



**LIBERTY**  
UNIVERSITY | COLLEGE *of*  
OSTEOPATHIC  
MEDICINE

ACADEMIC  
CATALOG

2018-2019

## Table of Contents

Chapter 1. Introduction.....	3
1.1. Message from the Dean .....	3
1.1. Mission.....	4
1.2. Commitments .....	5
1.3. An Osteopathic Physician.....	6
1.4. Accreditation & State Certification .....	7
1.5. Non-Discrimination Statement.....	8
1.6. The American Osteopathic Association (AOA) Code of Ethics .....	8
Chapter 2. Requirements for Admission .....	11
2.1. Minimum Requirements for Admission .....	11
2.2. Technical Standards.....	12
2.3. AACOMAS Application Process .....	16
2.4. Applications Deadline.....	17
2.5. Secondary Application Process .....	17
2.6. Interview Selection Process.....	18
2.7. Matriculation Process .....	19
2.8. Request for Admission Deferment.....	19
2.9. Transfer Applicants .....	19
2.10. Advanced Standing .....	20
2.11. International Student Applicants .....	21
Chapter 3. Tuition, Fees and Financial Aid.....	22
3.1. Tuition .....	22
3.2. Fees.....	22
3.3. Financial Aid.....	23
3.4. Tuition Payment .....	23
3.5. Tuition Refund Policy.....	24
Chapter 4. Student Health, Insurance and Liability Requirements .....	25
4.1. Student Health Policies & Procedures .....	25
4.2. Immunization Requirements.....	26
4.3. Background Check, Drug, and Alcohol Screening .....	29
Chapter 5. Academic Program.....	31
5.1. Academic Credit.....	31
5.2. Grades OMS-I and OMS-II .....	32
5.3. Grades OMS-III .....	32
5.4. Grades OMS-IV.....	33
5.5. Other Grades .....	33
5.6. Transcript Request.....	33
5.7. Rank Calculation and Distribution .....	34
5.8. Graduation Requirements.....	34
5.9. Non-enrolled Person Building Access.....	35
5.10. Academic Calendar .....	36

5.11. OMS-I Curriculum Schedule .....	37
5.12. OMS-II Curriculum Schedule .....	38
5.13. OMS-III Curriculum Schedule** .....	39
5.14. OMS-IV Curriculum Schedule.....	39
5.15. Curriculum Description .....	40
<b>Chapter 6. American Osteopathic Association Core Competencies .....</b>	<b>47</b>
6.1. Osteopathic Philosophy and OMM .....	47
6.2. Medical Knowledge .....	47
6.3. Patient Care .....	48
6.4. Interpersonal and Communication Skills.....	48
6.5. Professionalism .....	49
6.6. Practice-Based Learning and Improvement.....	49
6.7. System-Based Practice .....	50
<b>Chapter 7. Course Descriptions .....</b>	<b>51</b>
7.1. OMS I.....	51
7.2. OMS II.....	55
7.3. OMS III.....	61
7.4. OMS IV.....	64
7.5. Undergraduate Fellowships.....	67
7.6. Additional Course Offerings.....	68
<b>Chapter 8. Reservation of Power.....</b>	<b>69</b>

## Chapter 1. Introduction

### 1.1. Message from the Dean



Welcome to Liberty University College of Osteopathic Medicine. Our faculty, staff, and students welcome all those who possess a servant's heart, a scientist's curiosity, and the desire to improve the lives of others through the practice of osteopathic medicine.

The faculty, staff, and administration of Liberty University College of Osteopathic Medicine are committed to honoring and advancing the culture of Liberty University as a Christian institution as well as the philosophy and heritage of the osteopathic profession. We believe in the body's inherent ability for wellness, a patient-centered approach to the practice of medicine, and a philosophy of medical care that embraces the body, mind and spirit. Our primary goal is to train physicians who exhibit the compassion, devotion and excellence that we feel is best personified by the Great Physician, Jesus Christ.

As educators and medical professionals, we strive to advance medical knowledge, the practice of medicine, the health and wellness of our patients, equitable access to quality medical care by all individuals, and the promotion of health policy that advances healthcare in our nation and throughout the world. We strive to train physicians who will emphasize preventive medicine, wellness, primary care, and community based practice, but who will be prepared to succeed in any discipline or graduate medical education program. We design our curriculum to provide our students with the skills required to remain lifelong learners, the desire to contribute to the advancement of medical knowledge, and the passion to serve their patients throughout their professional careers.

Recognizing the needs of underserved populations in the United States and around the globe, we recruit students with a servant's heart and then design local outreach events and international medical missionary trips to kindle a passion for disadvantaged patients and give them the experience of reaching these people with needed medical care.

The task of becoming an osteopathic physician is educationally and personally demanding. If you have at your core a servant's heart, if you possess a strong commitment and passion to enhance the lives of others, and if you have the motivation, work ethic, and personal responsibility that the curriculum and profession demand, the personal and professional rewards that you experience will far exceed the cost. If you share the qualities that we seek, you will find kindred spirits and life-long partners here at Liberty University College of Osteopathic Medicine.

***Peter A. Bell, DO***

Peter A. Bell, DO, MBA, HPF, FACOEP-*dist*, FACEP  
*Dean*

## **1.1. Mission**

### **1.1.A. Mission Statement**

Liberty University College of Osteopathic Medicine (LUCOM) exists to educate osteopathic physicians in a Christian environment. LUCOM prepares physicians who dedicate themselves to excellence in the practice of osteopathic medicine through service toward their fellow man, lifelong learning, and the advancement of medical knowledge. Instilling the Christian values of integrity and professionalism, LUCOM trains physicians who will provide ethical, compassionate, competent, and patient-centered osteopathic medical care.

### **1.1.B. Values**

Scholarship

Teamwork

Leadership

Service

Professionalism

Integrity

Commitment to incarnational Christianity

Diversity

Ethical treatment of people

### **1.1.C. Goals**

1. To recruit and graduate osteopathic medical students who have a servant's heart and are committed to providing care to underserved and underrepresented patients in Virginia, the Southeastern United States, the United States of America, and the globe.
  - a. To recruit a diverse student body that has a desire to serve disadvantaged urban and rural underserved populations.
  - b. To place an emphasis on recruitment of students from Virginia and the Southeastern United States who share our mission, vision and values and are likely to practice in the region and help advance its health and economic status.
2. To honor and preserve the history and philosophy along with the art and science of osteopathic medicine through the teaching of historical principles and practices and the incorporation of up-to-date scientific knowledge, research, clinical, and biomedical sciences.
3. To provide an osteopathic medical education that is holistic, evidence-based, community-focused, and patient-centered with excellence as its expected standard.
4. To teach students by design, example, and mentorship the treatment of the patient as an integrated whole; incorporating the mind, body, and spirit.
5. To develop graduates who are qualified to enter any medical discipline upon graduation yet predominantly enter primary care, preventive, and community-based practices in our service area.

This will be accomplished through the design of the curriculum, the type and location of the clinical educational opportunities provided, and the leadership of the faculty role models that are provided by the COM.

