

# Preface

The Catalog represents a program of curricular plans, policies, and requirements which may be altered from time to time. The provisions of the Catalog do not constitute an irrevocable contract between A. T. Still University (ATSU) and its students. The University reserves the right to change any provision or requirement at any time prior to the student receiving a degree. The University also reserves the right to ask a student to withdraw for cause at any time. ATSU complies with the Drug-Free Workplace Act of 1988 and the Drug-Free Schools and Communities Act Amendments of 1989. All inquiries regarding the ATSU-KCOM College Catalog should be directed to the Associate Dean for Academic Affairs at [academicaffairs@atsu.edu](mailto:academicaffairs@atsu.edu).

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# Key Personnel

## **Chief Executive Officer**

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President

## **Chief Academic Officer**

*Philip C. Slocum, D.O., FACOI, FCCM, FCCP, FACP, '76*

Dean

## **Student Services**

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Vice President for Student and Alumni Services

*Lori Haxton, M.A.*

Associate Vice President for Student and Alumni Services

## **Associate and Assistant Deans**

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Associate Dean for Academic Affairs

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Assistant Dean, Continuing Osteopathic Medical Education

*Tammy Kriegshauser, M.B.A.*

Assistant Dean for Clinical Educational Affairs

## **Department Chairpersons**

*Charles R. Fleschner, Ph.D.*

Biochemistry

*Karen Snider, D.O., (Acting)*

Osteopathic Theory and Methods

*Lary Ciesemier, D.O., '97(Acting)*

Internal Medicine

*D. Fred Peterson, Ph.D.*

Physiology

*G. Barry Robbins, D.O., '70*

Neurobehavioral Sciences

*Neil Sargentini, Ph.D.*

Microbiology and Immunology

*William Sexton, Ph.D.*

Biomedical Sciences Graduate Program

*Toni R. Smith, D.O., FAOCA, '79*

Surgery

*Robert J. Theobald Jr., Ph.D.*

Pharmacology

*Nandor Uray, Ph.D. (Acting)*

Anatomy

*Margaret A. Wilson, D.O., '82*

Family Medicine, Preventive Medicine & Community Health

## About ATSU

A.T. Still University has over 100 full-time faculty and the student body consists of over 697 osteopathic medical and 34 biomedical science students at KCOM and over 3480 students enrolled in the Arizona School of Health Sciences (ASHS), the Arizona School of Dentistry & Oral Health (ASDOH), School of Health Management (SHM), and the School of Osteopathic Medicine Arizona (SOMA).

# Mission Statement

Consistent with the University's heritage as the founding school of osteopathic medicine, the mission of A.T. Still University of Health Sciences is to educate students to become competent health care professionals who continuously develop and demonstrate compassion, integrity, and ability, while advancing osteopathic principles and philosophy. The institution is committed to scholarly inquiry that anticipates and addresses society's health care needs. The University encourages its constituencies to become leaders in improving community health and wellness with a comprehensive appreciation of the interaction of body, mind, and spirit.

# Osteopathic Pledge of Commitment

I pledge to:

- Provide compassionate, quality care to my patients;
- Partner with them to promote health;
- Display integrity and professionalism throughout my career;
- Advance the philosophy, practice, and science of osteopathic medicine;
- Continue life-long learning;
- Support my profession with loyalty in action, word and deed; and
- Live each day as an example of what an osteopathic physician should be.

# Osteopathic Physician's Oath

I do hereby affirm my loyalty to the profession I am about to enter. I will be mindful always of my great responsibility to preserve the health and the life of my patients, to retain their confidence and respect both as a physician and a friend who will guard their secrets with scrupulous honor and fidelity, to perform faithfully my professional duties, to employ only those recognized methods of treatment consistent with good judgment and with my skill and ability, keeping in mind always nature's laws and the body's inherent capacity for recovery.

I will be ever vigilant in aiding the general welfare of the community, sustaining its laws and institutions, not engaging in those practices which will in any way bring shame or discredit upon myself or my profession. I will give no drugs for deadly purposes to any person, though it be asked of me.

I will endeavor to work in accord with my colleagues in a spirit of progressive cooperation, and never by word or by act cast imputations upon them or their rightful practices.

I will look with respect and esteem upon all those who have taught me my art. To my college I will be loyal and strive always for its best interests and for the interests of the students who will come after me. I will be ever alert to further the application of basic biologic truths to the healing arts and to develop the principles of osteopathy which were first enunciated by Andrew Taylor Still.



Dear Students,

Welcome to the oldest and best osteopathic medical school in the world! All of us in the ATSU-KCOM family are pleased you elected to come here to study in our Master of Science in Biomedical Sciences program and/or our Doctor of Osteopathic Medicine program. Faculty members, upper class students, staff, and administration are dedicated to make your experience challenging and successful.

This catalog will provide specific information about how you interact with KCOM. This guide will help you become acquainted with the location of the various resources that will help you succeed. Specific policies, procedures, information, and resources can be found within this catalog. University wide policies, procedures, information, and resources can be found in the Student Handbook. I encourage you to become familiar with both documents. Please make sure you can obtain ready access for each.

All of us at KCOM want to do everything we can to see you reach your goal.

Best Wishes,

Phil Slocum

# Table of Contents

- I. General Information ..... 1
  
- II. Administration ..... 3
  
- III. Admission, Registration, and Financial Assistance ..... 4
  
- IV. Academic Standards, Guidelines, and Requirements ..... 15
  
- V. Curricula ..... 21
  
- VI. Responsibilities and Conduct ..... 41
  
- VII. Student Services ..... 42
  
- VIII. Facilities ..... 45
  
- IX. Index ..... 47

# General Information

The Kirksville College of Osteopathic Medicine (KCOM), founded in 1892, is a professional and graduate institution offering the Doctor of Osteopathic Medicine degree and the Master of Science degree in biomedical science. Since its beginning a century ago, KCOM has established itself as a leader in osteopathic medical education by providing training and instruction to osteopathic physicians who practice across the country and around the world. The College, accredited by the American Osteopathic Association (AOA) and the North Central Association of Colleges and Schools (NCA), takes pride in its strong curricula, outstanding faculty, clinical experiences, scientific research, service programs, and regional training programs.

KCOM, and the main campus of A. T. Still University, are located in the city of Kirksville, a community of about 20,000 residents in northeastern Missouri. The campus encompasses 163 acres with 22 buildings, which includes the latest addition, the Connell Information Technologies Center.

## *Accreditation*

The Doctor of Osteopathic Medicine program of KCOM is accredited by the American Osteopathic Association's Commission on Osteopathic College Accreditation (AOA COCA), 142 East Ontario Street, Chicago, Illinois, 60611, 800.621.1773. The American Osteopathic Association's Commission on Osteopathic College Accreditation is recognized by the United States Department of Education as the accrediting agency for colleges training osteopathic physicians and surgeons in the United States.

A. T. Still University is accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools, 30 North LaSalle Street, Suite 2400, Chicago, Illinois, 60602-2504, (800) 621-7440.

Approved by the Missouri State Department of Education for the training of students entitled to receive veterans' educational benefits.

Qualified for purposes of appointment of its graduates as commissioned medical officers in the Armed Forces and the Public Health Service.

Listed by the U.S. Department of State as an approved institution of higher learning for foreign students.

Registered with and accredited by the State Boards of Professional Examination and Licensure in all states.

Approved by a number of arts and sciences colleges for up to 30 semester hours of basic science credit toward a Bachelor of Science degree, provided the student has completed a minimum of 90 semester hours at the arts and sciences college.

## *Organization*

A.T. Still University is incorporated under the laws of the state of Missouri as a not-for-profit corporation. The governing body is the Board of Trustees, which holds title to the properties of the University and establishes policies for its operation. Responsibility for administration and day-to-day operations is delegated to the President and through him to other officers of the University.

## *Health Care Facilities*

Northeast Regional Medical Center (NRMC) serves 11 counties in northeast Missouri as the region's healthcare referral center and as a teaching facility for the Kirksville College of Osteopathic Medicine. Northeast features emergency services, a Level III Trauma Center, inpatient and outpatient surgery, internal medicine, critical care, obstetrics, diagnostic services, the A.T. Still Rehabilitation Center, a swing bed unit, and the Pain Clinic. NRMC is also an accredited Chest Pain Center. In addition, the George Rea Cancer Treatment Center at NRMC provides comprehensive cancer treatment services including chemotherapy and radiation therapy. More than 130 physicians in 30 different specialties comprise NRMC's medical staff.

Other members of NRMC are Northeast Home Health Services, The Family Health Center of Edina, Northeast Regional Specialty Group, Women's Health Center and Northeast Regional Rehabilitation Services. The Northeast Regional Health & Fitness Center offers comprehensive outpatient rehabilitation services, occupational therapy, cardiac and pulmonary rehabilitation, community wellness and a community health club in a state-of-the-art facility.

For more information about their services, visit online at [www.nermc.com](http://www.nermc.com).

A federally funded Rural Health Initiative Program supports rural clinics in medically underserved areas of northeast Missouri and provides health care, health screenings, and health education programs to the rural population. Students can receive care and with payment based on their economic status.

### ***Biomedical Research***

The discovery of new knowledge through research is important, as such, faculty members are engaged in scientific investigations which encompass such diverse fields as aging, animal models, bacteriology, biochemistry, cancer, cardiovascular physiology, enzyme kinetics, hypertension, immunology, lipid biochemistry, molecular biology, muscle physiology, neural development, neuroendocrinology, neuromodulators, neurotransmitters, pharmacology, sensorimotor integration, smooth muscle physiology, osteopathic theory and methods, and medical education. The faculty is involved in professional scientific societies and publishes in scientific journals.

### ***Student Recreation***

A student may become involved in various physical fitness programs and SGA intramural sporting events sponsored by the University's Thompson Campus Center, a well-equipped recreational facility designed for student use. Kirksville also offers the student a wide variety of other activities. Thousand Hills State Park and Hazel Creek Reservoir are very popular. Other recreational facilities include a public aquatic center, tennis courts, a private golf course, a bowling alley, and a multiplex movie theater. Truman State University sponsors athletic events, as well as concerts and theatrical productions.

# Administration

## *The Chief Academic Officer/Dean*

The Kirksville College of Osteopathic Medicine's Senior Administration is overseen by the Chief Academic Officer/Dean and three associate deans. The ATSU-KCOM Chief Academic Officer is the Dean. The Dean, under the supervision of the President, provides leadership, direction, and supervision for the medical education and research activities of the College including all instructional support services for medical education and research programs wherever conducted by hospitals and clinics owned or controlled by the College, as well as, any medical education programs conducted in hospitals affiliated with the College. The Dean has the day-to-day responsibility for the management, direction, and supervision of medical faculty members and students including the planning, development, and administering of curriculum and co-curricular activities. The Dean works closely with the President in order to coordinate overall management of the College.

The Dean faithfully and diligently implements and manages all policies made by the Board of Trustees for the administration of the College educational programs, including the carrying out of all tasks and assignments made by the President. The incumbent reports to the President and Board of Trustees any substantive matters that may affect the operation of the College or its welfare. The incumbent manages, directs, and controls the instructional support services for KCOM medical education provided by faculty members of the College.

## *The Associate Dean for Academic Affairs*

The ATSU-KCOM Associate Dean for Academic Affairs under the supervision of the Dean, coordinates, assigns, monitors, and manages the medical school curriculum in the first two years. He/she oversees the Department of Academic Affairs and ensures that the academic departments of KCOM meet their missions. He/she supervises and administers the Office of Medical Educational

Support and performance assessment for students in the first and second years. He/she is responsible for faculty development, recruitment and retention.

## *The Associate Dean for Clinical Educational Affairs*

The ATSU-KCOM Associate Dean for Clinical Educational Affairs is the administrative person responsible for all activities associated with the clinical education of KCOM students in the third and fourth years. The Associate Dean for Clinical Educational Affairs is directly responsible to the Dean. Clinical Education includes the scholarship of teaching, research, clinical practice plans, management of rotation sites for students, and assessment of learning for the third and fourth year clinical curriculum.

## *The Associate Dean for Curriculum*

The ATSU-KCOM Associate Dean for Curriculum is the administrative person responsible for oversight of the KCOM Curriculum. He/she assist faculty and staff in design and develop new and existing curriculum. He/she will also work closely with the ongoing development of KCOM's assessment program. The Associate Dean for Curriculum is directly responsible to the Dean or his designee.

# Admission, Registration, and Financial Assistance

The admissions process is dedicated to recruiting and selecting high quality students. Selection is based on criteria, whereby academic achievement, letters of recommendation, life experiences, standardized scores, and personal interviews are taken into consideration.

Applicants who want additional information may contact Admissions at 660.626.2237, or 866.626.2878, at ext. 2237. Or via email at [admissions@atsu.edu](mailto:admissions@atsu.edu).

## *Admissions – D.O. Program*

Applicants for admission to the first-year class must meet the following requirements prior to matriculation.

1. The applicant must have achieved a minimum 2.5 cumulative grade-point average and a 2.5 science grade-point average. (Grade-point average is based on a 4.0 scale.) Applicants seeking admission with the intention of not having a degree prior to matriculation are required to have a minimum 3.5 cumulative grade-point average, a 3.5 science grade-point average, and a 28 on the MCAT.
2. Applicants must have completed one full academic year or the equivalent in each of the following:
  - English – 6 semester hours/9 quarter hours. The student should be fluent in the oral and written use of English
  - Biology – 8 semester hours/12 quarter hours. Must include a laboratory and a basic course in general biology or general zoology
  - Physics – 8 semester hours/12 quarter hours. Must include a laboratory and cover the study of mechanics, sound, heat, magnetism, electricity, and light
  - General or Inorganic Chemistry – 8 semester hours/12 quarter hours. Must include laboratory
  - Organic Chemistry – 8 semester hours/12 quarter hours. Must include laboratory
1. Elective subjects should afford a broad educational and cultural background as recommended by the applicant's pre-professional advisor. Courses in biochemistry cell biology, genetics, and humanities are encouraged.
2. Applicants are required to submit scores from the Medical College Admission Test (MCAT) that have been taken within three years of application.
3. Matriculants are required to submit official transcripts from all colleges and universities attended by the date of matriculation, including confirmation of an undergraduate degree, unless accepted under the non-degree application requirements.
  - Matriculants who have a reason acceptable to the University for submitting transcripts after the due date (i.e. late accepts, or delays by sending institutions) must have their official transcripts recorded with the Registrar by the first day of the second week of classes. Official recording of all required transcripts will occur by the end of the first academic term.
4. KCOM and many of its clinical affiliations require background checks on matriculants and students to ensure the safety of patients and employees. The checks are conducted by a vendor approved by ATSU. Students are to contact the University approved vendor to perform the criminal background check. The student will pay the cost of the criminal background check directly to the vendor. Failure to comply with this mandate will result in denial to

matriculate. The student will sign a disclosure and release form indicating knowledge of this policy and their belief that they do not have any criminal history that would disqualify them from clinical experience/patient contact. A matriculant with a positive criminal background screen will be reviewed. For more information please contact the ATSU Admission's Office at 660.626.2237.

### ***Special Admission Programs***

Applicants must qualify for selection as per the articulation agreement established between ATSU-KCOM and the specific institution.

