

# Oklahoma State University Center for Health Sciences

Biomedical Sciences • Osteopathic Medicine • Forensic Sciences



*CENTER  
FOR HEALTH  
SCIENCES*

## Mission

OSU Center for Health Sciences educates and trains osteopathic physicians, research scientists and other health care professionals with emphasis on serving rural and under-served Oklahoma.

## Vision

OSU Center for Health Sciences will be recognized for:

- Fulfilling the health care needs of rural and underserved Oklahoma
- Producing graduates who are dedicated, effective, and compassionate community leaders
- Advancing the frontier of medical research
- Providing excellent medical care and health related community service
- Being a leader and innovator in education
- Being the medical and graduate school of choice

## Degree Programs

- D.O., Doctor of Osteopathic Medicine
- D.O./M.B.A. (Master of Business Administration)
- D.O./Ph.D. in Biomedical Sciences
- D.O./M.S. in Biomedical Sciences
- Ph.D. in Biomedical Sciences
- M.S. in Biomedical Sciences
- M.S. in Forensic Sciences
- M.S. in Interdisciplinary Sciences - Health Care Administration





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# Why OSU Medicine?



I have always enjoyed serving the public and after being a police officer for Tulsa Police Department for 12 years, I felt an urgency to serve in a different capacity. I chose to pursue a second career in medicine. As a non-traditional student I looked at universities that embraced individuals with similar backgrounds and OSU College of Osteopathic Medicine was just that university. I feel that the administrative staff is very supportive of their students and the professors push the students toward excellence regardless of previous backgrounds.

– Ricardo Aguilar

## Our top-ranked academic programs

US News & World Report consistently ranks Oklahoma State University's College of Osteopathic Medicine among the best. For 2009, we rank 16th in the nation in rural medicine.

## Our superior board pass rate

Our students boast an above average pass rate on the COMLEX. Over the past five years our board pass rate has ranged from 92-100 percent. The national average is 92 percent.

## Our class size

We keep our class sizes small to foster an environment of personal attention and strong relationships with faculty and staff. This allows for one-on-one learning interactions with faculty, physician mentors and other students.

## Our technology

We integrate state of the art technology into student curriculum through online learning resources, patient simulators, and our mobile telemedicine clinic.

## Our student life

Tulsa is a great place to live, work and attend school. Get involved in the many student organizations tailored to your specific goals and hobbies. Our student ambassadors are trained to help you navigate campus. In addition, we are one of the few medical schools in the national offering stress management skills programming for students, by students.

## Our commitment to community

From local health fairs to an active adopt-a-school program, getting involved in the community is part of the OSU culture.

## Our diversity

The world is your patient. OSU Medicine prepares you by providing diversity training and awareness in all aspects of academics and activities. Our students will have the skills necessary to educate and appreciate patients from diverse backgrounds.

## Our graduates

From the Medical Center of Southeastern Oklahoma in Durant to Johns Hopkins in Baltimore, Maryland, our students can obtain residencies anywhere in the country practicing any specialty they choose.



Simply put, OSU Medicine sets expectations for students that transcend other schools. The real measure of success here is not based solely on board scores, but also in fostering leadership, enthusiasm, compassion, and confidence – characteristics that engage us not only as doctors, but as osteopathic physicians. These are the skills that will allow us to truly connect with our patients, and ease their fears with a steady hand in their time of crisis.

**- Phillip Friesen**

# Why OSU-CHS?



## Our facilities

Located on the west bank of the Arkansas River, minutes from downtown Tulsa, the main OSU Center for Health Sciences campus is housed in a modern, six-building complex on 16 acres. The complex consists of classrooms, biomedical and clinical science teaching and research laboratories, clinical simulation labs, offices, lecture halls, break-out rooms, a medical bookstore and a medical library.

The Tulsa Police Department forensic laboratory is also located on the campus in conjunction with the Forensic Sciences graduate program, one of only two facilities like it in the nation.

Six OSU Physicians clinics are located within one mile of the main campus serving as both teaching clinics for students and a health care resource for the community. Interstate Highway 244 borders the campus and provides convenient access to the Center. The Phoenix Building across from the main campus houses the Oklahoma Rural Health Policy and Research Center and the Area Health Education Center program office.

## Our city

Tulsa is a city that feels Southern, Eastern and Western all at once. You will enjoy its cosmopolitan flavor and small-town friendliness. It is big enough to have everything you need, but small enough to make you feel right at home.



# Student Life



## Student-centered philosophy

The heart of the school is our students. OSU's student-centered philosophy allows faculty and staff to get to know students and to provide a supportive, caring environment where future physicians can freely explore their interests. The outstanding faculty, researchers and other professionals set high standards that inspire and motivate.

We don't forget that our students have lives, and loved ones, either. The Student Associate Auxiliary is specifically designed to assist and support your family with its needs. There is even a playgroup for the kids.

## Diversity training

As a physician, you will be exposed to all facets of society, and key to understanding diversity is being exposed to it. At OSU, you will learn that the world is your patient. You will learn about other cultures through formal multi-cultural classes, and through workshops, student organizations and community service. Whether you choose a career in rural setting, a bustling city or an emerging nation, diversity training helps you to better serve all patients.



The delivery of efficient medical care requires a blend of knowledge, experience and leadership. One of the great attributes of the OSU College of Osteopathic Medicine is that in addition to an excellent medical education, the student life environment provides tremendous opportunity for our students to develop leadership skills. Whether it is through community involvement, student government, or the many clubs & organizations; the leadership opportunities that I have had at OSU will undoubtedly make me a better practicing physician.

- Kyle Summers



Students become physicians, as well as leaders.

### **Students have an active voice**

Through the Student Senate, clubs and committees, students can raise issues, and work with administrators, faculty and staff to suggest improvements and learn to become more effective leaders. On the fun side, helping plan the annual Holiday Ball, taking part in the annual faculty-student softball game or organizing the Osteopathic Run all give students a chance to be active, contributing members of the OSU family.

### **Leadership opportunities**

Students don't just become physicians, they become leaders in many areas, and should have the ability to communicate with diverse audiences. Educating the whole physician and providing leadership opportunities is an important part of our program and our graduates will have a chance to learn how to be articulate advocates for their patients and for their profession. Students can serve as class or club officers (on campus and national levels), become student ambassadors to the school and the community, and actively work with the Oklahoma Osteopathic Association and other professional groups to hone their leadership and professional skills.







# The world is your patient.

## Real experience

Several health fairs each year give student doctors the opportunity to become familiar with providing health care, while helping others. A local nurses' clinic at a homeless shelter, a school/community health fair, or travel to a small community for a day of screenings all provide the "hands-on" feel of what being a health care provider is all about.

## Community service focused

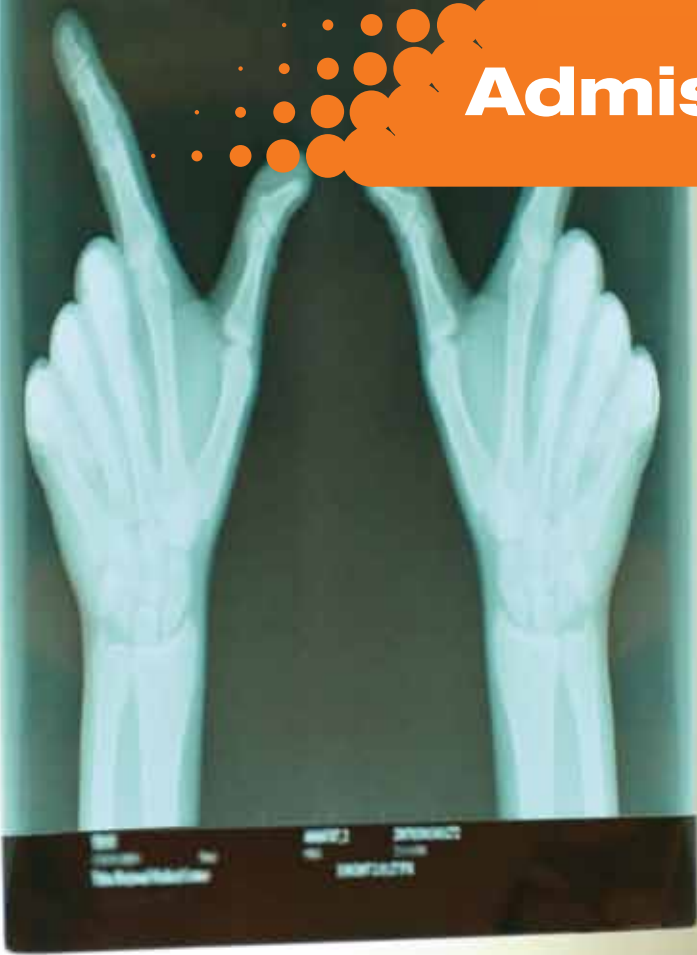
Getting a feel for how a community works and what it needs requires being involved, and involvement is the operative word for our community service offerings. Opportunities for leadership abound through nearly two dozen student organizations. Students have opportunities to collect books for young readers, serve as mentors at our adopted school, gather toys for holiday giving, assist Habitat for Humanity, and help at health fairs for under-served communities both in Tulsa and in smaller communities.