6. To advance the careers, knowledge, skills, and personal lives of the faculty and staff of the COM through support for scholarly activity, research, faculty development, a positive environment, and respect.
7. To contribute to the advancement of medical knowledge and advance the quality of health care for society through educational, scientific, and clinical research, promotion of effective health policy, and other scholarly activity.
8. To be a valued member of the greater Liberty University, Lynchburg, and Virginia communities through contributions to educational, professional, societal affairs and through works of service.
9. To support and advance osteopathic and other professional medical associations through leadership, support, contributions of service, development of policies, expansion of knowledge, and collaborative efforts.
10. To develop clinical education opportunities in rural and underserved areas of Virginia, local as well as distant regions of the United States and globally, and to provide quality clinical educational opportunities for LUCOM students and residents.
11. To develop clinical opportunities in rural and underserved areas of Virginia that will provide expanded access for patients' healthcare through the efforts of LUCOM faculty, students, and residents.
12. To develop and maintain national and international medical outreach and mission programs to train clinicians to serve in underserved areas of Virginia, the United States, and the developing world.
13. To collaborate with our affiliated hospitals and clinical partners to develop graduate medical education programs for osteopathic and other health professions graduates, provide educational opportunities for health care professionals at the same time the programs provide healthcare and educational services to our region.

## **1.2. Commitments**

The faculty, staff, and administration of Liberty University College of Osteopathic Medicine are committed to the osteopathic philosophy and heritage, serving the needs of our students, faculty and patients today as well as into the future, and advancing both the science and art of the practice of osteopathic medicine.

Working together, we recruit and educate talented individuals committed to becoming osteopathic physicians. We have as a goal the graduation of students who are prepared to succeed in any graduate medical education program they decide to pursue. In addition, we are committed to ensuring that our graduates have the foundation of knowledge, skills, and competencies that will enable them to meet the needs of the wide diversity of patients they will encounter in their professional careers. We are committed to producing physicians who are knowledgeable, skilled and competent, but also professional and ethical. The college is dedicated to producing physicians with the skills needed to remain lifelong learners, the desire to contribute to the advancement of medical knowledge, and the passion to be of service to their patients throughout their professional careers.

The College of Osteopathic Medicine prepares to accomplish these goals by:

- Providing experienced and dedicated professionals and faculty who demonstrate excellence in their knowledge, skill, and experience in the practice of medicine, professionalism, and ethics in their personal conduct and dedication for the education of medical students, to serve as the educators, mentors, and role models for our students.
- Providing the facilities and resources necessary to ensure that its students have access to, and the opportunity to acquire a state-of-the-art medical education in a positive learning environment.
- Providing the resources and support for research and scholarly activity that aligns the needs of our communities, students, and faculty.
- Providing opportunities for clinical experience under the supervision and guidance of talented, knowledgeable, dedicated, credentialed faculty that will allow our students to acquire the clinical knowledge, skills, and competencies required, while integrating these components within the core of knowledge acquired during the student's preclinical education.

LUCOM's dedication to a Continuous Quality Assessment and Quality Improvement Process serves to advance its mission and vision, benefit the education of its students, and assess the growth and development of its faculty and staff.

LUCOM is committed to seeking out and carefully evaluating the opinions and recommendations of our students, faculty, staff, and community and professional partners and to integrate them into our programs.

LUCOM is committed to our mission statement and reaching the goals established by the vision and values adopted by the Liberty University Board of Trustees and the College of Osteopathic Medicine.

### **1.3. An Osteopathic Physician**

Two types of physicians have unrestricted licenses and may practice medicine in all 50 states. They are the Doctor of Osteopathic Medicine (D.O.) and the Doctor of Allopathic Medicine (M.D.). While both types of physicians are qualified, competent, and trained in all aspects of patient care, D.O.s offer an approach to medical care that emphasizes holistic and patient-centered treatment with an emphasis on wellness, prevention of disease, and disability.

Osteopathic physicians are distinguished by an emphasis on holistic, patient-centered primary care, by using osteopathic manipulative medicine as indicated and when beneficial, and by their tradition of caring for patients in underserved rural and urban areas. Osteopathic physicians respect the relationship between physical structure and organic function and view the human body as an interdependent unit rather than an assortment of separate parts and systems.

All medical and surgical specialties are represented within the osteopathic medical profession. However, the training of primary care, community-based physicians, and the desire to reach rural, minority, geriatric, and indigent populations make the osteopathic medical profession unique.

We at Liberty University College of Osteopathic Medicine are dedicated to our stated mission of producing vitally needed primary care physicians with a goal of placing fifty percent of our graduates in

community-based medical practices in the state and region. We are committed to providing an education for our students that will prepare them to enter any resident program and advance the health of their patients in all patient care settings.

## **1.4. Accreditation & State Certification**

### **1.4.A. Programmatic Accreditation**

Liberty University College of Osteopathic Medicine has received accreditation from its programmatic accreditor, the American Osteopathic Association Commission on Osteopathic College Accreditation (AOA-COCA).

The AOA is recognized by the U.S. Department of Education and the Government of Post- Secondary Accreditation as the accrediting agency for colleges educating osteopathic physicians and surgeons. More information about the COCA accreditation process can be found at: [www.aococa.org](http://www.aococa.org).

### **1.4.B. Institutional Accreditation**

Liberty University has received Level IV accreditation by the Southern Association of Colleges and Schools Commission on Colleges to award associate, bachelor, master, specialist and doctoral degrees.

The Southern Association of Colleges and Schools Commission on Colleges is the regional body for the accreditation of degree-granting higher education institutions in the Southern states.

Accreditation by SACS Commission on Colleges signifies that the institution (1) has a mission appropriate to higher education, (2) has resources, programs, and services sufficient to accomplish and sustain that mission, and (3) maintains clearly specified educational objectives that are consistent with its mission and appropriate to the degrees it offers, and that indicate whether it is successful in achieving its stated objectives.

### **1.4.C. State Certification**

Liberty University is authorized to confer degrees by the Commonwealth of Virginia.

Pursuant to 23-276.1 - 12 of the Code of Virginia, the State Council of Higher Education for Virginia (SCHEV) is responsible for developing procedures to which certain private and all out-of-state postsecondary institutions must adhere in order to receive approval to confer degrees, certificates, or diplomas in the Commonwealth of Virginia. Certain private institutions are exempt from the requirements of certification or approval by SCHEV.

Liberty University was incorporated in the State of Virginia on January 18, 1972. It has operated under the same ownership since that time and has remained in good standing with the U.S. Department of Education and its accrediting body. Liberty University is an exempt institution.



### **1.5. Non-Discrimination Statement**

Liberty University does not engage in unlawful discrimination or harassment because of race, color, ancestry, religion, age, sex, national origin, pregnancy or childbirth, disability or military veteran status in its educational programs and activities. Liberty University maintains its Christian mission and reserves its right to discriminate on the basis of religion to the extent that applicable law respects its right to act in furtherance of its religious objectives. Specifically, the College of Osteopathic Medicine furthers the University's religious mission by using religion-based criteria in hiring. Although the College of Osteopathic Medicine does not use religion-based criteria in student admissions, its students are expected to abide by its Code of Conduct.

