learning," which refers to the use of a combination of face-to-face instruction and distance learning methodologies. The effective implementation and management of distance learning at UWS relies upon the adoption and adherence to standards and best practices of course design and distance learning in higher education. One of the institution's primary goals is to be an exemplar in teaching, learning, evaluation, and stewardship. To this end, UWS is guided by the standards set forth by regional accrediting agencies, educational technology professional associations/organizations, and other experts in the field. UWS uses the Moodle learning management system to provide full academic courses, such as the prerequisite courses needed to fulfill requirements for entry into the chiropractic program, as a platform to supplement face-to-face courses in degree programs, and to provide continuing education courses for licensed health professionals.

Undergraduate Online Courses Financial Aid Awards

Students taking only undergraduate online courses from UWS are considered non-admitted students, and may seek non-federal funding such as private scholarships and alternative loans. Please refer to the catalog section on Tuition and Financial Aid Overview for information on non-federal sources of funding.

Continuing Education

The division of continuing education and postgraduate studies provides educational offerings through seminars, certifications, and diplomate programs for health professionals. These programs meet the ongoing educational needs of health professionals to keep them abreast of the latest information, enhance their existing skills, and advise them of changes in current professional thought to keep their practices relevant. UWS provides continuing education through face-to-face seminars throughout the country, as well as through online courses ranging from 1-36 hours. Included in the online offerings are courses required by the Oregon Board of Chiropractic Examiners.

The division of continuing education is a recognized provider of the Providers of Approved Continuing Education (PACE) program, a service of the Federation of Chiropractic Licensing Boards (FCLB). This is a voluntary program review process that ensures the quality of the chiropractic continuing education programs offered by UWS. Postgraduate certification and diplomate programs for chiropractors in sports medicine and other specialty areas are offered in a weekend format and signify specialized expertise.

UWS is also an approved provider of continuing education for massage therapists through the National Certification Board for Therapeutic Massage and Bodywork (NCBTMB), and for other health care workers through the Board of Certification for Athletic Trainers (BOC) and the National Strength and Conditioning Association (NSCA). UWS also provides continuing education courses for chiropractic assistants through face-to-face and distance learning opportunities as approved by the Oregon Board of Chiropractic Examiners.

Since 1999, the division of continuing education has been host to the Northwest Symposium: a three-day event of continuing education seminars for health care professionals. Conference attendees take part in alumni activities and attend continuing education programs provided by highly respected speakers on a wide variety of topics.

For information about upcoming continuing education programs, please check the CE calendar on the UWS website.

Chiropractic Assistant Program

The division on continuing education offers training opportunities for clinic support staff known as chiropractic assistants (CA). This training is in keeping with the standards and procedures set forth by the Oregon Board of Chiropractic Examiners (OBCE) - the agency that grants the CA license. Chiropractic assistants work alongside chiropractors to facilitate patient care and are also trained in front office skills, such as billing and coding. Students interested in obtaining CA licensure must be at least 18 years of age.

The curriculum for initial CA training includes, but is not limited to, the following subjects: medical terminology, anatomy and physiology, professionalism, ethics, boundaries, billing and coding, communication skills, and physiotherapy. The current regulations state that an initial training course must be at least 12 hours in length. The schedule of initial training and continuing education courses provided can be found on the university's continuing education webpage or the OBCE website.

Student Services, Policies, and Campus Resources

Students at UWS have diverse backgrounds, interests, experiences, talents, and areas of expertise. Although many UWS students are from the Pacific Northwest, the university is also home to students from throughout the country and the world.

Many opportunities exist for students to interact, both professionally and socially, with each other. A variety of services and experiences are offered outside of the formal classroom and clinical settings. The main campus is located in a tranquil neighborhood in northeast Portland, only a short distance from the cultural richness and vibrancy of downtown Portland, as well as the natural beauty of the Columbia Gorge, the Cascades, and the Oregon coast. With symphonies, jazz clubs, museums, kite boarding, skiing, rock climbing, sporting events, hiking, cycling, community races, campus clubs and activities, boating, vineyards, and gardens, students have plenty of recreational opportunities.

Associated Student Body

The purpose of the Associated Student Body Student Council (ASB) is to provide a formal organization through which the professional, academic, and personal needs and interests of the students can be cooperatively represented and met. The ASB is composed of representatives from each class and elected officers. ASB supports student groups, the student newspaper (*The AXIS)*, and funds other on-campus events such as the Quarterly BBQ, book sale, and Bagels Week. ASB meetings are open to all students.

Student Ambassadors

Student ambassadors represent the UWS admissions and office of student services to prospective students. They also help during new student orientation, commencement, and the education forum. Being an ambassador is a fun way to share experiences. A student may become an ambassador upon completion of their program's second quarter courses. Ambassadors must maintain a minimum GPA of 2.75 and have a desire to represent UWS. For more information, contact the office of admissions.

Student Groups

Various student organizations—social, recreational, and professional—are organized through the office of student services and coordinated through the Associated Student Body (ASB). Anyone interested in becoming involved in student organizations should contact the director of student services for further information.

If an existing group is not meeting a student's interest, s/he should explore the option of proposing a new group. To propose a new group, a student should contact the director of student services for an application. Each student group must have a qualified advisor and be approved by the director of student services. See Policy 9012 – Recognition of Student Groups.

Campus Speaker Board

The mission of the Campus Speaker Board is to recommend guest speakers that enhance the educational experience, encourage exposure to diversity of opinion, and increase student exposure to the breadth of their profession. The Campus Speaker Board is chaired by the vice president of the Associated Student Body (ASB). All speakers visiting the UWS campus must complete a speaker application. Students interested in bringing someone to campus to speak on a topic should contact the director of student services.

On-campus Employment

Throughout the year, students may find employment opportunities on the UWS campus. The office of human resources sends email announcements to students related to job openings on campus.

Housing

The university does not have on-campus housing. The office of student services provides housing information and resources for Portland and surrounding areas near the university. Information about community housing opportunities is available online at the UWS website.

The UWS roommate referral system works with students who wish to live with other students or for students who wish to receive rental listings that UWS receives. For more information, contact the office of student services.

Student Support Services

Career Services

The objective of the office of career services is to support students with opportunities and resources to help them become confident, self-reliant, effective health care professionals. Career services provides students and alumni with resources and effective tools to identify and prepare for career opportunities that suit their individual strengths and interests. Resources offered include:

- Business and financial planning
- Contract review and negotiation
- Goal setting and self-assessments
- Networking opportunities
- Interview preparation
- Professional development and business-related presentations and events
- Professional opportunity listings (online)
- Resume and professional letter resources and review

For more information, students should visit Career Services to find resources for practice opportunities, as well as business, career, and professional website links.

Tutoring Program

The university provides free tutoring services and open labs for students interested in additional assistance with courses or lab work. Tutoring is scheduled Monday through Friday through the office of student services. Labs are set up as drop-in, with lab tutors available to assist. Students should contact the director of student services for more information on how to request tutoring services or express interest in becoming a tutor.

Services for Students with Disabilities

The University of Western States recognizes its responsibility to provide equal access to opportunities for persons with disabilities, under section 504 of the Rehabilitation act of 1973 and Title II of the Americans with Disabilities Act of 1990 as amended (2008). All members of the university community work together to ensure equal access for students with disabilities so that they may participate fully in their education experience at the university. Students receiving accommodations are expected to make any requests for accommodation on a timely basis. Students receiving accommodations are also expected to adhere to university policy. For information on documentation required by UWS to receive accommodations, please contact the director of student services.

Counseling Services

Counseling services for UWS students are available on campus free of charge. Details and information on how to access counseling services may be obtained from the office of student services.