One of the reasons I chose OSU-COM is their students' commitment to community service. I was very involved in my local community during my undergraduate education and I wanted to continue my involvement as a medical student. OSU-COM provides both an outstanding education as well as opportunities to serve underserved populations through events such as health fairs, mini-med school, helping in local clinics, and so much more. Serving the community helps me practice the skills that I have learned and educate those around me about their health. By doing those things, it reminds me of why I wanted to become a physician and encourages me to continue to pursue excellence in my education.

- Keyaria Gray

# Admissions Information



## Residency Requirements

Preference is given to applicants from Oklahoma. Non-U.S. citizens who do not have a permanent resident visa at the time of application cannot be considered for admission. To qualify for Oklahoma residency, a student must be a lawful resident of the United States and meet one of the following two requirements:

**Non-independent students:** A non-independent student must have at least one parent, stepparent, or court-appointed guardian who is an Oklahoma resident. Additionally, this individual must have claimed the student as a dependent on his/her federal income tax return for the previous year.

**Independent students:** An independent student must have lived in Oklahoma in some capacity other than as a full-time student at a post-secondary institution, for a period of least 12 continuous months prior to matriculation.

## Minimum Required Coursework

At the time of entry, the applicant must have completed:

- At least three years (90 semester hours) and not less than 75 percent of the courses required for the baccalaureate degree at a regionally accredited college or university.
- Satisfactory completion of the following courses, including laboratory, with no grade below “C” (2.0 on 4.0 scale):

Course requirements

- English ..... 6 semester hours
- Biology ..... 8 semester hours
- Physics ..... 8 semester hours
- General Chemistry ..... 8 semester hours
- Organic Chemistry ..... 8 semester hours

- Satisfactory completion of at least one upper division (3000-4000 level) science course (3-5 courses strongly preferred), with no grade below “C” (2.0 on a 4.0 scale). Examples include but are not limited to:

- Biochemistry
- Human or Comparative Anatomy\*
- Microbiology or Molecular Biology
- Histology\*
- Embryology
- Immunology
- Physiology
- Genetics

*\*Preferred course*

- At the time of application, the applicant must have at minimum:
  - Overall GPA of 3.0 (on a 4.0 scale)
  - Minimum of 21 on MCAT
  - MCAT must be taken within last three years prior to application
  - Pre-professional science GPA of at least 2.75 (on a 4.0 scale)

OSU-CHS institutional research indicates that students with 4 or more upper division science courses, including lab, are better prepared for the medical school curriculum. Preference will be given to students who have demonstrated preparation for academic success in medical school.

## Timeline and Fees

Begin application process June 1 the year before planned matriculation.

- June 1 – AACOMAS starts processing applications
- October – Interviews begin
- February 1 – AACOMAS application deadline; fee \$155
- March 1 – Supplemental application/materials deadline; fee \$40
- April – Bridge Program application deadline
- Interviews are conducted October through April



The educational environment at OSU-COM has fostered some of the top osteopathic physicians in the country. A unique family atmosphere allows students to work together instead of against one another to enhance the learning experience. With caring faculty to guide the way, the academic rigor becomes an exciting journey towards the future. Besides being an outstanding academic institution, the school's strong emphasis on the whole person has led its students to become some of the most generous and caring physicians in practice. With thousands of hours of volunteering and mentoring in the community, OSU-COM students are able to complete the "whole" educational experience.

– Mark Keuchel

## Four Step Application Process

These steps are in a recommended order. All applicants are welcome to submit the supplemental application and letters of recommendation before the AACOMAS application is sent to the institution.

### STEP **ONE** – AACOMAS Application

- Apply online at: [www.aacom.org](http://www.aacom.org)
  - Please allow 4-6 weeks for AACOMAS to process a complete application to OSU Medicine
  - Complete applications include all undergraduate transcripts
- AACOMAS deadline February 1, the year of matriculation
- AACOMAS application fee \$155
- Contact information:  
American Association of Colleges of Osteopathic Medicine  
Application Service  
5550 Friendship Blvd., Suite 310  
Chevy Chase, Md. 20815-7231  
(301) 968-4100  
[www.aacom.org](http://www.aacom.org)

### STEP **TWO** – Supplemental Application

- Supplemental application deadline March 1, the year of matriculation
- Supplemental application fee \$40
- We ask that all applicants submit a supplemental application. Applicants do not need to wait for an invitation to submit the application.
- Send application to:  
Admissions Office  
OSU Center for Health Sciences  
College of Osteopathic Medicine  
1111 W. 17th St.  
Tulsa, Okla. 74107-1898

## What makes a competitive applicant?

### STEP **THREE** – Letters of Recommendation

Send letters directly to OSU Center for Health Sciences from the evaluator. The student may choose between two tracks:

- Track 1
  - One letter from a college or university pre-professional/pre-med committee
  - One letter from an osteopathic physician (D.O.)
- Track 2
  - Three letters preferably from faculty (two science and one non-science faculty)
  - One letter from an osteopathic physician (D.O.)

### STEP **FOUR** – Personal Interview

All on-campus interviews with the applicant interview committee are by invitation only and are mandatory for further consideration. The following information must be on file before an interview is considered:

- MCAT scores
- Completed AACOMAS application
- Completed supplemental application
- One D.O. letter of recommendation
- Pre-professional committee letter of recommendation OR three letters of recommendation from faculty

### What Makes a Competitive Applicant?

- GPA of 3.6 and above
- MCAT of 27 and above
- Clinical experience and community involvement experience, e.g., physician shadowing, medical field hands-on experience, medical certifications, community service
- Recent upper-division science coursework (3000-4000 level) with laboratory taken within previous 12 months (3-5 courses strongly preferred)
- Early application

## Overview

The objective of the Bridge Program is to provide medical education to high-potential, disadvantaged students. The program, which admits nine students per class, allows students to take a reduced course load, completing the first year of medical school curriculum in two years. Students enter in the summer then continue with courses in the fall and spring academic semesters on the same time schedule as entering first year medical students. Fall term coursework consists of 11 hours of first-year histology and biochemistry. Spring term coursework consists of 14 hours of medical physiology and medical microbiology/immunology.

Students must pass coursework with an average of 70 percent or higher. Final grades of 70-84 percent will be repeated upon matriculation. Final grades of 85 percent or better will not be repeated upon matriculation. All coursework completed will transfer to the OSU-CHS College of Osteopathic Medicine.

## Bridge Admissions

### Eligibility Requirements

Students applying to the Bridge Program must prove personal disadvantage in at least one of the following areas:

- Economic
  - See the Federal Guidelines for the consideration of economic disadvantaged status.
  - Website: <http://bhpr.hrsa.gov/dsa/income/income.htm>
  - It may be required to submit personal, parental, and/or guardian income tax returns for the year prior to entering medical school.
- Educational
  - Factors for consideration include:
    - Free lunch rate of high school
    - Graduated high school in community with 7,500 or less
    - First generation college student
- Underrepresented Minority in Medicine

### Residency Requirements

Preference is given to applicants from Oklahoma. Non-U.S. citizens who do not have a permanent resident visa (“green card”) at the time of application cannot be considered for admission. To qualify for Oklahoma residency, a student must be a lawful resident of the United States and meet one of the following two requirements:

- Non-independent Students
  - A non-independent student must have at least one parent, stepparent, or court-appointed guardian who is an Oklahoma resident. Additionally, this individual must have claimed the student as a dependent on his/her federal income tax return for the previous year.
- Independent Students
  - An independent student must have lived in Oklahoma, some capacity other than as a full-time student at a post-secondary institution, for a period of least 12 continuous months prior to matriculation

## Minimum Required Coursework

At the time of entry, the applicant must have completed:

- A baccalaureate degree at a regionally accredited college or university
  - Satisfactory completion of the following courses, including laboratory, with no grade below C (2.0 on 4.0 scale):
    - English..... 6 semester hours
    - Biology ..... 8 semester hours
    - Physics ..... 8 semester hours
    - General Chemistry..... 8 semester hours
    - Organic Chemistry ..... 8 semester hours
  - Satisfactory completion of at least one upper division (3000-4000 level) science course (3-5 courses strongly preferred), with no grade below “C” (2.0 on a 4.0 scale). Examples include but are not limited to:
    - Biochemistry
    - Human or Comparative Anatomy\*
    - Microbiology or Molecular Biology
    - Histology\*
    - Embryology
    - Immunology
    - Physiology
    - Genetics
- \*Preferred Course*

## Minimum GPA and MCAT

At the time of application, the applicant must have at minimum:

- Overall GPA of 2.5 (on a 4.0 scale)
- Minimum 15 on the MCAT
- MCAT must be taken within last three years prior to application
- Pre-professional science GPA of at least 2.5 (on a 4.0 scale)

## Timeline and Fees

Begin application process June 1 the year before planned matriculation.

- June 1  
AACOMAS starts processing applications
- February 1  
AACOMAS application deadline; fee \$155
- March 1  
Supplemental and Bridge Application deadline; fee \$40
- Interviews are conducted in April





The bridge program has truly been a blessing for me. This program gives people the opportunity to slowly integrate themselves into medical school. Medical school is a huge adjustment and by being a bridge student I did not feel the overwhelming pressure of being a first year medical student. I actually had time to understand the information that I was learning instead of feeling like I had to memorize the information quickly for a test. The bridge program allows people from all different walks of life the chance to achieve their dream of being a physician and for that I am truly grateful. The bridge program has truly been a great experience for me. I have made friendship that I will have long after I leave OSU. The people here at OSU truly want to see their student succeed and I truly believe this is why the bridge program is so successful.