KCOM has articulation agreements with the following institutions:

Avila University (MO)  
Brigham Young University (UT)  
Drury University (MO)  
Elmhurst College (IL)  
Greenville College (IL)  
Massachusetts College of Pharmacy & Health Sciences (MA)  
Midland Lutheran College (NE)  
Missouri State University (MO)  
Missouri University of Science and Technology (MO)  
Missouri Western State University (MO)  
Rowan University (NJ)  
San Diego State University (CA)  
Southeast Missouri State University (MO)  
Springfield College (MA)  
Truman State University (MO)  
William Jewell College (MO)  
Willmington College (OH)

### ***Early Decision Program***

The Early Decision Program is a service for highly qualified medical school applicants who have made a definite decision that KCOM is their first choice among medical schools. In order to be considered, the applicant must meet all of the following requirements and agree to apply only to KCOM until an early decision notification is made. To qualify for early decision the applicant must meet all stated admissions criteria in addition to:

1. Meet a minimum GPA of 3.5 both cumulative and in the sciences (biology, chemistry, physics).
2. Have taken the Medical College Admissions Test (MCAT) and earned a composite score of 24 or higher.
3. Submit the American Association of Colleges of Osteopathic Medicine Application Service (AACOMAS) application, MCAT scores and transcripts from all institutions attended to AACOMAS by August 1. Applications become available through AACOMAS June 1. For information contact:

AACOMAS  
5550 Friendship Boulevard, Suite 310  
Chevy Chase, MD 20815  
301.968.4190  
[www.aacom.org](http://www.aacom.org)

File all secondary materials with KCOM by September 1. Secondary materials include: application; \$60 application fee; early decision card; letter of evaluation from premedical advisory committee, premedical advisor, or science faculty member and a letter of evaluation from a physician or employer.

4. Complete the secondary materials indicating that the applicant is applying only to KCOM and wishes to be considered for early decision.
5. Withhold all applications to other medical schools until early decisions are made by KCOM.
6. Interviews will be conducted during September for applicants deemed qualified by the Admissions Committee.
7. A letter of acceptance for successful candidates will be mailed by October 15.
8. A \$1,000 non-refundable tuition prepayment will be required by December 15.
9. Those applicants not accepted for early decision will be automatically returned to the regular applicant pool for later evaluation.

## ***General Application Information***

The Kirksville College of Osteopathic Medicine participates with other osteopathic colleges in a centralized application processing service called the American Association of Colleges of Osteopathic Medicine Application Service (AACOMAS). This service will collate materials, compute grades, and transmit standardized information to the applicant and the colleges which the applicant designates to receive them. AACOMAS takes no part in the evaluation, selection, or rejection of applicants. Applications may be obtained at [www.aacom.org](http://www.aacom.org) or from AACOMAS, 5550 Friendship Boulevard, Suite 310, Chevy Chase, MD 20815-7231, telephone 301.968.4100. The College will send the applicant a secondary application if general qualifications are met. A non-refundable application fee and letters of recommendation from the pre-medical committee and a physician or employer will be required at the time the secondary application is submitted. Applications must be submitted no later than February 1 of the academic year prior to which admission is sought. Applicants are encouraged to apply far in advance of the February 1 deadline.

Additional information regarding program application deadline date, tuition and expenses, and related financial assistance can be found on the University's web page, [www.atsu.edu](http://www.atsu.edu), or email your inquiry to [admissions@atsu.edu](mailto:admissions@atsu.edu)

### ***Admissions – Master of Science in Biomedical Sciences Program (M.S.)***

The Master of Science in Biomedical Sciences Program offers three tracks for students to apply for: Research, Dual D.O. /M.S., and Human Anatomy Education. These tracks are appropriate for students who wish to obtain a Master level biomedical education in a medical school environment, or who wish to strengthen their credentials for medical school application.

The Research track is designed to develop fundamental concepts and skills in research with a focus on a specialized area of biomedical study.

The Dual D.O./M.S. track is appropriate for students who have been accepted into the KCOM

medical program and who wish to better prepare themselves for more competitive residencies and/or an academic career. Students desiring this program must apply for it and go through a separate selection process. With prior arrangement, applicants visiting Kirksville to interview for the medical program may also interview for the Dual track of the Biomedical Sciences program on the same day.

The Human Anatomy Education track is designed for the student who wishes to teach human gross anatomy in undergraduate, health sciences, or related programs. The program also is valuable for those students who wish to strengthen his or her understanding of human anatomy in preparation for certain medical specialty areas.

Requirements of Admission:

1. Applicants must have earned a baccalaureate degree from a regionally accredited institution prior to matriculation.
2. The applicant must have achieved a minimum 2.5 cumulative grade point average overall and a 2.5 minimum science grade point average on a 4.0 scale.
3. Applicants are required to submit scores from the Graduate Record Exam (GRE) or the Medical College Admission Test (MCAT), or the Dental Admission Test (DAT). The college requires that all test scores must be taken within three years of application.
4. Applicants who are considered potential candidates will be invited to visit KCOM to participate in an applicant interview process.
5. Matriculants are required to submit official transcripts from all colleges and universities attended by the date of matriculation. The final transcript confirming an undergraduate or graduate degree, if required for the academic program, must be submitted by the date of matriculation. Individuals who have a reason acceptable to the university for submitting transcripts after the due date (i.e., late accepts, or delays by sending institutions) must submit their official

transcripts to the Registrar by the first day of the second week of classes. Official recording of all required transcripts will occur by the end of the first academic term.

6. Applicants must have completed the following courses prior to matriculation:
  - Biology – one year with laboratory or 8 semester hours/12 quarter hours
  - Physics – one year with laboratory or 8 semester hours/12 quarter hours
  - General or Inorganic Chemistry – one year with laboratory or 8 semester hours/12 quarter hours
  - Organic Chemistry – one year with laboratory or 8 semester hours/12 quarter hours
  - English – 6 semester hours/9 quarter hours
  - College Algebra or higher – 3 semester hours/5 quarter hours

All applicants must submit a completed application along with a nonrefundable application fee. To complete the application process, applicants must also include official transcripts from all colleges attended, two letters of reference, and official standardized test scores (e.g., MCAT, DAT or GRE).

Biomedical Science Program applicants can apply directly to the college by contacting [admissions@atsu.edu](mailto:admissions@atsu.edu).

Additional information regarding program application deadline date, tuition and expenses, and related financial assistance can be found on the University's web page, [www.atstu.edu](http://www.atstu.edu), or email your inquiry to [admissions@atsu.edu](mailto:admissions@atsu.edu).

### ***Course Credit, Transfer, and Advanced Standing, International Student Admissions***

KCOM will consider granting course credit by a comprehensive examination for applicants who have earned a Ph.D. in a biomedical discipline from an accredited institution. Advanced standing

based on credit or transfer may be appropriate under certain circumstances. See the following section for specific information.

#### ***Course Credit***

Petitions for course credit based on an earned Ph.D. should be submitted in writing to the Admissions Office. All transcripts and admission forms must be completed and received by Admissions before advanced standing will be considered. Petitions must be submitted at least four weeks prior to the start of class.

Potential advanced credit for specific courses will be determined by the Associate Dean for Academic Affairs in consultation with the Admissions Committee. Once eligible courses have been determined, the applicant will be given comprehensive exams, designed and administered by the appropriate department chairperson. The applicant must score an 80 percent or higher to receive advanced credit. All testing and decisions for advanced credit must occur before the applicant's first day of classes.

The applicant must be interviewed, accepted for admission, and pay all appropriate fees, prior to taking any comprehensive exams.

#### ***Transfer***

Requests for transfer to KCOM must be made to the Admissions Office and be accompanied by a formal application, a detailed letter of application, MCAT scores, official transcripts from all colleges, universities, and medical schools attended, a letter of standing from the Academic Affairs Dean at current medical school, and a secondary application with fee. Applicants should not previously have applied to, and been rejected by KCOM. Additional documents or letters of evaluation may be requested by the Admissions Committee.

Credits may be transferred only from medical schools and colleges accredited either by the American Osteopathic Association's Commission on Osteopathic College Accreditation (AOA COCA), or by the Liaison Committee on Medical Education (LCME). When a student transfers from another COM, or an LCME accredited medical school or college, the last two years of instruction must be completed at KCOM. In the

case of LCME transfers, the KCOM requirements for osteopathic manipulative medicine must be completed prior to graduation.

The Association Dean for Academic Affairs, in consultation with the Registrar, will make the final decisions regarding the courses for which the transfer student will receive credit. Once this is determined, the transfer student will be granted an on-campus interview. All transfer students must complete at least the last two years of the education at KCOM.

### ***Advanced Standing***

Admitted students who hold a Ph.D. and who receive course credit by comprehensive examination, or students who transfer from an eligible medical school, may receive advanced standing; that is, they may be placed in an advanced class at KCOM.

Requests for advanced standing must be made to the Office of Admissions and the applicant must have on file a formal application, a detailed letter of application, MCAT results, official transcripts from all colleges, universities, and medical schools attended, a letter of standing from the academic affairs dean at current medical school, and a secondary application with \$60 secondary fee. Additional documents or letters of evaluation may be requested by the Admissions Committee.

All transfer students must complete at least the last two years of their education at KCOM. For example, an eligible student might be placed in the second-year curriculum upon entering KCOM. Such advanced standing will depend on courses for which advanced credit is earned or courses which are transferred from another medical school. The Associate Dean for Academic Affairs in consultation with the Registrar shall make final decisions concerning advanced class standing.

### ***Application Requirements for Transfer and/or Advanced Standing***

Applicants who request a transfer and/or advanced standing for admission to A.T. Still University, Kirksville College of Osteopathic Medicine (KCOM), must have completed all undergraduate requirements for admission as stated in current university publication, including complete courses

in English, biological sciences, physics, inorganic chemistry and organic chemistry.

Applicants requesting transfer and/or advanced standing for admission must have the following documents on file before being considered for admission:

- A letter from the applicant indicating why they wish to transfer to KCOM and explaining any difficulties encountered at previous institutions attended
- All undergraduate transcripts of credit. Submitting an AACOMAS or AMCAS application may fulfill this. If accepted for admission, official transcripts of credits must be received for each institution attended
- Medical College Admission Test score(s)
- A letter from the Dean of Academic Affairs of all professional schools attended, giving status of student or terms of withdrawal from that school
- Official transcripts from all colleges and universities attended by the date of matriculation, including confirmation of an undergraduate degree
- Secondary application and \$60 secondary fee
- Additional documents or letters of evaluation as determined by the Admissions Committee may be requested.

Following the receipt of the above credentials, if considered qualified for admission, the completed application will be reviewed and the applicant will be invited for an on-campus interview.

The applicant will have a minimum of four interviews including the Associate Dean for Academic Affairs, Associate Dean for Clinical Educational Affairs, Vice President for Student and Alumni Services, Associate Vice President for Student and Alumni Services, and Basic Science or Clinical Faculty.

Following an academic report (credit analysis) by the Associate Dean for Academic Affairs and the Associate Dean for Clinical Educational Affairs, the Admissions Committee will determine

whether or not the applicant will be accepted for admission, the amount of credit allowed, and the standing of the applicant.

### ***International Student Admissions***

The following guidelines will be used in reviewing international students for admission to KCOM.

1. International students applying for admission to KCOM must meet all general requirements for admission as stated in admissions publications.
2. A minimum of one year undergraduate or graduate training should have been completed in the United States prior to consideration for admission to KCOM.
3. Proficiency in the English language, both written and spoken is required. TOEFL scores may be required. For registration information for TOEFL contact:

TOEFL Services  
Educational Testing Service  
P.O. Box 615  
Princeton, NJ 08541-6151, U.S.A.  
1.877.863.3546 or 609.771.7100  
**toefl@ets.org**  
**www.ets.org**

All academic course requirements and minimum GPA requirements must be met. All course work taken at the foreign institution must be evaluated for American institution equivalence by one of the following services:

World Education Services, Inc.  
P.O. Box 745  
Old Chelsea Station  
New York, NY 10113-0745  
212.966.6311  
**www.wes.org**

Educational Credential Evaluators, Inc.  
P.O. Box 514070  
Milwaukee, WI 53203-3470  
414.289.3400  
**www.ece.org**

Josef Silney & Associates, Inc.  
International Education Consultants

P.O. Box 248233  
Coral Gables, FL 33124  
305.273.1616  
**www.jsilny.com**

International Education Research  
Foundation, Inc.  
P.O. Box 3665  
Culver City, CA 90231-3665  
310.258.9451  
**www.ierf.org**

American Association of Collegiate  
Registrars & Admissions Officers  
One Dupont Circle, N.W., Suite 520  
Washington, DC 20036-1135  
202.296.3359  
**www.aacrao.org/credential/individual.htm**

4. Credit for advanced standing will not be given for any work completed in foreign graduate or medical schools. All students must apply for first-year status.
5. International students must have permanent residency status (green card) to be eligible to receive any type of federal financial assistance.
6. International students not having permanent residency status must provide written proof of ability to finance their medical education prior to matriculation.
7. Applicants must submit Medical College Admissions Test (MCAT) scores that are not older than three years.
8. International students seeking to enter a program of study at KCOM must obtain an appropriate visa issued by the U.S. Government. KCOM is approved to issue a U.S. Department of Homeland Security For I-20. Upon receiving the completed Form I-20 from KCOM, you will be able to apply for an F-1 (student) visa.

### ***Canadian Student Admissions***

The following guidelines will be used in reviewing Canadian students for admission to KCOM.

1. Canadian students applying for admission to KCOM must meet all general requirements for admission as stated in admissions publications.
2. For French speaking Canadians, proficiency in the English language, both written and spoken, is required. TOEFL scores may be required. For registration information contact:  
  
TOEFL Services  
Educational Testing Service  
P.O. Box 6151  
Princeton, NJ 08541-6151, U.S.A.  
1.877.863.3546 or 609.771.7100  
**toefl@ets.org**  
**www.ets.org**  
All coursework taken at Canadian institutions must be evaluated according to AACOMAS guidelines and instructions.
3. Credit for advanced standing will not be given for any work completed in foreign graduate or medical schools. All students must apply for first-year status.
4. Canadian students must have permanent residency status (green card) to be eligible to receive any type of financial assistance through the college loan program.
5. Canadian students not having permanent residency status must provide written proof of ability to finance their medical education prior to matriculation.

### ***Minimal Technical Standards for Admission and Matriculation – D.O. Program***

ATSU-KCOM is committed to equal access for all qualified applicants and students. Minimal Technical Standards for Admission and Matriculation (the “Standards”) states expectations of its students. The Standards provide sufficient information to allow the candidate to make an informed decision for application. Minimal Technical Standards for Admission and Matriculation are a guide to accommodation of students with disabilities. Accommodations can be made for disabilities in some instances, but a student must be able to perform in a reasonably independent manner. Procedures to apply for

accommodations are found at the conclusion of this policy.

### ***Technical Standards-Statement of Inclusion***

KCOM matriculates qualified osteopathic medical students. KCOM prohibits discrimination against anyone on the basis of race, color, national origin, religion, sex, age or disability. KCOM expects all applicants and students to meet certain minimal technical standards as set forth herein. In adopting these standards the College believes it must keep in mind the ultimate safety of the patients who may be involved in the course of the student’s education as well as those patients for whom its graduates will eventually care. The Standards reflect what the College believes are reasonable expectations of osteopathic medical students (and physicians) in learning and performing common osteopathic medical treatment.

### ***Categories of Technical Standards***

A Doctor of Osteopathic Medicine (D.O.) must have the knowledge and skills to function in a broad variety of clinical situations and to render a wide spectrum of patient care. In order to carry out the activities described below, students must be able to consistently, quickly, and accurately integrate, analyze, and synthesize data. Students must possess at a minimum, the following abilities and skills: observation; communication; motor; sensory; strength and mobility; intellectual; conceptual; integrative, and quantitative; and behavioral and social. These abilities and skills comprise the categories of KCOM Minimal Technical Standards for Admission and Matriculation and are defined as follows:

**Observation:** Students must have sufficient vision to be able to observe demonstrations, experiments, and laboratory exercises. Students must have adequate visual capabilities for proper evaluation and treatment integration. They must be able to observe a patient accurately at a distance and up close.

