

TOURO UNIVERSITY CALIFORNIA



College of Osteopathic Medicine

Student Catalog

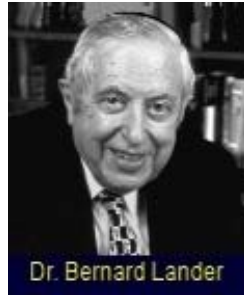
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A MESSAGE FROM THE PRESIDENT OF TOURO UNIVERSITY AND COLLEGE



In 1971, Touro enrolled its first class of 35 students. The institution has changed a great deal since those early years. Total enrollment in Touro's many schools and divisions exceeds 20,000 students. The opportunity for intellectual and career growth has expanded with the addition of new undergraduate, graduate, and professional programs, on campuses in New York, California, Nevada, Florida, Israel, Russia, Germany, and Italy.

Yet the commitment to personal attention, research, and excellence characteristic of the early years still remain at the center of Touro's institutional self-awareness. We seek to make higher education possible for all talented students who seek to make the world a better place.

We hope that you, the students, will draw upon our commitment - even exploit it in your own quest to serve humankind. We believe there is no better context for that quest than Touro.

Cordially,

Bernard Lander, Ph.D., L.H.D.

A MESSAGE FROM THE DEAN OF TOURO UNIVERSITY COLLEGE OF OSTEOPATHIC MEDICINE



Welcome to the Touro University College of Osteopathic Medicine. Since our inception in 1997, we have grown from our original location in San Francisco to Mare Island which is located in the city of Vallejo. This idyllic and tranquil location provides a beautiful stage for the acquisition of knowledge, personal growth and new program development. In the fall of 2004, our new branch campus of the College of Osteopathic Medicine opened in Henderson, Nevada providing osteopathic medical education to our southwestern states.

Touro University College of Osteopathic Medicine is committed to the education of our students following the tenets of osteopathic medicine. Osteopathic medical schools emphasize training students to be primary care physicians incorporating the latest diagnostic and therapeutic medical advances as well as a focus on preventive health care. Our evolving curriculum encompasses a strong basic science foundation combined with early integration of the clinical sciences while always being mindful of the beliefs espoused by the founder of osteopathic medicine Dr. A.T. Still. Dr. Still in the late nineteenth century cautioned to look beyond the disease for the cause and stated, “To find health should be object of the doctor. Anyone can find disease.”

Touro University College of Osteopathic Medicine is one of four colleges located within Touro University-California. The colleges are the College of Health Sciences, which is currently offering a Master of Science in Physician Assistant Studies/Master of Public Health degree as well as an independent Master of Public Health degree, the College of Education, which provides teacher credential programs and the Master of Arts in Education, and a College of Pharmacy, offering the PharmD degree. Touro University California is one of the branch campuses of Touro College, located in New York. Touro College is a Jewish-sponsored independent institution of higher and professional education which serves oversight functions for the California campus.

We look forward to your inquiries regarding our campus and invite you to visit and share in the excitement of a new generation of physicians poised to help repair the world.

Michael B. Clearfield, D.O., F.A.C.O.I.
Dean, Touro University College of Osteopathic Medicine

Description & Purpose of the Catalog

The College Catalog is a reference intended to provide accurate information to students and others regarding Touro University College of Osteopathic Medicine - California (TUCOM).

The provisions of the Catalog are subject to change as a result of official actions of the administration. Such changes may be without notice. The student should not consider this Catalog to represent a contract between TUCOM and the student. The college disclaims any misrepresentations that may have occurred as a result of errors in preparation or typing.

Each student must recognize that he/she is responsible for knowledge of current academic regulations, general and specific requirements, student policies and operational policies, contained in this Catalog, the Student Handbook, and other official announcements and published documents of TUCOM.

Touro University-California (TUC) reserves the right to make changes at any time in this catalog or in the requirements for admission, graduation, tuition, fees and any rules or regulations. TUC maintains the right to refuse to matriculate a student deemed by the faculty to be academically incompetent or otherwise unfit or unsuited for enrollment.

Catalog Disclaimer

Touro University College of Osteopathic Medicine - California produces an online Catalog each year. Should discrepancies exist between other publications, both online or hardcopy, the online Catalog will always take precedence.

Historical Perspective

Touro University is a Jewish-sponsored independent institution of higher and professional education founded by Bernard Lander, PhD, LHD. The institution derives its name from Judah and Isaac Touro, leaders of colonial America who represented the ideal upon which we base our mission.

Touro College was chartered by the State of New York in 1970. The first students enrolled in 1971; the class consisted of 35 liberal arts and science students. Since those early days, the institution has experienced substantial growth.

Touro College has developed into a major institution of higher education, which includes the following schools: The College of Arts and Sciences (1971); the School of Health Sciences (1972); the School of General Studies (1974), the Graduate School of Jewish Studies (1979); the Jacob D. Fuchsberg Law Center (1980); the School for Lifelong Education (1989); the New York School of Career and Applied Science (1995), the Graduate School of Education and Psychology (1995); Touro University College of Osteopathic Medicine California (founded in 1997 as the San Francisco College of Osteopathic Medicine); the Lander College for Men in Kew Garden Hills (2000) created in 2001 through a merger of two previously separate divisions, the School of General Studies (founded in 1974) and the School of Career

and Applied Studies (created in 1995); Touro University – Nevada (2004), Touro College South in Florida (2006), and Touro University College of Osteopathic Medicine – New York (2007).

Touro opened a branch in Moscow in Spring 1991 and its operations now include the Institute of Jewish Studies (branch campus) and a business program with Moscow University Touro (an independent entity) operated through an inter-institutional agreement. The branch campus in Jerusalem comprises the Graduate School of Jewish Studies, an undergraduate business program and the Touro Israel Option (year abroad program). In October 2003, Touro opened a small branch campus in Berlin.

Touro has long been interested in medical education. In 1983, Touro established the Center for Biomedical Education, a cooperative program leading to an M.D. from the Technion-Israel Institute of Technology, Israel's premier school of applied sciences. Success in this and other related programs led Touro to explore the possibility of establishing a college of osteopathic medicine. Touro sought incorporation in the State of California, and in 1997 located a campus in the San Francisco Bay Area. The campus was moved to Mare Island, California in 1999. In 2003, Touro University College of Osteopathic Medicine (TUCOM) became the Founding College of Touro University – California. Touro University – California is now composed of four colleges – College of Osteopathic Medicine (grants the Doctor of Osteopathic Medicine Degree – D.O.), the College of Health Sciences (founded 2003) (grants the Master of Science in Physician Assistant Studies-MSPAS and Master of Public Health-MPH), the College of Education (Founded 2004) (grants Master's degrees and provides teacher credentials), and the College of Pharmacy (grants the Doctor of Pharmacy).

As Touro College looked to other potential sites for a college of osteopathic medicine, Nevada was chosen as a potential site due to the current physician shortage in Nevada and the rapidly growing population within Las Vegas and the surrounding communities. The branch campus, Touro University College of Osteopathic Medicine - Nevada, matriculated its first class in Fall 2004 and provides programs in osteopathic medicine and physician assistant studies. Touro University- Nevada now consists of the College of Osteopathic Medicine and the College of Health and Human Services providing programs in nursing, occupational therapy, physical therapy and education.

TUCOM MISSION, OBJECTIVES AND GOALS

Mission of Touro College

Touro College is an independent institution of higher and professional education under Jewish sponsorship, established to perpetuate and enrich the Jewish heritage and to serve the larger community in keeping with the Judaic commitment to social justice, intellectual pursuit, and service to humanity.

Vision Statement of Touro University – California

The vision of Touro University – California is: Educating caring professionals to serve, to lead, to teach.

Mission of Touro University – California

The mission of Touro University – California is to provide quality educational programs in the fields of health care and education in concert with the Judaic commitment to social justice, intellectual pursuit, and service to humanity.

Mission of Touro University College of Osteopathic Medicine

TUCOM prepares students to become outstanding osteopathic physicians who uphold the values, philosophy and practice of osteopathic medicine and who are committed to primary care and the holistic approach to the patient. The College advances the profession and serves its students and society through innovative education, research and community service.

Accreditation and Approval

Touro University College of Osteopathic Medicine (California and Nevada): In 1995, the California Board for Private Postsecondary and Vocational Education authorized Touro to confer the Doctor of Osteopathic Medicine degree. After obtaining both pre-accreditation and provisional accreditation from the Bureau of Professional Education of the American Osteopathic Association (AOA), Touro was authorized to open its doors to students during the 1997-1998 academic year. An accreditation team representing the Commission on Higher Education of the Middle States Association of Colleges and Schools recommended Touro University College of Osteopathic Medicine for regional accreditation as a Branch Campus of Touro College. The Commission on Higher Education approved that recommendation in December 1997. In April 2001, the AOA awarded full accreditation status to the College of Osteopathic Medicine. In the Spring of 2004, the Commission on Osteopathic College Accreditation (COCA) of the AOA approved the development of a branch campus of Osteopathic Medicine in Henderson, Nevada. In June 2004, the Commission included Touro University College of Osteopathic Medicine – Nevada within the scope of Touro College's accreditation. In May 2009, the Commission reaffirmed the accreditation of Touro University College of Osteopathic Medicine, California and Nevada campuses. In February, 2005 regional accreditation was transferred from the Commission on Higher Education of the Middle States Association of Colleges and Schools to the Western Association of Schools and Colleges.

The Osteopathic Medical College

The curriculum of TUCOM is modeled and revised based on the mission of TUCOM. TUCOM strives for our students to acquire a sound foundation in the basic sciences and primary care for the study of osteopathic medicine, to demonstrate the clinical skills and knowledge essential for postgraduate training with an emphasis on primary care, to extend osteopathic philosophy, concepts and techniques to the practice of osteopathic medicine, to

demonstrate the management and care of patients whose conditions of health deviate from normal, to demonstrate the use of health education and disease prevention in patient care, to demonstrate appropriate use of computer technology in the making of medical decisions and to demonstrate the psycho-social and economic-legal context in which the practice of osteopathic medicine occurs to produce research that pertains to osteopathic medicine and to the health care delivery system, and to promote delivery of osteopathic healthcare in the community we serve.

The administrative leadership of TUCOM strives to maintain a skilled and competent academic and clinical faculty, administration and staff devoted to working in concert using contemporary educational and clinical facilities while maintaining current and innovative modalities of education and research. The College strives to provide an optimum environment for all participants in the process of developing osteopathic physicians. Faculty development programs will be offered in order to ensure professionals the opportunities for growth, teaching improvement, evaluation strategies and scholarly performance. TUCOM recognizes that the process of medical education is a continuum from undergraduate, graduate, and post-graduate training. TUCOM sponsors post-graduate programs in support of this continuum.