- Jessica Small

## Bridge Application Process

### STEP **ONE** – AACOMAS Application

- Apply online at: AACOMAS
  - Please allow 4-6 weeks for AACOMAS to process a complete application to OSU Medicine
  - Complete applications include all undergraduate transcripts
- AACOMAS Deadline February 1, the year of matriculation
- AACOMAS Application fee \$155
- Contact Information:  
American Association of Colleges of Osteopathic Medicine  
Application Service  
5550 Friendship Blvd., Suite 310  
Chevy Chase, Md. 20815-7231  
(301) 968-4100  
[www.aacom.org](http://www.aacom.org)

### STEP **TWO** – Supplemental and Bridge Application

- Supplemental application
- Bridge application with all university transcripts included
- It may be required to submit income tax returns if claiming economic disadvantage
- Supplemental and Bridge application deadline March 1, the year of matriculation
- Supplemental application fee \$40
- Send application to:  
Admissions Office  
OSU Center for Health Sciences  
College of Osteopathic Medicine  
1111 W. 17th St.  
Tulsa, Okla. 74107-1898

## What makes a competitive bridge applicant?

### STEP **THREE** – Letters of Recommendation

Letters should be sent directly to OSU Center for Health Sciences from the evaluator. The student may choose between the two tracks below:

- Track 1
  - One letter from a college or university pre-professional/pre-med committee
  - One letter from an osteopathic physician (D.O.)
- Track 2
  - Three letters preferably from faculty (2 science and 1 non-science faculty)
  - One letter from an osteopathic physician (D.O.)

### STEP **FOUR** – Personal Interview

All on-campus interviews with the Applicant Interview Committee are by invitation only and are mandatory for further consideration. The following information must be on file before an interview is considered:

- MCAT scores
- Completed AACOMAS application
- Completed supplemental and Bridge applications
- One D.O. letter of recommendation
- Pre-professional committee letter of recommendation OR three letters of recommendation from faculty
- All undergraduate transcripts

### What Makes a Competitive Bridge Applicant?

- Level of disadvantage
- Recent upper division science coursework (3000-4000 level) with laboratory taken within the previous 12 months (3-5 courses strongly recommended)
- Clinical experience and community involvement, i.e., physician shadowing, medical field hands-on experience, medical certifications, community service
- Early application





“Family atmosphere” is a phrase you hear a lot at OSU. That sense of family has made my educational experience here truly unique. As a student body, we are just as invested in each other’s success as we are in our own. But the feeling of community doesn’t end there. It extends to the faculty and staff. They are dedicated to seeing us succeed as students and future physicians, willingly spending extra time and effort to make sure that we reach and then exceed our potential. The interaction we have with our professors and relationships we build with our classmates, combined with the school’s commitment to academic excellence, makes the education at OSU-COM one of the best in the nation.

– Jessica Cox

## CURRICULUM

### Doctor of Osteopathic Medicine (D.O.)

OSU Medicine’s curriculum includes hands-on clinical experiences, student-centered and problem-based methods of instruction, and frequent consultation with faculty members and community-based physicians. Development of problem-solving and information retrieval skills are emphasized in order to produce osteopathic physicians with the capacity to be life-long learners.

In a spiral curriculum, study matter is continuously reintroduced to the student in greater depth and complexity. This method serves to reinforce prior learning and promote meaningful retention. The curriculum emphasizes integration of basic sciences with clinical and behavioral sciences to permit full comprehension of the clinician’s work and promote a holistic approach to the care of patients and their families.

Students receive training in all areas of medicine, with additional emphasis on manual medicine. The first year focuses on biomedical sciences, and the second year emphasizes case-based learning and problem solving as it relates to conditions seen in primary care environments. The third and fourth years are composed of clinical rotations, most of which take place at OSU Medical Center in Tulsa, the country’s largest osteopathic hospital, as well as at St. Anthony’s Hospital in Oklahoma City. Students also rotate to adjacent rural areas, and they may fulfill requirements at various medical institutions across the country. Although 64 percent of graduates enter primary care, they are prepared to enter residencies in all medical specialty fields.

Want to talk  
to one of  
our medical  
students?

Have a question you think only a  
real medical student can answer?

Drop a line to a student  
ambassador and they will write  
back to you.

[osuambassador@okstate.edu](mailto:osuambassador@okstate.edu)

## First Year

| Fall Semester                               | Credit Hours |
|---|--------------|
| Gross and<br>Clinical Developmental Anatomy | 8            |
| Histology                                   | 4            |
| Biochemistry                                | 5            |
| Osteopathic Manual Medicine I               | 2            |
| Special Studies                             | 1-4          |
| <br>  |              |
| Spring Semester                             |              |
| Neuroanatomy                                | 4            |
| Physiology                                  | 6            |
| Clinical Skills I                           | 2            |
| Microbiology and Immunology                 | 6            |
| Osteopathic Manual Medicine II              | 2            |
| Medical Information Sciences                | 1            |

## Third and Fourth Year

| Rotations                     |
|-------------------------------|
| Advanced Cardiac Life Support |
| Medicine I                    |
| Medicine II                   |
| Surgery                       |
| OB/GYN                        |
| Pediatrics                    |
| Rural Clinic                  |
| Community Clinic              |
| Community Hospital I          |
| Community Hospital II         |
| Psychiatry                    |
| Emergency Medicine            |
| Primary Care Clinic           |
| OMM                           |
| 8 Electives                   |

## Second Year

| Fall Semester                          | Credit Hours |
|--|--------------|
| General Pathology                      | 5            |
| Clinical Problem Solving I             | 6            |
| Pharmacology I                         | 3            |
| Clinical Skills II                     | 2            |
| Health Promotion Disease Prevention    | 2            |
| Osteopathic Manual Medicine III        | 2            |
| Multicultural Health                   | 1            |
| Psychiatry I                           | 1            |
| <br>                                   |              |
| Spring Semester                        |              |
| General Pathology II                   | 5            |
| Clinical Problem Solving II            | 6            |
| Pharmacology II                        | 3            |
| Clinical Skills III                    | 2            |
| Health Promotion Disease Prevention II | 2            |
| Osteopathic Manual Medicine IV         | 2            |
| Advanced Cardiac Life Support          | 1            |
| Psychiatry II                          | 1            |



## ●●●●● Educational Costs and Financial Aid

### Financial Aid and Scholarships

Financing a medical education is an expensive proposition. The primary responsibility for meeting your educational costs rests with you and/or your family, but the Office of Student Affairs makes every attempt to assist you financially. You will undoubtedly rely on student loans to finance your education. Approximately 85 percent of the student body borrows some type of federal loan.

The purpose of financial aid is to help students and families meet educational expenses that cannot be met through their own resources. Financial aid can be either need-based or non-need-based. The results of the Free Application for Federal Student Aid, or FAFSA, along with the cost-of-education will determine whether a student has financial need. All students requesting financial assistance of the Financial Aid Office are required to submit a FAFSA.

Programs in this category:

- Direct Loan Program
- Federal Work-Study
- Direct Graduate PLUS Loan

There are a number of programs awarded under separate, individual application. The Financial Aid Office can provide additional information about these programs. The most commonly used are:

- Armed Forces Health Profession Scholarship Program
- Indian Health Service Scholarship
- National Health Service Corps Scholarship
- OSU Foundation Scholarships

### MS-I Tuition and Fees

| Description            | Resident        | Oklahoma Non-resident |
|------------------------|-----------------|-----------------------|
| Living Expenses        |                 |                       |
| <b>Total</b>           | <b>\$18,000</b> | <b>\$18,000</b>       |
| Books and Supplies     |                 |                       |
| <b>Total</b>           | <b>6,000</b>    | <b>6,000</b>          |
| Tuition and Fees       |                 |                       |
| Tuition                | 20,062          | 38,700                |
| Fees                   | 1,130           | 1,130                 |
| <b>Total</b>           | <b>21,192</b>   | <b>39,830</b>         |
| <b>Living Expenses</b> | 18,000          | 18,000                |
| <b>Books/Supplies</b>  | 6,000           | 6,000                 |
| <b>Tuition/Fees</b>    | 21,192          | 39,830                |
| <b>Grand Total</b>     | <b>\$45,192</b> | <b>\$63,830</b>       |

# Premedical Student Checklist

## Year One

- Meet with advisor to discuss overall premedical curriculum
- Begin prerequisite coursework – this typically begins with the biology and/or inorganic chemistry sequence
- Become involved in prehealth organizations and extracurricular activities on campus
- Gain clinical experience in health fields through shadowing, volunteer, employment (e.g., CNA, EMT), and internship opportunities – keep records of your experiences

## Year Two

- Meet with prehealth advisor to discuss current coursework, activities, and to begin thinking about preparations for the MCAT exam
- Continue prerequisite coursework
- Continue to gain clinical experience
- Focus on building relationship with professors, advisors, and medical professionals – they are future sources for recommendations
- Attend health professions fairs in your area to learn more about schools of interest
- Stay involved in prehealth organizations and get involved in community service – look for leadership opportunities
- Continue to keep records of experiences