1. **Communication:** Students should be able to hear, observe, and speak to patients in order to elicit and acquire information, examine them, describe changes in mood, activity, and posture, and perceive

nonverbal communication. Students must be able to communicate effectively and sensitively with patients. Communication includes not only speech but also reading and writing. They must also be able to communicate effectively in oral and written form with staff and faculty members, the patient and all of the members of the health care team.

2. Motor: Motor demands include reasonable endurance, strength, and precision. Students should have sufficient motor function to execute movements reasonably required for general care and emergency treatment. Such movements require coordination of both gross and fine muscular activity, equilibrium, and functional use of the senses of touch and vision.
3. Sensory: Students need enhanced sensory skills, including accuracy within specific tolerances and functional use for laboratory, classroom and clinical experiences. Students who are otherwise qualified but who have significant tactile sensory or proprioceptive disabilities must be evaluated medically. These disabilities include individuals who were injured by significant burns, sensory motor deficits, cicatrix formation, and malformations of the upper extremities.
4. Strength and mobility: Students must have sufficient posture, balance, flexibility, mobility, strength and endurance for standing, sitting and participating in the laboratory, classroom and clinical experiences.
5. Intellectual, conceptual, perceptual, integrative, and quantitative: These abilities include reading, writing, measurement, calculation, reasoning, analysis, and synthesis. In addition, students should be able to comprehend three-dimensional relationships and to understand the spatial relationships of structures. Problem solving, the critical skill demanded of physicians, requires all of these intellectual abilities.

6. Behavioral and social: 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, and effective relationships with patients. Students must be able to tolerate physically demanding workloads and to adapt to changing environments, to display flexibility, and to learn to function in the face of uncertainties inherent in the clinical problems of many patients. Compassion, maturity, honesty, ethics, concern for others, interpersonal skills, interest, and motivation are all personal qualities that will be assessed during the admission and educational processes. Students shall be prepared to endure the physical and emotional demands of the medical profession.

#### *Additional Information*

Examples of associated standards are listed in some detail at the following link: [http://www.atsu.edu/student\\_resources/disabilities/standards.htm](http://www.atsu.edu/student_resources/disabilities/standards.htm). Categories, standards and examples mentioned at the link serve for purposes of demonstration and are not intended as a complete list of resources.

Communications regarding disabilities and accommodations with the Director of Student Resources have no bearing on the application process. You may contact the Director of Student Resources by telephone, 660.626.2424, or at the following address:

Director of Student Resources  
A.T. Still University of Health Sciences  
800 West Jefferson  
Kirksville, MO 63501

#### *Application Procedures for Accommodations*

The institution remains open to possibilities of human potential and achievement, providing support for students with disabilities. The Vice President for Student and Alumni Services is responsible for administration of and compliance

with the Technical Standards and Accommodations Policy through the Director of Student Resources. Accepted students and matriculates' who have disabilities and are otherwise qualified may request accommodations in writing to the Director of Student Resources, KCOM, 800 West Jefferson, Kirksville, MO, 63501.

The Student Resources Director will confer with the student and may request documentation and may refer the student for individual assessment by qualified experts. The KCOM Technical Standards and Accommodations Committee shall review any requests for accommodations. The Committee determines whether there are disabilities as protected by the Americans with Disabilities Act and then decides if reasonable accommodations can be made without the essential nature of the medical school program.

The Committee makes recommendations for or against accommodations to the Student Resources Director who then notifies the student and appropriate faculty and staff members who have an educational need to know. The student can appeal the decision in writing within ten days of notification to the Dean of KCOM.

### ***Selection of Applicants***

The Admissions Committee seeks those individuals who identify with the goals of our mission statement.

Applicants are screened for academic achievement, clinical involvement, interpersonal relations, leadership and service, perseverance, maturity, motivation and osteopathic awareness. Applicants who reach the final phase of the selection process will be invited to visit the University for an interview. All applicants selected for admission are interviewed prior to acceptance. As a private institution and the founding college of osteopathic medicine, KCOM recruits students from all parts of the United States who are interested in a career in osteopathic medicine.

The Admissions Committee reserves the right to accept, reject, or defer an application. Successful applicants are granted a specified time period to notify KCOM of their intention to enroll.

Accepted students must submit to KCOM the admission agreement, non-refundable deposits, official transcripts, immunization record, criminal background check, and proof of health insurance. These must be on file with the ATSU Registrar prior to matriculation. Admission, after acceptance, is subject to the satisfactory completion of all academic requirements.

## ***Registration***

Students are required to register in person during first-year orientation as specified in the calendar. Because the curriculum is fixed and courses proceed in a prescribed sequence, enrollment will be considered continuous and full-time for the entire program unless the student notifies the Department of Student and Alumni Services Office in writing of his or her intent to withdraw from classes. Matriculation is subject to the satisfactory completion of all academic requirements; receipt of official transcripts from all previously attended colleges and universities, a complete immunization record, criminal background check, and a statement of adequate insurance coverage as defined by the College.

## ***Enrollment***

Students are enrolled in courses upon the approval of the Dean.

## ***Auditing a Course***

In general, the audit policy is designed for use only by KCOM students who either need to review course content or are taking an irregular schedule.

The conditions of an audit are as follows:

1. Students are allowed to sit in class and may participate in laboratory experiences only on a space available basis. Students are not allowed to take examinations or quizzes offered in class.
2. No tuition is charged for the audit(s).
3. No record of the audit(s) appears on the transcript.

All audits are subject to the approval of the Dean or his or her designee. Questions concerning the audit policy should be directed to the Associate Dean for Academic Affairs.

## ***Tuition and Fees***

1. **D.O. Tuition:** Tuition is based on a yearly assessment. One-half is due at the beginning of the first and third quarters. Tuition and fees are subject to change.

**Biomedical Science Tuition:** One-half of the tuition is due at the beginning of the first and third quarters. Tuition and fees are subject to change.

2. **D.O. Application Fee:** A non-refundable fee is due at the time the secondary application is submitted. The application fee does not apply to tuition.

**Biomedical Science Application Fee:** A non-refundable fee is due at the time the secondary application is submitted. The application fee does not apply to tuition.

3. **D.O. Acceptance Fee:** This non-refundable fee is an advance payment on the first year's tuition. It is due upon notice of acceptance and applied to tuition at the time of enrollment.

**Biomedical Science Acceptance Fee:** This non-refundable fee is an advance payment on the first year's tuition. It is due upon notice of acceptance and applied to tuition at the time of enrollment.

4. **D.O. Pre-Registration Fee:** This non-refundable fee is payable by May 1 preceding registration to hold a place in the class and will be applied to tuition at the time of registration.

Biomedical Science does not have a pre-registration fee.

5. **D.O. Pre-Matriculation Fee:** This non-refundable fee is due by June 1 and is applied to tuition at the time of registration.

Biomedical Science does not have a pre-matriculation fee.

## ***Refund Policy for D.O. and Biomedical Science Programs***

A student who withdraws from the KCOM must complete an "Exit Process" form as part of the exit process. This form should be obtained from the Associate Dean for Academic Affairs, the Associate Dean for Clinical Educational Affairs or the Vice President for Student and Alumni Services. A student's eligibility for a refund will be determined.

### ***Scholarships for D.O. Program***

Scholarships are presently awarded to students in recognition of academic achievement, leadership, or financial need. Students are encouraged to call the Office of Financial Assistance for more specific information or go to the ATSU web site.

# Academic Standards, Guidelines, & Requirements

Students are responsible for complying with all academic standards, guidelines, and requirements as set forth in this catalog.

## Policy on Prerequisite Courses for D.O. Program

The Doctor of Osteopathic Medicine curriculum of the University is designed as a linear curriculum; that is, students should successfully complete the schedule of courses offered in sequence during their first and second years of matriculation. However, students are occasionally required to repeat courses or complete outstanding requirements in courses before successful completion of schedules is obtained.

The following prerequisite courses must be completed before the specific related courses can be taken:

Courses	Prerequisites
Biochemistry II	Biochemistry I
Clinical Experiences	Successful completion of all courses in the first 3 quarters.
Gross and Developmental Anatomy II	Gross and Developmental Anatomy I
Gross and Developmental Anatomy III	Gross and Developmental Anatomy II
Histology II	Histology I
Immunology	Biochemistry II
Infectious Diseases	Medical Microbiology
Medical Microbiology	Biochemistry II
Neuroscience I	Biochemistry II
	Physiology II

Neuroscience II	Neuroscience I
OTM	All courses must be completed in sequence.
OTM II	Gross and Developmental Anatomy I
OTM III	Gross and Developmental Anatomy II
Courses	Prerequisites
Pathology	All courses must be completed in sequence.
Pathology I	Gross and Developmental Anatomy III Histology II Physiology II
Pharmacology I	Medical Microbiology Pathology I Physiology II
Pharmacology II	Pathology II Pharmacology I
Physiology I	Biochemistry I
Physiology II	Physiology I
Principles of Medicine I	Medical Microbiology Pathology I
Principles of Medicine II	Pathology II Principles of Medicine I
Principles of Medicine III	Pathology III Principles of Medicine II
Principles of Surgery I	Gross and Developmental Anatomy III Pathology I Physiology II
Principles of Surgery II	Principles of Surgery I
Principles of Surgery III	Principles of Surgery II
The Complete DOctor	All courses must be completed in sequence.
Women's Health	Infectious Diseases Pharmacology I

Most basic science courses serve as prerequisites for the clinical courses with the exception of OTM courses and Family Medicine.

The ramifications of the foregoing statements regarding the prerequisite nature of certain courses produce the following principles related to students' academic schedules:

1. Failing any of the preceding courses may result in dismissal or, upon recommendation of the Student Promotion Board and approval of the Dean, may result in needing to repeat a course, placing a student in the position of requiring either two years to complete the first year of work or three years to complete the first two years of work.
2. The Associate Dean for Academic Affairs or the appropriate designee will determine the schedule for each student who must repeat courses/subsequent courses which interrupt a student's normal schedule. This information will be given to the Registrar who will officially enroll the student.
3. It is expected that students complete their degree program in the timeframe established by the institution. Exceptions are rare and can be made only by the Dean.
4. The Student Promotion Board will convene on all failures and make recommendations to the Dean.

### ***Class Attendance***

The individual instructor (or course director) will indicate the degree to which class attendance is a requirement for successful completion of the course.

Except by invitation of instructors, only students, faculty, or staff may attend classes and laboratories.

### ***Clinical Rotation Grading***

Clinical clerkships are graded Honors, High Pass, Pass, and Fail based upon the preceptor evaluation, post rotation exam and through a variety of other evaluations that are weighted appropriately. Both the post rotation exam and

the preceptor evaluation must be passed independently. Failure of the preceptor evaluation will result in a minimum of a repeat rotation. Failure of the post-rotation test will require the student to retest within the academic year. Failure of the post-rotation test on the second try will result in Student Promotion Board review.

Additional assessment during clinical clerkship rotations includes written case presentations, oral case presentations, quizzes, online modules, logbook entries, and journal club. These assessment tools are graded as Honors, High Pass, Pass and Fail. Failure of any of these required activities will require remediation and repeat of the performance.

After successful completion of all third year Core clerkship rotations, students will take a comprehensive written Core exam. The Core exam is graded as Pass or Fail. Failure of the Core Exam on the second try will result in promotion board review. In addition, students will participate in the OMSIII-PE Testing, scored as Pass or Fail. Successful completion of these assessment tools is required in order to graduate. Fourth-year assessment is based on the preceptor evaluations. Each student also completes a written case report.

### ***Immunizations, Screenings, and Certifications for D.O. and Biomedical Science Programs***

KCOM requires students to have documented (1) completion of the required KCOM immunization schedule or (2) a State of Missouri allowable immunization exemption certificate on file with the KCOM Immunization Coordinator and the Immunization Medical Director. The immunization and screening requirements span the entire time of enrollment at KCOM.

1. KCOM students (medical students, fellows, and biomedical science students) must meet conditions listed above. The immunization and screening schedule spans the entire time of enrollment at ATSU/KCOM. Therefore, compliance is required on continuous basis. Students failing to meet these standards will not be allowed to have school sanctioned clinical training until requirements are met.

2. Students will be notified of impending non-compliant status. Students not in compliance with the immunization and screening requirements will be reported to the Associate Dean for Academic Affairs, Associate Dean for Clinical Educational Affairs, or Graduate Program Committee (Biomedical Sciences) (as appropriate). In addition, non-compliant students will be removed from clinical experience and direct patient care contact until compliance has been achieved.
3. Students should be aware additional immunizations are required in specific regions. Likewise, specific sites may also require Drug Screens prior to student participation in a rotation. Regional immunization and screening requirements are subject to change. Students will be notified of these requirements.
4. Students should be aware immunization and screening standards may be different for certain clinical rotations as compared to others. It is not uncommon for infectious disease and pediatric/neonatal intensive care rotations to require further proof of immunization status than other clinical rotations. Students wishing to complete clinical training rotations in these facilities will need to comply with the facilities' required immunization and screening policies.

Immunizations and screenings typically included in required schedule.

(Requirements are updated yearly and therefore subject to change. This information is included for reference only.)

#### Required

- a. Hepatitis B series (HepB); if documentation cannot be produced, titer is required.
  - b. Diphtheria, Tetanus, Pertussis (DTP) series – if documentation cannot be produced, booster shot is required.
  - c. Polio Virus series
  - d. Measles, Mumps, Rubella(MMR); if documentation cannot be produced, booster shot or titer is required.
  - e. Varicella immunization, serum titer, or physician documentation of date of contraction.
  - f. Tetanus/Pertussis (Tdap) booster every 10 years.
  - g. Tuberculosis skin test (TST Mantoux testing or Quantiferon-TB Gold (QFT-G)); and if indicated further evaluation with chest x-ray, cultures, or biopsy. Please refer to the Tuberculosis exposure procedure (90-13). TB status must be updated annually.
5. Recommended:
    - Influenza
    - Hepatitis A
    - Meningococcal
    - Pneumococcal
  6. Documents related to immunizations and screenings will be maintained and monitored through the Immunization Coordinator.
  7. All testing is at the expense of the student.

Students should refer to the Immunization and Screenings policy statement for more information.

Prior to clinical rotations, KCOM students are required to obtain and maintain health provider level Cardiopulmonary Resuscitation (CPR) and Advanced Cardiopulmonary Life Support (ACLS) certification.

#### ***Clinical Rotation Standards***

The Curriculum Committee and the Assessment Subcommittee are responsible for establishing the assessment of learning outcomes. (Decisions directly affecting the educational experience of students during their clinical rotations reside ultimately with the Associate Dean for Clinical Educational Affairs.) Within each region, an administrative structure consisting of a Regional Assistant Dean or Director of Student Medical Education (DSME) and Rotation Site Coordinator has been identified. The role of the Regional

Assistant Dean is to supervise and direct the clinical education of KCOM medical students at the regional site. Authority is granted to the Regional Assistant Deans for these duties. In some cases, this authority may be delegated to specific coordinators with approval of the University. (The Regional Assistant Dean, or designee, will have daily responsibility for decisions directly affecting the educational experience of the students within the region.)