General Educational Goals

The goal of the Touro University College of Osteopathic Medicine is to educate qualified students to become osteopathic physicians imbued with the philosophical principles and palpatory and manipulative skills of osteopathic medicine. It is the stated purpose of the college to educate and develop primary care physicians in the osteopathic tradition. At the same time, it proposes to provide its students with a firm academic background so that those who wish may advance further into the osteopathic specialties or academic careers.

The College of Osteopathic Medicine has a defined set of goals for our educational program. These goals have been developed by the Faculty to reflect the type of graduate the University strives to educate. These goals are competency-based and reflect our mission statement.

The College of Osteopathic Medicine emphasizes primary care throughout the curriculum. Considering the national shortage of primary care physicians and particularly the shortage in rural areas, the College stresses primary care on several levels, including an increased proportion of clinical time devoted to family medicine, sites for family practice rotations, cooperative efforts toward matching physicians with community need and early identification of undergraduate students committed to becoming rural primary care physicians.

Because research activities are a link to future developments in the osteopathic profession, all faculty members are encouraged to engage in appropriate research activities both at group and individual levels. To that end, funds are budgeted for research purposes each year and for participation in professional conferences, seminars and developmental programs.

TUCOM Program Goals/Characteristics of a TUCOM graduate

At the finish of their education at TUCOM, we expect our graduates in osteopathic medicine to have the following abilities and attributes, each of which is listed with the core competenc(ies) it reflects:

- **Know how to perform and document an osteopathic history and physical**
preclerkship analog: interpersonal and communications skills, patient care
- **Formulate a working diagnosis and problem list including correlation of osteopathic findings**
medical knowledge, preclerkship analog: practice based learning and improvement
- **Formulate and implement a cost effective treatment plan to address the diagnosis**
medical knowledge, patient care, practice based learning and improvement, system based practice
- **Re-evaluate treatment and make appropriate corrections**
practice based learning and improvement
- **Communicate effectively and appropriately with the patient, the healthcare team and the family**
interpersonal and communications skills
- **Evaluate and continuously revise and add to his/her own skills/knowledge**
practice based learning and improvement
- **Know how to critically evaluate data, labs and professional and scientific literature**
practice based learning and improvement, medical knowledge, critical reasoning
- **Understand the legal, economic and regulatory milieu affecting the practice of medicine**
system based practice
- **Be able to advise patients on preventive nutrition and lifestyle measures that can be taken to avoid illness, disease and/or injury**
medical knowledge, public health and prevention
- **Identify and navigate ethical issues pertinent to medical practice**
professionalism, medical knowledge, ethics, critical reasoning, preclerkship analog: system based practice
- **Have strong understanding of scientific principles that apply to clinical medicine and be grounded in the evidentiary basis of medicine**
medical knowledge, critical reasoning, practice based learning and improvement, system based practice
- **Understand the self healing, self regulating nature of the human body and the relationship of structure to function**
osteopathic philosophy and practice, medical knowledge, preclerkship analog: system based practice, practice based learning and improvement
- **Know how to establish, develop and effectively participate in physician patient relationships that support the patient in improving their health and quality of life**
professionalism, interpersonal and communications skills, patient care
- **Be respectful and self-reflective**
professionalism, practice based learning and improvement)

- **Pass COMLEX parts 1&2 (including COMLEX PE)**
medical knowledge, test taking skills, patient care, interpersonal and communications skills
- **Know his/her limits and seek consultation appropriately**
medical knowledge, practice based learning and improvement, system based practice, professionalism
- **Know how to research clinical topics using appropriate resources**
critical reasoning, medical knowledge, system based practice
- **Understand epidemiologic principles and their application to medical care practice including the use of patient care guidelines**
medical knowledge, critical reasoning, practice based learning and improvement, system based practice
- **Discuss and/or describe the history, philosophy and principles of the osteopathic profession**
osteopathic philosophy and practice
- **Develop technical skills**
patient care

The Philosophy of Osteopathic Medicine – TUCOM

Osteopathic medicine is a separate and distinct branch of medical practice that is based on a set of philosophic principles and stresses a comprehensive approach to the maintenance of health. The osteopathic medical education is unique in its emphasis on the neuromusculoskeletal system and its utility in the diagnosis and treatment of disease. It is the unobstructed interrelationship of all the body's systems by which we maintain health and disease is prevented. Founded in 1874 by Andrew Taylor Still, M.D. (1828-1917), osteopathic medicine makes use of the following tenets that assist the osteopathic physician to look for health, and not simply treat a disease state:

- The human body is a dynamic unit of function.
- The human organism is self-regulating and self-healing.
- Structure (anatomy) and function (physiology) are reciprocally interrelated.
- The function of the musculoskeletal system goes beyond support and may be vital in the diagnosis and treatment of disease.

Dr. Still's philosophy of health care and his world view resulted in the introduction of some revolutionary concepts for his time:

- The role of the physician is to seek the health of patients, not simply to treat disease or symptoms.
- The human organism continually strives toward health, and disease is a disruption of this process.
- Disease in any body system will affect the entire body.

- The work of the physician includes assisting the patient's own body in fighting disease.
- All qualified individuals, regardless of race or sex, should be given the opportunity to become a physician. (His was the first medical school of any type to have an anti-discrimination policy, which it had from its beginning.)

What Makes Osteopathic Medicine Unique? – TUCOM

In the United States, there are only two types of medical schools – allopathic (grants M.D. degree) and osteopathic (grants D.O. degree). The osteopathic profession is a minority profession and consists of approximately 16% of the practicing clinicians in our country. In the past, a majority of osteopathic physicians practiced primary care (family medicine, general internal medicine, and pediatrics) and tended to establish clinics in underserved or rural areas. Although this is slowly changing today, many schools of osteopathic medicine still lead the nation in the development of primary care physicians. All schools of osteopathic medicine continue to embrace the basic tenets of Dr. Andrew Taylor Still and incorporate these concepts within the curriculum. All students in osteopathic medicine learn the traditional medicine curriculum plus develop competencies in osteopathic manipulative medicine, a form of manual medicine originally developed by Dr. Still and continuously enhanced by the profession. The philosophy of osteopathic medicine, first enunciated by Dr. Still in 1874, is still true today. Osteopathic medicine continues to emphasize preventative medicine, a holistic approach to patient care, and empowering the patient to strive toward health and not disease.

For additional information about osteopathic medicine, the following references are recommended:

Gevitz, Norman: *The D.O.'s: Osteopathic Medicine in America*, The Johns Hopkins University Press, Second Edition, Baltimore 2004

Trowbridge, Carol *Andrew Tayler Still: 1828; 1917*, Thomas Jefferson University Press, Northeast Missouri State University, Kirksville, Missouri, 1991

Walter, Georgia Warner *Osteopathic Medicine: Past and Present*, Kirksville College of Osteopathic Medicine, Kirksville, Missouri, 1981.

Ward, Robert C. *Foundations for Osteopathic Medicine*, Lippincott Williams & Wilkins, 2002

Synopsis of Curriculum

The curriculum of TUCOM stresses the interdependence of the biological, clinical, behavioral and social sciences. Emphasis is on the education of physicians for primary care medicine and the specific roles of osteopathic principles in the maintenance of health and treatment of disease. The TUCOM curriculum is a continuously evolving educational program designed and developed by the faculty to meet the ever changing demands of medical education and the mission of TUCOM. New courses and changes in existing course work are initiated by the faculty in their respective departments and are approved by the Curriculum Committee and the Dean.

The educational program is centered on the basic concepts of osteopathic medicine. The academic program is intended to meet the following goals:

- I. To emphasize the role of the patient in the maintenance of health.
- II. To recognize and emphasize the inherent capacity within each person to overcome disease and maintain health; to educate physicians to cooperate with this therapeutic capacity in their methods of treatment.
- III. To offer a curriculum that will interest students in primary care and prepare them to provide quality, comprehensive health care to their patients.
- IV. To provide sufficient academic training to make students analyze health-care decisions, promote wellness, and empower patients to assume responsibility for their own health.

A primary care physician must first of all be capable of problem solving and the development of expertise in diagnosis. In order to achieve this goal, the curriculum adopted at TUCOM emphasizes the integration of basic and clinical science aspects of medical practice. With this approach, practice in problem solving becomes a part of the daily classroom and clinic experience. The TUCOM Faculty has adopted the following core competencies which will guide curriculum development and assessment.

- Osteopathic Philosophy and Osteopathic Manipulative Medicine
- Medical Knowledge
- Patient Care
- Interpersonal and Communication skills
- Professionalism
- Practice-based learning and improvement
- Systems-based practice

The curriculum includes two principal phases:

- I. Teaching of the fundamentals of basic sciences, followed by the study of the organ systems of the body, incorporating both basic and clinical sciences. This is integrated with an osteopathic approach to the art and science of doctoring including the fundamentals of history-taking, physical diagnosis, primary care skills, and osteopathic principles, practice, and philosophy.
- II. Clinical experience and clinical clerkships

Description of Courses

Courses are subject to change through normal academic channels. New courses and changes in existing course work are initiated by the responsible departments, recommended by the Curriculum Committee and approved by the Dean.

For Classes up to and including the Graduating Class of 2010

First Year

The first year is designed to introduce students to the basic concepts of human anatomy (gross anatomy, neuroscience, histology, and embryology), biochemistry and physiology. Interwoven throughout the curriculum are osteopathic principles and practice, introductions to clinical medicine, physical diagnosis, problem based learning, and preventive medicine and public health.

Introduction to Biochemistry and Tissues (2 units)

The Introduction to Biochemistry portion of the course provides a brief introduction to several key biochemical concepts and processes that are central to organ and cell function. These include: the structure and function of proteins; pH, acids and buffers; general anabolism and catabolism; and the transmission of extracellular signals to bring about intracellular events. The Introduction to Tissues portion of the course provides an overview of basic cell structure. In addition, two basic tissue types will be described: the epithelial and connective tissues. This overview will act as the basis for the more in-depth study of all tissues that will occur as part of the Basic Science Foundation course.