## Year Three – Fall

- Consult with prehealth advisor regarding letters of recommendation
- Continue prerequisite coursework
- Continue to gain clinical experience
- Explore available research opportunities
- Stay involved in prehealth organizations, volunteer experiences, and extracurricular activities
- Begin serious preparation for the MCAT exam (offered in April and August each year)
- Set aside time to work on personal statement – revisit and rework statement over a period of time

## Year Three – Spring

- Meet with prehealth advisor to review the details of your application
- Contact those who will be writing recommendations for you – give them plenty of time to write a quality letter
- Research medical schools that are of interest to you – contact each school to inquire about specific admissions criteria and, if possible, schedule a time to visit campus
- Continue prerequisite coursework
- Continue to gain clinical experience and stay involved in prehealth activities
- Take MCAT exam
- Start the AACOMAS application process and arrange to have your transcript sent

## Year Three – Summer

- Apply to AACOMAS as early as possible – applications can be submitted in June for the fall of the following year
- Submit supplemental application
- Periodically contact each school to verify your application status

## Year Four

- Meet with prehealth advisor to prepare for upcoming interviews - if possible, complete a mock interview
- Review [www.studentdoctor.net](http://www.studentdoctor.net) for current and past feedback on your schools of interest
- Complete prerequisite coursework - if possible, enroll in multiple upper-level science courses such as biochemistry, anatomy, or histology
- Continue to gain additional clinical and/or research experience
- Stay involved in prehealth organizations and volunteer activities
- Periodically contact each school to verify your application status
- Share news of upcoming interviews and acceptances with those who helped along the way - prehealth advisors, professors, physicians, family, and friends

## Application Checklist

To complete your application to OSU Medicine, the following items must be submitted:

### Step One - Application Process

- Application process begins June 1 of the year prior to the August entering class.
- Log on to [www.AACOM.org](http://www.AACOM.org) and complete the online or paper application
- Submit MCAT scores
- Submit official transcripts
- Submit AACOMAS application fee (\$155)
- Contact AACOMAS to verify that all above have been received
- Deadline for submission: February 1, prior to the fall of anticipated enrollment

### Step Two - Supplemental Materials

- Supplemental applications can be obtained by contacting the admissions office or online at [www.healthsciences.okstate.edu](http://www.healthsciences.okstate.edu)
- Complete supplemental application online or paper application (please type)
- Submit letter of recommendation/evaluation forms
- Premedical committee or three faculty letters/evaluations
- One letter of recommendation from D.O.
- Submit supplemental application fee \$40
- Submit Bridge Program application (Bridge applicants only)
- Submit transcripts to OSU Medicine (Bridge applicants only)
- Submit income tax returns (Bridge applicants only)
- Contact OSU Medicine to verify all above have been received

### Contact us or request a tour:

Oklahoma State University Center for Health Sciences  
 College of Osteopathic Medicine  
 Office of Student Affairs  
 1111 W. 17th St.  
 Tulsa, Okla. 74107-1898  
 (918) 582-1972 or (800) 677-1972  
[www.healthsciences.okstate.edu](http://www.healthsciences.okstate.edu)



Students receive training in all areas of medicine.



# Graduate Programs



## **Doctor of Osteopathic Medicine/ Master of Business Administration (D.O./M.B.A.)**

The Oklahoma State University Center for Health Sciences offers a joint Doctor of Osteopathic Medicine and Master's of Business Administration degree with Oklahoma State University College of Business Administration. Classes are held at the OSU-Tulsa campus, with an occasional course at the OSU main campus in Stillwater, Okla.

The OSU William S. Spears School of Business is composed of six academic departments with a student body of more than 3,900 undergraduate students pursuing 15 degrees and approximately 800 graduate students pursuing six master's degrees. The school also offers doctoral degrees in business administration and in economics.

The school is home to more than 100 tenure-track educational professionals, many of whom have received outstanding teaching awards and have been recognized for innovative instruction. The Spears faculty is nationally and internationally recognized for its publications and leadership positions in professional academic associations, as sought-after consultants, practitioners, and caring teachers.

### **The D.O./M.B.A. Experience**

Today's successful physicians must be able to excel on multiple levels. At Oklahoma State University, the M.B.A. program is designed to integrate the knowledge, skills, and experiences necessary to help you achieve your career goals. The D.O./M.B.A. is an accelerated program that allows D.O. students to gain their M.B.A. through the College of Business Administration in a single year. This 36-hour program captures 30 hours of the M.B.A.'s core coursework in the fall and spring semesters with six elective hours taken in the summer.

### **Quantitative and Behavioral Curriculum**

The M.B.A. curriculum is a blend of quantitative and behavioral classes, often with real-world applications, designed to reflect today's integrated and global marketplace. While basic tools, theories, and concepts are a constant, modifications as a result of feedback from the M.B.A. advisory committee, industry, and alumni help keep the curriculum fresh, current, and timely.

### **Real-World Applications**

The faculty, with varied academic, governmental, corporate, and consulting backgrounds, bring real-world experience to the classroom. As a student, you will receive the necessary theoretical background but you will also learn about the latest trends and developments from faculty attuned to what is going on in the real world. Real-world applications may be in the form of a lecture, company-based consulting project, a practicum, or other means.

Today's successful physicians must be able to excel in the business of medicine.

## Entrance Requirements

The D.O./M.B.A. program is open to current and selected new students of the College of Osteopathic Medicine with the approval of both the College and the M.B.A. Program. The Graduate Medical Aptitude Test (GMAT) and business prerequisites are not required.

Students may pursue the D.O./M.B.A. on one of two tracks: 2-1-2 or 1-4. Current students may apply for the dual degree on the 2-1-2 track at any time during their first or second year of medical school. New students admitted into the 1-4 track of the program must complete one full year of M.B.A. degree requirements and remain in good academic standing with the graduate college in order to retain deferred admission into the D.O. program.

## Application Process for D.O./M.B.A.

Current MSI and MSII students applying to the 2-1-2 track must make direct inquiry to the Office of Admissions before beginning the M.B.A. application process.

Prospective students who wish to pursue application to the D.O./M.B.A. program on the 1-4 track must indicate their interest on the supplemental application. Prior to beginning the M.B.A. application process, dual degree candidates for the 1-4 track must have a successful interview with an offer of deferred admission to the D.O. program.

Upon the request of admissions, applicants must submit the following:

- Official MCAT score
- D.O./M.B.A. application
- Statement of objectives
- 3 letters of recommendation
- Graduate College application - \$40 application fee
- Resume

For more information visit:

[www.healthsciences.okstate.edu/college/degrees/do-mba.cfm](http://www.healthsciences.okstate.edu/college/degrees/do-mba.cfm)

# Curriculum

## First Semester Fall

| Prefix | Number | Course Title                                  | Semester Credit Hours |
|--------|--------|---|-----------------------|
| ACCT   | 5183   | Financial Accounting                          | 3                     |
| FIN    | 5013   | Business Finance                              | 3                     |
| MKTG   | 5133   | Marketing Management                          | 3                     |
| MGMT   | 5113   | Management and Organizational Theory          | 3                     |
| MSIS   | 5623   | Information and Network Technology Management | 3                     |

## Second Semester Spring

| Prefix | Number | Course Title          | Semester Credit Hours |
|--------|--------|-----------------------|-----------------------|
| ACCT   | 5283   | Managerial Accounting | 3                     |
| FIN    | 5053   | Financial Management  | 3                     |
| MBA    | 5303   | Corporate Strategy    | 3                     |
| LSB    | 5163   | Legal Issues          | 3                     |
| MSIS   | 5303   | Quantitative Methods  | 3                     |

## Third Semester Summer

| Prefix         | Number | Course Title  | Semester Credit Hours |
|----------------|--------|---|-----------------------|
| Electives (x2) |        | Finance, Accounting, Management, Marketing, Information Systems, or Economics | 6                     |

*Curriculum is subject to change.*



The dual-degree programs offered by OSU-CHS provide medical students with unique opportunities to expand their expertise. The DO/MBA program in particular offers exposure to a myriad of skills vital to successful practice as a physician. From capital budgeting techniques and investment principles to corporate and managerial strategy, courses are relevant to the situations and issues individuals will face throughout their professional career. In just one year, OSU medical students are able to complete the coursework required for a degree that takes students in other programs multiple years to obtain. The DO/MBA program affords numerous opportunities for future occupational growth and advancement otherwise unavailable. As a participant, I am confident that I now possess a greater aptitude for personal and professional achievement.

– Micah Relic



The D.O./M.S. program appealed to me because of the research opportunities. Anymore research is such a big deal with getting into residency programs. It just seemed like a good fit. I have really enjoyed getting to know the professors on a more personal level. My pediatric asthma research with Dr. Benjamin has been nothing but a positive experience. He's been helpful 100 percent of the way. The dual degree program has also forced me to think in a different way than I think I had been prepared to before. It's been a good experience in stepping outside the box and taking education to another level.

– Natalie Eiland

## Doctor of Osteopathic Medicine/ Masters of Biomedical Sciences (D.O./M.S.)

The D.O./M.S. program is offered to medical students interested in medical research and/or academic medicine. This degree is ideal for the future physician who wishes to maintain an interest in research while also treating patients in a clinical setting.