The College of Osteopathic Medicine accepts the teaching of the traditional biblical view with regard to sexual conduct outside a biblically ordained marriage between a natural-born man and a natural-born woman, which is incorporated into its Code of Conduct. Consistent with those teachings, the College of Osteopathic Medicine does not discriminate solely on the basis of an individual's professed sexual orientation, but only with regard to accompanying sexual conduct or other actions that undermine essential elements of the University's Christian mission.

The College of Osteopathic Medicine also takes into account personal history and fitness to practice medicine in its admissions and retention decisions. Specifically, the College of Osteopathic Medicine requires compliance with the Technical Standards to be qualified for its programs; however, qualified students have the opportunity to request accommodations and any decisions based on failure to meet its standards can be appealed.

The following persons have been designated to coordinate Liberty University's compliance with certain anti-discrimination laws: Coordinator of LU Online Disability Academic Support at (434) 592-5417 or [luoodas@liberty.edu](mailto:luoodas@liberty.edu); Director of Disability Academic Support (Residential) at (434) 582-2159 or [odas@liberty.edu](mailto:odas@liberty.edu); Executive Director of Title IX at (434) 592-4999 or [TitleIX@liberty.edu](mailto:TitleIX@liberty.edu).

### **1.6. The American Osteopathic Association (AOA) Code of Ethics**

The American Osteopathic Association (AOA) Code of Ethics is a document that applies to all physicians who practice osteopathically throughout the continuum of their careers, from enrollment in osteopathic medical college/school through post graduate training and the practice of osteopathic medicine. It embodies principles that serve as a guide to the prudent physician. It seeks to transcend the economic, political, and religious biases, when dealing with patients, fellow physicians, and society. It is flexible in nature in order to permit the AOA to consider all circumstances, both anticipated and unanticipated. The physician/patient relationship and the professionalism of the physician are the basis for this document.

The AOA has formulated this Code to guide its member physicians in their professional lives. The standards presented are designed to address the osteopathic physician's ethical and professional responsibilities to patients, to society, to the AOA, to others involved in health care and to self.

Further, the AOA has adopted the position that physicians should play a major role in the development and instruction of medical ethics.

Section 1. The physician shall keep in confidence whatever she/he may learn about a patient in the discharge of professional duties. Information shall be divulged by the physician when required by law or when authorized by the patient.

Section 2. The physician shall give a candid account of the patient's condition to the patient or to those responsible for the patient's care.

Section 3. A physician-patient relationship must be founded on mutual trust, cooperation, and respect. The patient, therefore, must have complete freedom to choose her/his physician. The physician must have complete freedom to choose patients whom she/he will serve. However, the physician should not refuse to accept patients for reasons of discrimination, including, but not limited to, the patient's race, creed, color, sex, national origin, sexual orientation, gender identity, or disability. In emergencies, a physician should make her/his services available.

Section 4. A physician is never justified in abandoning a patient. The physician shall give due notice to a patient or to those responsible for the patient's care when she/he withdraws from the case so that another physician may be engaged.

Section 5. A physician should make a reasonable effort to partner with patients to promote their health and shall practice in accordance with the body of systematized and scientific knowledge related to the healing arts. A physician shall maintain competence in such systematized and scientific knowledge through study and clinical applications.

Section 6. The osteopathic medical profession has an obligation to society to maintain its high standards and, therefore, to continuously regulate itself. A substantial part of such regulation is due to the efforts and influence of the recognized local, state and national associations representing the osteopathic medical profession. A physician should maintain membership in and actively support such associations and abide by their rules and regulations.

Section 7. Under the law a physician may advertise, but no physician shall advertise or solicit patients directly or indirectly through the use of matters or activities which are false or misleading.

Section 8. A physician shall not hold forth or indicate possession of any degree recognized as the basis for licensure to practice the healing arts unless he is actually licensed on the basis of that degree in the state or other jurisdiction in which she/he practices. A physician shall designate her/his professional degree in all professional uses of her/his name. Indications of specialty practice, membership in professional societies, and related matters shall be governed by rules promulgated by the American Osteopathic Association.

Section 9. A physician should not hesitate to seek consultation whenever she/he believes it is in the best interest of the patient.

Section 10. In any dispute between or among physicians involving ethical or organizational matters, the matter in controversy should first be referred to the appropriate arbitrating bodies of the profession.

Section 11. In any dispute between or among physicians regarding the diagnosis and treatment of a patient, the attending physician has the responsibility for final decisions, consistent with any applicable hospital rules or regulations.

Section 12. Any fee charged by a physician shall compensate the physician for services actually rendered. There shall be no division of professional fees for referrals of patients.

Section 13. A physician shall respect the law. When necessary a physician shall attempt to help to formulate the law by all proper means in order to improve patient care and public health.

Section 14. In addition to adhering to the foregoing ethical standards, a physician shall recognize a responsibility to participate in community activities and services.

Section 15. It is considered sexual misconduct for a physician to have sexual contact with any patient with whom a physician-patient relationship currently exists.

Section 16. Sexual harassment by a physician is considered unethical. Sexual harassment is defined as physical or verbal intimation of a sexual nature involving a colleague or subordinate in the workplace or academic setting, when such conduct creates an unreasonable, intimidating, hostile or offensive workplace or academic setting.

Section 17. From time to time, industry may provide some AOA members with gifts as an inducement to use their products or services. Members who use these products and services as a result of these gifts, rather than simply for the betterment of their patients and the improvement of the care rendered in their practices, shall be considered to have acted in an unethical manner.

Section 18. A physician shall not intentionally misrepresent himself/herself or his/her research work in any way.

Section 19. When participating in research, a physician shall follow the current laws, regulations and standards of the United States or, if the research is conducted outside the United States, the laws, regulations and standards applicable to research in the nation where the research is conducted. This standard shall apply for physician involvement in research at any level and degree of responsibility, including, but not limited to, research, design, funding, participation either as examining and/or treating provider, supervision of other staff in their research, analysis of data and publication of results in any form for any purpose.

## Chapter 2. Requirements for Admission

### 2.1. Minimum Requirements for Admission

While most students who matriculate to LUCOM will have a bachelor's degree or higher, at a minimum, each applicant that matriculates must have completed no less than 75% of the credits needed for a baccalaureate degree from a college or university accredited by an agency recognized by the United States Department of Education. Exception may be granted by the Dean.

Students must have obtained not less than a 3.0 GPA overall and 3.0 GPA in sciences to be considered for admission unless an exception for cause is granted by the LUCOM Dean. LUCOM has a preferred cumulative GPA and science GPA of 3.4 or higher, which reflect greater opportunity for success with the curriculum and national board of examinations.

Applicants must have a cumulative score of at least 497 on the MCAT and have no score less than 123 per section to be considered for admissions unless an exception for cause is granted by the LUCOM Dean. LUCOM has a preferred MCAT score of 500 or greater with no individual score of less than 125. MCAT scores less than three years old may be submitted for consideration. An average of the highest scores on multiple MCAT examinations is not applicable for admissions consideration.