Basic Science Foundations for Osteopathic Medicine 1 (7 units) & 2 (7.5 units)

Basic Science Foundations for Osteopathic Medicine is an integrated basic science course designed to demonstrate the natural relationships of material presented in traditional physiology, biochemistry, and histology courses. The basic principles of all three disciplines are presented, but the material is organized in a unified matrix centered on organ systems. For each organ system the histology, physiology, and biochemistry are described, not as isolated facets, but as thoroughly related properties. The emphasis is on the normal functioning of each system and its relationship to total body function. Some organ pathology is introduced. Principles of osteopathic medicine are applied where applicable within the various organ systems. Organ systems to be covered include nerve/homeostasis, muscle/connective tissue, cardiovascular, liver/nutrition, blood/lymph, respiratory, renal, gastrointestinal, endocrine/reproductive, and molecular aspects of medicine.

General Human Anatomy 1 & 2 (5 units per semester)

These courses present the observable structure, function, and clinical manifestations of the human body through lectures and cadaver dissection laboratories. General Human Anatomy integrates the systems of the body with anatomical regions, embryological development, and diagnostic imaging. The course emphasizes anatomical knowledge that relates to the practice of osteopathic medicine. The lectures emphasize developmental, functional and clinical anatomy. The laboratories offer a challenging series of dissection exercises that promote discovery-based learning.

Neuroscience (5 units)

This course, which begins in the fall but is completed in the spring, is designed to introduce the student to the normal anatomy and function of the central nervous system. This comprehensive course covers basic neuroanatomy, neurophysiology and an introduction to neurology in both a lecture and laboratory format. The course builds on knowledge of neural structure and function to encompass complex brain activities such as sleep, learning and memory, emotion, language, and cognition.

Basic Science Foundations of Infection and Immunity (1 unit)

This spring course is intended to provide the student with insight into the foundations of microbial pathogenesis and treatment of infectious diseases of the human body. The course begins by examining in detail the basic mechanisms by which the immune system functions in protecting against infection. The basic principles of microbial pathogenesis will then be described along with the characteristic features of the major types of microbial pathogens.

Problem Based Learning (0.5 units)

This spring course provides a student-centered, faculty-facilitated series of small group work sessions, in which clinical cases will be presented. Each case will provide an opportunity to develop clinical reasoning skills. Students will analyze and synthesize the available data, develop and test hypotheses, consult journals, conduct on-line searches, and collaborate with other members of the group in the process of developing diagnoses and prevention/treatment options.

Osteopathic Manipulative Medicine 1 & 2 (3 units per semester)

OMM 1

This course is designed to introduce the basic tenets, philosophy, principles and practice of osteopathic medicine. Instruction will be started in the art and science of palpation that will be utilized and continue to develop throughout medical practice. Biomechanics of the spine, physiological motion, regional and segmental diagnosis, history and research will be covered. Additionally, identification of landmarks, introduction to radiographs, the osteopathic structural exam, Soft Tissue techniques, Lymphatic techniques, Muscle Energy techniques, Counterstrain techniques and High Velocity/Low Amplitude Thrust techniques will be taught.

OMM 2

This course is designed to continue instruction in the art and science of palpation, osteopathic structural diagnosis and manipulative treatment. Regional and segmental diagnosis, Mitchell model of pelvic diagnosis, management of short leg, and research will be covered. Additional Muscle Energy techniques, Counterstrain techniques and further work in the Cranial model will be taught.

Introduction to Clinical Medicine 1 & 2 (2 units per semester)

This course is designed to introduce students to the common experience of osteopathic physicians in clinical practice. It will lay foundations for the care of patients in medical setting by examining the interaction of the biological, behavioral, and social factors involved in health. It will focus on the many roles of the physician, development of clinical reasoning, approaches to medical care, medical ethics and cultivating professionalism. The importance of partnership with others will be a common theme.

Physical Diagnosis 1 & 2 (2 units per semester)

The Physical Diagnosis course consists of lecture and lab experience designed to allow the student to develop beginning level skills in history taking and physical examination; beginning clinical reasoning, and proficiency in use of basic diagnostic tools and presentation of case materials in written and/or oral format with appropriate documentation. Osteopathic principles are included as appropriate to the systems. Screening (asymptomatic) exam serves as the template; examples of focused exams are provided as illustration. Practical exams are required and teaching includes standardized patients in lab.

Preventive Medicine and Public Health (2 units)

This fall course covers a variety of topics including: an overview of public health and health care delivery systems; an introduction to evidence-based medicine; epidemiology; definitions and applications in prevention and control of communicable and chronic diseases; biostatistics and hypothesis testing; definitions and appropriate uses; major public health issues for families, children, and older adults; managed care; and legal and ethical aspects of medical and public health practices.

Second Year

In the second year, the basic and clinical sciences concerned with one particular organ system of the body are integrated in classroom instruction. This approach emphasizes the relevance of basic sciences to clinical practice. The osteopathic approach is continually emphasized by lecture and laboratory demonstration of manipulative techniques. A year long course in behavioral medicine and psychiatry is also provided.

Medical Microbiology and Immunology 1 & 2 (2.5 units per semester)

These courses build upon the Basic Science Foundations of Infection and Immunity course provided in the first year. Clinical microbiology and immunology is taught in a systems-based approach intended to provide the osteopathic medical student with insight into the epidemiology, pathogenesis, clinical manifestations, and treatment of pathogen-induced diseases of the human body. Individual groups of pathogens and the diseases that they cause are presented. How the immune system fights infection, causes disease, and how it can be used as a diagnostic and therapeutic tool is also examined.

Pathology 1 & 2 (3 units per semester)

The objective of these courses is to provide a sound foundation for the understanding of the etiology, diagnosis, progression, and appearance of human disease processes. The courses describe these conditions from the molecular to the organismal levels. The first phase addresses the fundamental principles common to all disease processes, and continues to examine each major organ system in a logical and thorough fashion, with emphasis on the clinical manifestations of each disease condition. Cell injury and death, inflammation, repair and adaptive processes, hemodynamic alterations, neoplasia, chemical and physical injuries, and infectious disease processes are discussed in great detail. A weekly laboratory session is included which enhances the understanding of the morphologic alterations in diseased tissues, as well as to promote diagnostic skills at the gross and microscopic levels. Projected material, as well as human tissue specimens in whole and glass slide formats, are included in the laboratory experience.

Pharmacology 1 & 2 (3.5 units per semester)

These courses consist of comprehensive lectures and clinical correlations which present general principles of pharmacodynamics and pharmacokinetics, followed by a systematic investigation into the pharmacological agents based on drug group classification. The major emphasis is on the clinically significant aspects of therapeutic effects, toxic effects, and the metabolism of drugs. Receptor concepts among various drug groups will be discussed. Upon completion of the course, students are expected to understand appropriate pharmacological treatment for disease processes involving the major systems.

Osteopathic Manipulative Medicine 3 & 4 (2 units per semester)

OMM 3

This course is designed to continue instruction in the art and science of palpation, osteopathic structural diagnosis and manipulative treatment. The course will begin with a review of the osteopathic structural exam, diagnosis and treatment of the pelvis.

Additionally, Counterstrain approach to the pelvis, Chapman's reflexes, evaluation and treatment of the upper and lower extremities, Articular/Still technique, Muscle Energy of the cervical spine, High Velocity/Low Amplitude Thrust of the OA joint and further study of the Cranial model will be taught.

OMM 4

This course is designed to continue instruction in the art and science of palpation, osteopathic structural diagnosis and manipulative treatment. The course will focus on an integrated approach to utilizing osteopathic diagnosis and treatment in the management of a variety of inpatient and outpatient common clinical problems. Focused evaluation and treatment with a variety of manipulative models will be stressed to prepare students for clinical rotations and future practice. These will include osteopathic management of respiratory, cardiovascular, gastrointestinal, genitourinary, post surgical, obstetric, and pediatric patients. Additionally,

osteopathic management of headache, neck pain, thorax problems, low back pain, upper and lower extremity problems will be covered.

Clinical Systems 1 (10 units) and 2 (11 units)

Each organ system is presented beginning with a review of the pertinent basic science concepts. Pathophysiology and clinical manifestations of diseases affecting each system are presented along with appropriate diagnostic and treatment modalities. Special topics unique to individual systems are also included, e.g., pediatrics, geriatrics, sports medicine, normal and abnormal pregnancy, labor and delivery, human sexuality, etc. Pathology, Medical Microbiology and Immunology, and Pharmacology course presentations are closely coordinated and integrated with Clinical Systems lectures, as is Primary Care Skills. The following systems are investigated in this two-semester course.

Musculoskeletal System

Respiratory/ENT System

Renal System

Cardiovascular System

Dermatology System

Hematology/Oncology System

Gastroenterology System

Nervous System

Endocrine System

Reproductive System

Primary Care Skills 1 & 2 (1 unit per semester)

Primary Care Skills provides laboratories and small group experiences designed to teach practical clinical skills. Students gain practice in the development of patient history and physical skills, differential diagnosis, clinical reasoning, appropriate professional presentation and documentation, as well as specific procedures essential in primary care practice. Osteopathic principles are reinforced as appropriate to each system. The sessions are closely aligned with topics being presented in the lecture-based Clinical Systems course.

Laboratory Diagnosis in Family Practice (1 unit)

Through lectures and workshops, students learn to organize and interpret laboratory data in order to further develop their clinical problem solving abilities. This spring course complements the Pathology and Clinical Systems courses by focusing primarily on frequently encountered and illustrative human diseases and the typical laboratory reports that are obtained from patients with such conditions.

Behavioral Medicine and Psychiatry 1 & 2 (2 units per semester)

These courses cover a variety of topics in basic behavioral medicine and psychiatry, including, but not limited to: the psychiatric interview; emotional reactions to illness;

anxiety disorders; mood disorders; sexual disorders; child and adolescent development and psychopathology; suicide; violence, including domestic violence; personality disorders; somatoform and factitious disorders; legal and ethical issues; and addiction medicine.

Orientation to Clinical Rotations (1 unit)

This course provides an introduction to clinical rotations immediately prior to students' beginning clinical years. Topics include medical-legal considerations (including HIPAA), roles of members of the health care team (including the medical student), and expectations and responsibilities of students in clinical settings. Resource information is presented, including library and off-campus resources. ACLS training and workshops in laboratory diagnosis are an integral part of the course.

For Classes beginning with the Graduating Class of 2011

First Year

Fundamentals of Osteopathic Medicine (12 units)

Fundamentals of Osteopathic Medicine is a fall course that presents the scientific basis of clinical medicine. Students will learn the aspects of biochemistry, anatomy, physiology, histology, genetics, pharmacology, pathology, microbiology and immunology that are necessary to begin study of the organ and tissue systems of the body. The course will end with the study of the first such tissue system, hematopoietic and lymphoid system, in the context of medical science and the disease process.