Students in the dual degree D.O./M.S. program, upon successful completion of required coursework, are guaranteed acceptance into OSU-COM in the following year. The student must complete one full year of M.S. requirements and maintain good academic standing with the graduate program in order to receive deferred admission.

Successful completion of the D.O./M.S. program requires fulfillment of the requirements for the D.O. medical degree and a minimum of 32 semester hours of graduate credit.

The M.S. portion of the D.O./M.S. program is designed to be accomplished in approximately 2 years; however, all degree requirements must be completed within 7 years of entering the D.O./M.S. program. The dual degree student will receive 9 hours of transfer credit from the osteopathic medical program. The M.S. degree will be awarded whenever the graduate degree requirements have been accomplished, which is usually during the D.O. portion of the program.

Credit hours and required courses for the D.O./M.S. program are the same for the regular master's degree. Dual degree students are encouraged to consider the non-thesis master's degree.

### Application Process for the D.O./M.S. Degree

**Track one:** Students wishing to receive deferred admission to the medical school and complete their M.S. coursework prior to the first year of medical school should indicate their interest in the D.O./M.S. degree on the OSU supplemental application for medical school. Only students who successfully complete an on-campus interview for the D.O. program will be considered for this track and will be contacted with application instructions by the admissions department after interviews have concluded.

**Track two:** At any time after receiving an offer of admission to OSU-COM, medical students interested in the M.S. degree may apply to the program and take courses concurrently with the medical school curriculum if accepted.

In addition to submitting the graduate application materials listed in the Biomedical M.S. portion of the view book, dual degree students must apply separately to the D.O. program. The student must submit an AACOMAS application online at [www.aacom.org](http://www.aacom.org)

- AACOMAS application deadline - February 1, the year of matriculation
- AACOMAS application fee - \$155

Please consult the D.O. admissions section of the view book for a complete list of application materials and procedures. Dual degree students are not required to pay the \$40 graduate application fee and may substitute the MCAT for the GRE exam. Initial inquiries and correspondence and all formal application materials should be sent to:

Coordinator of Graduate Admissions  
Office of Student Affairs  
OSU Center for Health Sciences  
1111 W. 17th St.

Tulsa, Okla. 74107-1898

<http://www.healthsciences.okstate.edu/biomedical/index.cfm>

## **Doctor of Osteopathic Medicine/ Doctor of Philosophy (D.O./Ph.D.)**

The D.O./Ph.D. program is offered to medical students interested in medical research and/or academic medicine. Areas of emphasis include: biochemistry, cell biology, microbiology, pathology, pharmacology, and physiology. This degree is designed for the future physician who desires to see patients in a clinical setting while still maintaining an active interest in research.

The Ph.D. portion of the program is designed to be completed in approximately three years; however, all degree requirements must be completed within nine years of entering the dual degree program. The D.O./Ph.D. student is required to successfully complete all basic science medical courses in order to fulfill the requirements of the D.O. degree. These basic science courses provide 30 semester hours of graduate credit toward the Ph.D. degree. An additional 30 semester hours of graduate courses are required. No more than 9 hours of special topics and 4 hours of seminar can be taken for credit. This 60 hours of course work, and the minimum of 30 hours of Research and Dissertation, comprise the 90 graduate credit hours necessary for the Ph.D. degree. Students are required to maintain a GPA of 3.0 or better in their biomedical coursework. An academic review will occur in May at the end of each year of coursework to evaluate the progress of the student in the program. The D.O./Ph.D. student is required to enter the Ph.D. portion of the program after completing the first 2 years of the medical curriculum.

All other coursework, credit hours, research proposal, and qualifying examination requirements are the same as outlined in the Ph.D. program requirements and restrictions.

### **Application Process for the D.O./Ph.D. Degree**

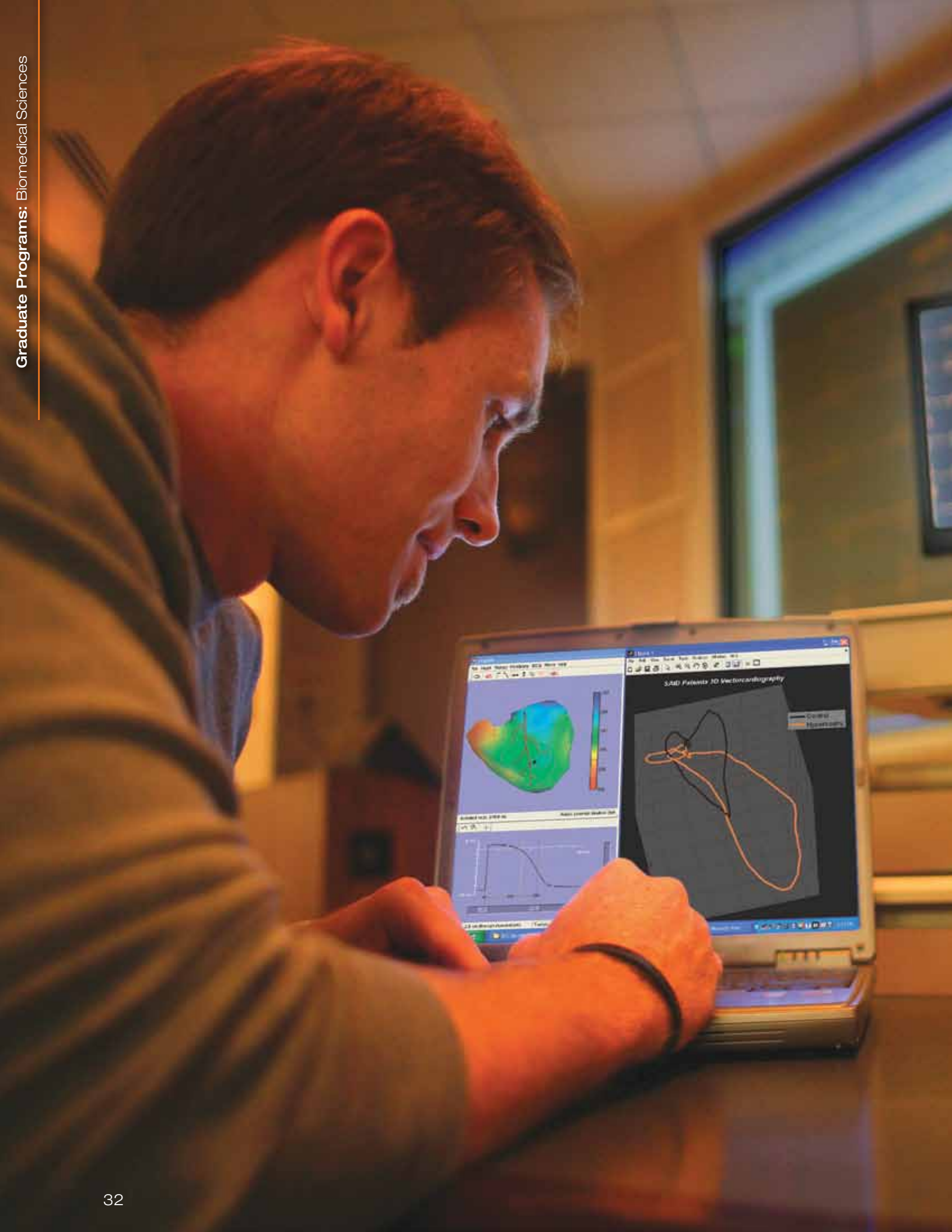
In addition to submitting the graduate application materials listed in the Biomedical Ph.D. portion of the view book, dual degree students must apply separately to the D.O. program. The student must submit an AACOMAS application online at [www.aacom.org](http://www.aacom.org)

- AACOMAS application deadline - February 1, the year of matriculation
- AACOMAS application fee - \$155

Please consult the D.O. admissions section of the view book for a complete list of application materials and procedures. Dual degree students are not required to pay the \$40 graduate application fee. D.O./Ph.D. students may apply upon acceptance to medical school or within their first two years of medical coursework.

Initial inquiries and correspondence and all formal application materials should be sent to:

Coordinator of Graduate Admissions  
Office of Student Affairs  
OSU Center for Health Sciences  
1111 W. 17th St.  
Tulsa, Okla. 74107-1898  
<http://www.healthsciences.okstate.edu/biomedical/index.cfm>



## Graduate Programs in Biomedical Sciences (M.S. and Ph.D.)

Advances made in recent years by biomedical scientists have greatly expanded our understanding of disease mechanisms, creating a demand for well-trained professionals with a breadth of knowledge about human diseases as well as in-depth research training.

The Graduate Program in Biomedical Sciences offers students a broad foundation of interdisciplinary training in the areas of anatomy, biochemistry, cell biology, microbiology, pathology, pharmacology, and physiology.

In addition to conventional biomedical sciences, we offer an Anatomy and Vertebrate Paleontology track. Program requirements for this track are slightly different as appropriate and can be obtained by contacting Dr. Anne Weil or Dr. Kent Smith.

Graduates have a wide range of career opportunities including:

- Biomedical Education in universities, colleges, and medical schools
- Biomedical Research in university, private, and government laboratories
- Pharmaceutical Industry
- Biotechnology

### Master of Science (M.S.)

#### Thesis option

Successful completion of the M.S. degree requires a minimum of 32 semester credit hours (24 hours coursework and 8 hours research) and includes at least two interdisciplinary graduate courses (one course outside the major discipline), an original research project, the presentation of a formal research seminar and a public defense of the research thesis.