The minimum required undergraduate courses for matriculation are:

- **Biochemistry or Cellular Biology:** one semester (3-5 semester hours/6-8 quarter hours). *Two semesters of biochemistry or completion of both courses are highly recommended.*
- **Biological Sciences:** one year with laboratory (8-10 semester hours/12-15 quarter hours)
- **English:** two courses (6-10 semester hours/8-15 quarter hours)
- **Inorganic Chemistry:** one year with laboratory (8-10 semester hours/12-15 quarter hours)
- **Organic Chemistry:** one year with laboratory (8-10 semester hours/12-15 quarter hours)
- **Physics:** one semester with laboratory (4-5 semester hours/ 6-10 quarter hours), second semester is recommended
- **Four (4) additional science hours** are required (Faculty recommend courses in Anatomy, Physiology, Biochemistry, Immunology, Microbiology, or Genetics to enhance the student's success in medical school)

Recommended courses to prepare for the osteopathic medical curriculum include additional humanities such as literature, philosophy or theology; communication skills such as speech, debate, or drama; additional science courses such as genetics, human anatomy and physiology with lab, immunology, epidemiology, etc. A course in statistics is highly recommended.

The applicant should demonstrate a humanistic and service mentality consistent with that of LUCOM as demonstrated by action and involvement in outreach and service events. Preference is given to students from rural and underserved environments that are more likely to advance the mission and goals of the COM, especially those from the Central, Western and Southern regions of Virginia. Each applicant's personal values should be compatible with the Christian mission and environment of Liberty University.

Applicants are required to meet the Technical Standards for admission, continued enrollment and must affirm that they meet the standards. Any falsification or misinformation regarding the ability to meet technical standards is reason for dismissal.

Applicants must submit all required paperwork per deadlines. If paperwork is not submitted as required, an offer of admission may be retracted.

## **2.2. Technical Standards**

The requirements to succeed at LUCOM are those necessary to successfully complete the curriculum and to practice osteopathic medicine with full practice rights. Students must be able to function in a variety of learning and clinical settings and quickly, accurately, and consistently learn and process data.

LUCOM is committed to making accommodations for students whose qualified disabilities allow them to accomplish a successful career as an osteopathic physician. While reasonable accommodations do occur; the student, however, is required to function with independence and personally demonstrate all the skills described that LUCOM holds as mandatory for the safe and effective practice of osteopathic medicine. The use of a trained intermediary means that a candidate's judgment must be mediated by someone else's power of selection and observation and is not a permissible accommodation.

While LUCOM is committed to making the accommodations that make a student successful, LUCOM is also committed to patient safety and assuring a safe and effective environment that does not place patients, students, or others at risk. Each technical standard has been chosen from standards osteopathic physicians deem necessary for the safe and effective practice of osteopathic medicine. Applicants who do not meet the technical standards should not apply to LUCOM.

Students must consider these requirements at the time of application and must also consider whether or not they can meet these technical standards in the curriculum and in the practice of medicine. Once enrolled, students must maintain their ability to meet these technical standards and to make academic progress and succeed in the curriculum. LUCOM considers the ability to meet these standards essential for the entrance to, continuation in, and graduation from its degree program.

If an applicant has a question as to their ability to meet the minimal technical standards listed, the applicant is required to notify the Office of Admissions and Student Services in advance of applying so that reasonable testing may occur. Applicants must identify to the Office of Admissions and Student Services all areas where there is question in meeting these technical standards.

### **2.2.A. Observation and Visual Integration**

Applicants and students must have sufficient visual capabilities to observe laboratory demonstrations, experiments, laboratory exercises, microscopic tissue with the aid of the microscope, and computer-based pictures used in laboratory demonstrations in the basic and clinical sciences. The student must be able to visually and accurately observe the physical signs associated with a patient in order to make a diagnosis and management. The use of a trained intermediary in such cases would compromise performance, as it would be mediated by another individual's power of selection, observation, skill, and experience. Observation requires the functional use of vision and somatic sensations and is enhanced by the sense of smell and hearing.

They must be able to observe a patient accurately at varying distances with the ability to determine size and depth of an object in low light at 0.3 cm, and with the ability to discern non-verbal communication.

### **2.2.B. Communication**

Applicants and students must be able to communicate effectively in English as the curriculum and clinical experiences are offered in English. Students are encouraged to learn other languages for medical communication; however, all curriculum and assessment is given in English. LUCOM requires the functional ability to speak, hear, and observe patients in order to elicit accurate medical information. The student must be able both to describe changes in mood, activity, posture, and other physical characteristics and to perceive nonverbal communication. The student must be able to communicate in English effectively and efficiently in verbal and in written form with the patient and with all members of the health care team in order to successfully complete the curriculum.

### **2.2.C. Motor Function**

Applicants and students must have sufficient motor function to execute movements reasonable required to provide general care and emergency treatment to patients by eliciting information from patients by palpation, percussion, and other diagnostic measures. The student must have sufficient motor function to carry out maneuvers of general and emergency care and osteopathic manipulation. Examples of emergent motor functions required of physicians include, but are not limited to, cardiopulmonary resuscitation, administration of intravenous fluids and intravenous medications, management of an obstructed airway, hemorrhage control, closure by suturing of wounds, obstetrical deliveries and osteopathic manipulative medicine. In addition, the delivery of osteopathic manipulation requires the use of extremities in palpation, positioning, and carrying out maneuvers of manipulation. These actions require fine and gross muscular movements, equilibrium and sensory function, as well as the senses of touch and adequate vision for inspection.

Students must be able to perform these maneuvers. Students who have conditions that do not allow physically taxing workloads must consider the long hours of study, the hours required in the classroom and laboratories, the physical strength required in the osteopathic examination and treatment, and to stand and walk for long hours in the clinical setting.

### **2.2.D. Sensory Skills**

Applicants and students of osteopathic medicine must possess an enhanced ability to use their sensory skills. Individuals with disabilities who have significant tactile sensory or proprioceptive disabilities may require a thorough evaluation to determine if they are otherwise qualified, with or without reasonable accommodation. Such individuals may include those with significant previous burns, sensory motor deficits, cicatrix formation and malformations of the upper extremities.

### **2.2.E. Strength and Mobility**

Medical treatments, such as osteopathic manipulative medicine and cardiopulmonary resuscitation, often require upright posture with sufficient upper and lower extremity and overall body strength and mobility. Individuals with disabilities who have significant limitations in these areas may require evaluation to determine if they are otherwise qualified, with or without reasonable accommodation.



## **2.2.F. Intellectual, Conceptual, Integrative and Qualitative Abilities**

Applicants and students must have the ability to concentrate, reason, calculate, analyze and interpret data, measure, synthesize information, and make decisions within areas in which there is a reasonable amount of visual and auditory distraction. They must perform these functions under a time limitation and do so under a reasonable amount of stress as physicians are expected to be able to perform such duties in diverse clinical settings where others may be present and where there is a certain degree of noise. Students must be able to accurately write prescriptions, accurately perform basic mathematical functions, and accurately and quickly read charts with minimal error in areas where there may be distractions. The student must be able to comprehend, memorize, synthesize, and recall a large amount of information without assistance to successfully complete the curriculum. The student must be able to comprehend three-dimensional relationships and to understand spatial relationships to succeed in school and to administer medical care. The student must be able to gain knowledge through all types of learning materials that the LUCOM curriculum offers and must be able to perform pattern identification, memorization, recall information, and to identify and discriminate important information, to problem solve, and to calculate and make decisions in timed situations and in the presence of noise and distraction.