Osteopathic Doctoring 1 (3.5 units) and 2 (4 units)

Osteopathic Doctoring is an integrated and comprehensive course that spans the first two years of the osteopathic medical school curriculum. It is founded in and expressed through the cornerstone of the four Osteopathic principles and provides the cognitive and kinesthetic skills for future physicians to provide medical care in a competent and compassionate fashion.

The Osteopathic Doctoring course encompasses four subdiscipline areas of study which include clinical skills, clinical reasoning, professional practice, and early clinical experience. These subdisciplines allow the osteopathic medical student to learn basic physical examination and equipment skills and apply them to patient scenarios while integrating knowledge from the Integrated Systems and Osteopathic Manual Medicine courses. The goal of this course is to produce future osteopathic physicians who manifest lifelong learning skills to facilitate health in his/her self, patients, and community through the evolving profession of osteopathic medicine.

Osteopathic Manipulative Medicine 1 (3.5 units)

This fall course is designed to introduce the basic tenets, philosophy, principles and practice of Osteopathic medicine. Specifically, this course will introduce the foundations of the art and

science of Osteopathic palpation, as well as spine biomechanics, physiologic motion, regional and segmental diagnosis, and Osteopathic medical history and research. Additional didactic concepts as well as kinesthetic skills will be introduced in the areas of anatomical landmark identification with introduction to radiographs, the Osteopathic structural exam, Soft Tissue techniques, Lymphatic techniques, Muscle Energy techniques, Counterstrain techniques, and High Velocity/Low Amplitude Thrust techniques. Course assessment will include didactic concepts, applied kinesthetic skills, and overall professionalism.

Osteopathic Manipulative Medicine 2 (3.5 units)

This spring course is intended to reinforce and progress the student forward in the art and science of Osteopathic palpation regional and segmental diagnosis as well as Osteopathic theory, principles, anatomy, biomechanics. The introduction of the Mitchell model of pelvic diagnosis and Osteopathic management of short leg syndrome will occur while further exploration in Muscle Energy techniques, Counterstrain techniques, and Osteopathic research will be offered. Additionally, an introduction to Osteopathy in the Cranial Field will be presented. Course assessment will include didactic concepts, applied kinesthetic skills, and overall professionalism.

Integrated Systems: The Cardiovascular, Respiratory and Renal Systems (15.5 units)

This is a spring course that provides the students with a strong initial understanding of the structure, function and clinical science of the cardiovascular, respiratory, and renal systems. The material is learned in a stepped approach that begins with an overview of normal anatomy and physiology of all three systems. In this basic science overview, students gain a broad picture of the three systems and affirm perspective on their interrelationships. This knowledge base is required to fully understand the pathophysiology, diagnosis, and management of the various disease states that occur when these interconnected systems fail. Upon completion of this portion of the course, students proceed to study the etiology, pathophysiology, pathology, diagnosis and management of the diseases associated with the cardiovascular, respiratory, and renal systems. After gaining knowledge in these areas, a clinical wrap-up provides an opportunity for the clinical faculty to guide the students in developing thought processes that make optimal use of their newly gained knowledge, critical thinking and diagnostic skills. Most importantly, this wrap-up segment provides a comprehensive, osteopathically-directed clinical overview of the three systems.

Second Year

Osteopathic Doctoring 3 (5.5 units) and 4 (4 units)

See course description for Osteopathic Doctoring 1 and 2. As described above, Osteopathic Doctoring is an integrated and comprehensive course that spans the first two years of the osteopathic medical school curriculum.

Osteopathic Manipulative Medicine 3 (3 units)

This fall course is intended to continue instruction in the art and science of Osteopathic palpation, structural diagnosis and manipulative treatment, with an ever increasing expectation of diagnostic accuracy and technique efficacy. The integrative concepts of Tensegrity, Lymphatics, Chapman's points, and Prolotherapy will be introduced as well as further exploration of Osteopathy in the Cranial Field. The clinical challenges of Headaches and Upper Respiratory issues will be addressed from an Osteopathic point of view. Further techniques of Facilitated Positional Release, Still, and Myofascial Release will be introduced along with the application of prior Osteopathic diagnostic and treatment modalities applied to the upper and lower extremities. Course assessment will include didactic concepts, applied kinesthetic skills, and overall professionalism.

Integrated Systems: The Musculoskeletal System/Neurology (14 units)

This fall course consists of two sections: the Musculoskeletal section and the Neurology section.

The Musculoskeletal section will provide the knowledge base for understanding of the fundamental relationship between structure and function in this important system, which is indispensable for a deep understanding of muscle, bone and joint disorders. A discussion of the most important pathologies and their epidemiology, pathophysiology, clinical presentation, diagnostic features and principles of management will be the cornerstone of all the lectures. The section could also be described as an introduction to Orthopedics and Rheumatology.

The Neurology section is composed of three major areas: neuroanatomy, neurobiology and neurology. This section starts with a short medical student focused neuroanatomy section. A solid knowledge of the functional anatomy and physiology of the normal central nervous system is essential to an understanding of the pathological processes, diagnosis and treatment of neurological diseases. An integrated functional neurobiology and neurology section follows. This section is designed to integrate basic information concerning the structure and function of the nervous system with clinical information relevant to the practice of medicine.

Osteopathic Manipulative Medicine 4 (2.5 units)

This spring course is designed to begin the transition from the basic application of Osteopathic diagnostic and treatment modalities to a more fluid integration of Osteopathic principles, diagnosis, and treatment. The course will exhibit continued increasing expectations in performing diagnostic accuracy, and intelligent technique selection with execution finesse for a variety of clinical challenges such as - Low Back Pain, Temporal Mandibular Joint issues, Short Leg Syndrome, Scoliosis, Thoracic Outlet Syndrome, Cardiovascular patients, Obstetrics and Gynecology patients, Pediatric patients, and Hospitalized patients. An introduction to Visceral manipulation will be given as well as Osteopathic considerations in Trauma, Exercise prescriptions, and the topic of Complimentary and Alternative Medicine. Course assessment will include didactic concepts, applied kinesthetic skills, and overall professionalism.

Integrated Systems: Gastrointestinal System, Endocrinology, Reproduction, and Dermatology (GERD) (12 units)

This is a spring course. The IS-GERD course is divided into four units, each with its own specific modules or “themes”. The goal of the course is to develop a deep understanding of biological, diagnostic and therapeutic principles that allow for optimal health and patient care. Specifically, this course will provide students with a strong understanding of physiology, biochemistry, histology, anatomy, pathology, pharmacology, microbiology and clinical sciences as they relate to the organ systems within each unit of the course. In addition, a deep knowledge base using both clinical and basic science will be developed in order to optimize success on board examinations and clinical rotations. The course runs for nearly an entire semester and will be coordinated with Osteopathic Doctoring and OMM, with special attention to integration of osteopathic considerations in health and disease.

The Gastrointestinal unit is designed to develop an essential understanding of basic biological and clinical diagnostic and therapeutic principles relevant to patient health and osteopathic care. The unit includes discussion of the gastrointestinal tract, the hepatobiliary system, and the exocrine pancreas. Basic concepts are provided as the necessary foundation for transition into the clinical sciences section of the unit.

The Endocrine unit is designed to aid the student in the recognition, diagnosis, and treatment of endocrine disorders. Upon completion of this unit, the student will be able to answer questions that demonstrate an understanding of the role of each endocrine organ, its hormones and normal feedback mechanisms. The student will also be able to describe important conditions arising from glandular dysfunction. The student will be able to discuss differential diagnosis, work-up, management, and prevention of such conditions.

The Reproductive System unit begins with a description of basic concepts related to normal structure and function of the male and female reproductive systems with particular emphasis on clinically related concepts. The unit includes discussion of age-related physiologic and structural changes and the principles of common diseases in the male and female reproductive systems. Basic concepts are provided as the necessary foundation for transition into the applied clinical sciences section of the unit, which includes clinical and laboratory diagnosis, treatment, common complications, and expected clinical outcomes of common male and female reproductive disorders. Prenatal, intra- and postpartum care of the mother and infant are also discussed.

The Dermatology unit is designed to aid the student in the recognition, diagnosis, and treatment of dermatologic disorders. The objectives for each lecture provide the details and define the range of material for which students will be responsible.

Capstone Course (3 units)

The Osteopathic Capstone Course is an intensive experience in critical analysis and application, designed to broaden the students' perspectives beyond their training and discipline and provide an opportunity for integration of previous courses in osteopathy and in the core curriculum. This course requires students to examine complex issues through writing and oral presentations, physical demonstrations, manual procedures, problem solving and decision making. Entrance into the capstone course follows completion of other parts of the core curriculum; therefore this course is designed for second year students embarking on core clinical rotations. Topics of the capstone course may include issues relating to: osteopathic principles and practice, patient care, medical knowledge, practice based learning, interpersonal and communication skills, professionalism, cultural competency, systems based practice and lifelong learning. Students will be immersed in learning modules that are case based with the objectives of: integrating knowledge, history, and physical examination; developing differential diagnoses; critical thinking and medical problem solving to synthesize decision making that affects outcomes.

Elective Courses

Elective courses are usually given one unit of credit, although there are exceptions, and grading is on a pass/fail basis. Not all approved electives are offered every year.

Advanced Anatomy 1 and 2 (1 unit each)

The objective of these courses is to formalize student prosection into a directed learning experience that benefits both the enrolled students (in terms of focused study of human anatomy and potential development of research projects) and the students taking *Human Anatomy* as part of the curriculum of any of our colleges. The elective is open to second year osteopathic medical students and to students who have taken the anatomy course that is offered as part of the physician assistant program. Participants will perform directed prosections in pursuit of their own learning projects and for extended study by first-year students in these programs. Enrollment in Advanced Anatomy I is not a prerequisite for enrollment in Advanced Anatomy II and the topic areas are distinct.

Advanced Nutrition (1 unit)

The Advanced Nutrition elective provides the opportunity to examine in more depth the effect of nutrition on health. It starts later in the first semester to allow first year Osteopathic Medical Students the opportunity to finish the introduction to nutrition portion of the Fundamentals Course. The course will cover those aspects of nutrition that are becoming more prominent public health concerns. The topics covered have been chosen to appeal to the holistic health professional. This course will emphasize the importance of sound nutrition in preventing and/or treating disease. Selected experts from the Bay Area and TUCOM are among the list of lecturers.