Student Policies

Note: Policies are subject to change. To view the most up-to-date policies, visit the university policy portal.

Hepatitis-B Immunization

University policy requires that students are to be informed of the potential exposure risk to blood-borne pathogens. Information on the Hepatitis-B vaccination is available in the office of student services. Before entering Q6, DC students must have attended a blood-borne pathogens workshop and provide either verification of completing the Hepatitis-B vaccination series or a signed statement in lieu of verification. Further information Policy 9010 – Student Immunizations is available from the office of student services.

Measles Immunization Information

In response to an Oregon state law, effective August 15, 1992, before registering for their second quarter at UWS, each student who was born after January 1, 1957, must provide the university with evidence of having received two doses of measles vaccine on or after his/her first birthday with a minimum of 30 days between doses. If month and year of first dose are not available, documentation of the second dose in or after December 1989 must be provided. Further information related to this Oregon law is available from the office of student services.

Sexual Harassment or Discrimination

The University of Western States does not discriminate on the basis of race, color, gender, sexual orientation, marital status, national origin, national citizenship, religion, age, disability, or veteran status in its educational programs or activities.

Prohibited sex discrimination includes sexual harassment or violence in accordance with Title IX federal requirements. This includes conduct that is criminal in nature such as dating violence, domestic violence, sexual assault, rape, unwanted touching, and stalking. See Policy 9015 – Sexual Harassment/Discrimination; Policy 9001 – Student Conduct.

Inquiries about the application of Title IX should be referred to university's Title IX coordinator, Christina Bruck, director of student services, 2900 NE 132nd Ave, Portland OR 97230, 503-847-2559, cbruck@uws.edu or to the U.S. Department of Education Office of Civil Rights http://www2.ed.gov/about/offices/list/ocr/index.html.

Response to Harassment or Discrimination

In accordance with Policy 9015 – Sexual Harassment/Discrimination, any student who believes the actions or words of a UWS community member or outside agent constitute sexual harassment or other discrimination has a responsibility to report the concern as soon as possible to the Title IX coordinator or designated contact person/s appointed by the president.

All complaints of harassment and/or discrimination will be investigated promptly and in as impartial and confidential a manner as possible by the Title IX investigators.

Any faculty member or other university employee, student, or outside agent who is found after appropriate investigation to have engaged in sexual harassment or other discrimination toward a student will be subject to appropriate disciplinary action, depending on the circumstances, up to and including termination or dismissal from the university, in accordance with applicable policies, procedures, and/or collective bargaining agreement. In consideration of the university's commitment to protecting students from sexual harassment and discrimination, the university equally establishes that no student shall sexually harass or discriminate against any employee of the university.

Non-Discrimination in Professional Practice

The ethical responsibility of health care professionals is to minister to the health care needs of their patients. It is the policy of UWS to provide appropriate care to clinic patrons, regardless of race, color, gender, sexual orientation, marital status, national origin, national citizenship, religion, age, disability, veteran status, or health status. The term "health status" includes, but is not limited to: terminal illness, infection with hepatitis-B virus, or human immunodeficiency virus. Interns in the UWS clinics who discriminate against patients are subject to disciplinary action or dismissal.

Drug and Substance Abuse

Under Policy 1008 – Drugs, Narcotics and Alcohol, abuse of alcohol, drugs, or other controlled substances by any campus community member will not be tolerated. Members of the campus community must conduct themselves in a manner that is consistent with the standards of the health therapy professions and with the stated mission and policies of the university.

Besides the obvious, direct effects of use and abuse of alcohol, drugs, and other controlled substances, there are indirect or hidden costs as well. These include impaired learning, impaired interpersonal relationships, increased risk of accident and injury, unwanted sex or pregnancies, and increased risk of sexually transmitted disease.

Although substance abuse is the responsibility of the abuser, UWS will endeavor, whenever possible and to a reasonable degree, to identify substance abusers and assist them in obtaining the proper professional care. In any case of substance abuse, whether by student or employee, the university reserves the right to apply any lawful and appropriate sanction or to sever the relationship between the university and the individual.

Reports of substance abuse where a student's behavior or ability to function has been altered or the abuse is potentially harmful to the student or the community shall be given to the director of student services. Such reports concerning faculty, staff, or administration shall be given to the chief administrative or personnel officer. A report may be provided by any campus community member or by persons not affiliated with the university. Such reports should be in writing, but may be oral. The report should contain the name of the offending campus community member and the date, place, and nature of the situation.

Upon receipt of a report regarding a purported substance abuser, the appropriate administrator will meet with the person and determine the necessary course of action, which may include, at the institution's discretion: no action, disciplinary warning, probation, suspension, voluntary leave of absence, or dismissal/termination. To resolve the situation in the best possible manner, a process will be followed so that the individual's interests are respected and the university's concerns are properly addressed. The university will, when possible, attempt to facilitate the rehabilitation process of the abuser by assistance in locating appropriate professional care.

Any student or employee of the university found to be using, possessing, manufacturing, or distributing controlled substances or alcohol on university property or at university-sponsored events, in violation of university policy or the law, shall be subject to disciplinary action in accordance with applicable laws or policies. Such disciplinary action includes, but is not limited to: suspension, termination of enrollment or employment, referral for prosecution, and/or the completion (at the individual's expense) of an appropriate substance abuse assistance or rehabilitation program.

All students and employees must notify the university of any criminal drug statute conviction for a violation occurring in buildings, facilities, grounds, or property controlled by the university within five days of such a conviction. The university will, in turn, notify the applicable federal agency of the conviction. Appropriate action will be taken within 30 days of a report to a conviction or violation of the drug-free workplace policy. See Policy 1008 – Drugs, Narcotics and Alcohol.

Copyright

Textbooks, reference works, journal articles, computer software, databases, and electronic documents are protected by copyright law. A student must either have an express or implied license to use copyrighted material or data, or be able to prove fair use as defined by the Digital Millennium Copyright Act of 1998 (www.copyright.gov/). Students and other users of UWS computers are responsible for understanding how copyright law applies to the use of electronic and printed resources. They may not violate the copyright protection of any of these resources. Downloading or distributing copyrighted materials without the permission of the copyright owner may be considered copyright infringement. Students and other campus users of copyrighted materials should refer to the www.copyright.gov website and Policy 1605 – Use of Copyrighted Works in Education and Research for further information.

Health and Recreational Facilities

Campus Health Center

The UWS Campus Health Center (CHC), on the northwest aspect of the campus, provides healthcare and wellness services to UWS students, faculty, and staff and their families. This facility serves as a training center for student interns in the doctor of chiropractic program, who provide care under the direct supervision and mentorship of licensed faculty attending physicians. Services are provided at little to no fee and include health histories and examinations; radiology and clinical laboratory services; a variety of treatment modalities; and nutritional, lifestyle, and wellness counseling services. Additionally, reduced-fee massage services are available to UWS students at the adjacent campus massage clinic. Call the CHC for information about eligibility, availability, and fees.

Recreational Facilities

The university facilities include the gymnasium, weight and fitness room, and outdoor grounds. The large gymnasium space serves as a multi-purpose area used for basketball, dodge ball, ping pong, Zumba classes, chair massages, and is also used for large group events. Campus grounds include spacious flat lawns that are used for soccer, yoga, tightrope walking, Frisbee, volleyball, touch football, and kickball.

UWS Bookstore

Supplies and Equipment
The bookstore offers materials for all of the university's programs, including chiropractic and massage supplies, sports science equipment, and educational materials on a wide range of conservative health care topics. The staff is available to assist students and alumni in finding materials and supplies that will enhance their educational experience at UWS and help graduates build their practice.