The above intellectual abilities are necessary, as students and graduates will be expected and required to perform pattern identification, immediate recall of memorized material, identification and discrimination to elicit important information, problem solving, and decision-making as to emergent diagnosis and treatment of patients. Students must be able to recall important information for diagnosis and to calculate therapeutic management of emergent conditions. This type of demonstrated intellectual ability must be performed in a rapid and time-efficient manner in order to avoid placing patients in emergent conditions at risk. It is common for emergent situations to occur in the presence of visually distracting and noisy environments. Such emergent situations include, but are not limited to, cardiopulmonary compromise, cardiopulmonary resuscitation, obstetrical and neonatal emergencies, trauma presentations, poisonings and toxic exposures, shock, and hemorrhage.

## **2.2.G. Behavioral and Social Attributes**

Applicants and students must possess the emotional health required for full utilization of his/her intellectual abilities, exercise good judgment, and promptly complete all responsibilities attendant to the diagnosis and care of patients and the development of mature, sensitive and effective professional relationships with patients. Students must be able to function effectively under the high degree of stress and testing required in medical school and in COMLEX national board testing. Students who suffer from serious mood disorders and/or test anxiety should strongly consider if they will meet this technical standard, as it is essential to the success of a physician in being able to practice. Students must possess ability to identify behaviors and attributes in themselves and others, as well as to self-regulate their own behaviors and attitudes, to ensure professional practice and delivery of care.

Applicants and students must be able to tolerate physically taxing workloads and adapt to changing environments, display flexibility and learn to function in the face of uncertainties inherent in the clinical problems of many patients. Compassion, integrity, concern for others, interpersonal skills, interest and motivation are all personal qualities that will be assessed during the admissions and educational processes. The emotional health required for effective communication and for professional, mature, sensitive, and compassionate patient/physician or patient/student relationships must be present. Students must have the emotional health to be able to function without the aid of medications that are known to affect intellectual abilities and judgment. The student must have the emotional stability and

motivation to deliver patient care and to make emergent decisions at all times. The ability to adapt to changing environments and stressful situations and to display compassion and integrity, while maintaining the necessary intellectual capacity to care for patients is one that is observed during the interview process and throughout the progress in medical school. An ability to demonstrate the emotional health necessary for the delivery of quality and safe medical care is mandatory throughout medical school. LUCOM considers addiction or the participation in substance abuse as a risk for unsafe medical care.

### **2.2.H. Participation in OMM and Clinical Medicine Laboratory Encounters**

Osteopathic physicians utilize touching as part of the osteopathic approach to treatment. As part of the educational process, LUCOM students must be able to tolerate being touched and to touch others of both sexes in order to acquire the skills necessary for palpation and examination. This palpation is performed in a professional and appropriate manner. Stedman's Medical Dictionary defines "palpation" as examination with the hands and fingers, touching, feeling or perceiving by the sense of touch.

Acquiring the skills to palpate and examine patients requires a student to examine partially or completely disrobed patients of both genders and is mandatory for successful completion of the curriculum at LUCOM. In physical diagnosis and osteopathic manipulative medicine laboratory experiences, as well as other clinical laboratories where skills are acquired, students are required to participate in the examination of fellow students of both genders who may be partially disrobed. Students will need to wear attire such as shorts and to partially disrobe for certain laboratory experiences. These are requirements for all students, regardless of cultural beliefs, in order for the student to acquire the skills necessary to practice medicine.

The development of palpatory skills and ability to perform osteopathic treatments are initiated in the first- and second-year labs. This learning requires active participation in all laboratory sessions where students palpate and will experience palpation by their peers and instructors of both genders to enhance the development of their own palpatory skills. Each student will palpate a variety of people with different body types to simulate the diversity of patients expected in a practice setting.

The osteopathic medical profession uses a variety of treatment models through which the student will learn the art, science and skills of osteopathic manipulative treatment. Psychomotor skills are developed by repetition and reinforcement. Reading and observation, while helpful in understanding the didactic concepts, do not develop the skills required to perform palpatory diagnosis and manipulative treatment. Each student is required to actively participate in all skill development sessions.

### **2.2.I. Ability in Standardized Test Taking**

In addition, LUCOM's accreditor, the COCA, requires students to pass COMLEX Level I, Level 2-CE, and Level 2-PE exams prior to graduation; therefore, students must be able to perform satisfactorily on timed, computerized and clinical performance comprehensive standardized exams. Accommodations granted by LUCOM may not necessarily be granted by the NBOME. NBOME determines the student's ability to receive accommodations (or not) for this exam and therefore the student's ability to pass the board exams with the accommodation level awarded by NBOME is the technical standard. Students may ask for accommodations by the NBOME; however, these are not guaranteed.



## **2.2.J. Disabilities and Accommodations**

Liberty University College of Osteopathic Medicine (LUCOM) complies with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (1992); as amended ADAA (2008).

LUCOM applicants must self-identify if they do not meet technical standards. It is the student's responsibility to initiate the process for accommodations two months before the start of an academic year. If granted, the accommodation is given only for the academic year in which it is requested. Subsequent applications must follow for each academic year the student is requesting accommodations. LUCOM assures that no adverse view of the application will be made if accommodations are requested.

LUCOM will provide reasonable accommodations to osteopathic medical students with documented disabilities. Accepted applicants and students must submit their request to the Office of Medical Education, in a sealed envelope or electronically, to [LUCOMMedEd@liberty.edu](mailto:LUCOMMedEd@liberty.edu). Verbal disclosure prior to or following admission is not sufficient means to request accommodations. Any request for accommodations must be submitted in writing with supporting documentation from a physician (M.D. or D.O.) with peer-recognized expertise or certification in the area of claimed disability, and will then be forwarded to the ADA and Technical Standards Committee Chair for committee process.

All requests are not retroactive, and accommodations granted do not affect grades or actions taken prior to notification to LUCOM of the student's disability or the request for accommodations begin granted by LUCOM. Reasonable accommodations provided to students must not pose an undue hardship on LUCOM, result in a fundamental alteration in the nature of the academic program, academic requirements or professional activity, or result in an undue financial or administrative burden on LUCOM.

The Office of Medical Education and the ADA and Technical Standards Committee recognizes that individuals with temporarily disabling conditions that are a result of injuries, surgery or short-term medical conditions may need access to services and resources similar to individuals with permanent disabilities. Examples of temporary disabilities may include, but are not limited to: broken limbs, hand injuries, or short-term impairments following surgery or medical treatments. The LUCOM Office of Medical Education can offer guidance and instruction for students to receive accommodations for a temporary disability.

Decision appeals are directed to the Dean of the College of Osteopathic Medicine.

Students who fail in the curriculum or who are suspended or dismissed may not claim failure due to disability if they have not previously identified the disability and requested reasonable accommodations in advance of the curricular failure.

## **2.3. AACOMAS Application Process**

LUCOM participates with other osteopathic colleges in a centralized application processing service called the American Association of Colleges of Osteopathic Medicine Application Service (AACOMAS). An application may be submitted online by visiting the [AACOMAS website](#). Students should contact AACOMAS directly for questions about the application:

AACOMAS

To initiate the application process, applicants must apply directly to AACOMAS.