Biomedical Research 101 (1 unit)

This course is an introduction to basic and clinical research in medicine, but assumes no background in research methods or statistics. It is tailored for medical students with an interest in performing research on campus or during rotations. It can also serve as the basic course for residents preparing their monographs (OPTI). The course provides a general overview of the ways that biomedical researchers generate a research question, evaluate the literature, generate a hypothesis, elaborate aims, and generate a research proposal. The course also provides a foundation for locating and evaluating medical information, a general outline of the main data analysis strategies, and the responsible conduct of research. This is not a statistics course.

Clinical Biochemistry (2 units)

This elective is an introduction to basic biochemical laboratory tests and the pathophysiology that underlies the changes found in diseases. It is tailored for medical students with an interest in obtaining a deeper understanding of this subject than is provided in the core curriculum or who lack previous formative experiences in the subject. Several hands-on laboratories and use of equipment will complement the theory. The whole objective of the course is to concentrate on how clinical biochemistry relates to the care of the patient and to ensure that the medical student understands how to interpret laboratory data.

Global Health: Health and Disease in the Developing World (1 unit)

Unit 1 provides an opportunity for an examination of basic issues of health in developing countries with country and specific diseases given as examples for each issue. Unit 2 familiarizes students with current strategies for implementation and delivery of intervention programs and provides an opportunity for students to critically analyze the intervention and public health programs in developing countries. Unit 3 introduces the student to the role of social, cultural, environmental and developmental factors in shaping various aspects of health in developing countries. Unit 4 introduces the student to challenges of policies and strategies in public health – a comparative study. This course, offered in the spring semester, is a prerequisite to Global Health: Summer Internship.

Global Health: Summer Internship (3 units)

The mission of the Global Health Summer Internship is to serve, to learn, and to teach. The summer program has been set up to provide the TUCOM students interested in Global Health and Tropical Medicine an opportunity to learn about various endemic diseases around the globe, improve on their clinical skills in the diagnosis and management of these diseases and begin to understand the challenges that confront medical practitioners specifically in developing countries. The internship also offers avenues for research and service learning projects particularly in the area of public health. Available sites currently include Bolivia, Tanzania and Ethiopia, for clinical, research and service projects and Taiwan and Israel for clinical training only. The summer internship is not designed to be an elective rotation for credit for TUCOM students, although the sites are available for elective rotations.

Healthcare Policy (1 unit)

This elective will include a series of talks and debates focused on timely topics such as: healthcare policy, healthcare reform, universal health care, single payer plans (pros and cons), roles of professional medical organizations, legislative advocacy, the legislative process, health information technology, advanced health care directives, language access, cultural proficiency and workforce diversity.

Human Growth and Variation (1 unit)

In this seminar-discussion course, the biological and behavioral foundations of human growth and variation are considered: what is normal, abnormal, common to all people or exclusive to certain groups? How does the body grow from birth to adulthood and what genetic, environmental, and cultural factors influence the outcome? Clinical conditions related to the growth process and congenital diseases that reflect the recent histories of ethnic groups are discussed. Modern human ethnic or "racial" variation is considered as it relates to models for global dispersion and colonization. The course also considers behavioral aspects of culture, such as diet, nutrition, and activity levels as they relate to the spectrum of clinical problems in our society.

Medical Spanish 1 (1 unit)

The overall objective of this course, which is intended to be a beginner's course, is to help the student to determine the chief complaint of the Spanish-speaking patient, provide basic medical instructions, obtain information about the patient, and answer the patient's most common questions. These objectives will be achieved through teaching of Spanish medical terminology, colloquial words and phrases, and some basic grammar, as well as through practice sessions in conducting histories and physicals in Spanish.

Medical Spanish 2 (1 unit)

The objective for this second medical Spanish course is to improve the students' knowledge acquired during level 1 and expand their medical vocabulary. This objective will be achieved through intensive practice of histories and physicals in Spanish each week on a different organ system, practicing patient presentations and providing some written assignments.

Postpartum Care for the Mother and Infant (2 units)

The goals of this elective are: to prepare healthcare providers to feel comfortable counseling pregnant and breastfeeding mothers in infant feeding choices; to teach approaches in the initial postpartum period that help initiate breastfeeding successfully; to give algorithms to help maintain successful lactation on follow up health care visits; to discuss management styles of the well mother-baby lactating couple; to learn ways to maintain lactation of the mother-infant couple in the instance of illness or hospitalization; to investigate troubleshooting strategies for the poorly lactating mother or the failure-to-thrive baby due to poor suckling; to explore utilization and management of medications entering mother's milk and the effects on the

suckling infant; to explore maternal employment and the commercial formula industry's influences on infant feeding choices, and to discuss weaning, including outcomes of the duration of breastfeeding, societal norms, counseling mothers and deleterious effects of early weaning.

Pregnancy Partners (1 unit)

This program is designed to allow first year osteopathic medical students to observe and act as advocates in the prenatal care, labor, and delivery of a prospective mother. The prospective mothers are clients of "Great Beginnings Prenatal Services" operated through Sutter-Solano Medical Center in Vallejo, CA. In the program a TUCOM student is matched with a prospective mother, attends all prenatal office visits, and is present during labor and delivery, as well as for the first postpartum office visit. The student will observe the relationships developed between the prospective mother and her health care providers and the protocol of the labor and delivery rooms. The student will act as an advocate only, e.g., encouraging the prospective mother to ask any questions she might have at her office visits, reminding her of her visits, but never dispensing medical advice. The course will also include lectures on a variety of topics related to maternal and fetal health.

Summer Clinical Preceptorship (1 unit)

This class is intended to provide students with the opportunity to apply basic science knowledge in a clinical setting during an otherwise non-academic time; i.e., between the first and second years. Students will, with approval of the course coordinator, work with a faculty member of TUCOM, a clinician at another institution, or a licensed physician in the community, in order to observe medical practice in an area of medicine and a clinical setting of their choice.

The Healer's Art (1 unit)

The Healer's Art, developed by Dr. Rachel Naomi Remen, was first presented at the University of California San Francisco School of Medicine in 1993 and, as of 2008, had been successfully replicated in 59 medical schools in the US and abroad. It addresses the hidden crisis in medicine, the growing loss of meaning and commitment experienced by physicians nationwide under the stresses of today's health care system. The course is comprised of five interactive sessions entitled: Discovering and Nurturing Your Wholeness; Sharing Grief and Honoring Loss 1; Sharing Grief and Honoring Loss 2; Beyond Analysis: Allowing Awe in Medicine, and The Care of the Soul: Service as a Way of Life.

Clinical Experience

The philosophic framework of clinical education and training at TUCOM is that of preparing students to pursue careers in a primary care specialty. The program will educate students to become competent osteopathic physicians who clearly recognize their roles as providers of comprehensive healthcare to the individual, to the family as a unit, and to communities.

Primary care physicians must be able to function in the role of leader of the healthcare team to bring about needed change from the level of the individual to the level of the community. The ultimate intent of the program is to prepare primary care physicians who will impact positively on the quality of healthcare and healthcare delivery systems and will improve access for individuals and their families. In today's healthcare world, primary care physicians are an integral factor to the efficient functioning of the healthcare system. Students' attitudes and learning will be directed toward understanding the role of the primary care physician, while recognizing the need for consultation with other medical specialists when appropriate. The TUCOM staff and faculty believe that the primary care physician must assume a leadership role not only in the medical community, but in the broader community in which he/she serves. Community leadership is an integral part of improving the healthcare of the community as a whole; thus, primary care physicians must be motivated toward the prevention of illness and the upgrading of the delivery of healthcare services at extended levels. In pursuit of the goal of excellence, the TUCOM clinical curriculum is a challenging blend of the traditional and innovative, designed to:

- Foster the analytic and problem-solving skills requisite for physicians involved in disease prevention, diagnosis, and treatment in individual patients, in families, in communities, and in populations at large.
- Ensure the acquisition of basic clinical knowledge and essential clinical skills.
- Develop an understanding of contemporary healthcare delivery issues.
- Cultivate effective physician-patient relationships based upon integrity, respect and compassion.
- Develop high ethical standards.
- Promote a lifelong commitment to learning. As a result of two years of clinical training, students will see the primary care physician as being able to:
- Demonstrate clinical excellence, using current biomedical knowledge in identifying and managing the medical problems presented by his/her patients.
- Provide continuing and comprehensive care to individuals and families.
- Demonstrate the ability to integrate the behavioral/emotional/social/environmental factors of families in promoting health and managing disease.
- Recognize the importance of maintaining and developing the knowledge, skills, and attitudes required for the best in modern medical practice in a rapidly changing world.
- Undertake a regular and systematic program of lifelong learning.
- Recognize the need and demonstrate the ability to use consultation with other medical specialties while maintaining continuity of care.
- Share tasks and responsibilities with other health professionals.
- Be aware of the findings of relevant research; understand and critically evaluate this body of research; and apply the results of the research to medical practice.
- Practice in a business-like, cost-effective manner.

Clinical Clerkship Program

There are a total of twenty-two (22) clerkship periods. Sixteen (16) of these are assigned in a manner prescribed by the Curriculum Committee and the Clinical Education Deans to assure

that every student obtains the core experience needed to become a well trained osteopathic primary care physician.

Flexibility is provided by two (2) electives during the 3rd year and four (4) electives during the 3rd and 4th year, and one month of vacation each year to give the student ample opportunity to pursue his/her special interest. Whenever possible, we use hospitals approved by the AOA for post-doctoral training because the inspections by the AOA, in addition to our own, provide assurance of adequate teaching material and faculty. Also, the interaction with the house staff increases the student's opportunity for learning. In addition, we have ambulatory training sites that range from private practices to urban and rural health centers. The clerkships provided at each site and the number of students assigned to each site from TUCOM are determined by mutual agreement of the Hospital Administrator, Director of Medical Education, Clinical Faculty and the TUCOM Office of Clinical Education.