Food and Beverages
The bookstore offers a selection of snacks and treats, as well as some of the university's own healthy natural food. Adjacent to the bookstore, the Spinal Tap coffee kiosk serves organic coffee and espresso drinks year round.

Textbook and Supplies List
A list of required and recommended books and supplies is posted on the UWS website.

Bookstore Refund Policy
Books and merchandise may be returned with a receipt and in the original condition the book was purchased, within five business days of purchase.

Hours
The bookstore is open Monday thru Thursday from 8 a.m. to 4:30 p.m. and on Fridays from 8 a.m. to 1:30 p.m. while school is in session.

The Spinal Tap is open Monday thru Thursday from 7:15 a.m. to 3:15 p.m. and on Fridays from 7:15 a.m. to 12:15 p.m. while school is in session.

Hours during breaks may vary; call (503) 847-2585 or (503) 251-5763 to confirm hours between terms.

Other Services

Chiro Café Dining Facility
The café is located in the main administration building and is open from 7 a.m. to 3:30 p.m. Monday-Thursday and from 7 a.m. to 2 p.m. on Friday. The café menu includes daily breakfast and lunch specials and a salad bar, sandwich bar, and a selection of "grab and go" items. Vegetarian breakfasts and lunches are also available. The Chiro Café menu is emailed to the entire campus each week.

The café focuses on preparing healthy, balanced meals in keeping with the nutritional tastes of the campus community. Meal pricing is competitive with pricing at other universities and other local options. The campus dining operation is currently under review to provide more cost-effective options that best meet the needs of students and staff at an affordable price. A limited catering service is being introduced to provide the campus with food and snacks at institutional meetings and functions.

The Spinal Tap Coffee Kiosk
Located just outside the bookstore is the Spinal Tap coffee kiosk. This popular spot opens at 7:15 a.m. on weekdays, providing coffee enthusiasts with tasty treats and snacks including espresso drinks, coffee, Italian sodas, tea, smoothies, baked goods, and juices. The coffee is organic; dairy products are rBST free; soy and almond milk substitutes are available, as well as sugar-free syrups. Repeat customers are rewarded with a free drink for every 10 drinks purchased.

Lost and Found
All lost and found items are to be turned in to the lost and found office in the east hallway of the administration building. Stop by or email Nelda Armstrong at narmstrong@uws.edu with any questions.

Student Lockers
All students interested in using a UWS locker may request a locker assignment through the office of student services. The student services staff assigns lockers and combinations. The user of the locker assumes all risks associated with its use. The university is not responsible for the theft or loss of any materials left in the locker. Students must ensure that their lockers are secured when they are out of the locker area.

Campus Safety and Security

The university prepares an annual security report to comply with the Jeanne Clery Disclosure of Campus Security Policy and Crime Statistics Act. The report is located on the UWS website. The page includes a link to the annual Campus Safety and Security Survey, which includes data collected from campus public safety sources and Clery crime statistics provided by the Portland Police Bureau.

Campus Safety and Security

All members of the UWS community are expected to report suspicious activities, criminal actions, and emergencies occurring on campus. Prompt reporting enhances campus safety for all concerned. The university maintains a Campus Public Safety Office with security coverage seven days a week.

Emergencies

Call 9-1-1
Call 2-1-1 from any Campus Phone

Non-Emergencies

In non-emergency situations, report suspicious activities, theft, vandalism, or safety concerns to UWS Campus Public Safety at 503-206-3206, ext. 3206 on campus. Please be sure to complete an Incident Report.

Problems that pose a risk of injury, such as icy sidewalks, should be reported to UWS Campus Maintenance at 503-206-3206 or via email to maintenance@uws.edu.

Students and employees injured on campus should go to the Campus Health Center. These persons should complete an Incident/Injury/Accident Report.

Incident and Injury Report forms are available in student services, Campus Health Center, campus safety, bookstore, human resources, and on the safety bulletin board located at the east end of the administration building. Incident/Injury/Accident reports are available on the UWS portal under "Campus Resources."

Safety Awareness and Crime Prevention

Part of crime prevention is individual safety consciousness and awareness of one's personal environment. The university suggests the following crime prevention measures, which can contribute to the safety and security of the UWS community.

- Students and employees should wear or carry their UWS Identification Badge at all times.
- Do not park in isolated areas; move your car during the daylight to a close location if you expect to leave campus after dark.
- At night, walk in well-lighted areas, in groups, and avoid short-cuts and deserted areas. Students and staff may call Campus Public Safety to provide a safety escort, if desired.
- Lock your car immediately upon entrance to or exit from your vehicle.
- Keep your car keys and all identifying information with you at all times.
- Do not leave valuable items in your car; instead, leave valuables at home.
- Do not carry more cash than necessary, and do not advertise how much you have.
- Do not leave personal property unattended anywhere on campus. Keep your locker locked, and do not store valuables or your ID in your locker.
- Do not bring any kind of weapon onto UWS property. Firearms and other weapons are prohibited. Violators are subject to disciplinary action.
- Never confront someone suspicious. Call 9-1-1 from a safe location.
- If anything makes you feel unsafe or threatened, call 9-1-1, call Campus Public Safety at ext. 3206, and/or speak to UWS campus personnel.

Safety and crime prevention are of utmost importance to the campus community. During normal business hours, UWS will be open to students, employees, contractors, guests, and invitees. Please contact Campus Public Safety during non-business hours to access campus facilities. Please note, the University of Western States does not maintain any campus residences for students.

Campus Warning and Notification System

UWS employs a Campus Notification System to alert members of the UWS community in the event of a weather-related campus closing or delayed opening, emergency situation, or other important situation such as the occurrence of a crime. Powered by e2Campus, a system used by over 300 colleges and universities, the notification system is used to communicate important information during any potential emergency.

Participation in the e2Campus system is optional. Participants must sign-up to receive these important messages at http://www.uws.edu/alerts.aspx**.** Notices are transmitted in the form of text messages sent to subscribers' cell phones. The university does not charge participants to use the service. However, recipients of messages may be assessed a text-message fee by their cell phone service companies.

When signing up for the Campus Notification System, enrollees will be required to provide the following information:

- Name
- User ID
- Password
- Cell phone number and carrier

A confirmation text message will be sent to the enrollee's cell phone when sign up is completed. The system will ask the enrollee to submit a four-digit code via computer to complete the verification.

In the event that a situation arises on the UWS campus that, in the judgment of Campus Public Safety or campus administration, constitutes an on-going or continuing threat, a campus wide "timely warning" will be issued. Such a warning will be issued through the Campus Notification System, as well as through the university email system.

Campus Closings

Employees and students are urged to listen to their radios or check the UWS website on mornings when weather or other conditions are hazardous. Local radio and television stations begin announcing closures/late openings at 6:30 a.m. Campus closings are also announced over the campus notification system (see section above).

If a late opening is announced, UWS employees and students are expected to report for work or classes at the announced time. Even though the campus may be open, each person is responsible for deciding if weather conditions at their residence or on the route to UWS make it unsafe to travel to campus. See Policy 3020 – Closing due to Inclement Weather or Emergency.

Impact of Campus Closings on Exams

If exams are scheduled when the university is closed, exams will be rescheduled. If the university opens late and exams are scheduled to begin during the period the university is closed, only those exams during this period will be rescheduled. All other exams will take place as scheduled.

General Student Policies

Note: Policies are subject to change. To view the most up-to-date policies, visit the university policy portal.

Bulletin Board Posting

All items posted on campus for any purpose must be approved in advance through the office of student services. All postings are valid for 30 days from the date of approval. Any items posted on bulletin boards on campus without the approval of the office of student services or items not removed after thirty days will be removed and discarded. Any individual or group found posting non-approved items on campus will be subject to disciplinary proceedings.