Applicants who have taken course work and/or have earned a degree from a foreign institution must also submit to AACOMAS a World Education Service (WES) evaluation of their transcripts.

## **2.4. Applications Deadline**

LUCOM has received Accreditation from COCA and applications are being accepted for admission. Applications will be accepted annually beginning in June of each year.

The official AACOMAS application is available [online](#). The deadline for LUCOM applicants is March 1st but is subject to change annually. LUCOM reserves the right to alter dates based on factors such as class capacity and seat availability.

The last day for applicants to submit their Secondary Application and supporting materials is March 15th.

Applications should be submitted prior to the end of December to have an optimal chance of gaining admission for the next academic year.

## **2.5. Secondary Application Process**

Applicants who meet all admission requirements (via the AACOMAS application process) will be invited to submit the Secondary Application and supporting documents.

After initial screening to ensure that the minimum standards are met, the secondary application for the admissions section will be made available to those prospective students who possess academic, professional and volunteer experiences which will help to advance their medical education and support the mission, vision and goals of LUCOM.

Applicants who meet the standards and mission of LUCOM will receive an email containing login information for the secondary application. The secondary application is returned electronically along with the payment of a non-refundable application fee of \$50 and submission of three required letters of recommendation.

Three evaluation forms and/or letters of recommendation not written by a relative (by blood or through marriage) are required to complete the application for admission:

1. Evaluation from an osteopathic physician (D.O.).
2. Evaluation from a premedical advisory committee or science faculty member familiar with the academic work of the applicant.
3. Evaluation or recommendation from someone acquainted with the student's academic or professional ability (employer pastor, mission/medical outreach coordinator, an allopathic physician, etc.)

All letters of recommendation must be originals, signed by the evaluator and submitted electronically through Liaison, Interfolio, or Virtual Eval.

Candidates will be required to acknowledge by signature their ability and willingness to comply with the college's technical standards, policies on attendance, dress code, requirements for participation in osteopathic teaching and education, LUCOM student professional and academic conduct and policies, and the University code of behavioral conduct and return the signed document with the secondary application.

## **2.6. Interview Selection Process**

To be considered for an interview, an applicant must meet all the preceding admissions requirements and Technical Standards for admission, have a complete file, including the AACOMAS application, a secondary application, a form/letter of recommendation from an osteopathic physician, a recommendation form/letter from a pre-medical or pre-health committee, an additional general letter of reference, and the admissions processing fee.

After the Office of Admissions receives these materials, the applicant's file is reviewed to determine eligibility for an interview, based on the established criteria of the Admissions Committee. If it is found to meet the standards and mission of the COM, an invitation may be extended to interview. Submission of a secondary application is not a guarantee of an interview.

Interviewing candidates are required to read and sign an acknowledgement that they:

- Meet the Technical Standards for admission (any questions pertaining to whether a standard is met must be addressed with the Assistant Dean of Admissions and Student Services);
- Have read and comply with the statement for students of LUCOM regarding physical exposure in classroom activities;
- Have read and comply with LUCOM's attendance and dress code policy; and
- Have read and comply with LUCOM's code of student conduct/academic responsibility and code of behavioral conduct.

Each applicant who interviews with LUCOM will be reviewed by the Admissions Committee. An interview is not a guarantee of admission to the college. An admissions decision, based on academic performance, professional experience, and interview, will be provided to the applicant usually within 21 days of the interview date.

Intentional misrepresentation or omission of information on any form relevant to admissions or records will subject the student to retraction of admission offer or dismissal. LUCOM reserves the right to deny admission to any applicant for any reason it deems sufficient. Matriculation will be denied to applicants who have failed to maintain a good record of scholastic performance and/or good record of personal conduct between the time of their acceptance and their matriculation at LUCOM.

At the conclusion of the interviews, the interviewers forward their recommendation to the Admissions Committee. The Admissions Committee may make any of the following recommendations to the Dean: to accept, to deny, or to place the applicant on an alternate or wait list.

All offers of admission are conditional until such time as the applicant has undergone a criminal background check, drug screen, and physical examination to ensure they meet the technical standards established by the COM, meet the physical, immunization and immunization titers requirements as verified by the COM.

## **2.7. Matriculation Process**

Accepted applicants must fulfill the conditions set forth in the matriculation agreement and are based upon the date of acceptance including:

1. Initial Deposit (\$500)
2. Final Deposit (\$1,500)
3. Background Check
4. Drug Screen
5. Student Health and Physical Report
6. Immunizations and Titers
7. Student Authorization to Release information to Clinical Agencies
8. Proof of Insurance
9. Completion of the Orientation Module and attendance at Orientation and its related sessions and activities. Failure to attend could result in dismissal.
10. Financial Check-in
11. Applicants must submit official final transcript from colleges/universities attended, which were not previously submitted and verified through AACOMAS. In the event of course work, completed at foreign institutions, the applicant must submit official detailed course by course evaluations completed by an approved agency. These agencies include:
  - World Education Services, Inc. (212)966-6311; <http://www.wes.org>
  - AACRAO (202)296-3359; <http://www.acrao.org/credential/individual.htm>
  - Educational Credential Evaluators, Inc. (414)289-3400; [www.ece.org](http://www.ece.org)
  - Josef Silny & Associates, Inc. (305)273-1616; <http://www.jsilny.com>
12. Any other requirements set forth in the matriculation agreement.

## **2.8. Request for Admission Deferment**

Accepted applicants may request a one year deferment for compelling reasons. Requests are to be submitted in writing to the Office of Admissions. If approved, an additional \$2,000 deposit will be required by January 2<sup>nd</sup> the year before the applicant will matriculate. The entire \$4,000 of deposit money will be applied to the applicant's tuition.

## **2.9. Transfer Applicants**

LUCOM accepts transfer applicants in rare circumstances only from students who are transferring from a LCME or AOA accredited college of medicine. Transfers must be passing all subjects at the

time of transfer and be in good standing with their current college of medicine. Transfer applicants must be eligible for continuing or for readmission at their current college of medicine. Transfer applicants who have been out of school for more than a year are considered to be ineligible for transfer to LUCOM unless otherwise specified by the Dean.

Transfer applicants who meet these qualifications must submit the following documentation to the LUCOM Office of the Registrar.

- A letter of request and reason for transfer
- A letter of recommendation from the Dean, Vice Dean, or Senior Associate Dean(s) of the presently/previously attended college of medicine
- A copy of the applicant's D.O./M.D. level transcript (may be unofficial or official)
- A copy of the school's catalog with course descriptions

The student must provide a written statement outlining reasons for the request for transfer to the LUCOM Dean, and must be eligible for continuing or readmission at the current college of medicine. They must have a letter of recommendation from the Dean, Vice Dean or Senior Associate Deans of the prior college attended. Decisions regarding transfer are made by the LUCOM Dean and will be based on factors including academic record, circumstances leading to the transfer request, available space, and admission standards.

All students must complete at a minimum the last two years of training at LUCOM, successfully fulfill all requirements of the LUCOM curriculum, including demonstration of competency in the philosophy and application of osteopathic principles and practice, and receive the recommendation of the faculty through the Student Progress Committee for graduation.