For more detail on the specific core and elective rotations, please refer to the Clinical Rotation Manual at http://www.tu.edu/user_files/239/TUCOM_Clinical_Rotation_Manual_2009-2010_Final.pdf

ACADEMIC CALENDAR

TOURO UNIVERSITY College of Osteopathic Medicine 2009-2010 Calendar

FALL 2009		
August 3-5	Monday- Wednesday	Orientation for first-year students
August 6	Thursday	Fall classes begin for first year (OMS I) and second year (OMS II) osteopathic medical students
August 23	Sunday	White Coat Ceremony – OMS I
September 7	Monday	Labor Day Holiday; University closed
September 14-17	Monday – Thursday	Exam Block I -OMS I and OMS II
September 18	Friday	Eve of Rosh Hashanah, University closed
September 19-20	Saturday - Sunday	Rosh Hashanah, University closed
September 27	Sunday	eve of Yom Kippur, University closed
September 28	Monday	Yom Kippur, University closed
October 2	Friday	eve of Sukkot, University closed
October 2-11	Friday – Sunday	Sukkot, Shemini Atzeret, Simchat Torah -Fall Break – no classes (OMS I and OMS II)
October 3-4	Saturday-Sunday	Sukkot, University closed
October 9	Friday	eve of Shemini Atzeret, University closed
October 10-11	Saturday - Sunday	Shemini Atzeret, Simchat Torah; University closed
October 12	Monday	Classes resume – OMS I and OMS II

November 6, 9-10	Friday, Monday – Tuesday	Exam Block II – OMS I
November 9-11	Monday – Wednesday	Exam Block II – OMS II
November 26	Thursday	Thanksgiving, University closed
November 27	Friday	Day after Thanksgiving, University closed
December 14-16	Monday - Wednesday	Exam Block III – OMS I
December 14-18	Monday-Friday	Exam Block III – OMS II
December 25	Friday	Christmas, University closed
SPRING 2010		
January 1	Friday	New Year's Day, University closed
January 4	Monday	Spring classes begin, OMS I and OMS II
January 18	Monday	Martin Luther King, Jr. Holiday, University closed
February 1–3	Monday - Wednesday	Exam Block I - OMS II
February 15	Monday	President's Day Holiday, University closed
February 16-19	Tuesday-Friday	Exam Block I – OMS I
February 25	Thursday	Ta'anit Esther
February 28	Sunday	Purim
March 1-3	Monday- Wednesday	Exam Block II – OMS II
March 12	Friday	Research Day
March 24-26	Wednesday-Friday	Exam Block II – OMS I
Mar 27-April 6	Saturday – Tuesday	Passover/Spring Break -no classes (OMS I and OMS II)
March 29	Monday	Eve of Passover, University closes at noon
March 30-31	Tuesday – Wednesday	Beginning of Passover, University closed
April 4	Sunday	Eve of end of Passover, University closed
April 5-6	Monday-Tuesday	End of Passover, University closed
April 7	Wednesday	Classes resume – OMS I and OMS II
April 15-20	Thursday – Tuesday	Exam Block III – OMS II
April 21	Wednesday	Start of Capstone course – OMS II
May 17, 24-27	Monday, Monday – Thursday	Exam Block III – OMS I
May 18	Tuesday	Eve of Shavuot, University closes at noon
May 19-20	Wednesday-Thursday	Shavuot, University closed
May 27	Thursday	Latest potential end date for Capstone course – OMS II

May 31	Monday	Memorial Day Holiday, University closed
June 6	Sunday	Graduation, Class of 2010
June 21	Monday	3rd year rotations begin

Please note: This calendar shows major examination blocks only and is not inclusive of all examination dates that may occur within specific courses. Also, spring examination blocks are tentative as of publication date of this catalog.

ADMISSIONS, REGISTRATION, TUITION AND FEES

Admission to TUCOM

Admission Requirements:

Applicants shall demonstrate the motivation to become an osteopathic physician and will have earned a baccalaureate degree or higher from a regionally accredited institution of higher education.

The TUCOM Admissions and Standards Committee will evaluate applicant suitability for acceptance to the College by considering academic competence, previous achievement, strong personal qualities, demonstrated leadership skills, creative abilities, honors, awards, extracurricular activities, experience in health care, likelihood to practice in underserved areas, and other non-cognitive factors.

Pre-matriculation requirements:

- **Biology:** A minimum of at least eight semester hours of which a minimum of two hours of laboratory work must be completed. These eight hours may consist of four hours of zoology and four hours of botany, or eight hours of general biology or zoology, but not botany alone.
- **Inorganic Chemistry:** At least eight semester hours including two semester hours of laboratory work.
- **Organic Chemistry:** At least eight semester hours including two semester hours of laboratory work.
- **Physics:** At least eight semester hours including two semester hours of laboratory work.
- **English:** A minimum of six semester hours of composition and literature.
- **Mathematics and/or Computer Science:** A minimum of four semester hours of courses in mathematics and/or computer science.
- **Behavioral Sciences:** At least six semester hours of courses in behavioral sciences, i.e., psychology, sociology, philosophy, economics, and political science.

Each candidate must submit his/her most recent Medical College Aptitude Test (MCAT) scores.

Successful candidates typically have both science and overall grade point averages of 3.4 or above, and a mean MCAT score of 25. Please keep in mind that academic grades and the MCAT score are just two factors used in the evaluation process. The Dean reserves the authority to approve all applications for admissions.

Admissions Process:

Application to TUCOM must be made through the American Association of Osteopathic Medicine Application Service (AACOMAS). The AACOMAS deadline is April 15th. Telephone or write for an application to:

American Association of Colleges of Osteopathic Medicine Application Service (AACOMAS)
5550 Friendship Blvd., Suite 310
Chevy Chase, MD 20815-7231
(301) 968-4190

Or, visit www.aacom.org. TUCOM's College Designation Form (CDF) number is 618. Course work taken at foreign institutions must be evaluated for U.S. equivalence by an evaluation service recognized by AACOMAS and an official copy must be sent from the service directly to AACOMAS. Transfer credit appearing on U.S. institutional transcripts, student copies of an evaluation, or other foreign evaluations will not be accepted. For a list of evaluations services recognized by AACOMAS, go to www.aacom.org. All institutions attended (including foreign institutions) must be listed on the AACOMAS Application Form. Candidates should apply early in the admissions cycle to will assure the candidate full consideration. The college operates on a "rolling" admissions cycle.

Supplementary Materials:

The Supplemental Application is sent to all applicants who meet TUCOM minimum academic standards. A Supplemental Application form should be completed and returned with a \$100.00 non-refundable supplemental application fee. The supplemental fee may be waived with evidence of an AACOMAS fee waiver. An evaluation form or letter of recommendation must be sent to TUCOM directly from the pre-professional advisory committee. If such a committee does not exist, then evaluation letters from biology and/or chemistry professors who are familiar with the applicant's work may be substituted for the committee recommendation letter. An evaluation form or letter from an osteopathic physician is preferred. An MD letter may be submitted to fulfill this requirement. TUCOM also requires that the applicant sign and return the Technical Standards Certification form. (Refer to the Technical Standards for Admission section below).

Interviews:

Following the completion of the TUCOM Supplemental Application, interviews are assembled. Invitations are sent to those applicants showing the highest potential to perform

well at TUCOM. Formal interviews are conducted from October through June. An invitation to interview does not guarantee acceptance.

Technical Standards for Admission:

Every applicant who seeks admission to TUCOM is expected to possess those intellectual, ethical, physical, and emotional capabilities required to undertake all essential elements of the curriculum and achieve the levels of competence required by the faculty. Once enrolled in TUCOM, each candidate for the D.O. degree must be able, quickly and accurately, to integrate all information received, perform in a reasonably independent manner, and demonstrate the ability to learn, integrate, analyze and synthesize information and data. TUCOM will make every effort to provide reasonable accommodations for physically challenged students, however in doing so, TUCOM must maintain the integrity of its curriculum and preserve those elements deemed essential to the acquisition of knowledge in all areas of osteopathic medicine, including the demonstration of basic skills requisite for the practice of osteopathic medicine. Accordingly, TUCOM requires each student to meet certain technical requirements:

- *Observation:* Candidates and students must be able to observe demonstrations, experiments, and laboratory exercises in the basic sciences. They must be able to observe a patient accurately at a distance and close at hand.
- *Communication:* Candidates and students must be able to elicit information, examine patients, describe changes in mood, activity, and posture, and perceive non-verbal communication. They must also be able to communicate effectively and efficiently in oral and written form with all members of the health care team.
- *Motor Function:* Candidate and students must have sufficient motor function to execute movements reasonably required to provide general care and emergency treatment to patients. Examples of emergency treatment reasonably required of physicians are cardiopulmonary resuscitation, administration of intravenous medication, and the application of pressure to stop bleeding, the opening of obstructed airways, and the suturing of simple wounds. Such actions require coordination of both gross and fine muscular movements, equilibrium and functional use of the senses to touch and vision.
- *Sensory:* Osteopathic medical candidates and students must have intact sensory skills, including tactile and proprioceptive abilities.
- *Strength and Mobility:* Osteopathic manipulative medical treatment often requires sufficient upper extremity and body strength. Mobility to attend to emergencies and to perform such maneuvers as CPR is also required.
- *Visual Integration:* Consistent with ability to assess asymmetry, range of motion, and tissue color and texture changes, it is essential for the candidate to have adequate visual capabilities for the integration of evaluation and treatment of the patient.
- *Intellectual, Conceptual, Integrative, and Quantitative Abilities:* The candidate must be able to demonstrate ability in measurement, calculation, reasoning, comparison and contrast, analysis and synthesis, and problem solving. Candidates and students must demonstrate ability to comprehend three-dimensional relationships, and to understand spatial relationships of structures.
- *Behavioral and Social Abilities:* Candidates and students must possess the emotional health required for full utilization of their intellectual abilities, the exercise of good

judgment, the prompt completion of all responsibilities attendant to the diagnosis and care of patients, and the development of mature, sensitive relationships with patients and co-workers. Candidates and students must be able to tolerate physically and mentally taxing workloads, adapt to changing environments, display flexibility, and learn to function in the face of uncertainties inherent in treating the problems of patients. Compassion, integrity, concern for others, interpersonal skills, interest, and motivation are personal qualities that will be assessed during the admissions and education process.

- *Participation in Osteopathic Manipulative Medicine Laboratories*: Active participation in Osteopathic Manipulative Medicine Laboratories is an admission, matriculation, and graduation requirement. The development of manipulative medicine palpatory skills is taught in all four years of the curriculum. This learning requires active participation in all laboratory sessions. During the first two years, each student will palpate, in the laboratory setting, a variety of people representing both genders and individuals with different body types to simulate the diversity of patients expected in a practice setting. Being palpated by other students and faculty helps the student appreciate how palpation feels from the patients' perspective, and enables students to provide feedback to their laboratory partners, thus, enhancing their palpatory skills. Reading and observation, although helpful, do not develop the skills required to perform palpatory diagnosis and manipulative treatment. Each student is required to actively participate in all skills development laboratory sessions. Occasionally, a student may have a physical problem, which may contraindicate a specific type of manipulation in a specific anatomical location. A student who feels manipulation might be contraindicated is required to contact the Chair of the OMM Department before the beginning of the course and present documentation of the problem. A member of the OMM faculty, or a consultant at the student's expense, will examine the student during the first week of school. If the problem is confirmed through the examination and review of documentation, special arrangements will be authorized. The student is expected to actively participate in all laboratory sessions not directly affected by the problem.