The Regional Assistant Dean has the authority to evaluate, establish, and arrange for clinical rotations at hospitals/clinics within the region that are considered to be of high quality. This responsibility includes decisions relative to preceptors, services, etc., that occur within the region and will be made to maximize the educational experience of the student. Factors that may be considered in such decisions include personalities, availability of staff, hospital census, or any other factor that impacts medical education at the site. The Regional Assistant Dean, or designee, may require attendance at scheduled conferences, grant leave of up to three days per year for personal reasons, conduct internship interviews, etc. Other educational requirements overseen include the writing of papers, attendance at presentations, presenting cases at rounds, etc. In short, the Regional Assistant Dean has the authority and responsibility to enforce the academic policy of the University in the region. In the event that the student does not abide by the decisions of the Regional Assistant Dean, the Associate Dean for Clinical Educational Affairs may issue a letter of reprimand or institute other actions including the possible involvement of the Student Promotion Board.

It will be the responsibility of the Regional Assistant Dean to provide tri-annual progress reports to KCOM on student performance at the regional site. This individual written report will include an assessment of the student's strengths and weaknesses in regard to clinical training. Both cognitive skills and non-cognitive issues should be addressed. This progress report will be based on evaluation forms, log sheets, a personal interview with the student, as well as other preceptors. Summaries of student clinical evaluations are reviewed by the Assessment

Subcommittee with recommendations sent to the Curriculum Committee.

The Associate Dean for Clinical Educational Affairs shall have authority to initiate interim temporary suspension/immediate medical leave for KCOM students. In the event that the Regional Assistant Dean determines that a student may constitute a threat to the welfare of himself/herself, fellow students, staff, or patients, the Regional Assistant Dean may suspend the student or place the student on medical leave effective immediately. Once placed on leave or suspended, the student is no longer covered by University policy (liability coverage, etc.). This notification must be in writing, and the Associate Dean for Clinical Educational Affairs must be notified within three working days of such action. Possible situations where such action may be necessary include the following:

1. Substance abuse (alcohol & other drugs).
2. Medical or psychological illnesses.
3. Suspected illegal behavior.
4. Suspected physical, sexual or emotional abuse.

Suspension may also occur if a student fails to meet/verify or becomes delinquent with University requirements related to personal student health insurance or student immunizations and screenings while enrolled.

Upon notification of such action by the Regional Assistant Dean, the Associate Dean for Clinical Educational Affairs will initiate the proper review to expedite resolution of the interim status. The action of the Regional Assistant Dean may be made permanent, or an alternate plan of action may be made in accordance with University policy prescribed.

In accordance with policy, the Regional Assistant Dean may initiate review for suspected violation of the academic or behavioral codes. The initial step in the process will be notification of the Associate Dean for Clinical Educational Affairs.

In the event a student fails a clinical rotation, the Regional Assistant Dean will interview both student and preceptor and will make a report to the Associate Dean for Clinical Educational Affairs. The Associate Dean for Clinical

Educational Affairs will include the pertinent information as part of the Student Promotion Board meeting.

Additional policies and protocols affecting students in the regions are located in the Clinical Rotations Manual updated annually and the Clinical Educational Affairs Handbook located on the Clinical Educational Affairs webpage of the ATSU portal.

### ***Grading***

For the first two years of coursework, each instructor of record or course director is responsible for submitting a final grade for each student to the Registrar. Percentage grades will be recorded except for courses which are approved for pass-fail grading. The grade for each student will reflect the overall achievement in the course of study measured according to the criteria and policies established by the department or course director.

### ***Definition and Application of Submitted Grades***

1. Academic departments, in cooperation with their course directors, have the responsibility of defining the criteria for a minimum passing grade in each of the courses which they teach. The minimum passing grade is 70 percent. The passing grade in all courses reported to the Registrar must be equated to the University's minimum passing grade standard of 70 percent.
2. A percentage grade of 70 or more (or "pass") indicates satisfactory completion of a course.
3. A percentage grade of less than 70 indicates unsatisfactory completion of a course. Failing grades of 66-69 may be remediated as defined below unless two or more failing grades are reported in a single academic quarter. Students who receive two failing grades in a single academic quarter are subject to the rules and regulations of the Student Promotion Board.

4. A grade of I (incomplete) indicates that course requirements have not been completed.
5. A grade of IP (in progress) indicates the course spans more than one term. The grade is recorded after all requirements are met.

### ***Student Promotion Board for D.O. Program***

The Student Promotion Board monitors the academic progress of all students throughout the academic program of KCOM. The Student Promotion Board is chaired by either the Associate Dean for Academic Affairs or Associate Dean for Clinical Educational Affairs and includes as voting members the Associate Dean for Academic Affairs, Associate Dean for Clinical Educational Affairs, Clinical Department Chairs and Basic Science Department Chairs. The Chair is a voting member, and decisions by the Board will be made by majority vote.

Non-voting consultants to the Student Promotion Board will be the Registrar, Director of Student Resources, Assistant Dean for Clinical Educational Affairs, Vice President for Student and Alumni Services, and the Supervisor of Curriculum Support. In the event that a course director is also a voting member of the committee, he/she will retain voting privileges. Additional appropriate full-time faculty, such as Directors of Student Medical Education or Regional Assistant Deans, may attend the Student Promotion Board meeting without vote.

The responsibility of the Student Promotion Board is to assess the academic progress of all students and ensure that adequate progress is being made toward the degree Doctor of Osteopathic Medicine. To evaluate student progress, the Student Promotion Board will be convened by the Associate Dean for Academic Affairs or Associate Dean for Clinical Educational Affairs at the end of the academic term on an as needed basis, or at the end of the first, second, and third academic years, and in the last half of year four to review student progress. This review will examine cognitive, affective, and psychomotor skills. Reviewed material will include the academic record, subjective evaluations by course directors and faculty, written notes, results of Performance Evaluations, such as OMSI-PE, OMSII-PE and

OMSIII-PE, as well as other material necessary to fully evaluate the student's progress. At such time, the Student Promotion Board may require/recommend the following:

1. Promotion to the next year of study.
2. Further course work, rotations, or special projects prior to advancement to the next year of study.
3. Assessment for psychological/addiction problems. Such testing will be at student expense.
4. Referral to the Student Resources Office and/or Counseling Services.
5. Participation in a dual degree program may be suspended or terminated if a D.O. course is repeated or remediated.
6. Limitations of co-curricular activities.
7. Dismissal from KCOM.

The Student Promotion Board can also be convened by the Associate Dean for Academic Affairs or the Associate Dean for Clinical Educational Affairs at any time to consider lack of academic progress by any student. Lack of academic progress includes but is not limited to the following:

1. Receiving failing or conditional grades in two courses or in one-half or more of the contact hours in one academic quarter. [In the case of courses which span more than one quarter but in which “grades in progress” are given, those percentages may be used according to the number of contact hours in that quarter in making decisions regarding lack of academic progress.]
2. Receiving failing grades in one-fourth or more of the contact hours in an academic year.
3. Failing the same course twice.
4. Failing to pass the entire COMLEX series.
5. Failing to complete third or fourth year assignments.
6. Failing a clinical rotation.

Following a Student Promotion Board, student(s) will be notified of the outcome by the Associate Dean for Academic Affairs or Associate Dean for Clinical Educational Affairs. Decisions by the Student Promotion Board may be appealed to the Dean in writing, within five calendar days of notification by the Associate Dean. The appeal will be considered only if new and significant information is revealed.

### ***Student Promotion Board for Biomedical Science Program***

The Graduate Program Committee monitors the academic progress of all students within the Graduate Program. The Chair is a voting member and the decisions by the Graduate Program Committee will be made by majority vote. The Registrar serves as a non-voting consultant to the Student Promotion Board. In the event that a course director is also a voting member of the committee, he/she will retain voting privileges.

The responsibility of the Graduate Program Committee is to assess the academic progress of all graduate students and ensure that adequate progress is being made toward the degree Master of Science in Biomedical Sciences. To evaluate student progress, the Graduate Program Committee will be convened by the Chair at the end of the academic term on an as needed basis, or at the end of the first, second, and third academic years to review student progress. Reviewed material will include the academic record, subjective evaluations by course directors and faculty, written notes, progress towards completion of their research project and written thesis, as well as other material necessary to fully evaluate the student's progress. At such time, the Graduate Program Committee may require/recommend the following:

1. Academic probation pending review at the end of the next academic term.
2. Referral to the Student Resources Office and/or Counseling Services.
3. Participation in a dual-degree program may be suspended or terminated if a D.O. level-course is repeated or remediated.
4. Limitation of co-curricular activities.

5. Dismissal from KCOM.

The Graduate Program Committee can also be convened by the Chair at any time to consider lack of academic progress by any student. Lack of academic progress includes, but is not limited to, the following:

1. Receiving a failing grade in any course that academic term.
2. Failure to maintain a cumulative grade point average of at least 2.70 on a 4.00 scale.
3. Failure to make academic progress towards completion of thesis research and/or the written thesis.

Students will be notified of the outcome by the Chair of the Graduate Program Committee. Decisions by the Graduate Program Committee may be appealed to the Associate Dean for Academic Affairs in writing, within five calendar days of notification by the Chair of the Graduate Program Committee. The appeal will be considered only if new and significant information is revealed.

***Graduation Requirements for the D.O. Program***

1. Have been a student in an accredited osteopathic university or equivalent for at least four academic years.
2. Have been enrolled in KCOM during his or her final two years of education. Must complete, to the satisfaction of the faculty, prescribed courses and clinical rotations.
3. Must pass the National Board of Osteopathic Medical Examiners, Inc. (NBOME) Comprehensive Osteopathic Medical Licensing Examination (COMLEX-USA) Level 1, the written component of Level 2 (COMLEX-USA Level 2-CE), and the Performance Evaluation component of Level 2 (COMLELX-USA Level 2-PE) prior to graduation.
4. Have satisfactorily discharged all financial obligations to the University.
5. Complete the KCOM Exit Questionnaire "Senior Survey."

6. Must attend, in person, the commencement program at which time the degree is conferred.

***Graduation Requirements for the Biomedical Science Program***

1. Successful completion of the approved Study Program.
2. Completed a research project, presented an approved written thesis, and presented and passed the oral defense of the thesis.
3. Have satisfactorily discharged all financial obligations to the University.

# Curricula

Due to the dynamic changes in health care and information, the curriculum represents courses which may be altered from time to time. The provisions of the KCOM curriculum do not constitute an irrevocable contract between the Kirksville College of Osteopathic Medicine and its students.

## ***D.O. Program***

The Doctor of Osteopathic Medicine curriculum at KCOM is discipline-based, and multiple innovative learning models have been adopted throughout its evolution. Each course, while discipline-based, has numerous presentation styles including problem-based sessions, case-based presentations, web-based instruction, and small-group labs, workshops and other activities in the first and second years. Clinical integration occurs in most basic science courses. Osteopathic theory and methods are taught throughout the first two years, integrated through an interdependent alignment with basic science and clinical courses. Courses in the first two years prepare the student for the curriculum expected during the clinical rotation experience. Clinical curriculum, including didactics, labs, workshops and osteopathic manipulative medicine, is delivered to students in regional sites during the third and fourth years.

### *First and Second Years*

The first-year and one quarter is primarily devoted to the basic medical sciences, and then students spend three quarters in clinical didactic courses which introduce them to the major specialties in medicine. KCOM also includes clinical education courses and experiences as early as the first quarter of the first year. The first year of study includes a clerkship with a primary care physician. Osteopathic theory and methods are taught concurrently with the basic science and clinical courses during the first and second years. COMLEX-USA Level 1 is required before beginning clinical rotations.

### *Assessment*

Assessment during the first two years may include but is not limited to multiple-choice question exams, similar to the national board examinations which are comprehensive and integrated across content areas where appropriate. In addition, performance assessment is used to assess student accomplishments, assess physical examination skills, osteopathic manipulation skills, interpersonal skills, and clinical skills, such as imaging interpretation. Many of the performance skills are assessed in the KCOM's Performance Assessment Center. In addition, standardized tests similar to the national board examinations are used during the first two years to assess the teaching program and provide feedback to students to help them prepare for their required national board exams.

### *Third and Fourth Years*

During the last 86 weeks of the academic program, students participate in clinical rotations in regional sites. The selection of rotation sites is by an electronic match process. This selection match is held during the second year, and there is opportunity for students to trade regional sites after the initial match.

At the completion of each core clerkship rotation, student progress is assessed by the use of multiple assessments to calculate a final grade.

### *Clinical Region Staff*

During years three and four, student supervision and support is the responsibility of the Clinical Region Staff.

The Regional Assistant Dean is the official representative of the College in interactions with hospitals and preceptors in the region. The Regional Assistant Dean has responsibility for supervising KCOM's educational and research interests and for implementation and assessment of faculty development in the region. The Regional Assistant Dean has the responsibility of decision-making regarding the matching of students to specific preceptors and services in

order to maximize the educational experience of each student.

Other staff members in the regional offices work with students in arranging, assigning, and monitoring clinical rotations and coordinating the educational and assessment activities in the region.

Student progress is assessed in a comprehensive exam at the end of the third year. This comprehensive assessment process includes a written knowledge examination, and performance evaluation to assess specific clinical skills, in addition to interpersonal and clinical reasoning skills.

Assessment during a student's core clinical rotations includes, but is not limited to, preceptor evaluations, end-of-rotation exams, and an end-of-core performance assessment. This includes an objective examination assessing the knowledge base specified by the College's Educational Objectives for the core rotations, clinical skills performance assessment specified for core rotations, and standardized patient testing to assess interpersonal skills and clinical reasoning.

In addition, students are assessed on curriculum performance in oral case presentation, written case presentation, on-line modules, log entries, and journal club presentations.

These assessment tools are the basis of a Student Promotion Board decision that determines if a student is prepared to move to the post-core clinical rotations. For the post-core rotations (fourth year), the basic evaluation tools are the individual preceptor evaluation of a student's performance on each rotation, and performance on a written case presentation.

Students are required to take and pass the COMLEX-USA series of examinations. More specific information regarding when these examinations must be completed is contained in the Student Assessment Plan Summaries (specific for each graduating class year) which can be found on the KCOM Students and the Clinical Educational Affairs web pages located on the ATSU portal.

A typical course schedule consists of the following:

### *First Year*

Biochemistry I and II  
Clinical Experiences (2 week off-campus) rotation  
Histology I and II  
Human Gross and Developmental Anatomy I, II and III  
Human Nutrition  
Immunology  
Medical Microbiology  
Neuroscience I  
Osteopathic Theory and Methods I, II and III  
Pathology I  
Physiology I and II  
The Complete DOctor

### *Second Year*

Dermatology  
Infectious Diseases  
Introduction to Clinical Rotations  
Neuroscience II  
Neuroscience III  
Ophthalmology  
Orthopedic Surgery  
Osteopathic Theory and Methods IV, V and V  
Otorhinolaryngology  
Pathology II, III and IV  
Pediatrics  
Pharmacology I and II  
Principles of Medicine I, II, and III  
Principles of Surgery I, II, and III  
Rheumatic Diseases  
The Complete Doctor  
Women's Health

### *Electives*

Clinical Pharmacology  
Cranial Osteopathy  
End of Life Issues and Hospice Care  
KCOM-CASA Service Learning Initiative  
Medical Spanish  
Professionalism and Service Learning

Research (Years 1-2)  
Research (Year 4)  
Spirituality in Medicine

### ***Third-Year Core Rotations***

Anesthesiology (2 weeks)  
Family Medicine (4 weeks)  
General Internal Medicine (8 weeks)  
Obstetrics/Gynecology (4 weeks)  
Pediatrics (4 weeks)  
Psychiatry (4 weeks)  
Rural or Underserved Family Medicine (4 weeks)  
Surgery (4 weeks)  
Radiology (2 weeks)  
Region Testing (1 week)  
Vacation (2weeks)

### ***Fourth-Year Required Rotations***

Boards (1 week)  
Critical Care (4 weeks)  
Emergency Medicine (4 weeks)  
Family Medicine (4 weeks)  
Internal Medicine or Surgery Electives (4 weeks)  
Orthopedics, Neurology or Psychiatry (4 weeks)  
Pediatric Electives (4 weeks)  
Primary Care (4 weeks)  
Electives (10 weeks)  
Internal Medicine Elective (4 weeks)  
Vacation (4weeks)

## ***Biomedical Science Program***

The Biomedical Sciences Program provides an opportunity for individuals aspiring to health science careers to become prepared for professional studies in medicine, education, or research. KCOM offers research opportunities in anatomy, biochemistry, immunology, microbiology, pharmacology, and physiology. There is also an education track in human anatomy. Students in the osteopathic medicine program also have the option of obtaining a dual D.O./M.S. degree in the research track.