Liberty University College of Osteopathic Medicine transcripts will reflect the cumulative credit hours transferred from the previous medical school. Information regarding grades or class rank from the previous school will not be reflected on the LUCOM transcript. Students who transfer into Liberty University College of Osteopathic Medicine will not receive a class rank.

### **2.10. Advanced Standing**

Applicants who are interested in transferring but are not eligible based on one or more of the listed qualifications will need to apply for admission through the LUCOM Office of Admissions. If accepted, the applicant may be eligible to apply for advanced standing. Students may be considered for advanced standing if course and curriculum requirements are met, the student obtained a passing grade in the course consistent with LUCOM policy, and the courses submitted meet all of the academic requirements of the LUCOM courses it is to replace.

### **2.11. International Student Applicants**

Applicants who will require F-1 Visa should contact the Office of Admissions and Student Services for requirements at the time of application.

## Chapter 3. Tuition, Fees and Financial Aid

### 3.1. Tuition

Tuition and fees are set each year by the Liberty University Board of Trustees for the College of Osteopathic Medicine and are subject to change. Tuition and fee updates are posted on the [LUCOM Financial Aid webpage](#).

Average Annual Tuition for 2018-2019 will be **\$47,000**. Tuition for the academic year is divided evenly between the two semesters for the year.

Students on altered degree plans who are required to repeat courses during a semester for which they have already paid 50% or more of the tuition will be charged 50% of the full time block rate for the semester in which they are returning. All other students will be subject to the full time block rate for the term.

### 3.2. Fees

#### 3.2.A. Admission Deposit

Applicants accepted prior to November 15 will have until December 14 to pay the first deposit of \$500.00 and until January 14 for the second deposit of \$1,500.

Applicants accepted between November 15 and January 14 will have 30 days after acceptance to pay the first deposit of \$500.00 and 30 days after the first deposit to pay the second deposit of \$1,500.00.

Applicants accepted between January 15 and March 14 will have 15 days to pay the first deposit of \$500.00 and 15 days after the first deposit to pay the second deposit of \$1,500.00.

Applicants accepted after March 15 will have 7 days to pay the total \$2,000.00 deposit.

The deposits are non-refundable and are applied to the first semester's tuition and fees. LUCOM reserves the right to redact any entry of forfeited deposits at their discretion. Failure to make the deposits on time or make other arrangements with the Office of Admissions will result in forfeiture of the student's seat in the class.

#### 3.2.B. Semester Fees

Semester fees are charged in the Fall and Spring semesters.

Student Activity Fee	\$285
Student Health Fee	\$170
Parking Fee	\$15

#### 3.2.C. Annual Fees

Annual fees are charged one time each academic year during the Fall semester

Anatomy, Clinical Medicine, SIM Lab Fee	\$525
LUCOM Student Activity Fee	\$300
Malpractice Insurance Fee	\$300

### **3.2.D. One-Time Fees**

One-Time fees are charged once while the student is enrolled.

Computer, Software, Equipment Fee (1st Year Only)	\$1,750
Graduation Fee (Senior Year Only)	\$950

## **3.3. Financial Aid**

The purpose of the Student Financial Assistance Program at Liberty University College of Osteopathic Medicine is to help as many qualified students as possible to complete their medical education. As a participant in the Title IV, USDE federally guaranteed loan programs, LUCOM works with students to meet the cost of their education while a student at the COM. Students may finance their education with scholarships, federal loans, private student loans, military health profession scholarships, or other federal and state programs. Students may also apply for one of the loan forgiveness programs available through a variety of government and non-profit agencies once they begin their medical education or practice.

All new students receiving any form of financial aid must meet with a financial aid counselor or attend a meeting provided by the Office of Financial Aid within sixty days of the beginning of their first semester as a student at LUCOM. Students must attend an annual financial aid meeting or meet individually with a financial aid counselor annually. All students with any form of financial aid must meet with a financial aid counselor during a three month period prior to graduation.

Financial aid will not be disbursed to anyone until he or she has been fully admitted as a student and all admission requirements have been met and approved by the administration.

Liberty University, as permitted by federal regulation [34 CFR 668.41], electronically disseminates consumer information, including the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act information. Upon request, the institution will provide a free paper copy. Anyone signing or processing financial aid forms or seeking information or assistance at Liberty University must read, understand, and comply with the requirements disclosed, which are available 24 hours a day at [www.Liberty.edu/ConsumerInfo](http://www.Liberty.edu/ConsumerInfo).

## **3.4. Tuition Payment**

Late tuition payments or failure to make arrangements to pay tuition by 5 p.m. on Friday before classes begin will result in the student being removed from class and/or clinical rotations. Failure to meet



obligations for tuition, fees, and other responsible financial obligations in a timely manner may result in dismissal from the College.

### **3.5. Tuition Refund Policy**

Students who withdraw from LUCOM, take a leave of absence, are suspended or are dismissed during a semester are entitled to a tuition refund based on their date of withdrawal. There is no refund for withdrawal from a single course. Please note that Admission Deposits and all fees are non-refundable. LUCOM reserves the right to redact any entry of forfeited deposits at their discretion.

#### **3.5.A. Tuition Refund Schedule**

A student who withdraws from all courses during the first week of enrollment will receive a 100% tuition refund.\*

After the first week of enrollment, a student who withdraws from all courses during the first 7 calendar weeks will receive a 50% tuition refund.\*\*

A student who withdraws after 7 weeks, but before the end of 13 weeks will receive a 25% tuition refund.\*\*

A student who withdraws after 13 weeks or more is not entitled to a refund.\*\*

\*Eligible enrollment includes any courses that count toward the degree completion plan.

\*\*In cases where a student is in a period of non-enrollment between courses and drops all remaining courses for the semester, the date used to determine the tuition refund amount will be the week immediately following the last completed course.

## Chapter 4. Student Health, Insurance and Liability Requirements

### 4.1. Student Health Policies & Procedures

Student health forms (physical exam and immunization records) **ARE DUE TO THE** Clinical Director of Health Records by March 1<sup>st</sup> for those students admitted before January 1<sup>st</sup>, and no later than May 1<sup>st</sup> for those admitted after the first of each year.

Forms are to be returned to:

Clinical Director of Health Records  
Liberty University College of Osteopathic Medicine  
306 Liberty View Lane  
Lynchburg, VA 24502

It is important that each student verify that all forms are filled out completely and that they are dated and signed by the physician. Incomplete or unsigned forms will not be accepted. The form will be returned to the student. Such action does not change the due date for the documents and failure to meet the required deadlines **could result in the rescinding of LUCOM acceptance.**

Any requests for extension of the deadline should be addressed to the Clinical Director of Health Records.

**IMPORTANT:** LUCOM does not automatically waive immunizations or student health requirements. LUCOM is not responsible to secure or approve educational opportunities that are not in compliance with immunization policies.

Students will not be allowed any patient care activities until all required immunizations have been administered and proof of immunity is established, including but not limited to early clinical experiences, health care outreach events, international outreach trips, clinical rotations, etc.

Failure to begin clinical experiences as scheduled in the curriculum does not entitle the student to make up the missed experiences, could result in failure of the course, academic probation, or dismissal from the COM.