Please note that the final decision to post an item rests with the university. In addition, the university reserves the right to limit posting to specific locations on campus.

Children on Campus

Infants and children are not allowed in classrooms, laboratories, or other work areas of the university. Students are expected to make provisions for off-campus childcare during normal working hours. The office of student services can provide limited assistance in locating childcare. See Policy 1021 – Children on Campus.

Dress Code
The UWS clinic system may establish a dress code for students providing or observing clinical services. Please refer to the Health Center Manual for requirements related to professional appearance.

Fundraising by Student Groups
Student organizations desiring to make sales or take orders on campus must have permission from the director of student services and file a completed "student group fundraising" form. In all instances where the selling is to be a continuing project, the authorization to sell will be reviewed quarterly, with a specific focus on the justifications for selling and past operations. See Policy 3001 – Selling on Campus and Policy 9012 – Recognition of Student Groups.

Selling on Campus
Representatives of non-UWS entities may not solicit or sell to students without permission from the office of student services or the vice president of finance and administration. Representatives of for-profit entities may not sell products on campus or at student events with the exception of products sold in conjunction with the UWS Bookstore or Continuing Education programs. Sales on the UWS campus are generally restricted to those where proceeds benefit the university, its affiliates, or other non-profit organizations. Faculty and staff members are expressly prohibited from taking orders from and/or selling to students on campus at any time. See Policy 3001 – Selling on Campus.

Guest Speaker Policy
To promote the professional exchange of intellectual ideas in the academic setting, the university welcomes guest speakers to present their respective positions and expertise to the campus community. Policy 1011 – Guest Speakers applies to guest speakers invited to address students and/or employees outside of regularly scheduled classes.

All guest speakers are at the invitation of the president. Therefore, if students or organizations would like to bring a speaker to campus, they must make a written request through the office of student services prior to extending an invitation to the speaker. When a guest speaker has completed the approval process, s/he will be added to a list of approved guest speakers from which student groups, faculty, or administration may choose from to provide a presentation. When the guest speaker will be addressing the entire campus at a university event, the office of student services, in conjunction with the office of the president, will schedule the appropriate date, time, and location, and will provide timely notification of the event to the campus community.

Guest speakers are prohibited from marketing or promoting seminars, groups, or products in which they may have a personal or financial interest. Speakers may not claim, advertise, or otherwise assert a relationship between the institution and themselves or any organization that they may represent because they were invited to speak on campus. An invitation to speak at UWS does not imply that the university approves or endorses the views expressed by the speaker.

Pets on Campus
Non-service animals are not permitted on campus. Fines and other sanctions may be assessed for students who bring animals on campus, including those who leave pets in cars parked on campus.

Smoke- and Tobacco-free Campus
As a health care institution, UWS is a smoke- and tobacco-free campus. Smoking or tobacco use is not permitted anywhere on campus. See Policy 1017 – Smoke- and Tobacco-free Campus.

Alcohol on Campus
Policy 1008 – Drugs, Narcotics and Alcohol stipulates alcohol is not allowed at any on-campus student events, nor can the use of alcohol be sponsored by the university or a student group at any student events held off campus, unless specifically authorized by the president.

Weapons
Policy 1018 – Weapons on Campus prohibits firearms and other weapons on campus. A weapon is any firearm or implement as defined by Oregon Statutes. Specifically, students, employees, and others performing services for the university are prohibited from carrying, possessing, storing in a vehicle, or using guns or other dangerous weapons or devices for any purpose at any time on university premises. Weapons and other dangerous devices are also prohibited off university premises while on university business or at university-sponsored events. Persons who possess a concealed-weapons permit are requested voluntarily to comply with the intent of this policy.

Student Complaints/Grievances

A complaint, or grievance, is a formal written criticism by a student pertaining to the conduct of a student or a member of the university faculty, staff, governing board, or administration. A complaint may also address an individual's dissatisfaction with the conduct of another individual or the quality of the university's educational programs or services.

The rights of students are protected. Retaliatory or adverse action may not be taken against a student for filing a complaint. Policy 9009 – Student Complaints (Grievance) details procedures for student complaints. Students should contact the office of student services, or any other university administrator, with questions about the policy or procedure. Anonymous complaints cannot be accepted.

In addition to the university's complaint policy and procedure, complaints regarding the university or specific programs may be addressed to:

Institution: Northwest Commission on Colleges and Universities
8060 165th Avenue NE, Suite 100
Redmond, Washington 98052
Office: (425) 558-4224 Fax: (425) 376-0596
www.nwccu.org

DC Program: Council on Chiropractic Education
8049 North 85th Way
Scottsdale, Arizona 85258-4321
Office: (480) 443-8877 - Fax: (480) 483-7333
cce@cce-usa.org; www.cce-usa.org

Massage Program: Commission on Massage Therapy Accreditation (COMTA)
5335 Wisconsin Avenue NW, Suite 440
Washington, DC 20015
Office: (202) 895-1518 Fax: (202) 895-1619
info@comta.org; www.comta.org

Student Appeal

An appeal is a request for an exception to policy or a request to vacate a decision or the proposed disciplinary action of a faculty member, committee, or administrator in the application of university policy. Disciplinary actions include, but are not limited to: warning, fines, restitution, probation, suspension, or dismissal. Policy 9022 – Student Appeal details the university's policy and procedures for student appeals. Contact the office of student services for assistance.

Student Conduct

The demonstration of personal and professional ethics and integrity are considered an integral part of the academic programs of the institution. Students are required to conduct themselves in a professional manner throughout their enrollment on and off campus.

The following list represents behaviors that are considered inappropriate under Policy 9001 – Student Conduct. The list is not all-inclusive. Violations of the expectations for student behavior that are generally accepted by the university faculty and administration may subject the student to disciplinary action including, but not limited to: warning, fines, restitution, probation, course failure, suspension, or dismissal. The university reserves the right to address any behavior it deems inappropriate.

The following behaviors or actions will not be tolerated:

1. Disruption of the educational process (e.g., classes, labs, assemblies, seminars/workshops, registration, the operation of the university's clinics).
2. All forms of academic cheating, fraud, and dishonesty, including but not limited to plagiarism: buying and selling course assignments and research papers: performing academic assignments (including tests and examinations) for other persons: unauthorized disclosure and receipt of academic information; inappropriate use of technology; and other practices commonly understood to be dishonest.
3. Lying or falsification of academic or official records (e.g., applications, transcripts, reports, papers, examinations, registration or financial aid materials, forms, checks, clinic records).

4. Adjustment or other treatment of students or non-students in a non-authorized setting (i.e., outside of the supervised clinic facilities).
5. Damage to or destruction of university property. Unauthorized entry to or use of university property or facilities, including: buildings, grounds, files, offices, records, equipment, or unauthorized possession of keys to same.
6. Theft of property, whether university property or another's personal property.
7. Disrespect or lack of consideration for fellow students, staff members, faculty members, administrators, or patients. Students who have disagreements or disputes with fellow students, faculty members, or administrators are to make every reasonable attempt to resolve the situation in a calm and professional manner. Students are to make use of established appeal procedures.
8. Verbal abuse or use of profanity.
9. Indecent, disorderly, lewd, or obscene conduct.
10. Personal threat, coercion or intimidation; physical/sexual assault or injury.
11. Failure to comply with official requests or university policies.
12. Smoking/tobacco use on campus.
13. Being under the influence of drugs or alcohol while on campus, off campus during clinical or educational activities, or at other university functions.
14. Eating or drinking in academic spaces during lectures or labs.
15. Gambling on campus.
16. Conviction of a felony while enrolled.
17. Lack of personal hygiene and personal grooming, unkempt and/or otherwise inappropriate attire. Students are to maintain a level of cleanliness, grooming, and appearance that is consistent with standards of a health care professional. Additionally, student interns are to comply with the dress code outlined in the Clinic Manual.