### ***Biomedical Sciences Research Track***

The research track of the Biomedical Sciences Program is designed to develop fundamental concepts and skills in research along with a focus on a specialized area of biomedical study. The research track is appropriate for students who wish to obtain a master's-level biomedical education in a medical school environment, or who wish to strengthen their credentials for application to medical school, dental school, or other professional degree program.

The curriculum for the Biomedical Sciences research track includes core and elective courses along with specialized study in a particular area of biomedical research and health science. Each student's program is determined with the approval of a Research Advisor and Advisory Committee.

The discovery of new knowledge through research is one of the College's missions. Biomedical research at ATSU/KCOM began many decades ago with pioneering studies of neuromuscular activity. Today, after setting the standard, the College has one of the strongest biomedical and scientific research programs among all colleges of osteopathic medicine. Virtually every member of the basic science faculty and some clinical faculty members are engaged in scientific investigations that encompass such diverse fields as aging, animal models, bacteriology, biochemistry, cancer, cardiovascular physiology, enzyme kinetics, hypertension, immunology, lipid biochemistry, molecular biology, muscle physiology, neural development, neuroendocrinology, neuro-modulators, neurotransmitters, pharmacology, sensorimotor integration, and smooth muscle physiology. While some investigators are supported by extramural research grants, the College also supports research efforts by providing a library, scientific instrumentation, a fully accredited laboratory animal care facility (accredited by the American Association for Accreditation of Laboratory Animal Care), and an instrumentation shop. As a result of these active research programs, the faculty participates in professional scientific societies

and publishes routinely in major biomedical and scientific journals.

### *Introduction*

Biomedical Sciences (BMS) Program - A.T. Still University (ATSU – KCOM) is committed to equal access for all qualified applicants and students. Minimal Technical Standards for Admission and Matriculation state expectations of BMS applicants. The Standards provide sufficient information to allow the candidate to make an informed decision for application. Minimal Technical Standards for Admission and Matriculation are a guide to accommodation of students with disabilities. Accommodations can be made for disabilities in some instances, but a BMS student must be able to perform in a reasonably independent manner. Procedures to apply for accommodations are found at the conclusion of this policy.

### *Statement of Inclusion*

ATSU-KCOM admits and matriculates qualified Masters in Biomedical Sciences students. ATSU-KCOM prohibits discrimination against anyone on the basis of race, color, national origin, religion, sex, age, sexual preference or disability. ATSU-KCOM expects all applicants and students to meet certain minimal technical standards as set forth herein. These Technical Standards reflect what the University believes are reasonable expectations of masters prepared professionals in learning and performing common biomedical science research and education.

### *Categories, Standards and Examples*

A Masters in Biomedical Sciences graduate must have the knowledge and skills to function in a broad variety of laboratory situations and a wide spectrum of research, education, and leadership. In order to carry out the activities described below, students must be able to consistently, quickly, and accurately integrate, analyze, and synthesize data. Students must possess, at a minimum, the following abilities

and skills: observation; communication; motor; sensory; strength and mobility; intellectual, conceptual, integrative and quantitative, and, behavioral and social. These abilities and skills comprise the categories of ATSU-KCOM Minimal Technical Standards for Admission and Matriculation and are defined below. Standards and examples appear in table format after the categories. The examples mentioned are not intended as a complete list of expectations, but only as samples demonstrating the associated standards.

1. **Observation:** Students must have sufficient vision to see demonstrations, experiments, and laboratory exercises. Students must have adequate visual capabilities for proper evaluation and integration.
2. **Communication:** Students should be able to hear, see, and speak to colleagues in order to elicit and acquire information. Students must also be able to communicate effectively in oral and written form with staff and faculty members and all members of the health team.
3. **Motor:** Motor demands include reasonable endurance, strength, and precision. Students should have sufficient motor function to safely and accurately execute movements reasonably required for research, education, and laboratory work. Such movements require coordination of both gross and fine muscular activity, equilibrium, and functional use of the senses of touch and vision.
4. **Sensory:** Students need enhanced sensory skills including accuracy within specific tolerances and functional use for laboratory and classroom experiences. Students who are otherwise qualified, but who have significant tactile sensory or proprioceptive disabilities must be evaluated medically. These disabilities include

individuals who were injured by significant burns, have sensory motor deficits, cicatrix formation, or have malformations of the upper extremities.

5. Strength and mobility: Students must have sufficient posture, balance, flexibility, mobility, strength, and endurance for standing, sitting and participating in the laboratory and classroom experiences.

6. Intellectual, conceptual, perceptual, integrative, and quantitative: These abilities include reading, writing, measurement, calculation, reasoning, analysis, and synthesis. In addition, students should be able to comprehend three-dimensional relationships and to understand the spatial relationships of structures. Problem-solving and reasoning, critical skill, demanded of researchers and educators, requires all of these intellectual abilities.

7. Behavioral and social: Students must possess the emotional health required for full utilization of their intellectual abilities, the exercise of good judgment, the prompt completion of responsibilities attendant to research, education, and leadership, and the development of mature, sensitive, and effective relationships. Students must be able to tolerate physically demanding workloads and to adapt to changing environments, to display flexibility, and to learn to function in the face of uncertainties inherent in research, education, and leadership. Compassion, maturity, honesty, ethics, concern for others, interpersonal skills, interest, and motivation are all personal qualities that will be assessed during the admission and educational processes. Students shall be prepared to endure the physical and emotional demands of careers in research education and leadership. Students must possess organizational skills to be an effective researcher.

## **Application Procedures for Accommodations**

The institution remains open to the possibilities of human potential and achievement, providing supports for students with disabilities [http://www.atsu.edu/students\\_resources/disabilities/standards.htm](http://www.atsu.edu/students_resources/disabilities/standards.htm). The Vice President for Students and Alumni Services is responsible for administration of and compliance with the Technical Standards and Accommodations Policy through the Director of Student Resources. Accepted students and matriculates who have disabilities and otherwise qualified may request accommodations in writing to the Director of Student Resources, A.T. Still University, 800 West Jefferson Street, Kirksville, Missouri, 63501.

The Director of Student Resources will confer with the student and may request documentation and may refer the student for individual assessment by qualified experts. The ATSU/KCOM Technical Standards and Accommodations Committee shall review any requests for accommodations. The Committee determines whether there are disabilities as protected by the Americans with Disabilities Act and then decides if reasonable accommodations can be made without altering the essential nature of the Biomedical Sciences program.

The Committee makes recommendations for or against accommodations to the Director of Student Resources who then notifies the student and appropriate faculty and staff members who have an educational need to know. The student may appeal the decision in writing within ten days of notification to the Dean of KCOM.

## **Dual Degree D.O./M.S. Track**

The D.O. /M.S. degree is appropriate for students who have been accepted into the KCOM Osteopathic Medical Program and who wish to better prepare themselves for more competitive residencies and an academic career.

The dual-degree track requirements are similar

to the research track of the Master of Science in Biomedical Sciences Program with the exceptions listed below:

All individuals accepted into the medical program are eligible for the research track of the Biomedical Sciences program, but need to interview specifically for the Biomedical Sciences program and go through a separate selection process. Upon prior arrangement, applicants visiting Kirksville to interview for the medical program may also interview for the Biomedical Sciences program.

Each D.O. /M.S. student will have an individualized study program dependent on his or her needs and on their focus of study within the biomedical sciences. The student will pay the M.S. tuition for their first year and the D.O. tuition for the following four years. In the first year, the student will take at least two basic science courses (electives) in addition to the required courses in the M.S. program. It is expected that the student will receive advanced standing for those basic science courses. The student must maintain an 80 percent cumulative weighted grade average on all courses listed in their Biomedical Sciences Study Program (see General Degree Requirements). The combined D.O. /M.S. program will take a minimum of five years to complete. The study program must be approved by the student's Advisory Committee and the Graduate Program Committee. D.O./M.S. students should plan to complete their Biomedical Sciences course work and thesis before beginning their clinical rotations. A version of the D.O. /M.S. program is also available for enrolled D.O. students who have completed three or more academic quarters at KCOM.

## Human Anatomy Education Track

The Human Anatomy Education Track of the Biomedical Sciences Program is designed for the individual who wishes to teach human gross anatomy in undergraduate, health sciences or related programs. This program would also be valuable for a medical student who wishes to strengthen his or her understanding of human anatomy in preparation for certain medical specialty areas, including academic medicine. This program may also benefit individuals who want to improve his or her credentials prior to application to professional degree granting programs.

The Human Anatomy Education Track requires a written thesis based on original, scholarly activity consistent with the research-oriented disciplines in the Master of Science in Biomedical Sciences Program.

*A typical course schedule for the Biomedical Sciences Research track consists of the following:*

### *First Year*

Techniques in Biomedical Science  
Human Biochemistry I  
Critical Reading for Biomedical Sciences  
Introduction to Research Design  
Topics in Biomedical Science  
Grant Writing  
Ethics in Biomedical Research  
Research, Design and Biostatistics  
Oral Presentation  
Thesis Research

Plus 2 Electives (students are required to take at least two additional D.O. level courses in their first year)

## *Second Year*

Thesis Research  
Thesis Seminar  
Plus Elective Courses  
Electives:  
Biochemistry II  
Physiology I & II  
Histology I & II  
Immunology  
Infectious Diseases  
Issues in Biomedical Science  
Medical Microbiology  
Neuroscience I  
Nutrition  
Pharmacology I & II

*A typical course schedule for the Human Anatomy Education Track consists of the following:*

## *First Year*

Human Gross and Developmental Anatomy I, II & III  
Cadaver Care  
Radiology I, II & III  
Neuroanatomy I & II  
Ethics in Biomedical Research  
Oral Presentation  
Fundamentals of Adult Learning (through SHM)  
Plus Selective and/or Elective course

## *Second Year*

Application of Instructional Design I  
Application of Instructional Design II  
Application of Instructional Design III  
Thesis Research  
Thesis Seminar  
Plus Selective and/or Elective course

# Description of Courses

## *D.O. Program*

### **First Year**

#### *Biochemistry I & II*

Biochemistry I and II, taught by Faculty of the Department of Biochemistry, introduces the molecular basis of cell function and the biochemical basis of structure and function of the body. The goals of the course are to educate students in the fundamentals of contemporary biochemistry in sufficient detail to 1) permit comprehension of other basic biomedical sciences 2) understand biochemical mechanisms associated with disease, modern diagnostic techniques and modern therapeutics and 3) be able to maintain currency in the primary biomedical literature throughout their professional lives. Special attention is given to disease states caused by biochemical and genetic abnormalities. The courses are primarily lecture-based with some use of workshops to promote active learning of selected topics.

#### *Clinical Experiences*

This is a clinical preceptorship rotation spent in the office of a primary care physician during the interim between quarters three and four (summer). This experience allows the student to use the physical examination skills in ambulatory practice. Students are able to assess primary care as a future career choice, develop clinical skills, and become familiar with the roles of other health professionals and community resources. Students are required to provide their own transportation to the sites and to have their own transportation while there.

#### *Histology I & II*

This course is taught by the Department of Anatomy. Histology studies the microscopic structure of tissues and organs of the body. This course teaches tissue recognition and function. It lays the foundation for the study of Pathology.

#### *Human Gross and Developmental Anatomy I, II & III*

The course is taught by the Department of Anatomy and is a dissection-oriented course in human gross anatomy. Didactic hours are followed with cadaver dissection laboratory sessions. The content is presented in three interdependent courses, Gross Anatomy I, Gross Anatomy II and Gross Anatomy III. Gross Anatomy I covers back, upper and limb thorax. Gross Anatomy II covers the abdomen, perineum/pelvis and lower limb. Gross Anatomy III covers the head and neck.

Radiology is also presented in all three sections of the course, as it relates to understanding anatomy and future clinical medicine. Embryology is presented as it relates to the development of tissues and organs. Embryology is covered in all three courses.

#### *Human Nutrition*

The nutrition course is presented by of the Department of Biochemistry. The course describes human nutritional requirements in health, in special conditions, and in disease. The relationship of nutrition to biochemical functions is stressed. The course integrates basic scientific knowledge with clinical information through presentations by both basic science and clinical faculty members.

#### *Immunology*

This course is taught by the Department of Microbiology and Immunology. The course teaches the humoral and cell-mediated immune systems of man and their role in autoimmunity, transplantation, host-parasite relationships and disease. The laboratory allows hands-on use of several clinical immunology-based test kits. The objectives of this course are to provide an understanding of the numerous immunologic issues that will come forth in conditions taught in Medical Microbiology and Infectious Diseases.

### *Medical Microbiology*

This course is taught by the Department of Microbiology and Immunology. It teaches the structure, metabolism and genetics of viruses, bacteria, fungi, and parasites in relation to their identification, and pathogenicity. This course focuses on associating microbial agents with diseases that they cause in man. The laboratories cover basic microbiological procedures and techniques, and supplement the material being covered in lectures. Students participate in clinical presentation exercises involving interpretation of clinical case information and presentation of analysis in a small group setting. The objective of this course is to develop in students a basic understanding of virology, bacteriology, mycology, and parasitology, which will be required to be successful in the subsequent Infectious Diseases course.

### *Neuroscience I*

This course is taught by faculty members from the Departments of Anatomy and Physiology. The course is an introduction to cellular and neuroanatomy of the human central nervous system function in health and disease. Specific topics include neuroanatomy and neuronal function, the motor unit, and the anatomy of the neuraxis.

### *Osteopathic Theory and Methods*

The teaching of Osteopathic Theory and Methods and development of specific palpatory skills for diagnoses and treatment extends throughout the four-year curriculum. The four tenets of the osteopathic concept and philosophy are fundamental to each aspect of the coursework: 1) the human body functions as a unified being; 2) the physical structure and tissues are interrelated with function; 3) the human body has a natural tendency for healing with self-regulatory and restorative functions; and 4) the osteopathic approach to healing and disease integrates the first three tenets. The first two years' coursework is divided into six quarters:

The didactic instruction and supervised hands-on laboratory training experienced in the first year

prepare for effective integration of the osteopathic approach into clinical practice.

Excellent faculty-student ratios promote mastery of palpatory diagnosis and osteopathic manipulative techniques. These techniques include high velocity, low amplitude (thrust), muscle energy, counterstrain, indirect, myofascial release, and cranial osteopathy, as well as approaches to visceral dysfunction and myofascial pain syndromes. One-on-one assessment of skills enhances confidence that techniques learned are accurate and effective.