TRANSFER STUDENTS: POLICY FOR ADMISSIONS

The following policies and procedures apply to any student desirous of transferring from any other medical school to TUCOM, including those wishing to transfer to or from TUCOM - Nevada.

TUCOM accepts transfer students only from medical schools and colleges accredited either by the Commission on Osteopathic College Accreditation (COCA) or by the Liaison Committee on Medical Education (LCME). Transfer students must be in "good academic standing" and have acceptable reasons(s) for seeking a transfer. Candidates for transfer must be eligible for continuation in, or re-admission to, the previously attended medical school or college. Students transferring to TUCOM must complete, at a minimum, the last two (2) years of instruction at TUCOM.

Coursework completed at the prior medical school or college will be reviewed for each transfer student and additional coursework may be assigned to ensure that the transferring student has

received equivalent academic preparation for his/her level of entry into TUCOM. In particular, students transferring from LCME-accredited schools will be assigned to training in osteopathic manipulative medicine (OMM) to ensure that TUCOM's requirement for OMM will be completed prior to graduation.

Transfer applicants must provide the following information in time to allow appropriate committee review proceeding the semester of intended enrollment:

- A letter to the Director of Admissions indicating why the student wishes to transfer.
- A Supplemental Application (with the non-refundable \$100 application fee) clearly marked and highlighted FOR TRANSFER ONLY.
- Most recent format of the Medical College Admission Test (MCAT) score.
- Official copies of transcripts from all post-secondary school and colleges.
- Official copy of the most current medical school transcript.
- A letter from the medical college in which the student is currently enrolled, stating that the student is in good academic standing.
- A letter of recommendation from a faculty member at the medical college in which the student is currently enrolled.

All required material (see above) must be directed to the attention of the Director of Admissions of TUCOM and be submitted in a timely manner. Acceptance of transfer students will be dependent upon the student's qualifications, curricular compatibility and available space. Additional course work may be required to satisfy academic deficiencies.

Procedure:

Admissions Committee review

Once the candidate's file is complete, the Admissions Committee will meet and determine availability based upon the student's academic record and compatibility with the mission of the institution. Admissions may reject the applicant at this stage, or if found acceptable, may send the file on for consideration by the Student Promotion Committee.

Student Promotion Committee review

The Student Promotion Committee will review the file to determine compatibility with the curriculum and, if appropriate, specify the deficiencies to be addressed. If the candidate's records are found incompatible with the curriculum, the file will be returned to the Director of Admissions with the recommendation to deny transfer. If the candidate's records are found acceptable at this stage, the transfer application file will be returned to the Director of Admissions in preparation for the personal interview.

Personal Interview

The Director of Admissions, on the recommendation of both the Admissions Committee and the Student Promotion Committee will invite the transfer candidate to TUCOM to be interviewed by the Admissions Committee.

Final Decision

Following the personal interview, the Admissions Committee will either charge the Director of Admissions with advising the candidate that the request for transfer has not been approved, or will recommend to the Dean of the College that the request for transfer be granted. The Dean shall finally determine admission status and class standing.

POLICY OF NON-DISCRIMINATION

It is the policy of the University to admit qualified students irrespective of race, sex, color, national origin, religion, sexual orientation, or disability. To be considered for admission to any program offered by the University, a student must possess the academic credentials and professional attributes deemed essential by the respective program admission's committee for selection to the program.

OFFICE OF THE REGISTRAR

Services provided by the Office of the Registrar support every student at the University as well as all faculty and staff members who interact with those students. Specifically, the Office of the Registrar is responsible for: the integrity of student records for the University; the planning and execution of registration of students each semester; recording of grades; certification of degree requirements for students; verification of graduation; mailing of diplomas to graduates; preservation of student academic records and protection of their privacy (FERPA).

Leave of absence, petition to return, add/drop and withdrawal forms are processed through the Office of the Registrar. The Office of the Registrar also provides continuing support for alumni, with services such as verification of enrollment and graduation, completing forms for licensure and providing official transcripts.

MATRICULATION AND REGISTRATION

All students are required to register by the dates that are specified by the office of the Registrar. Failure to register in a timely manner may exclude the student from attending classes. Full tuition and fees and prior debts must be paid in full on or before registration day each academic term. Matriculation and promotion are subject to satisfactory academic progress and completion of all academic requirements and all outstanding debts to the University. Prior to registration, official transcripts, including a final transcript indicating conferral of baccalaureate degree, and transcripts from all colleges and universities indicated on the student's application must be received by the Registrar's office. Failure to comply with

providing official undergraduate transcripts will result in the student being excluded from attending classes.

TUITION & FEES

Required Deposits:

All accepted applicants are required to submit two deposits in order to secure their place in class:

Acceptance Deposit: For applicants accepted to TUCOM, a non-refundable/non-transferable acceptance deposit of \$2,000, payable two weeks after notification of acceptance, is required.

Tuition Deposit: An additional payment of \$1,000 is due by May 15th for those accepted for admission before May 1st, and by June 15th, for those accepted after May 1st. This tuition deposit is refundable if notice of cancellation is made prior to the first day of mandatory orientation.

Upon matriculation, the entire \$3,000 is applied toward the total tuition.

TOURO UNIVERSITY – CALIFORNIA COLLEGE OF OSTEOPATHIC MEDICINE

TUITION AND FEES FOR THE 2009-2010 SCHOOL YEAR

1ST YEAR

\$19,400.00 FALL TUITION
\$19,400.00 SPRING TUITION
MANDATORY FEES
\$236.00 STUDENT HEALTH FEE

2ND YEAR

\$19,400.00 FALL TUITION
\$19,400.00 SPRING TUITION
MANDATORY FEES
\$236.00 STUDENT HEALTH FEE

3RD YEAR

\$19,400.00 FALL TUITION
\$19,400.00 SPRING TUITION
MANDATORY FEES
\$236.00 STUDENT HEALTH FEE

4TH YEAR

\$19,400.00 FALL TUITION
\$19,400.00 SPRING TUITION
MANDATORY FEES
\$236.00 STUDENT HEALTH FEE

Each student is responsible for purchasing his/her own computer and diagnostic equipment. All other expenses are estimated, and are provided as a reference only. The Board of Trustees reserves the right to change the fee schedule without prior written notice. Expenses associated with attending Touro University College of Osteopathic Medicine – California may include tuition, fees, supplies, books, transportation and housing and other living expenses. Tuition and fees are payable to the Bursar upon registration at the beginning of each semester. Students

may pay by personal check, bank check, certified check, money order, or Visa/Master Card. Students financing a portion of their education through grants, loans, or scholarships must provide proof of such awards at registration. Students without such documentation will be expected to pay a deposit towards their tuition, and will be refunded any excess once the College receives the award.

THE BURSAR'S OFFICE

The function of the Bursar’s Office is to manage student accounts and collect tuition and fees from students on behalf of the University. The Bursar’s Office receives and disburses the federal and private loans that the students receive through the Financial Aid Office. The Bursar’s Office also processes refund checks for students who receive funds in excess of their tuition and fees to cover their living expenses while attending the University. In addition, the Bursar works with those students who are having financial difficulty meeting their financial obligations to the University.

TUITION PAYMENT

All checks and money orders should be made payable to Touro University, with the student’s social security number indicated on the front. Payment is made to the bursar prior to registration. If tuition payments are made through the mail, please address the envelope as follows:

Touro University
 Attention: Bursar
 1310 Johnson Lane
 Vallejo, CA 94592

TUITION REFUND SCHEDULE

A student wishing to withdraw from classes must notify the Office of the Registrar by filling out an Add/Drop form. On approved applications, the following refund schedule will apply:

Before the opening of class	100% of tuition and Fees (excluding tuition deposit)
During the first week of classes	90% of tuition and fees
During the second week of classes	75% of tuition and fees
During the third week of classes	50% of tuition and fees
During the fourth week of classes	25% of tuition and fees
After the fourth week of classes	No refund

If the student has not paid full tuition and fees for the term in which the withdrawal takes place, he or she must pay the proportionate amount noted above before leaving the University. The withdrawal date is the date that the Dean of Students receives written notice of withdrawal, i.e., a completed Official Withdrawal Form. In cases of academic dismissal, tuition

paid in advance for the term immediately following the dismissal date will be 100% refundable.

FINANCIAL AID

General Information

Financing a medical college education at Touro may seem overwhelming, but TUCOM students may receive sufficient aid to meet their school related expenses. Since the process of applying for and receiving financial aid may seem complex, Financial Aid personnel are available to assist students throughout the process. The following information is provided to clarify the process and detail of various types of financial aid available to TUCOM students.

Many students at TUCOM pay for tuition and fees by applying for and receiving a variety of, scholarships and loans. Other students pay by check or money order or develop a payment plan with the Bursar. Regardless of the method of payment chosen, all tuition must be paid in full each semester. Students who experience problems in paying their tuition should confer immediately with the Bursar.

TUCOM participates in the Federal Stafford loan and Grad Plus loan programs. These sources are designed to assist qualified students who have limited resources to attend medical school. The financial aid program is designed to ensure that students who demonstrate need will be able to complete their course of study with minimal financial concerns. Financial aid policies are designed to help bridge the gap between the cost of attending school and the student's available resources. TUCOM participates in and receives funds from federal, state, and local sources, some of which may include:

- Federal Subsidized Stafford Loans
- Federal Unsubsidized Stafford Loans
- Federal Perkins Loan Program
- Federal Graduate PLUS Loans
- Federal College Work Study Program (FWS)
- California Graduate State Fellowships
- Veterans Administration Benefits
- Armed Forces Health Professions Scholarship Program
- Alternative Loans through selected lenders

Application Procedure

Applications for financial aid must be completed at the start of each new school year. The Financial Aid Office is available to assist students in completing their applications. In order to be eligible for Federal Stafford Loans and the Grad Plus Loan students must complete the Free Application for Federal Student Aid (FAFSA) found on line at www.fafsa.ed.gov, To complete the FAFSA, students will need to apply for a PIN number from the Department of Education. Students can apply for the PIN number at www.pin.ed.gov. The Federal school

code for Touro University, which is required for completing the FAFSA, is 010142, it is a New York code as Touro University is a branch of Touro College in New York. Students may complete the FAFSA immediately, even before they receive an admission decision from TUCOM, however; it is required that students wait until they have filed taxes. In addition to completing the FAFSA applicants must also complete the Touro University Financial Aid Application and Loan Request Statement found at www.tu.edu , and complete the entrance counseling at www.mappingyourfuture.org.