#### Non-thesis option

Successful completion of the non-thesis M.S. degree requires a minimum of 32 semester credit hours. At least 2 interdisciplinary graduate courses are required, as well as 30 hours of graduate course work and 2 hours of research. A research project must be completed and presented to the student's advisory committee. The non-thesis option does not require a public defense of the project.

The thesis and non-thesis M.S. options are designed to be accomplished in 2 years; however, all degree requirements must be completed within 7 years of entering the program.

## Admission Standards for the M.S. Program

Prospective students must have earned a baccalaureate degree and completed coursework in general biology, general chemistry, organic chemistry and physics. Applicants are also expected to have an undergraduate grade point average (GPA) of at least 3.0 on a 4.0 scale and to have earned a score of at least 1000 on the Graduate Record Examination (GRE), with a writing score of at least 4. International students, for whom English is a second language, are required to have earned a Test of English as a Foreign Language (TOEFL) score of at least 550 (213 computer based or 79 internet based). Under certain circumstances, a student may be accepted into the program without meeting all of the requirements written above.

## M.S. Program Curriculum

### Required Courses:

- Biomedical Sciences Seminar
- Medical Biochemistry
- Molecular and Cellular Biology
- Research Ethics and Survival Skills for the Biomedical Sciences
- Graduate level course in Statistics

M.S. students also select a minimum of one additional course from the list below:

- Clinical Gross and Developmental Anatomy
- Clinically Based Histology
- Neuroanatomy
- Medical Microbiology and Immunology
- General Pathology I & II
- Pharmacology I & II
- Medical Physiology

M.S. students may take up to 3 semester credit hours of special topics and 2 semester credit hours of seminar.

## Academic Review

An academic review will occur in May of each year to evaluate the progress of students enrolled in the M.S. program.

## Transfer Credit

A student may transfer up to 9 hours of graduate credit from an approved institution and apply it towards earning their M.S. degree. Required courses must be taken at OSU-CHS.

## Doctor of Philosophy (Ph.D.)

Successful completion of the Ph.D. degree requires a minimum of 90 semester credit hours beyond the bachelor's degree (60 hours beyond the master's degree).

Students in the Ph.D. program will take interdisciplinary graduate courses, take a comprehensive qualifying examination, conduct research, present research seminars, and write and publicly defend a dissertation.

The Ph.D. program is designed to be accomplished in 4 years; however, all degree requirements must be completed within 9 years of entering the program.

## Admission Standards for the Ph.D. Program

Prospective students must have earned a baccalaureate degree and completed coursework in general biology, general chemistry, organic chemistry and physics. Applicants are also expected to have an undergraduate grade point average (GPA) of at least 3.0 on a 4.0 scale and to have earned a score of at least 1000 on the Graduate Record Examination (GRE), with a writing score of at least 4. Applicants may substitute a Medical College Admission Test (MCAT) score of 30 or better for the GRE. International students, for whom English is a second language, are required to have earned a Test of English as a Foreign Language (TOEFL) score of at least 550 (213 computer based or 79 internet based). Under certain circumstances, a student may be accepted into the program without meeting all of the requirements written above.





I'm pursuing my Ph.D. in physiology to prepare for a future in health/medical research. I am interested in why Type 1 diabetes affects one family member and not another, and I am studying diabetic cardiac autonomic neuropathy. My current research, while not aimed directly at curing diabetes, gives me a core understanding of the disease and how it affects the heart on cellular and physiologic levels. A broad and integrative perspective of medical topics is required as the field of medical research moves into the future.

– Brek Wilkins

## Ph.D. Program Curriculum

Students in the Ph.D. program will take a minimum of 45 semester credit hours of coursework, which includes required courses (see table below) and courses in a specific area of interest. Additionally, doctoral students will pursue their own research in an area of interest with a graduate faculty mentor of their choosing. The research component of the Ph.D. program requires a minimum of 30 semester credit hours of research and dissertation.

### Required Courses:

- Biomedical Sciences Seminar\*
- Medical Biochemistry
- Molecular & Cellular Biology
- Graduate level course in Statistics
- Research Ethics and Survival
- Skills for the Biomedical Sciences

*\*Taken prior to the semester of the dissertation defense.*

Doctoral students also take a minimum of two additional courses from the list below.

- Clinical Gross and Developmental Anatomy
- Clinically Based Histology
- Neuroanatomy
- Medical Microbiology and Immunology
- General Pathology I & II
- Pharmacology I & II
- Medical Physiology

In addition to the course requirements, doctoral students are required to write a research proposal that describes their research interest, research methods, and any data collected up to the time of writing the proposal. Students also must pass a qualifying examination that consists of both a written and oral component.

## Academic Review

An academic review will occur in May of each year to evaluate the progress of students enrolled in the Ph.D. program.

## Transfer Credit

A student may transfer up to 30 hours of graduate credit for a M.S. degree earned from an approved institution. Required biomedical courses must be taken at OSU-CHS.

## Application Process for the M.S. and Ph.D. Degrees

The student must submit to the Coordinator of Graduate Admissions:

- An official graduate application
- An official transcript from each college and university attended
- Test scores for the GRE and TOEFL examinations as appropriate
- Three letters of recommendation from persons familiar with the educational background of the applicant. Comments should be made regarding the applicant's research experience and expected motivation and productivity in research
- Application fee
- Ph.D. applicants: a statement of research interests is helpful

## Financial Aid

Students needing assistance with loans should contact the Office of Financial Aid. There are a limited number of stipends available to Ph.D. students and stipends are awarded on a competitive basis. Stipend applications are accepted in May of each year and stipends are awarded in July. Additionally, tuition waivers are available to both Ph.D. and M.S. students on a competitive basis.





## Graduate Program in Forensic Sciences (M.S. and Graduate Certificate)

The Graduate Program in Forensic Sciences develops skills for research, practice, and management in support of crime investigation. The program offers the Master of Science in Forensic Science and the Graduate Certificate in Forensic Document Examination. Coursework is interdisciplinary, with theory classes available online and laboratory classes and research experience hosted on campus.

Recent reports from the National Academy of Sciences paint a promising picture for careers in forensic science. Unsolved backlogged criminal casework and a workforce recommended to be formally trained in forensic science will drive demand for the coming 5-10 years. Careers available to graduates include the following positions:

- Criminalist
- Research analyst or technician
- Quality assurance manager
- Special investigator
- University instructor

### Master of Science in Forensic Science

The Master's degree offers both a thesis program and non-thesis options. The thesis program includes two semesters of online classes, followed by three semesters or more on campus for laboratory classes and supervised research. Non-thesis options allow participants to complete the program entirely through online classes. Both programs require satisfactory completion of 39 graduate credits, a comprehensive examination, and a research project. Students in either program may enroll on a full- or part-time basis.

The Master of Science in Forensic Science has the distinction of being accredited by FEPAC, the Forensic Education Program Accreditation Commission of the American Academy of Forensic Sciences. This accreditation is an asset for graduates seeking employment.

#### Thesis option

The thesis program offers advanced studies and research in four disciplines: forensic biology (DNA), forensic pathology, forensic psychology, and forensic toxicology. Students complete two semesters of online studies before coming to campus for laboratory courses and research, which includes six hours of research enrollment. The program culminates with the presentation and defense of the master's thesis.



### Non-Thesis option

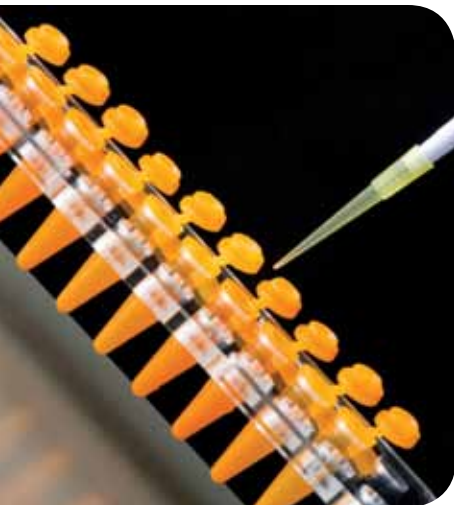
Non-thesis options are available in the areas of forensic science administration and forensic document examination. Admission requires either a professional background in forensic sciences or participation in document examiner training. All classes are online, allowing active practitioners and document examiner trainees to pursue graduate studies while maintaining career positions. The research project is completed through enrollment in the Ethical Research and Scientific Writing course and one hour of research. The project culminates with the submission of the research paper along with a public presentation, which may be accomplished through a videoconference or webinar, or presented in person.

### Admission Standards for the M.S.

Applicants must have a baccalaureate degree with an undergraduate grade point average of at least 3.0 on a 4.0 scale. Three letters of recommendation, and a letter from the applicant stating career goals are also required. Applicants to the thesis program should have an academic background in support of the chosen field of study. Applicants to the thesis program also must submit scores on the Graduate Record Examination (GRE) of at least 1000 (combined score) for the verbal and quantitative portions, with the writing score also to be considered. Applicants for non-thesis options may submit either scores above the 50th percentile on the Miller Analogy Test (MAT) or GRE scores as above. Non-thesis applicants must also verify related employment or training.