Violations of the student conduct policy are to be reported in writing to the director of student services. See Policy 9009 – Student Complaints (Grievance).

Related Policies:
Policy 1008 – Drugs, Narcotics and Alcohol
Policy 1225 – Involuntary Withdrawal (Emotional/Psychologically Disturbed Students)
Policy 9009 – Student Complaints (Grievance)
Policy 9015 – Sexual Harassment/Discrimination (Students)
Policy 9022 – Student Appeal

Academic Integrity

Academic integrity is the moral code of academia for the maintenance of academic standards. UWS students are expected to do their own work and refrain from all forms of academic dishonesty.

Plagiarism

Plagiarism is a form of academic dishonesty consisting of the presentation of someone else's ideas, writings, or other original works as her/his own without appropriately attributing credit to the original source. It may include portions or the entirety of the original work. These original works include, but are not limited to: published works (books, journals, newspapers, magazines, theses, etc.), speeches, other student's papers or reports, proposals, graphics, images, multimedia, web pages, computer programs, research data, and presentations. Plagiarism by students at UWS is grounds for dismissal or other sanctions. See Policy 9001 – Student Conduct.

Cheating On Examinations, Assignments or Other Work

Cheating is the attempted or unauthorized receipt, use, or provision of information, notes, learning aids, devices, or communication during an examination, quiz, or other assessment of student learning, or the misrepresentation of identity on tests, assignments, or learning activities. This includes, but is not limited to: copying of other students' work (or allowing students to copy one's own work), unauthorized collaboration during a test or on an assignment, falsification of identity on a test or assignment (including online work), unauthorized use of electronic devices during a test, changing answers on an examination that has already been scored, unattributed submission of papers produced by other persons or commercial entities, use of unauthorized reference materials (including online resources) during online assessments, and unauthorized attempts to remove examination materials from the test area or to reproduce test materials for the purpose of allowing other persons to use those materials. Cheating by students at UWS is grounds for dismissal or other sanctions (see Code of Student Conduct).

Acceptable Use University Information Systems

As part of its educational mission, the University of Western States provides its students, faculty, trustees, and staff access to a variety of information systems, including but not limited to: e-mail, Internet access, network file storage, websites, wired and wireless data networks, voice communications systems, computer labs, computer workstations, and network printers. These information systems, and all others provided by the university are intended for university-related purposes, including direct and indirect support of the university's instruction, research and service missions; university administrative functions; student activities; and the free exchange of ideas within the university community and among the university community and the wider local, national, and world communities. The use of these information systems is a privilege and not a right. Users of these information systems have access to valuable university resources, sensitive data, and to internal and external networks. Consequently, it is important for all users to behave in a responsible, ethical, and legal manner. For complete information, see Policy 3601 – Acceptable Use of Information Systems.

W.A. Budden Library

The W.A. Budden Library supports all academic programs of UWS by delivering information services in a variety of ways. Beyond the print collection in the library stacks, E-books, databases, streaming media, and full-text journals are available directly from the online catalog and the web page links 24/7 from on- and off-campus.

The library building, which is enabled with secure Wi-Fi, is open seven days a week. Comfortable study space is available for both quiet and group learning in separate parts of the building. Students may enjoy food and beverages in the library with the provisos set forth in the food policy below.

The print collection in the open stacks is comprehensively chiropractic, medical science, sports medicine, integrative medicine, and manual therapy literature and includes a wide range of materials about alternative and complementary healing modalities, nutrition, and wellness practices. A limited number of copies of all required and recommended texts are available in the reserve stacks, located behind the circulation desk. An extensive journal collection in both print (in stacks) and electronic formats keeps the collection up to date with the most recently published articles. The library archives has many first editions and books of historical significance written by the founders and pioneers of chiropractic and alternative medicine and are available for students to use in the library.

The audiovisual collection consists of DVDs, streaming media, and anatomical models. These are available for either check out or use in the Library. The library maintained databases include Medline Complete, SportDiscus, Primal Pictures Anatomy TV, CINAHL, AMED, and the Cochrane Library. Other databases include Natural Standard, Natural Medicines Comprehensive Database, and ConsumerLab.com. The library's electronic full-text subscriptions are linked to the external web resources PubMed and Google Scholar. All UWS students are eligible for and encouraged to use a RefWorks citation management account.

Librarians are available to help with research topics, computer use, database searching, and locating information or library materials, including full-text retrieval. Research guides on a variety of pertinent topics, including FAQs and tutorials, are available from a link on the library web page or directly at http://researchguides.uws.edu/.

Material requests are gladly received. Suggestions and requests for library materials purchases can be given to the librarians or emailed to librarian@uws.edu.

Library Hours	
Monday-Thursday	7 am – 10 pm
Friday	7 am – 6 pm
Saturday	9 am – 5 pm
Sunday	12 pm – 8 pm
Break Weeks:	
Monday-Friday	9 am – 5 pm

Contact Information	
Circulation Desk	503.251.5752
University Librarian	503.251.5757
Reference Librarian	503.206.3202
Inter-Library Loan	503.847.2596

Library Services

Fax Available to students free of charge.	**Notary** Notary services are available free of charge to students, by appointment.
Printing High-speed duplex printing and scanning free. This policy may change with notice. UWS reserves the right to limit quantity.	**Wi-Fi** Building is securely enabled with broadband Wi-Fi.
Copies The library has three copiers; one is fitted with a Binder Minder to protect the spines of books from damage. High-speed copying and color scanning is free, although UWS reserves the right to change this policy without notice.	**Computers** There are 33 computer terminals for student use in quiet and group study areas.

Inter-library Loan

The W.A. Budden Library is committed to providing all materials students need for academic success and faculty reference. If we do not own a book, video, or article that a student needs, we will borrow it from another library. Article requests are often fulfilled in a matter of hours, books may take a few days to complete. Returns are made to the local circulation desk and will be managed by library staff. ILL service is available to students and faculty free of charge.

Reciprocal Borrowing

The UWS library has reciprocal borrowing agreements with the National College of Natural Medicine (NCNM), Oregon College of Oriental Medicine (OCOM), and Oregon Health and Sciences University (OHSU). This means students may check out materials held in the collections of these other schools either by requesting through the shared online catalog for pick-up at UWS or by going to those institutions directly with valid UWS identification. To view the collections of these other schools, select "view all" on the online catalog search bar. The librarians at the W.A. Budden Library are available to assist in the requesting of materials from these sister schools and will gladly handle returns. Late fines and replacement costs are levied at the lending library's policy.

Massage students at the Chemeketa Community College site have borrowing privileges from both Chemeketa Library and the University of Western States. UWS maintains a special massage collection including all required and recommended textbooks at the Chemeketa Library. Students may use the most convenient location for checking out materials.

Materials Check Out/Lending

Books in stacks	Check out for two weeks
New Books	Check out for two weeks
Reserve Books*	Overnight or library use only
E-books	Check-out while in use online
Unbound Journals and Bone Models	Check out for one day
Human Bones	Library use only
Bound Journals	Library use only
DVDs	One day or one week
Streaming Media	Available 24/7 through online catalog, no check out necessary
Archival Materials	Library use only

*All required texts are on Reserve

Special Limits on Materials

Overnight checkout

Return next day by 10 a.m. (Massage students 10 p.m.) On Friday, overnight items are checked out until Monday. On the last day of finals week, overnight items may be checked out for the term break.

One-day checkout

Return next day, any time before closing.

In Library Use
Two-hour checkout.

Renewals
All materials may renew twice, unless another patron has requested the item. Renewals may be done through the online catalog, in person, or by phone (503.251.5752). When both renewals have been used, items must be returned to the library. After 24 hours, the item becomes available for check out again.