Student Budgets (Cost of Attendance)

A student budget (also referred to as the Cost of Attendance) is the estimated cost for students to attend his or her program. The Cost of Attendance includes tuition, fees, books and supplies, transportation, room and board, and personal expenses. Student budgets are set each year by the University based on the average expenses of all students in the program. The following expenses are not included in the cost of attendance: consumer indebtedness, relocation expenses, home furnishings or repairs, home mortgage or rental payments which exceed standard budget, additional travel, legal fees, automobile purchase or monthly payments, study abroad or rotations out of the area, as well as internship interview expenses. Most of the financial aid funds that a graduate/professional student will receive while in attendance at TUCOM are Federal student loans. Students should be aware that private loans are based on credit worthiness determined by the lender, and not by the University. In order to maintain as limited indebtedness as possible, TUCOM encourages students to investigate other avenues for possible grants, scholarships, low interest rate loans, and free funds. Other financial resources include religious organizations and private organizations, with which students or family members are currently affiliated.

FINANCIAL ASSISTANCE PROGRAMS ADMINISTERED BY FEDERAL AND STATE AGENCIES

Federal Subsidized Stafford Loans & Federal Unsubsidized Stafford Loans

Federal Subsidized Stafford Loans – Interest rate is fixed at 6.8%. The U.S. Department of Education pays the interest while the student is at an in-school status and during the 6 month grace period. Recipients of the Stafford Subsidized Loan must demonstrate need in order to qualify.

Federal Unsubsidized Stafford Loans – Interest rate is fixed at 6.8%. Interest starts to accrue when the funds disburse and will continue to accrue for the life of the loan.

In order to be eligible for Federal Financial Aid all students must complete the Free Application for Federal Student Aid (FAFSA) found at www.fafsa.ed.gov . In addition to completing the FAFSA applicants must also complete the Touro University Financial Aid Application and Loan Request Statement found at www.tu.edu , and complete the entrance counseling at www.mappingyourfuture.org.

Once Students have completed the financial aid process the funds will disburse to the school electronically. When the funds have arrived at the school the Bursar will deduct tuition and fees and issue refund checks. Financial Aid checks are issued at the start of each semester. Students must be enrolled at least half time (6 credits) and have satisfactory academic progress to qualify for financial aid. Students are granted a six-month grace period after graduation or withdrawal from the University before repayment begins and interest on the Subsidized Stafford loan begins to accrue.

Federal Graduate PLUS Loans

The Federal Graduate PLUS loan can be used to help bridge the gap between the Federal Stafford Loans and the remaining cost of attendance. As part of the Grad Plus eligibility process students must complete the FAFSA application and utilize their annual Stafford Loan eligibility. To receive the Grad Plus loan students must apply directly on line with the lender. The Grad Plus Loan does require a credit check at the time of application and a determination that the applicant does not have an adverse credit history. Applicants with an adverse credit history may be eligible to receive an approval with a creditworthy endorser. The Graduate PLUS loan is unsubsidized with a fixed interest rate of 8.5% and a 3% origination fee and up to a 1% federal default fee may apply. Interest begins to accrue from the date of disbursement and repayment begins within 60 days of the final disbursement of the loan. Borrowers may receive forbearance on payments while enrolled at least half-time at an eligible school. This loan has a standard repayment term of 10 years and qualifies for the Federal Consolidation Loan program.

Federal Work-Study Program

The purpose of the Federal Work-Study program is to stimulate and promote part-time employment, particularly for those with great financial need. Part-time positions available through the Federal Work-Study Program may involve work at the University or in a public or private non-profit organization. Students may work no more than an average of 25 hours per week when classes are in session and up to 30 hours per week when classes are not in session. The minimum pay rate for Federal Work-Study positions at TUC is \$10.50 per hour and students are paid according to established payroll procedures. Eligibility for the University Work-Study Program is determined by TUC's Financial Aid Office.

California Graduate State Fellowship

The California Student Aid Commission awards approximately 500 Graduate State Fellowships annually to California residents. Candidates must plan to pursue recognized degrees at eligible California graduate/professional schools and must demonstrate their intent to become a college or university faculty member. This program assists with tuition and fees. Details and application forms are available from the California Student Aid Commission website, www.csac.ca.gov .

Western Interstate Commission for Higher Education (WICHE)

WICHE scholarships are available to osteopathic medical school applicants from Arizona, Montana, New Mexico, Washington and Wyoming. These states may be able to assist students in achieving professional goals through the Western Interstate Commission for Higher Education. WICHE's Professional Student Exchange Program enables students to enroll in out-of-state graduate/professional program when those fields of study are not available at public institutions in their home state. Home states pay a support fee to the University to help cover the student's education for the traditional length of the program. Western States students are urged to apply for certification in the program by October 15th of the year preceding anticipated admission. For application information please visit WICHE at www.wiche.edu.

Veteran's Benefits

Many programs of educational assistance benefits are available to those who have served in the active military, naval or air service and to their dependents. Detailed information on all veteran's benefits can be obtained from offices of the Registrar. The standards of academic progress for students receiving educational benefits through the Veteran's Administration are as follows:

1. Probation is defined as a period of time during which the student's progress will be closely monitored by the Student Promotion Committee and the Dean of Students.
2. The period of probation will be a maximum of three (3) consecutive semesters.
3. A student who is placed on probation for more than three (3) consecutive semesters will be ineligible for certification of educational benefits through the Veterans Administration.

Additional Costs of Borrowing: Loan Fees

In addition to interest, Federal Family Educational Loan (FFEL) borrowers may also pay insurance premiums and origination fees on their loans. A lender may charge each FFEL borrower an origination fee up front. A guaranty agency charges the lender an insurance premium on each loan it guarantees. Generally, the lender passes this cost on to the borrower. Contact your lender directly to inquire about insurance premiums and origination fees.

Federal Consolidation Loans

Loan consolidation enables a borrower with several Federal loans to obtain one loan with one interest rate and repayment schedule. An eligible lender will pay off the student's existing loans and create a new loan to replace them. A defaulted loan may be included in a consolidation loan if the borrower has made satisfactory repayment arrangements with the holder of their loan. A borrower can also consolidate a defaulted loan if he or she agrees to repay the Consolidation Loan under an income-sensitive repayment plan. A lender must offer standard, extended, graduated, and income-sensitive repayment options on Consolidated Loans. To be eligible for a Consolidation Loan, a borrower must be in the grace period or in repayment status on all loans being consolidated. The repayment period varies from 10 to 30

years, depending on the amount consolidated. The interest rate for a Consolidation Loan is the weighted average of the interest rates of the loans consolidated. There are no insurance premiums or other fees for loan consolidation.

Satisfactory Academic Progress

Federal regulations which govern the various federal financial aid programs stipulate that in order for a student to continue to receive financial aid funding, he/she must maintain "Satisfactory Academic Progress" as defined by the institution. In the definition, the institution must establish a maximum time frame in which the student must earn the degree and divide the maximum time frame into increments not to exceed one academic year.

The degree of Doctor of Osteopathic Medicine is granted to, and conferred upon, candidates who are of good moral character and who have satisfied all requirements as stated under Handbook Section on Graduation Requirements. A minimum of 45 months must elapse between the date of matriculation and graduation. All degree requirements, however, must be completed within six years following matriculation, (excluding approved leaves of absence).

Any student, who, at the end of the academic year, fails to maintain satisfactory academic progress is ineligible to receive financial aid, including student loans.

Complete details of the policy on Standards of Satisfactory Academic Progress for Financial Aid Eligibility, as it applies both generally for the University and specifically for the College of Osteopathic Medicine can be found on page 15 of the 2009 TUCOM Student Handbook, which is posted on the web at:

http://www.tu.edu/user_files/478/TUCOM_Handbook_2009_2010.pdf

Important Financial Aid Terms

Default: Failure to repay a student loan according to the terms agreed to at the time the promissory note was signed. The school, lender, State and the Federal Government may all take action against a defaulted student in order to recover lost money.

Entrance Interview: A counseling session will be required of all first time borrowers at the time they apply for a Stafford loan, advising them of their obligations, rights and responsibilities as borrowers.

Exit Interview: A counseling session borrowers must attend before leaving school. At this session, the school will give the borrower information on the amount owed the amount of monthly repayment, and information regarding deferment, refinancing and loan consolidation options.

Financial Need: The difference between the cost of education (tuition, fees, room, board, books and other related expenses) and the amount the student and his/her family can afford to pay as determined by prescribed formulas used to calculate need from information reported on the aid application.

Promissory Note: A legal document signed by a borrower at the time he/she gets a student loan. It lists the conditions under which the borrowing takes place and the terms under which the borrower agrees to pay back the loan.

Statement of Educational Purpose / Certification Statement on Refunds and Default:

Students are required to sign this statement in order to receive Federal Student Aid. By signing it, the student indicates that he/she does not owe a refund on a Pell Grant or SEOG and is not in default on a Perkins Loan, Stafford Loan, PLUS or SLS Loan. The student is also agreeing to use any student aid received, only for education-related purposes.

Statement of Registration Status: A student who is required to register with the Selective Service must sign a statement indicating he or she has done so before he can receive any Federal Student Aid. This requirement applies to males who were born on or after January 1, 1960, are at least 18, are citizens or eligible non-citizens, and are not currently on active duty in the Armed Forces. (Citizens of the Federated States of Micronesia, the Marshall Islands, or the Trust Territory of the Pacific (Palau) are exempt from registering.)

Alternative Loans: There are private educational loan programs that provide an affordable, effective solution to the financing needs of healthcare students. These loans are non-need-based, however, you the student must demonstrate credit worthiness. The loan amounts, repayment periods, as well as rates and fees vary. For additional information about the various loan sources, please contact the Office of Financial Aid at (707) 638 – 5280 or visit us online at www.tu.edu by clicking on ‘Current Students’, ‘Financial Aid’.

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Cee Harrelson, Director, Clinical Skills Laboratory

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