The interplay of the musculoskeletal system in health and disease is demonstrated throughout the course, and special emphasis is placed on recognition and treatment of factors which perpetuate and predispose to dysfunction and disease. Practical treatment designs are formulated to promote healing within each patient by maximizing circulatory and immune functions while enhancing the role of the autonomic nervous system.

### *Pathology I*

This is the first in a series of courses taught by faculty in the Department of Internal Medicine. Pathology begins in the first year and extends through the second year to align with conditions discussed in other courses. The course emphasizes disease as a manifestation of altered function in relation to structural and homeostatic changes. The basic pathological processes of inflammation, repair, degeneration, necrosis, neoplasia, fluid and electrolyte disturbances, circulatory abnormalities, and immune mechanisms are presented. Systemic pathology includes review of diseases and disease mechanisms in all organ systems. Correlation of pathological conditions with commonly used laboratory tests is discussed.

### *Physiology I & II*

Physiology I and II are taught by the Department of Physiology and include the study of the normal function of each of the organ systems in the human body. Emphasis is placed on basic principles and mechanisms that have application throughout all areas of medical practice. Physiology I includes cellular, autonomic,

cardiovascular, and endocrine physiology. Physiology II includes respiratory, renal, acid-base, and gastrointestinal physiology. Problem-based workshops in each quarter emphasize concepts and clinical correlations. Laboratories demonstrate and reinforce the systems covered in lectures.

### *The Complete DOctor*

This course is taught by the Department of Family Medicine, Preventive Medicine and Community Health. The course introduces the student to skills used in clinical practice including professionalism, medical ethics, communication skills, and all aspects of the physical examination. Also included in the course are preventive medicine topics, public and community health curriculum and human sexuality from a life cycle model. Topics on behavioral sciences, death and dying, and substance abuse are included. Small group sessions, the use of videotaping of patient simulations, the teaching with standardized patients, school physicals, and a home visit are some of the unique and effective means of delivery of this curriculum.

## **Second Year**

### *Dermatology*

This course is taught by the dermatology faculty and examines the etiology, symptomatology, diagnosis and treatment of diseases of the skin. The course also covers diagnosis of systemic diseases that present as skin disorders.

### *Infectious Diseases*

This course is taught by the Department of Microbiology and Immunology and uses an organ-systems-based approach to provide in-depth coverage of the etiology, epidemiology, signs and symptoms, pathology, lab tests, differential diagnosis, treatment and prevention of infectious diseases. In addition to lectures, students participate in clinical presentation exercises involving interpretation of clinical case information and presentation of analysis in a small group setting. The objective of this course is to develop in students an

understanding of infectious diseases needed for subsequent clinical courses and rotations.

### *Introduction to Clinical Rotation*

This course prepares students for the mechanics of clinical rotations. Presentations focused on professional behavior, HIPAA, ethics, relationships, assessment criteria, and off-campus access to computing/library services are included. In addition, the physician/nursing panel and peer/student panel provide valuable insight related to preceptor expectations and effective ways to meet the responsibilities of becoming an important member of the healthcare team.

### *Neuroscience II*

This course is taught by faculty from the Departments of Anatomy, Physiology, Neurobehavioral Science and Pharmacology and emphasizes higher order central nervous system function and introduces neurological and neuropharmacological approaches to the diagnosis and treatment of disease of the human nervous system. Neurology is integrated within this course. Specific topics include general and special senses, motor systems, sensorimotor integration and movement, disorders of voluntary movement, cerebrovascular supply and neurological deficits, higher cortical function and dysfunction, and the neurology of trauma and disease.

### *Neuroscience III*

This course emphasizes higher order Central Nervous System function with particular emphasis on topics related to the clinical practice of psychiatry and the neuropharmacological approach to the treatment of psychiatric disorders. Specific topics include the dementias, affective disorders, thought disorders, anxiety disorders, personality disorders, addiction, and psychiatric issues relating to child development and behavior.

### *Ophthalmology*

This course is taught by ophthalmologists in the Department of Surgery and emphasizes the examination, history, diagnosis and treatment of common pathological conditions of the visual system. While diagnosis is emphasized, medical and surgical treatments are discussed. Systemic

diseases that affect the visual system are also considered.

### *Orthopedic Surgery*

This course is taught by orthopedic surgeons in the Department of Surgery and includes the history and physical examination of the orthopedic structures of the human body. The course emphasizes the most common diseases of the bones, joints, ligaments, tendons, muscles and associated nerves. How trauma and disease states affect these structures is emphasized as well as orthopedic management.

### *Osteopathic Theory and Methods*

See description for first year. The content extends through the four years of the curriculum.

### *Otorhinolaryngology*

This course is taught by otolaryngologists in the Department of Surgery, and the course examines the etiology, symptomatology, clinical evaluation and treatment of disorders of the head and neck. Included are congenital and acquired diseases, trauma and surgical procedures.

### *Pathology II, III and IV*

See description for first year. This sequence of courses continues through most of year two.

### *Pediatrics*

The course covers growth, development, and health care from birth through adolescence. Examination, diagnosis, and treatment, as well as etiology and symptomatology of disease, are emphasized. Acute and chronic conditions are taught. Both ambulatory and critical care topics are included. Curricular content in Pediatrics extends through clinical rotations in the third and fourth years.

### *Pharmacology I and II*

This course, taught by faculty in the Department of Pharmacology, emphasizes the basic concepts of pharmacology including the main classes of pharmacological agents. The course presents a survey of general drug categories with a review of specific individual agents to illustrate the concepts

of pharmacological principles, pharmacodynamics, and pharmacokinetics, mechanisms of action, adverse effects, drug interactions and therapeutic uses. The course is presented in a Team-Based Learning format where students work as individuals and in teams to acquire a knowledge base and to experience the application of their knowledge base to solving clinical case-based problems. Course content is delivered in several formats, including traditional lectures, handouts and application exercises.

### *Principles of Medicine I, II and III*

This course, taught by the Department of Internal Medicine and guest faculty, focuses on historical and physical diagnosis of patients with congenital and acquired medical disorders. The course offers general adult medicine, which includes: Cardiology, Pulmonology, Allergy, Gastroenterology, Nephrology, Endocrinology, Hematology, Oncology, and Geriatric Medicine. The course emphasizes differential diagnosis and management of the most common disorders that present in a primary care internal medicine practice.

### *Principles of Surgery I, II and III*

This course, taught by the faculty in the Department of Surgery, emphasizes the presurgical history and physical findings, and acquired diseases and congenital abnormalities of the gastrointestinal, urological, thoracic, vascular and abdominal systems. Diagnosis and surgical treatment of common conditions seen in primary care are emphasized. The basic physiological aspects of general surgery are stressed. Preoperative and postoperative care is stressed. Anesthesiology is included with emphasis on the preoperative evaluation, acute and chronic pain management, anesthesia on the patient with co-existing disease and fluid resuscitation in trauma. A laboratory experience includes hands-on practice and instruction in operating room protocols, surgical scrubbing and gowning, gloving, lesion removal and suturing techniques, central line placement, intubation and airway techniques, arterial blood gas sampling, urinary catheter placement, and chest tube placement.

### *Rheumatic Diseases*

Faculty in the Department of Internal Medicine teaches the diagnosis and management of diseases of the musculoskeletal system including but not limited to arthritis, connective tissue diseases, and vasculitis. Diagnosis and management of rheumatic diseases seen most often in primary care are emphasized.

### *The Complete DOctor*

See description for first year. This course extends through the four years of the curriculum.

### *Women's Health*

This course, taught by faculty in the Department of Surgery, presents care of the female patient during and after her reproductive life. Management of the pregnant female from preconception to delivery, including genetic screening, is presented. Medical, surgical, and pharmacologic treatment approaches to disorders of the urogenital tract, as well as other health care issues that affect women, are also covered.

## **Elective Courses**

### *Clinical Pharmacology*

This 40-hour course for 4<sup>th</sup> year medical students will address advanced topics in pharmacology and will build upon the student's previous knowledge to facilitate their continuing development toward physicians who will prescribe drugs. The overall objectives of this course are to increase the student's knowledge of the core principles of clinical pharmacology, improve the student's ability to evaluate and effectively utilize drug information resources, and help pharmacology, improve the student's ability to evaluate and effectively utilize drug information resources, and help develop the student's competence to rationally prescribe drugs for a variety of individual patients.

### *Cranial Osteopathy*

This 20-hour course for 1st year medical students teaches the treatment of the cranio sacral mechanism and the pathology that develops therein. Completion of this additional 20-hour course provides KCOM medical students a total of

40 hours in basic cranial studies, which is needed to qualify for Cranial Academy membership and to be prepared for additional advanced cranial courses offered by the Cranial Academy and the Sutherland Cranial Teaching Foundation.

### *End of Life Issues and Hospice Care*

This 40-hour course is designed to expose medical students to end-of-life patient care, the Hospice goals and philosophy, the role of palliative care in patient care, bereavement care and family dynamics in crisis situations, and selected ethical and legal issues including understanding Advanced Care Planning / Advanced Directives. The course will utilize presentations, role-plays, and patient visits with interdisciplinary teams members involved with a patient in Hospice or End-of-Life care.

### *KCOM-CASA Service Learning Experience*

This 30-hour (minimum) course involves medical students in the Adair County Court Appointed Special Advocate (CASA) program. Students (in the first 30 hours) become trained volunteers who (over the remainder of one year) will be able to work through the court system in collaboration with key agencies, legal counsel, and community resources to serve as a child's advocate and to represent the child's best interest in juvenile court. Involvement in this program should reinforce and instill in students such qualities as civic and social responsibility, leadership skills, professionalism, and altruism. Students should gain a degree of cultural competence and awareness of disadvantaged youth and their families. They should improve written and verbal communication skills, moral reasoning skills, and ability to address difficult and stressful social conflicts.

### *Medical Spanish*

This 48-hour course for 1st - 4th year medical students is comprised of four units. It provides the student with the knowledge of the basic structures of the Spanish language and the specialized medical vocabulary needed to communicate effectively with Spanish-speaking patients. Cultural studies emphasize the health beliefs of Spanish-speaking communities.

### *Professionalism and Service Learning*

This 12-hour (minimum) course for 3<sup>rd</sup> and 4<sup>th</sup> year medical students combines community service projects with structured educational objectives to foster self-reflection, self-discovery, and the acquisition and comprehension of values, skills, and knowledge necessary to become excellent physicians.

### *Research (Years 1-2)*

This 80-hour course will provide 1<sup>st</sup> and 2<sup>nd</sup> year medical students an opportunity to participate in either a clinical, basic science or educational research project under the supervision and guidance of an experienced research mentor. Students can expect to be involved in the planning and execution of studies, data analysis, and writing, as appropriate for the stage of the research. No prior research experience is necessary.

### *Research (Year 4)*

This course (80 or 160 hour options) will provide 4<sup>th</sup> year medical students an opportunity to participate in either a clinical, basic science or educational research project under the supervision and guidance of an experienced research mentor. Students can expect to be involved in the planning and execution of studies, data analysis, and writing, as appropriate for the stage of the research. No prior research experience is necessary.

### *Spirituality in Medicine*

This 20-hour course for 1<sup>st</sup> year medical students will explore spirituality in medicine and spiritually/culturally competent care. Topics will include patient values, belief systems, cultural and psychosocial factors in health practices, the nature of suffering and self-care concepts.

## **Fellowship Programs**

### *KCOM-Hollister Clinical Research Fellowship*

The KCOM–Hollister Clinical Research Fellowship is designed to provide KCOM students who have completed at least their second year of medical school an opportunity to receive intense training in medical product research, development and testing in the clinical setting. Research fellows are enrolled in KCOM’s Graduate Program leading to a Master of Science in Biomedical Sciences degree with fulfillment of their course of study and training. Under mentorship of Hollister Incorporated and KCOM personnel, fellows design and conduct clinical trials and bench experiments leading to the development and refinement of a product of commercial value and positive contribution to patient health care.

The Hollister fellowship runs from July 1 to June 30, postponing the student’s clinical training by one calendar year. At the conclusion of the one-year fellowship period, the student resumes their medical training. KCOM will waive one year of the remaining medical school tuition once the student resumes their clinical training.

It is anticipated that the fellow will be able to complete the requirements for conferral of the Masters degree in one year; however, it is not unreasonable that the final stages of completing the research thesis may take beyond the one-year time frame. This process is managed by the student’s Advisory Committee.

Remuneration for participation in this program is in the form of a stipend/tuition credit.

Details concerning applications for these positions are available from the Graduate Program Committee.

### *Predoctoral Fellowship*

Predoctoral fellowship positions are currently offered by Anatomy, Osteopathic Manipulative Medicine, and Academic Affairs. Fellows are involved in teaching and research.

Details concerning applications for these positions are available from the Academic Affairs Office.

### *Postdoctoral Study*

Contact the KCOM OPTIK office for additional information about internship and residency training programs affiliated with KCOM.

## ***Biomedical Sciences Program***

### ***Biomedical Sciences Research Track - Required Courses:***

**BMSCI 510 Human Biochemistry I (6 QCH)**  
This course describes the molecular basis of cell function and the biochemical basis of structure and functions of the body. Special attention is given to disease states caused by biochemical abnormalities as well as genetic abnormalities. The broad objective of the course is to contribute to the formation of a solid foundation of knowledge for future comprehension of clinical diagnosis and therapy. Laboratories are intended to reinforce basic concepts and to demonstrate the biochemical basis of key metabolic diseases. Clinical case presentations and small problem-based learning groups are used for instruction as well. Prerequisites: None.

**BMSCI 540 Techniques in Biomedical Science (3 QCH)**  
This course involves experiences in a minimum of two research laboratories at ATSU/ KCOM in order to acclimate to the environment and to have more information in determining a research project and Research Advisor. This course is graded as pass/fail. Prerequisites: None.

**BMSCI 541 Introduction to Research Design (2 QCH)**  
This course involves identifying and developing biomedical science research projects. Topics include defining research questions and hypotheses, establishing significance of the research, selecting outcome measures, and choosing appropriate experimental designs. This course incorporates the "Fundamentals of Evidence-Based Medicine" course for first-year D.O. students. Prerequisites: None.

**BMSCI 542 Research, Design and Biostatistics (4 QCH)**

This is a course in experimental design, methodology and statistical analysis. Prerequisites: Introduction to Research Design.

**BMSCI 544 Grant Writing (2 QCH)**  
This course focuses on the technical aspects of organizing and writing a grant proposal, leading to the start of the student's own research proposal. It also includes instruction in basic medical informatics. Prerequisites: None.

**BMSCI 545 Oral Presentation (2 QCH)**  
This course focuses on the preparation and presentation of a research seminar. In addition to class instruction and discussion, students regularly attend and discuss basic science seminars. The course culminates in the student's presentation of his/her research proposal during a basic science seminar. Prerequisites: None.

**BMSCI 546 Ethics in Biomedical Research (2 QCH)**  
This course involves presentation and discussion of ethical issues to be considered in biomedical research. Prerequisites: None.

**BMSCI 548 Critical Reading for Biomedical Science (1 QCH)**  
This course involves group discussion of assigned multidisciplinary scientific research publications. The student will learn to evaluate and critique primary research publications. This course is graded as pass/fail. Prerequisites: None.

**BMSCI 550 Topics in Biomedical Science (2 QCH)**  
This focused course is designed to provide the narrow area of content that will be most useful as the student develops the research project. The course is directed by the student's Research Advisor and is set up on an individualized basis. Course work may involve directed reading, discussion, assignments, and attendance at appropriate specific lectures in the medical curriculum that are considered especially useful to the individual's research project. The student will write a literature review that should provide the basis of the general introduction of their thesis. Prerequisites: None.