Late return fines accrue at 25¢ per day for regular materials and 20¢ per hour for reserve materials. Unpaid fines over $5.00 are submitted to the business office at the end of term. Return reminders and overdue notices are sent as a courtesy automatically to campus email addresses.

Lost or Damaged Materials
Lost or damaged materials are charged at replacement or repair cost, plus handling fees. Unpaid fees are sent to the business office at the end of term. Library accounts must be up to date with materials returned and fines paid prior to graduation.

General Library Policies

Food in the Library
Students are allowed to eat non-disruptive food (e.g., dry foods that are not crunchy and that do not have a strong odor) in the library. Students are also allowed to bring drinks into the library, preferably in spill-proof, covered containers. Please do not leave food waste (wrappers, lunch sacks, coffee cups, etc.) in library waste receptacles. Use the motto “pack it in, pack it out.” Students are asked to help maintain the cleanliness of the library facilities and the integrity of the library materials.

Computer Use
Courteous awareness of others waiting to use computers at peak times is encouraged. Students should not use social network sites for long periods while others are waiting. Please refer to the UWS Information Systems Acceptable Use Policy.

Quiet Zone
The entire west end of the library is a designated quiet zone. Please do not use this area for group study, receiving phone calls, or eating noisy foods. As adult students in a professional program, peer-to-peer respect, consideration, and communication is recommended. Library staff will respond to egregious noise in the Quiet Zone if a request for “quiet” from a fellow student has been ignored. Because the library building is multi-purpose, those students that require *absolute* silence for studying can try the noise canceling headphones or earplugs available at the circulation desk.

Administration

Board of Trustees

Patricia Conners-Allen, DC, Chair
Richard Branson, DC, Vice Chair
Richard, Cole, DC, DACNB, DAAPM, FIACN, FICC (H), Treasurer
Shirley Cyr, CPA
Jennifer Forbes, DC
Shannon Gaertner-Ewing, DC
John Greaney, JD
Alice Jacobson, MA, EdD
Robert Jones, DC, APC, Secretary
Elli Morton, DC
Ron Rogers, DC, DABCO
Mark Sutton, DC
N. Edwin Weathersby, DC

Administrative Officers

Joseph E. Brimhall, DC, FICC, President
BS, 1979, Logan College of Chiropractic; DC, 1981, Logan College of Chiropractic

Eric S. Blumenthal, MBA, Vice President, Finance and Administration
BS, 1982, Boston College; MBA, 1995, University of Massachusetts

William Borman, PhD, Dean, College of Chiropractic
BS, 1987, University of Wisconsin-Eau Claire; PhD, 1994, Medical College of Wisconsin

Patrick Browne, EdD, Vice President, Enrollment and Student Services
BA, 1980, University of Missouri; MA, 1983, Webster University;
EdD, 2000, St. Louis University

Marion Willard Evans, Jr., DC, PhD, Associate Provost
DC, 1986, Logan College of Chiropractic; BGS, 1999, Indiana University;
MA, 2003, The University of Alabama; PhD, 2006, The University of Alabama

Clyde B. Jenson, PhD, Vice President of University Relations
BS, 1970, Brigham Young University; MS, 1973, University of North Dakota;
PhD, 1974, University of North Dakota

Laura Lamm, DC, Provost
BS, 1984, Winthrop University; DC, 1990, Sherman College of Chiropractic

Joseph Pfeifer, DC, Vice President of Clinic Affairs
BS, 1981, State University of New York; DC, 1984, New York Chiropractic College

Peter Szucs, MAW, LMT, Dean, Graduate and Undergraduate Studies
BAS, 2004, Siena Heights University; MAW, 2010, Chatham University

Research

Mitchell Haas, MA, DC
Associate Vice President of Research
BS, 1975, State University of New York, Albany; MA, 1978, University of California, Berkeley;
DC, 1986, Western States Chiropractic College

Administrative Staff

Todd Benson ..... Director, Facilities
Christina Bruck, BS ..... Director, Student Services
Kathleen Cannon, BS ..... Human Resources Generalist
Michelle Dodge, MEd ..... Registrar
Stanley Ewald, DC, MPH ..... Director, Clinic Operations
Brian Fawkes, BA..... Director, Public Relations, Communications and Marketing
Peter Goss, MS ..... Director, Financial Aid
Michael Haneline, DC, MPH, FICR..... Director, MS Human Nutrition and Functional Medicine
Craig Kawaoka, DC, DACSP, CSCS..... Director, MS Exercise and Sports Science Program
Lisa Lopez, CPA ..... Director, Business Affairs and Controller
Owen Lynch, DC..... Director, Health Centers of UWS - Downtown
Melissa McMullen, MS, DC..... Associate Dean, Program Assessment
Marsha Peoples-Jack, MBA ..... Director, Post-graduate and Continuing Education
Eric Polgar, MBA, LMT..... Assistant Director, Massage Therapy
Jill Punches, MSFA..... Director, Operations and Auxiliary Services
Kris Rosenberg, BS..... Chief Information Officer
Peter Szucs, MAW, LMT. ..... Director, Massage Therapy Program
Janet Tapper, MLS..... University Librarian

Faculty

Agresta, Joel
Instructor, Department of Clinical Sciences; AB, 1973, Fairfield University; BS, 1977, Howard University; PT, 1977, Howard University; DC, 1983, Western States Chiropractic College; CCSP, 2011, American Chiropractic Board of Sports Physicians

Armington, Amanda
Assistant Professor, Division of Clinical Education; BS, 2001, Michigan State University; DC, 2003, University of Western States

Baffes, Laura
Associate Professor, Department of Clinical Sciences; BS, 1990, National College of Chiropractic; DC, 1992, National College of Chiropractic; CCSP, 1995, American Chiropractic Board of Sports Physicians

Baranick, Karen
Assistant Professor, Department of Chiropractic Sciences; BS, 2004, Oregon State University; DC, 2009, University of Western States

Belokonny, Mark
Lecturer, Massage Therapy program; BA, 1977, Central Michigan University; M.Div., 1980, Western Seminary; D. Min., 1993, Biola University

Bhalerao, Shireesh
Associate Professor, Department of Chiropractic Sciences; BS, 1992, University of Saskatchewan; DC, 2000, Western States Chiropractic College; CCSP, 2007, American Chiropractic Board of Sports Physicians; MCR, 2013, Oregon Health & Science University

Borman, William
Professor, Department of Basic Sciences; BS, 1987, University of Wisconsin-Eau Claire; PhD, 1994, Medical College of Wisconsin

Burnham, Kara
Associate Professor, Department of Basic Sciences; BA, 1992, Baylor University; MS, 1994, Baylor University; PhD, 1998, Texas Woman's University

Carollo, James
Professor, Department of Basic Sciences; BA, 1973, Linfield College; MS, 1980, University of Oregon Health Sciences Center

Carter, Angela
Adjunct Faculty, Department of Clinical Sciences; Massage Therapy Certificate, 2003, East-West College of the Healing Arts; BS, 2007, Portland State University; ND, 2011, National College of Natural Medicine

Crupper, Mia
Adjunct Faculty, Department of Clinical Sciences; BA, 2000, University of Hawaii, Manoa; Massage Therapist (LMT), 2000, Honolulu School of Massage & Hawaiian Island School of Massage; ND, 2005, National College of Naturopathic Medicine; ACNM, 2006, Certified Naturopathic Midwife, Certificate in Natural Childbirth