International students for whom English is a second language must also take the International TOEFL (Test of English as a Foreign Language) or IELTS (International English Language Testing System). Required minimum scores are: for the TOEFL, 100 on the iBT with least 20 on the written portion; or 600 on the PBT with 5 on the TWE; or for the IELTS, a score of 7.0. These exceed minimum requirements for OSU international admission.

If the pre-admission review determines that the undergraduate transcript lacks prerequisites for courses in the chosen track, the applicant may be required to take additional courses as a condition of admission. In such cases, the student may take the prerequisite course while enrolled in the graduate program, although credit for any prerequisite must be completed prior to enrollment in the course for which it is stipulated.



## M.S. Requirements and Restrictions

### Required Courses (39 total credits):

#### For All M.S. Students (18 credits)

| Course Number | Title                                   | Credit Hours |
|---------------|---|--------------|
| FRNS 5013     | Survey of Forensic Sciences             | 3*           |
| FRNS 5063     | Ethical Research and Scientific Writing | 3*           |
| FRNS 5073     | Quality Assurance in Forensic Science   | 3*           |
| FRNS 5413     | Forensic Pathology and Medicine         | 3*           |
| FRNS 5613     | Criminalistics and Evidence Analysis    | 3*           |
| FRNS 5653     | Scientific Evidence                     | 3*           |

#### Additional Requirements for Thesis (21 credits)

| Course Number   | Title                          | Credit Hours |
|---|--------------------------------|--------------|
| FRNS 5000   | Research and Thesis            | 6            |
| FRNS 5622   | Advanced Criminalistics        | 2            |
| STAT 5013   | Statistics for Experimenters I | 3**          |
| Electives directed by discipline or approved by advisor |                                | 10           |

#### Additional Requirements for Non-Thesis Administration (21 credits)

| Course Number                                | Title  | Credit Hours |
|--|--|--------------|
| FRSN 5083                                    | Ethics in Forensic Leadership                            | 3*           |
| FRNS 5213                                    | Molecular Biology (OR FRNS 5523 Forensic Toxicology)     | 3*           |
| FRNS 5413                                    | Forensic Pathology and Medicine                          | 3*           |
| FRNS 6043                                    | Forensic Management and Org. Development                 | 3*           |
| HCA 5023                                     | Human Resources in Health Care and Public Administration | 3*           |
| FRNS 6010                                    | Forensic Specialization: Non-Thesis Research Project     | 1*           |
| Electives as directed or approved by advisor |  | 5*           |

#### Additional Requirements for Non-Thesis/FDE (21 credits)

| Course Number                                | Title   | Credit Hours |
|--|---|--------------|
| FRNS 5023                                    | Forensic Examination of Questioned Documents          | 3*           |
| FRNS 5033                                    | Forensic Handwriting Examination: Theory and Practice | 3*           |
| FRNS 5043                                    | Technical Aspects of Forensic Document Examination    | 3*           |
| FRNS 5053                                    | Historical Aspects of Forensic Document Examination   | 3*           |
| FRNS 5913                                    | Forensic Accounting and Fraud Investigation           | 3*           |
| FRNS 6010                                    | Forensic Specialization: Non-Thesis Research Project  | 1*           |
| Electives as directed or approved by advisor |   | 5*           |

\*Online courses

\*\*Offered online or on campus at OSU-Tulsa or at the Stillwater campus

**Credit for coursework:** The M.S. student must successfully complete at least 39 credits of graduate coursework. The student will cooperate with the faculty advisor in developing a plan of study that complies with core requirements for the respective discipline, unless otherwise stipulated by the graduate faculty committee. All M.S. students must also satisfactorily present a research paper and complete the comprehensive examination. M.S./Thesis students must successfully defend the research thesis before the graduate faculty committee.

**Transfer hours:** Upon approval by the student's advisory committee, the student may transfer a maximum of nine hours of graduate credit toward the M.S. degree.

**Enrollment:** Degree-seeking students will matriculate in the program with the first enrollment after formal acceptance. All M.S. students must enroll in at least six hours per calendar year and maintain a 3.0 grade point average to remain in good standing. Thesis students in the research phase of the program must maintain continuous enrollment in at least two credit hours, including summer semesters, and dedicate a minimum of one semester to full-time coursework and research. Any student who interrupts enrollment for one calendar year must reapply for admission.

**Time of study:** The M.S. program may be completed in as few as four semesters, although course sequencing may necessitate a longer time. Thesis students attending full time typically require at least five semesters. Non-Thesis participants with full-time careers usually need seven semesters or more to complete the program. The master's degree must be completed within seven years of the matriculation semester.

**Residence requirement:** Thesis students must spend at least one full-time semester on campus for laboratory courses and for research; however, thesis research most often requires two or three semesters on campus. Non-thesis students do not need to relocate to campus because the administration and FDE programs are available completely online.

**Thesis research:** Throughout the research phase of the thesis program, the student must perform tasks in the department, including course and research activities, under the guidance of the faculty advisor. In addition, the student must demonstrate ongoing progress with the research until the degree is completed.

During the final semester, the student must present the research thesis according to graduate college guidelines and as defined in the graduate college style manual, which is available online. A public defense of the research is required with advance notice posted at least ten days prior to the defense. The format of the defense is left to the major advisor but must include an opportunity for members of the audience to ask questions.



The student must send the graduate college an electronic copy of the final thesis and two copies of the abstract printed on OSU thesis bond. Students pay a processing fee to cover charges of electronic publication. The thesis becomes the property of the University and is available online through the OSU Library Catalog.

**Non-thesis research:** Non-thesis students will produce a research paper according to standards set by the Forensic Sciences Department. Guidance will be provided through instructors in the Ethical Research and Scientific Writing course and through the faculty advisor. Along with the paper, the student must present the work in a public forum, either in person or via electronic transmission, with an opportunity for audience questions and discussion.

## Graduate Certificate in Forensic Document Examination

A non-degree program offers 12 hours of graduate courses for individuals training to become forensic document examiners. The program provides academic support for a more comprehensive process of examiner training and certification. The Graduate Certificate in Forensic Document Examination does not by itself fulfill the requirements for professional certification. Any graduate certificate student who is later admitted to the master's FDE program may apply all 12 credits toward the degree.

## Admission Standards for the Graduate Certificate

Applicants must have an undergraduate degree from an accredited college or university. Permission of the lead instructor in forensic document examination is required. Usually, participants are involved in an apprenticeship or training program that leads to professional certification; an outside mentor who is a certified document examiner is typically required.

### Required Courses for Graduate Certificate Students (12 total credits)

| Course Number | Title   | Credit Hours |
|---------------|---|--------------|
| FRNS 5023     | Forensic Examination of Questioned Documents          | 3*           |
| FRNS 5033     | Forensic Handwriting Examination: Theory and Practice | 3*           |
| FRNS 5043     | Technical Aspects of Forensic Document Examination    | 3*           |
| FRNS 5053     | Historical Aspects of Forensic Document Examination   | 3*           |

*\*Online courses*



I am a pediatric dentist interested in the use of forensics processes in bite mark analysis relating to child abuse. I have seen many physically abused children and I have the responsibility to make the right diagnosis at the right time to prevent tragedy. My research deals with DNA quantitation, DNA degradation and PCR inhibition. I hope it will have an impact on screening of large scale DNA samples and result interpretation. Broad based DNA quantitation methods are required as DNA analysis moves into a future of automation, miniaturization and expert systems.

**- Gifty Benson**

## Considerations in Applying

**Requirements for online classes:** This program requires self-discipline and adaptability necessary for collaborative and independent learning. In addition, applicants should have the necessary equipment, knowledge, skills, and access for using high-speed Internet, e-mail accounts, and basic office applications.

**Background checks:** Anyone considering a career in the forensic sciences should be aware that the job applications typically go beyond normal requirements for transcripts, employment history, references, interviews, and criminal-record checks. Because of the comprehensive screening involved, students applying for permanent positions or even for internships in forensic laboratories are encouraged to apply well in advance, as the approval process may take several months.

Although varying by agency or employer, background checks may extend to inquiries about social companions, financial history, military history, use of alcohol and illegal drugs, medical history, mental health conditions, motor vehicle accidents, police records, personal weapons records, and civil court actions. In addition, personal information posted on the Internet, including social networking sites like Facebook, may be subject to review. Work samples and medical examinations also be required along with drug, personality, and polygraph tests. Although the OSU-CHS application asks about felony convictions only, the prospective student should carefully consider any and all factors that could influence future employment.

**Employers' academic requirements:** While the Graduate Program in Forensic Sciences prepares students for employment in particular fields, prospective employers may have other requirements, especially related to laboratory accreditation. To ensure high standards of quality for forensic practitioners, agencies that govern laboratory accreditation may require employees to have completed courses not necessarily offered in the OSU forensics program. Applicants should therefore research the requirements for the chosen field of forensic science and for prospective employers within that field to learn what courses may affect eligibility for employment. For more information, go to <http://forensicsciences.okstate.edu>; click "Admission" and then "Academic Requirements by Employers."

**Financial aid:** Students needing assistance with loans should contact the Office of Financial Aid. Thesis students may inquire with the program director about any available assistance through the departments or faculty research grants; those with a documented interest in agricultural biosecurity may apply with the program director for a stipend that is awarded on a competitive basis. M.S./Non-thesis students residing in southern states in



the Academic Common Market may qualify for a tuition waiver of the non-resident portion of tuition. Information on this option is available through the program coordinator in the department office.