#### BMSCI 561 Thesis Seminar (1 QCH)

This course provides credit for the student's presentation of the public portion of the defense of his/her thesis. This course is graded as pass/fail. Prerequisites: Fulfillment of all other planned coursework needed for completion of the Biomedical Sciences Program, except Thesis Research.

#### BMSCI 700 Thesis Research (9 QCH minimum, 15 QCH maximum, with 1-5 QCH allowed per quarter)

This course provides credit for the intensive time and intellectual endeavor involved in data acquisition and writing the thesis on the student's research project. The research area must be supported by the individual's Advisory Committee and approved by the Graduate Program Committee during the first quarter that this course is taken by the individual. The candidate must be registered for this course at the time of the thesis defense. Letter grades are assigned for each quarter of enrollment. Prerequisites: None.

#### **Biomedical Sciences Research Track - Elective Courses:**

#### BMSCI 512 Human Biochemistry II (4 QCH)

This course is a continuation of BMSCI 510. Prerequisites: Human Biochemistry I.

#### BMSCI 514 Human Nutrition (3 QCH)

This course describes human nutritional requirements in health, in special conditions, and in disease. The relationship of nutrition to biochemical functions is stressed. Development of practical skills for assessment of nutritional state is also emphasized. Both basic scientists and physicians present lectures and conferences. Prerequisites: None.

#### BMSCI 516 Histology I (3 QCH)

This course focuses on cell biology, basic tissues and genetics in the study of the microscopic structure and normal development of tissues and organs of the body. This course is aimed at the recognition of that which is normal in order that modifications produced by pathological conditions or congenital malformations can be recognized. Prerequisites: None.

#### BMSCI 518 Histology II (3 QCH)

This course is a continuation of BMSCI 516, and focuses on the histology and embryology of the organ systems. Prerequisites: Histology/Embryology I.

#### BMSCI 520 Immunology (2 QCH)

This course is concerned with the humoral and cell-mediated immune systems of man and their role in autoimmunity, transplantation phenomena, host-parasite relationships and disease. The laboratory allows hands-on use of several clinical immunology-based test kits. The broad objective of this course is to provide an understanding of the numerous immunologic issues that will come forth in conditions taught in Medical Microbiology. Prerequisites: Human Biochemistry II.

#### BMSCI 522 Medical Microbiology (4 QCH)

This course is concerned with the structure, metabolism and genetics of viruses, bacteria, fungi, and parasites in relation to their identification, pathogenicity and antibiotic sensitivity. The laboratories cover basic microbiological procedures and techniques, and supplement the material being covered in the lectures. The broad objective of this course is to teach the basic understanding of virology, bacteriology, mycology and parasitology. Prerequisites: Human Biochemistry II.

#### BMSCI 523 Infectious Diseases (4 QCH)

This course uses an organ system approach to provide in-depth coverage of the etiology, epidemiology, pathology, differential diagnosis, treatment and prevention of infectious diseases. The laboratories provide experience in isolating and identifying pathogenic microorganisms and in answering clinical situation questions. The broad objective of this course is to provide the essential information needed for subsequent clinical courses and rotations. Clinical case presentations and web-based clinical cases are also used. Prerequisites: Immunology, and Medical Microbiology.

#### BMSCI 524 Physiology I (5 QCH)

This course includes the study of the normal function of each of the organs and organ systems in the human body. Emphasis is placed on basic principles and mechanisms that have broad

application throughout all areas of medical practice. The first section of physiology includes cellular, cardiovascular and gastrointestinal physiology. The second section of the course includes respiratory, renal and endocrine physiology. Conferences and problem-based workshops in each quarter provide clinical correlations. Laboratories demonstrate and reinforce the systems covered in lectures. Prerequisites: Human Biochemistry I.

**BMSCI 526 Physiology II (4 QCH)**  
This is a continuation of BMSCI 524.  
Prerequisites: Physiology I.

**BMSCI 527 Neuroscience I (3 QCH)**  
This course provides an introduction to the neurosciences that emphasizes the cellular and neuroanatomical substrates for human central nervous system function in health and disease. Specific topics include an overview of neuroanatomy and neuronal function, the motor unit and diseases of the motor unit, the anatomy of the neuraxis and special senses. Prerequisites: Physiology II.

**BMSCI 528 Pharmacology I (3 QCH)**  
This course will provide the student with a basic overall understanding of the discipline of pharmacology at a level that will allow the student to apply pharmacological principles to their independent research project. The course will also provide an overall perspective of pharmacology emphasizing the basic principles of pharmacology. Specific categories of drugs will be presented and discussed based on the basic mechanism of action of the drug group. Specific drug classes to be discussed include those with an action on the autonomic and central nervous systems, and the cardiovascular system. Prerequisites: Human Biochemistry I, and Physiology I and II.

**BMSCI 529 Pharmacology II (3 QCH)**  
This course is a continuation of BMSCI 528. Specific drug categories to be discussed include renal, pulmonary, endocrine, and chemotherapeutic drugs. Prerequisite: BMSCI 528.

**BMSCI 530 Issues in Biomedical Science (1-3 QCH)**

This course is individually designed to provide focused education useful to the student's research project as needed. For example, it might consist of a relevant part of larger, multi-faceted course. Prerequisites: None.

**BMSCI 600 Advanced Standing Credit (10 QCH)**  
This course accounts for the advanced standing provided students entering the Masters program who have completed at least the first year of medical school.

**BMSCI 610 Hollister Research Training (13 QCH)**  
This course provides credit to Masters Students in the Hollister-KCOM Clinical Research Fellowship. This credit recognizes the professional training provided to Hollister Clinical Research Fellows during the six weeks of training conducted by Hollister International at the start of the fellowship, and offsets required courses in the Masters program that are covered by this training.

**BMSCI 624 Clinical Research (1-3 QCH)**  
This course involves mentored participation in a clinical research project. Prerequisites: None.

### **Human Anatomy Education Track - Required Courses:**

**BMSCI 570 Human Gross and Developmental Anatomy I (6 QCH)**  
This course involves reading, lecture, discussion and laboratory dissection of the back, upper limb and thorax regions with an emphasis on medical relevance. This course is available only for students in the Human Anatomy Education track. Students in this track shall attend lectures in Human Gross Anatomy I with the D.O. students. However, these readings dissection and discussion will be performed separately from the D.O. students. Prerequisites: None.

**BMSCI 571 Human Gross and Developmental Anatomy II (6 QCH)**  
This course involves reading, lecture, discussion and laboratory dissection of the abdomen, perineum/pelvis and lower limb regions with an emphasis on medical relevance. This course is available only for students in the Human Anatomy Education track. Students in this track shall attend

lectures in Human Gross Anatomy I with the D.O. students. However, these readings dissection and discussion will be performed separately from the D.O. students. Prerequisites: Human Gross Anatomy I.

**BMSCI 572 Human Gross and Developmental Anatomy III (5 QCH)**

This course involves reading, lecture, discussion and laboratory dissection of the head and neck regions with an emphasis on medical relevance. This course is available only for students in the Human Anatomy Education track. Students in this track shall attend lectures in Human Gross Anatomy I with the D.O. students. However, these readings dissection and discussion will be performed separately from the D.O. students. Prerequisites: Human Gross Anatomy II.

**BMSCI 545 Oral Presentation (2 QCH) – see above**

**BMSCI 546 Ethics in Biomedical Research (2 QCH) – see above**

**BMSCI 574 Neuroanatomy I (2 QCH)**

This course involves lectures, readings, discussion and dissections of the structure of the human central nervous system. Prerequisites: None.

**BMSCI 575 Neuroanatomy II (1 QCH)**

This course is a continuation of Neuroanatomy I and involves lectures, readings, discussion and dissections of the structure of the human central nervous system. Prerequisites: BMSCI 574

**BMSCI 576 Cadaver Care (1 QCH)**

This course offers presentations on ethics, laws, regulations and procedures in the acquisition, preservation, use and disposal of human bodies for teaching purposes. This course is graded pass/fail. Prerequisites: None.

**BMSCI 578 Foundations of Learning (SHM HED 600 3 QCH)**

This online course focuses on educational history, theory and concepts, teaching styles, learning styles and education philosophy. Prerequisites: None.

**BMSCI 580 Introductions to Radiology I (1 QCH)**

This course presents fundamental concepts and basic skills in understanding medical imaging, including, but not limited to, x-rays, CAT-scans and MRIs. Prerequisites: None.

**BMSCI 580B Introduction to Radiology II (1 QCH)**

This course continues the study of topics presented in BMSCI 580. Prerequisites: BMSCI 580.

**BMSCI 580C Introduction to Radiology III (1 QCH)**

This course continues the study of topics presented in BMSCI 580 and 581. Prerequisites: BMSCI 580B.

**BMSCI 586 Application of Instructional Design I (2 QCH)**

This course presents a practical application of approaches to adult education, including lecture and exam preparations and laboratory teaching. Prerequisites: None.

**BMSCI 587 Application of Instructional Design II (1 QCH)**

This course continues the study of topics presented in BMSCI 586. Prerequisites: BMSCI 586.

**BMSCI 588 Application of Instructional Design III (1 QCH)**

This course continues the study of topics presented in BMSCI 586 and 587. Prerequisites: BMSCI 587.

**BMSCI 701 Thesis Research in Human Anatomy (4 QCH minimum, 10 QCH maximum, with 1-5 QCH allowed per quarter)**

This course provides academic credit for the intensive time and intellectual endeavor that is required to conduct novel, original research on an anatomical topic. The student's Advisory Committee and the Graduate Program Committee must approve and shall monitor the progress of the research. The research shall culminate in a written thesis that is of publishable quality and it is encouraged that it be submitted to a peer-reviewed journal. The candidate must be registered for this course at the time of the thesis defense. Letter grades are assigned for each quarter of enrollment.

Prerequisites: None.

Human Anatomy Education Track - Selective Courses:

**BMSCI 582 Special Topics in Gross Anatomy (2 QCH)**

This course presents an in-depth examination (anomalies, variations, abnormalities, surgical procedures, etc.) of an anatomical topic. The course may extend over 3 quarters. Prerequisites: None.

**BMSCI 584 Special Topics in Neuroanatomy (2 QCH)**

This course presents an in-depth examination of a topic in neuroanatomy (development, peripheral nerve damage, CNS damage, vascular accidents, neurological deficits, etc.). The course may extend over 3 quarters. Prerequisites: None.

**BMSCI 589 Issues in Student Counseling (1 QCH)**

This course presents issues of ethics, sensitivity, diversity, confidentiality, harassment, study habits, and academic honesty in assisting students. Prerequisites: None.

**BMSCI 590 Current Issues in Anatomy Education (2 QCH)**

This course investigates various approaches to teaching human gross anatomy in various medical health sciences. Prerequisites: None.

**BMSCI 592 Advanced Dissection (1-3 QCH)**

This course involves special, detailed dissection of a body region, such as head and neck. Prerequisites: None.

Human Anatomy Education Track - Elective Courses:

**BMSCI 510 Human Biochemistry I (6 QCH)** – see above

**BMSCI 512 Human Biochemistry II (4 QCH)** – see above

**BMSCI 514 Human Nutrition (3 QCH)** – see above

**BMSCI 516 Histology I (3 QCH)** – see above

**BMSCI 518 Histology II (3 QCH)** – see above

**BMSCI 520 Immunology (2 QCH)** – see above

**BMSCI 522 Medical Microbiology (4 QCH)** – see above

**BMSCI 523 Infectious Diseases (4 QCH)** – see above

**BMSCI 524 Physiology I (5 QCH)** – see above

**BMSCI 526 Physiology II (4 QCH)** – see above

**BMSCI 527 Neuroscience I (3 QCH)** – see above

**BMSCI 594 Special Topics in Developmental Anatomy (2 QCH)**

This course provides an in-depth examination of a topic in developmental anatomy (fertilization, developmental malformations, Mendelian and non-Mendelian genetics, etc.). Prerequisites: None.

**BMSCI 596 Microscopy (2 QCH)**

This course provides hands-on learning of the structures and use of light microscopes. Prerequisites: None.

**BMSCI 597 Histological and Cytological Preparations (4 QCH)**

This course involves fixation, embedding, sectioning and staining of biological materials and the preparation of slides. Prerequisites: None.

**BMSCI 598 Special Histological Techniques (3 QCH)**

This course examines Golgi methods, immunocytochemistry and similar topics. Prerequisites: None.

# Responsibilities & Conduct

## *Student Dress Code*

KCOM expects all students to conduct themselves responsibly and professionally at all times. Students are expected to dress in a manner which demonstrates respect for other students, faculty, administration, staff and visitors. Dressing appropriately is considered part of being a professional.

Students are to observe proper hygiene in their personal appearance and dress. Hair must be neat, clean, and of such length or style as not to interfere with laboratory, classroom, or clinical duties. Facial hair, beards, sideburns, and mustaches, can be worn but should be neat and trimmed, as to not interfere with personal protective gear.

Clothing should be clean, non-provocative, and appropriate for the setting.

In the classroom, men should wear shirts and long pants. Women should wear shirts (not spaghetti strap) or blouses with skirts or pants. Shorts (not cut-off jean type) are allowed for both men and women. Hats should not be worn inside the building. Footwear is required. Note the footwear requirement is different in clinical and laboratory settings.

In the anatomy lab - Men and women should wear shirts and long pants. Shorts (non cut-off jean type) are allowed. Scrubs can be worn. Anatomy lab coats should be worn. Closed toe footwear is required. Students should change out of laboratory attire when leaving the anatomy lab.

In the OTM and Complete DOctor course laboratories – Men and women should wear shorts (not cut-off jean shorts), or sweat pants, and T-shirts. Women may wear a bathing top which allows access to the spine. Socks may be worn however shoes and belts are not allowed on the OMT tables. Warmer clothing may be brought to layer over the lab attire.

In clinical and other professional settings, such as special lectures, conferences, standardized and

simulated patient encounters, and formal presentations students should wear professional dress clothing. Men should wear a dress shirt and tie, white coat, and dress slacks. Women should wear dress slacks or skirts with a blouse, and white coat. Identification should be displayed on the white coat. Closed toe dress shoes are required.

In clinical areas of the emergency, surgery, or labor and delivery departments, scrubs may be allowed. Closed toe footwear is required. Students should change out of scrubs and into professional dress with white coat, when leaving these clinical areas.

## *Student Conduct*

In addition to the student behavior expectations outlined in the ATSU Student Handbook (located on the ATSU website [http://www.atsu.edu/student\\_services/handbook/pdfs/student\\_handbook.pdf](http://www.atsu.edu/student_services/handbook/pdfs/student_handbook.pdf)), the KCOM White Coat Ceremony marks the student's entrance into a profession where behavior and expectations are continuous. As professionals, we accept that we are held to a standard that exists with everything we do, and everywhere we may go.

# Student Services

## *KCOM*

The Department of Student Services consists of Admissions, Financial Assistance, Counseling, Student Resources, Thompson Campus Center, Student Housing, and The Registrar's office. For detailed information on these services call 660.626.2236 or visit the ATSU website at [http://www.atsu.edu/student\\_services/index.htm](http://www.atsu.edu/student_services/index.htm)

## *Student Organizations*

There are numerous social and professional clubs and organizations within the University that students are encouraged to become members of. A complete listing and descriptions can be found on the ATSU website at [http://www.atsu.edu/student\\_services/kirkville/leaders/index.htm](http://www.atsu.edu/student_services/kirkville/leaders/index.htm)

## *Scheduling of Events*

The following applies to the utilization of all ATSU facilities for meetings, parties, or other special or social events.