Cummins, Catherine
Associate Professor, Department of Chiropractic Sciences; BS, 1986, Millikin University; BS, 1989, National College of Chiropractic; DC, 1992, National College of Chiropractic; DACBO, 1993, American Board of Chiropractic Orthopedists; CSCS, 2002, National Strength and Conditioning Association; DACBO, 2004, American Board of Chiropractic Orthopedists

DeLapp, Daniel
Associate Professor, Division of Clinic Affairs; BS, 1982, University of California, Davis; DC, 1986, Los Angeles College of Chiropractic; 1990, DACBO, L.Ac., 1996, Oregon College of Oriental Medicine; ND, 1997, National College of Naturopathic Medicine

Dorsey, Rayna E.
Clinical Supervisor, Massage Therapy program; Massage Therapist, 1990, East-West College of Healing Arts

Ebling, Carrie
Adjunct Faculty, Department of Chiropractic Sciences, and Clinical Supervisor, Massage Therapy program; BS, 1997, Florida State University; Massage Therapist, 1999, Florida School of Massage; DC, 2008, Western States Chiropractic College/University of Western States

Fisher, Cara
Assistant Professor, Department of Basic Sciences; BS, 1998, Walla Walla College; MS, 2002, Creighton University

Forcum, Ted
Guest Lecturer, MS program; DC, 1988, Western States Chiropractic College; CSCS, 1988, National Strength and Conditioning Association; Diplomate, 1998, American Chiropractic Board of Sports Physicians

Gerber, James
Associate Professor, Department of Clinical Sciences, and Instructor, MS program; BA, 1974, University of California, Santa Barbara; MS, 1987, University of Bridgeport; DC, 1981, Western States Chiropractic College; Diplomate, 1994, American Board of Chiropractic Orthopedists; Diplomate, 1996, American Chiropractic Board of Nutrition

Ginter, Lorraine
Assistant Professor, Department of Clinical Education; BS, 1976, California State University; DC, 1988, Western States Chiropractic College

Guimard, Brett
Adjunct/Instructor, MS program; BS, 2003, Dominican University; DC, 2006, Los Angeles College of Chiropractic; M.A.O.M., 2007, SCUHS College of Acupuncture and Oriental Medicine

Harger, Beverly
Associate Professor, Department of Clinic Affairs; DC, 1987, Western States Chiropractic College; DACBR; 1992, Western States Chiropractic College

Hatch, Shawn
Assistant Professor, Department of Clinical Education; BA, 2002, Southern Utah University; DC, 2006, Western States Chiropractic College

Herrin, Sean
Associate Professor, Department of Clinical Education; BA, 1989, Western State College of Colorado; DC, 1992, Western States Chiropractic College; CCSP, 2007, American Chiropractic Board of Sports Physicians

Hirsh, Henry
Technician II, Division of Clinic Affairs; R.T.R., 1976, Illinois Masonic Medical Center

Hoffman, Lisa
Associate Professor, Department of Clinical Science; BS, 1992, Western States Chiropractic College; DC, 1994, Western States Chiropractic College; DACBR, 1997, Western States Chiropractic College

Hoyer, Dennis
Associate Professor, Department of Clinical Science; BS, 1973, University of South Carolina; BS, 1976, University of Pittsburgh; BS, 1979, National College of Chiropractic; DC, 1981, National College of Chiropractic

Hubbard, Brett
Adjunct Faculty, Department of Clinical Sciences; BA, 1993, Roosevelt University; ND, 1999, National College of Naturopathic Medicine

Kaminski, Mark
Professor, Department of Basic Sciences; BS, 1975, Washington State University; BA, 1976, University of Washington; MS, 1979, Northwestern University

Kawaguchi, Jun
Assistant Professor, MS program; BS, 2005, Bridgewater State College; DC, 2008, Western States Chiropractic College; ATC, 2005, National Athletic Trainers Association

Kawaoka, Craig
Director, MS Exercise and Sports Science Program; BS, 1983, California Polytechnic State University at San Luis Obispo; DC, 1999, Los Angeles College of Chiropractic

Lady, Suzanne
Assistant Professor, Department of Clinical Education; BS, 1991, University of Arizona; CMT, 1992, Healing Arts Institute; DC, 1997, Western States Chiropractic College

Laurer, Ted
Assistant Professor, Department of Chiropractic Sciences; BS, 1979, Mount Saint Mary's College; DC, 1989, Western States Chiropractic College

LeFebvre, Ronald
Professor, Department of Clinical Education; BA, 1972, Loyola University; MA, 1973, University of California, Los Angeles; DC, 1983, Cleveland College of Chiropractic

Lockwood, Katie
Assistant Professor and Electronic Resources Librarian, Library; BA, 2002, University of Oregon; MLIS, 2009, University of Illinois

Mathov, Sara
Assistant Professor, Adjunct Faculty, MS Exercise and Sports Science; BS, 1999, Montana State University; DC, 2003, Northwestern Health Sciences University; DACBR, 2007, Southern California University of Health Sciences; ATC, 2000, National Athletic Trainers Association

Mitchell, Betsy
Assistant Professor, Department of Chiropractic Sciences; BA 1992, University of Maine, Fort Kent; DC, 1999, Western States Chiropractic College; DACBO, 2006, American Board of Chiropractic Orthopedists; CCSP, 2009, American Chiropractic Board of Sports Physicians

Moore, Tyna
Adjunct Faculty, Department of Clinical Sciences; DC, 2003, University of Western States; ND, 2008, National College of Naturopathic Medicine

Morgan, Drew
Instructor, Division of Clinic Affairs; BA, 1995, Marylhurst College; BA, 2005, Portland State University; DC, 2009, University of Western States

Olsen, Thomas
Technician II, Library; BS, 1995, University of Oregon; MFA, 2001, Chapman University

Ondick, Ryan
Assistant Professor, Department of Clinical Education; DC, 2008, Western States Chiropractic College; CCSP, 2009, American Chiropractic Board of Sports Physicians

Panzer, David
Instructor, Department of Chiropractic Sciences; DC, 1983, Western States Chiropractic College; Diplomate, 1992, American Board of Chiropractic Orthopedists

Partna, Lester
Associate Professor, Department of Chiropractic Sciences; DC, 1989, Western States Chiropractic College

Perham, David
Assistant Professor, Department of Chiropractic Sciences; BA, 1987, Hobart College; DC, 2010, University of Western States

Peters, Allen
Adjunct Faculty, Department of Clinical Sciences; BS, 1981, University of Georgia; MS, 1993, Boston University; JD, 1993, Florida State University

Peterson, David
Professor, Department of Chiropractic Sciences; DC, 1979, Western States Chiropractic College

Petzing, Karen
Assistant Professor, Department of Clinical Education; BS, 1978, National College of Chiropractic; DC, 1980, National College of Chiropractic

Roberts, Anita
Assistant Professor, Division of Clinic Affairs; BA, 1975, University of Washington; DC, 1980, Palmer College of Chiropractic

Schultz, Gary
Professor, Department of Clinical Sciences; BS, 1983, National College of Chiropractic; DC, 1985, National College of Chiropractic; DACBR, 1988, Los Angeles College of Chiropractic

Sepulveda, Mark
Instructor, Department of Chiropractic Sciences; BS, 1991, Western States Chiropractic College; DC, 1991, Western States Chiropractic College

Shull, Peter
Associate Professor, Department of Clinical Sciences; BA, 1969, Fort Hays Kansas State College; DC, 1982, Palmer College of Chiropractic

Stecher, Timothy
Assistant Professor, Department of Clinical Sciences; BS, 1991, University of California; DC, 1996, Western States Chiropractic College

Steinmetz, Erich
Adjunct Faculty, Massage Therapy program; Massage Program, 1999, East-West College of the Healing Arts; BS, 2005, Oregon State University

Strange, James
Assistant Professor, Department of Clinical Education; DC, 2007, Western States Chiropractic College