Any graduate certificate student employed by a government agency within the U.S. qualifies for a tuition waiver. Qualified Oklahoma residents will receive a waiver of \$55 per credit hour; those residing outside the state will receive a waiver of \$350 per credit hour. This waiver applies only to qualified students and only to courses required for the graduate certificate.

## Formal Application

Initial inquiries, correspondence, and all formal application materials should be sent to:

Program Coordinator  
 Graduate Program in Forensic Sciences  
 Oklahoma State University Center for Health Sciences  
 1111 W. 17th St.  
 Tulsa, Okla. 74107-1898  
 (918) 561-1108 or (800) 677-1972, E-mail: forensic@okstate.edu

## Formal application includes:

### For all applicants:

- Completed, official application (obtained from the Office of Student Affairs, the Graduate Program in Forensic Sciences, or the OSU-CHS Web site)
- Payment of application fee of \$40 (\$75 for international students)
- An official transcript from each college and university attended

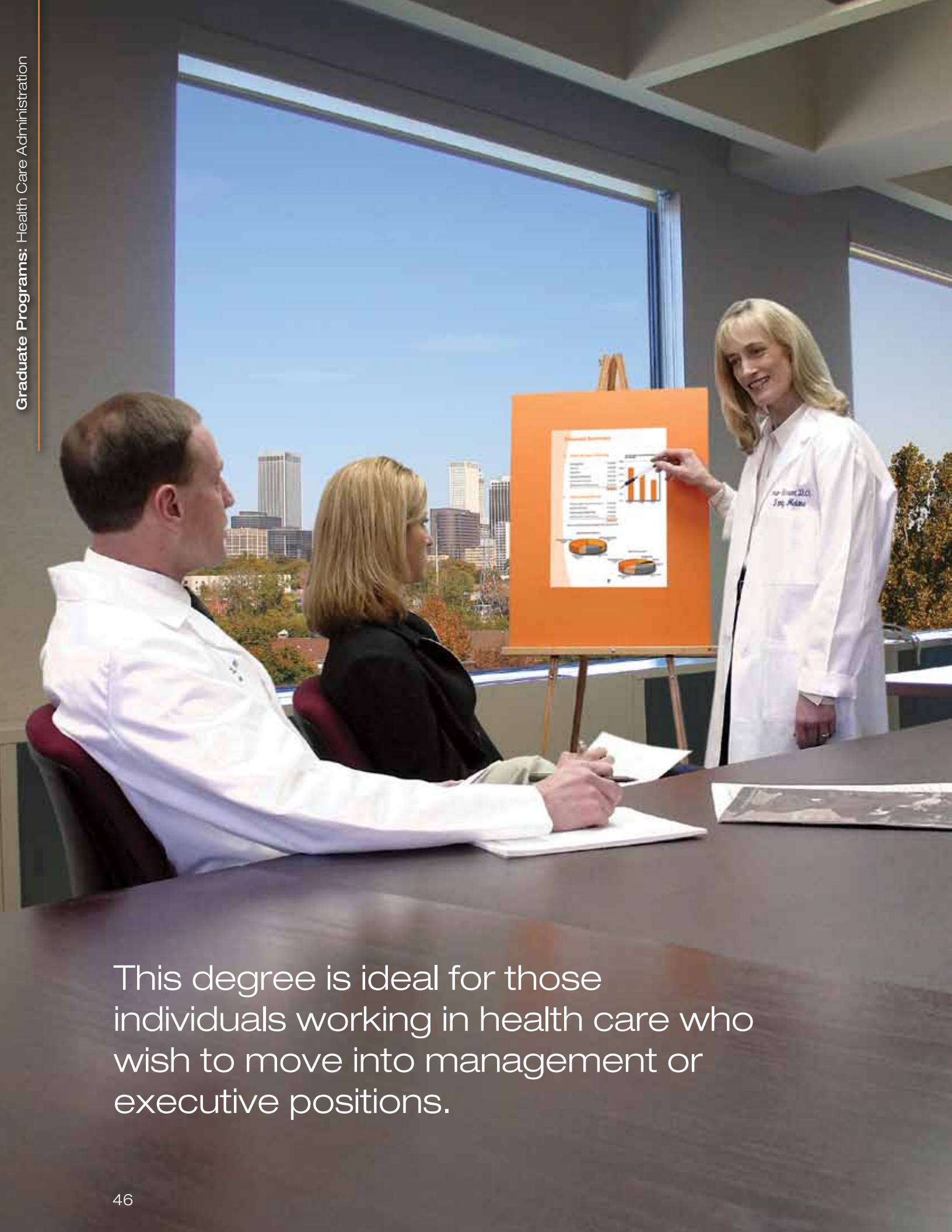
### For all M.S. applicants:

- Test scores for the GRE, MAT, and TOEFL examinations as appropriate
- Three letters of recommendation from persons familiar with the educational and/or professional background of the applicant, with comments reflecting the applicant's experience and expected motivation and productivity.
- A letter of application describing personal career goals

### For M.S./Non-Thesis applicants only

- Employment verification on the form provided with the application materials or from the program website





This degree is ideal for those individuals working in health care who wish to move into management or executive positions.

## Health Care Administration Program (M.S./I.S.)

The HCA program at OSU is a master's degree in Interdisciplinary Science with a specialization in health care administration. The curriculum provides exposure to management concepts, processes and techniques associated with administration functions in a variety of health care organizations. This degree is ideal for those individuals working in health care who wish to move into management or executive positions.

This interdisciplinary degree offers on-site courses at OSU-Stillwater and OSU-Tulsa as well as distance learning opportunities. While it is currently not possible to graduate through distance learning alone, we know that our students have truly benefited from the shared curriculum with the Oklahoma State University business and political science programs as well as other programs within the graduate college.

### Requirements for the master's degree include:

- A 3.0 or better grade point average
- A baccalaureate degree
- 2 to 3 years experience in the health care field
- A letter of application detailing career goals

### Admission Procedures

Applicants to the HCA Program may apply on-line at:  
<https://app.it.okstate.edu/gradcollege>

- Please mark Degree Candidate as the admission status
- Please list Health Care Administration as the proposed major
- Please list Master of Science as the degree sought

Paper applications and transcripts should be sent to:

OSU Graduate College  
202 Whitehurst Hall  
Stillwater, Okla. 74078-1019

Statement of Goals should be e-mailed to [patrick.anderson@okstate.edu](mailto:patrick.anderson@okstate.edu) or mailed to:

Coordinator of Graduate Admissions  
Office of Student Affairs  
OSU Center for Health Sciences  
1111 W. 17th St.  
Tulsa, Okla. 74107-1898

### Formal application includes:

- Completed, official application (online or paper) submitted to the Graduate College
- Payment of application fee of \$40 (online applications), \$50 (paper applications), or \$75 (international applications)
- One official transcript from each college and university attended
- Statement of goals, qualifications, and objectives

Please prepare a one-page, typed, double-spaced essay that includes the following:

- Description of your current job
- Description of current or past health care experience
- What are your career goals?
- How will the HCA program help you in achieving these goals?
- Why are you applying to OSU's HCA program?
- What personal strengths will help you attain your goals?
- What personal challenges do you face to attain your goals?

## M.S. Program Requirements and Restrictions

**Credit for Course Work:** The M.S. student must successfully complete at least 32 semester hours of course work, including the creative component. Unless otherwise stipulated by the graduate faculty committee, all M.S. students will follow the curriculum below.

### Core Required Courses (6 Hours)

| Course Title                                   | Credits |
|--|---------|
| Social Structures of Health Care Organizations | 3       |
| Statistics and Research Methods                | 3       |

### Core Elective Courses (18 Hours, One course from six areas below)

| Course Title                              | Credits |
|---|---------|
| Accounting and Finance                    | 3       |
| Human Resource and Management             | 3       |
| Health Information Systems                | 3       |
| Operations Management & Qualitative Tools | 3       |
| Management & Organizational Theory        | 3       |
| Marketing & Communications                | 3       |
| Program Planning & Evaluation             | 3       |
| Social, Legal, & Ethical Issues           | 3       |

### General Elective Courses (5 Hours)

From list above or any graduate level class upon approval from the program director.

### Creative Component Course (3 Hours)

May be an independent study project or an approved course that has a significant written report requirement.

**Transfer Hours:** Upon approval by the student's advisory committee, the student may transfer a maximum of nine hours of graduate credit toward the M.S. degree.

### Financial Aid

Students needing assistance with loans should contact the financial aid coordinator on either the OSU-Tulsa or OSU-Stillwater campus.

- OSU-Stillwater Office of Financial Aid and Scholarships: (405) 744-6604
- OSU-Tulsa Office of Financial Aid and Scholarships: (918) 594-8355

The admissions view book is published by the Office of Student Affairs, OSU Center for Health Sciences, 1111 W. 17th St., Tulsa, Okla. 74107-1898. OSU is an equal opportunity/affirmative action institution.

This publication, issued by Oklahoma State University Center for Health Sciences, as authorized by Stanley E. Grogg, D.O., interim provost and dean, was printed by Western Printing Company, Inc., at a cost of \$8,970. 5,000/November/2010

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