1. Utilization of ATSU facilities shall be by ATSU departments, ATSU recognized groups and organizations, and other ATSU determined eligible organizations only. Eligible organizations include those with eleemosynary and medical education/health care missions consistent with the mission of the University.
2. ATSU reserves the right to exclude any individual or group from usage of its facilities.
3. Food and nonalcoholic beverages may be consumed only in designated conference rooms, classrooms, and the Thompson Campus Center (TCC) after reservations and arrangements for such have been made in advance.
4. Alcoholic beverages may be used in compliance with ATSU Policy Order No. 95-101, Alcoholic Beverage Consumption in ATSU Facilities.

5. Food and beverage privileges may be revoked at any time there is abuse of such privileges/violation of this policy.
6. Scheduling of ATSU academic facilities shall be initiated in the Education Development and Services Office. Scheduling of the Thompson Campus Center is done through the director of that facility. Scheduling of the OMM Lab is done through the Department of Osteopathic Manipulative Medicine.
7. Scheduling of the Centennial Commons is done through the Department of Student and Alumni Services Office.

## *Student Mailboxes*

Student and student organizational mailboxes are located on the ground floor of the George Still Building. Information on how to receive a mailbox can be obtained from the Registrar's Office at 660.626.2356.

## *Student Lockers*

Lockers are available for student use. They are located in the hallway behind the bookstore and museum allowing 24-hour access. To check out a locker, contact the Registrar's Office at 660.626.2356. Lockers located in lab areas are administered by the appropriate academic department.

## *Admissions Office*

The Admissions Office is dedicated to recruiting qualified osteopathic medical and biomedical science master degree students. Applicants may obtain information by contacting Admissions by email at [admissions@atsu.edu](mailto:admissions@atsu.edu) or by telephone at 660.626.2237.

## *A. T. Still Memorial Library*

The University Library, founded in 1897, is the oldest osteopathic library. The entrance is from the Centennial Commons in the Tinning Education Center in close proximity to lecture rooms, student laboratories, and the associated acute care hospital and ambulatory clinic.

This complete medical library houses 44,000 books and 4,000 audiovisual items. The library subscribes to 570 biomedical, scientific, and

osteopathic journal titles, providing on-line access to an expanded array of books and journals through services such as Psychology 400 and Academic Premier and Elite. On-line journal access is coordinated through both the EBSCO A-to-Z and EJS services. The library is also an active participant in the PubMed linkout. The library actively participates in a variety of networks for document delivery using transmission methods including Ariel, email, fax, and postal delivery.

Through the ATSU portal, faculty, staff, and students have direct access to a suite of on-line resources including MDConsult, FirstConsult, OVID and the Cochrane Library. Additionally, mediated database access is available to a much wider array of databases through services such as Dialog and OVID. In addition, the library is a member of MOBIUS (<http://mobius.missouri.edu/>), which is a consortium of over 50 colleges and universities throughout Missouri. A common library platform allows patrons to freely access and request materials from other member institutions.

This library has also been a participant in the indexing of osteopathic publications and records within the OSTMED® database system (<http://ostmed.hsc.unt.edu/ostmed/>). OSTMED® is a bibliographic index of the osteopathic medicine literature, which is sponsored by the American Osteopathic Association and the American Association of Colleges of Osteopathic Medicine.

OSTMED® was initially produced by the Gibson D. Lewis Health Science Library of the University of North Texas Health Science Center at Fort Worth, with support from KCOM's A.T. Still Memorial Library. This project is now in the process of being transferred to the Edward Via Virginia College of Osteopathic Medicine (VCOM). VCOM (in collaboration with Visionary Technology in Library Solutions, Inc.) is preparing to do full-text digital scanning of the historical literature of the osteopathic profession and integrating these documents with the searchable records contained in OSTMED®.

The library is open daily, weekends, and evenings. Photocopy and fax services are available for a fee.

The Library Internet home page explains hours, procedures, policies, and services.

### ***Still National Osteopathic Museum and the National Center for Osteopathic History***

The Still National Osteopathic Museum and the National Center for Osteopathic History are dedicated to preserving the heritage of osteopathic medicine and its founder, Dr. Andrew Taylor Still (1828-1917). Their unique collections span over 120 years of national and international osteopathic history.

The Museum's artifact collections range from bloodletting and blistering instruments of the mid-1800s to a completely dissected human nervous system. Exhibits are designed to educate a variety of audiences, from school children to medical specialists. The Museum is located in the Tinning Education Center, adjacent to the birthplace cabin of A.T. Still (moved from Virginia in 1926) and the original two-room school building. The Museum gift shop offers a selection of historic books, T-shirt and other items.

The National Center for Osteopathic History is the archives and research branch of the Museum. Its collections include a large number of books, periodicals, documents, and photographs that are available for research use in the Center's reading room. The Museum staff provides reference assistance and copy services are available.

Visit the Museum web site [www.atsu.edu/museum](http://www.atsu.edu/museum) for more information.

### ***Thompson Campus Center***

Osteopathic medicine is based upon establishing proper body rhythms and stimulating various organ systems in order to restore health. The most positively accepted method for stimulating the body is exercise. Thus, an on-campus recreation and fitness facility, the Thompson Campus Center (TCC), became a viable part of ATSU in 1982. The funds for the construction of the multi-purpose TCC were donated by students, alumni, and friends of the University.

The overall philosophy of the TCC is to provide an atmosphere of health and programs which will enable each individual to reach his or her maximum potential in mind, body, and spirit.

This “holistic” approach to medicine is distinctive to the osteopathic profession. We encourage you to use the TCC and participate in the variety of amenities and activities.

We are proud to serve the fitness, exercise, and recreational needs of the students and their families. The hallmark of the TCC is quality facilities and programs in a convenient-to-the-student location.

### ***Facilities***

TCC facilities include a gymnasium that *can* be used as a full-sized basketball court, two smaller full basketball courts, 3 volleyball courts or one indoor tennis court. It also offers an indoor jogging area, a climbing wall and mats for stretching. There are two temperature-controlled racquetball courts which convert to wallyball courts. The strength/cardio/exercise room offers 11 individual selectorized weight machines and free weights including dumbbells, squat rack, bench press and incline press with 300-pound Olympic weights available at each press. The cardio equipment offers treadmills, elliptical runners, exercise cycles, stair machines, and a rowing machine. This room also has a sound system and TVs. A studio room is equipped with step boxes, sound system, and a heavy bag and speed bag. The outdoor open play area, located on the west side of the building, allows for football, basketball, soccer, Frisbee, etc. A paved fitness trail follows the perimeter of the open area and a 1 ½ mile nature trail winds through the wooded property. The sauna/whirlpool area is for relaxation and therapeutic needs. There are men’s and women’s locker rooms available. The gym can be reserved for private and group needs.

### ***Programs***

TCC's programs and activity classes include step aerobics, aerobicing, Tai Chi, judo, circuit weight training, and intramural sports. Qualified instructors teach all classes. All SGA indoor intramural activities take place at the TCC. Available are men's and women's racquetball leagues; men's, women's and coed “A” and “B” league basketball; power and coed volleyball leagues; Ultimate Frisbee, indoor soccer, as well as numerous road races, tournaments and special one-day competitions. Recreational programming

includes bike tuning, a canoe outing, fly fishing, golf and dance lessons, a spring float trip, Pilates, yoga, couples Olympics and parent nights out (free child care). TCC organizes a triathlon every fall ([www.nemotriathlon.org](http://www.nemotriathlon.org)).

### ***Membership***

All ATSU students, spouses, and domestic partners have full membership at the TCC. Single students may include one significant other in their membership for \$100 per year. All paying members pay additional fees for racquetball and tennis.

### ***Student Housing***

Smoke-free housing accommodations for students are available in the Student Apartments, which offer 44 units, furnished and completely carpeted. Sixteen of the units are two bedrooms. Rent includes all utilities except electricity, telephone and cable television. Direct computer access to the ATSU system is available in each apartment. Coin-operated laundry facilities are located on each floor. The units are located across the street from the Northeast Regional Medical Center and near the Thompson Campus Center for easy access to campus. Rent payments are made to the Controller's Office. Assistance with on-campus housing may be acquired by contacting the Department of Student and Alumni Services Office, 660.626.2236.

Many furnished and unfurnished rooms, apartments, and houses are also available in the community. A current list of available housing is compiled in the Admissions Office during the summer and may be accessed via the Internet. Assistance with off-campus housing may be acquired by contacting the Admissions Office, 660.626.2237.

# Facilities

ATSU's main campus is located in Kirksville, Missouri and consists of state-of-the-art facilities, which support the University's educational programs, administrative and healthcare services, and recreational activities.

**The Administration Building** provides space for the Department of Microbiology and Immunology, Development, Institutional Advancement, a portion of Family/Preventive Medicine and Community Health, Disabled American Veterans offices, and the student locker rooms. Additionally instructional laboratories for the courses in Gross and Developmental Anatomy, Microbiology and Immunology, microscopic anatomy, and anatomic and clinical pathology are held here.

**The Annex** is a one-story structure located on North Osteopathy Street. It houses Communications & Marketing, Printing Services, and the Kirksville Day Care Center.

**The Connell Information Technologies Center** is a three-story, high-tech, wireless, medical education facility housing an Osteopathic Manipulative Medicine laboratory that contains 100 patient tables; a Human Patient Simulator laboratory that contains 6 high-fidelity simulators; a production studio; a library with a 20-station computer laboratory and multiple student study areas.

**The Diagnostic And Treatment Center**, a two-story structure, opened in 1988 and connected to the South Wing of Northeast Regional Medical Center, houses state-of-the-art inpatient and outpatient hospital surgical suites, Pain Clinic, Radiology Department, and MRI.

**The East Wing** connects the W. W. Howard Building to the North Wing of Northeast Regional Medical Center. It houses the ATSU Mailroom, the Purchasing Department's receiving/storage room and offices, offices of the Departments of

Anatomy, Human Resources, Environmental Services, and Family Medicine.

**The George A. Still Building** provides space for the Departments of Anatomy and Pathology labs and offices. In addition, this building provides space for the offices of the President, the Dean, and CME.

**The George W. Rea, D.O., Cancer Treatment Center** provides a full range of cancer treatment services, including medical oncology and radiation therapy.

**The Gutensohn Osteopathic Health & Wellness Clinic** is the focal point for outpatient care and clinical teaching programs for the Departments of Dermatology; Internal Medicine; Osteopathic Manipulative Medicine; Obstetrics and Gynecology and Neurobehavioral Sciences. Also located in this building are the Mehegan Classroom, the outpatient pharmacy, Audiology, Office of Student Resources, Academic Medicine, ENT offices and the NEMO Health Clinic.

**Memorial Hall**, contiguous to and connected by a corridor with the Administration Building, houses two classrooms; the offices of Research, Grants and Information Systems; ATSU Sponsored Programs; Information Technology Services; Missouri Area Health Education Center-KCOM program office; Family/Preventive Medicine and Community Health; and the Vice President for Institutional Research, Grants, and Information Systems.

**The North Wing-Northeast Regional Medical Center** houses Northeast Regional Medical Center's business and administrative offices, Medical Records, and Cardiovascular and Cardiopulmonary Departments.

**The Oklahoma Building**, located between Student Housing and the Thompson Campus Center, houses the School of Health Management.

**The South Wing-Northeast Regional Medical Center**, a 109-bed, acute care hospital is leased to Northeast Regional Medical Center. This hospital is utilized for both predoctoral and postdoctoral

education by ATSU and Northeast Regional Medical Center.

**The St. Andrews** Geriatric Housing, a two-story structure located on Osteopathy Street, houses the Osteopathic Post graduate Training Institute of Kirksville (OPTIK).

**The Student Housing Apartments** are 44 one- and two-bedroom apartments available for rent to students of the University. These units are located adjacent to the Thompson Campus Center.

**The Student Recreation Lounge** is located in Timken Burnett Research building (TBR) 118 and contains a TV, ping-pong table, game tables, video games and other activities.

**The Thompson Campus Center** contains a multi-purpose gymnasium for basketball, indoor tennis, volleyball, and indoor soccer. It also contains a sauna, whirlpool, aerobics/judo room, strength & cardio room, two racquetball courts, lockers, and shower facilities. In addition, there is a paved walking/running trail on the grounds surrounding the Center.

**The Timken-Burnett Research Building** includes a Core Imaging Facility, research laboratories, student laboratories, and offices for the Departments of Anatomy, Biochemistry, Physiology, and Pharmacology. The University's Animal Care Facility, instrumentation shop, student study area, and recreation lounge are also located in this seven-story structure.

**The Tinning Education Center** contains the Coats and McCreight lecture halls, several smaller classrooms, standardized patient labs, Student and Alumni Services, Admissions, Financial Assistance, Registrar, Academic Affairs, Clinical Educational Affairs, and Education Development and Services, Matthews Bookstore, Still National Osteopathic Museum, and the food service area. The Education Center is adjacent to the Gutensohn Osteopathic Health & Wellness Clinic.

**The W. W. Howard Building**, which connects the George A. Still Building with the East Wing, houses Academic Technology, and the offices of the ATSU Treasurer and Controller.

**The Wright Building** is a structure formally utilized as a warehouse. A portion of the first floor has been renovated to house the Facilities/Plant Operations Department, and the basement and upstairs are utilized for storage for departments of the University.

# INDEX

ATSU Mission Statement	iii	Health Care Facilities	1
A.T. Still Memorial Library	41	Human Anatomy Education Track	27
Accreditation	1	Required Courses	37
Administration	3	Immunizations, screening, and certification	16
Admission – D.O. Program	4	International Student Admission	9
Admission – Master of Science in	6	Key Personnel	Ii
Biomedical Sciences Program		Minimal Technical Standards for Admission and Matriculation	11
Admissions Office	41	Mission Statement	Iii
Application Information	6	Organization	1
Application Procedures for Accommodations	26	Osteopathic Pledge of Commitment	Iii
Application Requirements for Transfer and/or Advanced Standing	9	Policy on Prerequisite Courses	15
Auditing a Course	13	Refund Policy	13
Biomedical Research	2	Registration	13
Biomedical Science Research Track	24	Requirements for Admission	4
Canadian Student Admission	9	Responsibilities and Conduct	40
Class Attendance	16	Scheduling of Events	41
Clinical Rotation Standards	17	Scholarships	14
Course Credit, Transfer and Advanced Standing	7	Selection of Applicants	12
Curricula		Special Admission Programs	5
D.O. Degree	22	Still National Osteopathic Museum	42
Biomedical Sciences Degree	24	Student Conduct	40
D.O. Degree	22	Student Dress Code	40
D.O./MS Dual Track Program	26	Student Housing	43
Description		Student Lockers	41
Description of Courses		Student Mailboxes	41
D.O. Degree	29	Student Organizations	41
Biomedical Sciences Degree	35	Student Promotion Board	
Early Decision Program	5	D.O. Program	19
Elective Courses		Biomedical Sciences Program	20
D.O. Program	33	Student Recreation	2
Biomedical Sciences Program	36	Student Services	41
Enrollment	13	Table of Contents	v
Facilities	43	Third and Fourth Year – D.O. Program	22
Fellowship Programs	34	Thompson Campus Center	42
First and Second Year – D.O. Program	22	Tuition and Fees	13
General Information	1		
Grading	19		
Graduation Requirements	21		
D.O. Program	21		
Biomedical Sciences Program	22		