Tallman, Kristine
Assistant Professor, Division of Clinic Affairs; BS, 2000, Regents College of New York; DC, 2001, Palmer College of Chiropractic

Tarnasky, Michael
Assistant Professor, Department of Clinical Education; BA, 1976, Brigham Young University; DC, 1982, Western States Chiropractic College

Vavrek, Darcy
Assistant Professor, Research; BS, 1990, Evergreen State College; ND, 1998, National College of Naturopathic Medicine; MS, 2005, University of Washington

Versteeg, Edward
Adjunct Faculty, Department of Clinical Sciences; BS, 1978, Portland State University; MS, 1985, Portland State University; PsyD, 1990, Pacific University

Vidalis, Sofia
Lecturer and Clinical Supervisor, Massage Therapy Program; Massage Therapist, 1994, Maui School of Therapeutic Massage

Weliky, Michael
Adjunct Faculty, Department of Basic Sciences; BA, 1980, University of California, Berkeley; PhD, 1991, University of California, Berkeley

Williams, Cortny
Assistant Professor, Department of Basic Sciences; BS, 2001, Oregon State University; PhD, 2006, Oregon Health and Science University

Williams, Devin
Assistant Professor and Instruction/Reference Librarian, Division of Clinic Affairs; BS, 2010, Patty Hanks Shelton School of Nursing; DC, 2006, University of Western States

Wisotzke Tania
Assistant Professor, Library; BA, 2006, Marylhurst College; MLS, 2009, Emporia State University

Yancy, Laurel
Assistant Professor, Division of Clinic Affairs; DC, 1995, Los Angeles College of Chiropractic

---

Faculty Emeritus

Colley, Frederick
Professor Emeritus, BA, 1973, Linfield College; MS, 1980, University of Oregon Health Sciences Center

Erdman Johnston, Elaine
Professor Emeritus, BA, 1970, William Patterson College; MA, 1973, Montclair State College; DC, 1977, Western States Chiropractic College

Harris, Janet
Professor Emeritus, BS, 1962, Otterbein College; MS, 1964, University of Illinois; PhD, 1971, University of Illinois

Lamm, Lester
Professor Emeritus, University Historian, BA, 1972, Portland State University; DC, 1980, Western States Chiropractic College

Oliver, Steven
Professor Emeritus, BS, 1971, Portland State University; DC, 1975, Western States Chiropractic College

Raphael, Ravid
Professor Emeritus, BA, 1968, Pennsylvania State University; DC, 1978, Western States Chiropractic College

Shervey, Paul
Professor Emeritus, BA, 1961, Concordia College; MS, 1963, University of North Dakota; PhD, 1966, University of North Dakota

---

BLANK

Academic Calendar 2013-2014

Fall Term 2013

Event	Days	Date
New Student Orientation	Friday	October 4
First Day of Class	Monday	October 7
Mandatory Quarterly Check-In	Mon-Tues	October 7-8
OBCE Exam	Friday	October 25
NBCE Part IV Exam	Fri - Sat	November 8 - 10
Thanksgiving Holiday	Thu-Fri	November 28-29
CCEB Components A, B & C Application Deadline	Friday	December 13
Last Day of Class	Friday	December 13
Commencement	Friday	December 13
Finals Week	Mon-Fri	December 16-20
Break	Sat-Sun	December 21 – January 5
OBCE Application Deadline	Tuesday	December 31

Fall Term 2013 –Salem

Event	Days	Date
New Student Orientation	Friday	September 27
First Day of Class	Monday	September 30
Mandatory Quarterly Check-In	Mon-Tues	September 30 – October 1
Veteran's Day – school closed	Monday	November 11
Thanksgiving Holiday - school closed	Thu-Fri	November 28-29
Last Day of Class	Friday	December 14
Finals Week	Mon-Sat	December 9-13
Break	Mon-Sun	December 15 – January 5

Winter Term 2014

Event	Days	Date
New Student Orientation	Friday	January 3
First Day of Class	Monday	January 6
Mandatory Quarterly Check-In	Mon-Tues	January 6-7
NBCE Parts I, II, III and PT Applications Due	Tuesday	January 14
Assembly Schedule in honor of MLK Holiday	Monday	January 20
NBCE Parts I, II, III and PT **LATE** Applications Due	Tuesday	January 28
OBCE Exam	Friday	January 31
CCEB Component A, B, and C Exams	Sat-Sun	February 1-2
President's Day Holiday Observed – School Closed	Monday	February 17
NBCE Part IV Applications Due	Tuesday	February 18
Last Day of Class	Friday	March 14
Finals Week	Mon-Fri	March 17-21
NBCE Parts I, II, III and PT Exams	Fri-Sun	March 21-23
OBCE Exam Application Deadline	Tuesday	March 25
Break	Sat-Sun	March 22 – April 6

Winter Term 2014 –Salem

Event	Days	Date
First Day of Class	Monday	January 6
Mandatory Quarterly Check-In	Mon-Tues	January 6-7
Martin Luther King Day – school closed	Monday	January 20
President's Day - school closed	Monday	February 17
Last Day of Class	Friday	March 22
Finals Week	Mon-Fri	March 17-21
Break	Sun-Sun	March 23 - 29

Spring Term 2014 - Portland

Event	Days	Date
First Day of Class	Monday	April 7
Mandatory Quarterly Check-In	Mon-Tues	April 7-8
CCEB Component A, B, and C Application Deadline	Friday	April 25
OBCE Exam	Friday	April 25
NBCE Part IV Exam	Fri-Sun	May 16-18
Memorial Day Holiday Observed School Closed	Monday	May 26
Last Day of Class	Friday	June 15
CCEB Component A, B, and C Exam	Sat-Sun	Jun 14-15
Finals Week	Mon-Fri	June 16-20
Commencement	Friday	June 20
OBCE Exam Application Deadline	Tuesday	June 25
Break	Sat-Sun	June 21 – July 6

Spring Term 2014 –Salem

Event	Days	Date
New Student Orientation	Friday	March 28
First Day of Class	Monday	March 31
Mandatory Quarterly Check-In	Mon-Tues	March 31 – April 1
Memorial Day Holiday	Monday	May 26
Last Day of Class	Friday	June 14
Finals Week	Mon-Sat	June 9-13
Break	Mon-Sun	June 14 – July 6

Summer Term 2014

Event	Days	Date
First Day of Class	Monday	July 7
Mandatory Quarterly Check-In	Mon - Tue	July 7-8
NBCE Parts I, II, III and PT **LATE** Applications Due	Tuesday	July 8
OBCE Exam	Friday	July 25
NBCE Part IV Application Due	Tuesday	August 19
CCEB Components A, B, and C Application Deadlines	Monday	TBA
Labor Day Holiday	Monday	September 1
NBCE Parts I, II, III and PT Exams	Fri-Sun	September 12-14
Last Day of Class	Friday	September 12
Finals Week	Mon-Fri	September 15-19
Break	Sat-Sun	September 20-October 5
OBCE Exam Application Deadline	Wednesday	September 30

Fall Term 2014

Event	Days	Date
New Student Orientation	Friday	October 3
First Day of Class	Monday	October 6
Mandatory Quarterly Check-In	Mon-Tues	October 6-7
OBCE Exam	Friday	October 31
NBCE Part IV Exam	Fri - Sat	November 14-16
Thanksgiving Holiday	Thu-Fri	November 27-28
CCEB Components A, B & C Application Deadline	Friday	TBA
Last Day of Class	Friday	December 12
Commencement	Friday	December 12
Finals Week	Mon-Fri	December 15-19
Break	Sat-Sun	December 20 – January 4
OBCE Application Deadline	Tuesday	December 30