Regulatory, legislative, institutional, administrative authorities require that LUCOM students demonstrate immunization, immunity, or protection from multiple contagious diseases before being allowed to perform clinical rotations in the institutions utilized by the COM for the education of its students. Required laboratory evaluations and immunizations are subject to review and change annually based on recommendations from the Centers for Disease Control (CDC), the United States Preventive Services Task Force (USPTF) and other public health agencies. Students will be notified of any changes and will be required to comply with any mandated changes upon receipt of notice from LUCOM.

#### **4.1.A. Health Insurance**

All LUCOM students are required to obtain and maintain health insurance coverage while enrolled. A current insurance card and current summary of benefits validating proof of insurance must be submitted for each student annually before registration and before the beginning of class or rotations not less than 30 days before the start of the academic year. Students must provide proof of insurance prior to matriculation. Failure of the student to maintain health insurance that meets the standards will result in disciplinary action for the student up to and including dismissal from the COM. Any medical costs incurred by students while in training are the sole responsibility of the student and his/her health insurance carrier.

#### **4.1.B. History and Physical Examination**

Each student must have a comprehensive history and physical examination performed by a licensed allopathic or osteopathic physician after acceptance and before matriculation into LUCOM. The examination must be completed within the timeline detailed above. This examination must establish and the examining physician must verify that the student health status is adequate to meet the demands of the curriculum; that they are clinically free of contagious disease that would pose a risk to patients and that the student satisfies the health and technical requirements for admission, education, and graduation detailed in the student handbook. A signed copy of the physician's medical record of the H & P along with documentation of immunizations and lab reports demonstrating immunity and titers when applicable must be returned by the physician to LUCOM by the posted deadline.

### **4.2. Immunization Requirements**

LUCOM requires the following laboratory tests and immunizations:

- Annual Tuberculosis (TB) test
- Diphtheria, Pertussis and Tetanus
- Mesles (Rubeola), Mumps, and Rubella (MMR)
- Polio (OPV/IPV)
- Varicella
- Hepatitis B Virus (HBV) immunization and titers
- Influenza

Detailed laboratory test and immunization requirements can be found below:

#### **4.2.A. TB Skin Test**

An annual test is required of all students.

Each student must supply to LUCOM written documentation of the date of the test placement, date of interpretation, and the results. In replacement for obtaining a new TB skin test, the student may supply documentation of a PPD skin test previously performed within 6 months of the date of matriculation.

Students with a history of a positive PPD skin test (> 10mm induration) should not repeat the test.

Students with a history of a positive PPD will be required to submit the results of a chest study (X-Ray) which documents absence of active disease.

Students with new positive PPD results or those with a positive chest x-ray must follow up with the health department or their personal physician and present documentation of completion of treatment by a physician or an ongoing treatment plan and compliance for consideration of admission.

A history of immunization with BCG as a child or adult (>5 years previously) does not remove the requirement for PPD testing and appropriate follow up.

Students with a positive PPD and negative CXR will be required to submit annually a questionnaire filled out after examination by a physician and following current CDC guidelines

#### **4.2.B. Diphtheria, Pertussis and Tetanus Toxoid**

The student must submit written documentation of completion of the initial immunization series with DTP or Tdap.

The receipt of a booster within the past 10 years with Tdap.

The date of each immunization is required to be documented.

#### **4.2.C. Measles, Mumps, Rubella (MMR)**

The student must have written documentation of receiving three (3) Rubeola, Rubella and Mumps (MMR) vaccine(s). (Individual or combination immunizations).

The date of each immunization is required to be documented.

The student must have titers that demonstrate immunity to measles, mumps, and rubella or immunization boosters may be required.

Students with prior documentation of immune status may submit that documentation in place of new titers.

#### **4.2.D. Polio (OPV/IPV)**

The student must have written documentation of receiving an initial series of three (3) IPV or OPV immunizations plus at least one booster immunization.

The date of each immunization is required to be documented.

#### **4.2.E. Varicella**

The student must have written documentation of receiving two (2) Varicella immunizations.

The date of each immunization is required to be documented.

The student must have titers that demonstrates immunity to Varicella.

Students with prior documentation of immune status may submit that documentation in place of new titers.

#### **4.2.F. Hepatitis B**

The student must have written documentation of receiving three (3) hepatitis B injections.

The date of each immunization is required to be documented.

The student must have documentation of laboratory titers that demonstrates immunity to hepatitis B.

Students with prior documentation of immune status may submit that documentation in place of new titers.

Students who have received the initial series of Hepatitis B vaccine and do not seroconvert to demonstrate immunity will be required to repeat the complete series of three immunizations.

If a student does not seroconvert and demonstrate immunity eight weeks after completion of a second series of immunizations, they will be considered at risk for acquiring HBV. The student will meet with the Associate Dean for Clinical Affairs. Current recommendations and additional education on universal precautions, risk avoidance, and treatment options if exposed to HBV will be provided to the student. The student will sign documentation of informed consent to continue his/her education, acknowledging the medical risk and receipt of this information, but they will not be required to continue additional HBV immunizations.

#### **4.2.G. Influenza**

Annual influenza immunization is required by LUCOM.

#### **4.2.H. Optional Immunizations**

The following vaccines are considered optional. LUCOM advises all students to discuss the appropriateness of each of the following vaccinations with their primary care physician, taking into account their personal medical history, risk factors for contracting these diseases and potential for international travel.

- Meningococcal (Hib)
- Human Papillomavirus (HPV)
- Typhoid Fever
- Yellow Fever
- Hepatitis A

### **4.3. Background Check, Drug, and Alcohol Screening**

All students are required to submit to a Criminal Background Check.

Doctor of Osteopathic Medicine Program applicants are requested to self-disclose any misdemeanors or felony convictions, other than minor traffic violations, including deferred adjudications, during the application process. The student should have the understanding that non-disclosure/falsification will in most cases lead to dismissal and disclosure may prevent enrollment if the incident would prevent the student from completing the requirements of the curriculum, including all required clinical rotations and examinations or would prevent the student from gaining an unrestricted license to practice medicine in one or more states after graduation.

In response to requirements in the professional practice environment stating that professionals and facilities providing care to patients must minimize the risk to patients that may be presented by persons with prior criminal activity, or those that engage in the use of potential substances of abuse, both legal and illegal, a drug screen and criminal background check must be completed on all accepted applicants prior to matriculation at LUCOM. Drug Screen and Background Checks are due by March 1<sup>st</sup> for those students admitted before January 1<sup>st</sup>, no later than May 1<sup>st</sup> for those admitted after the first of each year.

Any exceptions or requests for extension of the deadline should be addressed to the Office of Admissions and Student Services.

Acceptance into the college, even though an invitation may be extended prior to completion of the background check and drug screen, is conditional until the results are returned and accepted as meeting the standards by LUCOM.

Students at LUCOM agree by their acceptance of admission to LUCOM that they are subject to random drug screening for illegal or inappropriate use of legal but non-prescribed substances. In addition, students are subject to selective screening if required by a clinical site.

Substance abuse screening is mandatory at most healthcare facilities prior to participating in patient care either as a learner or a staff member. A negative substance abuse screening test is required before matriculation into the osteopathic medicine program, and again before advancement to OMS-III and OMS- IV years. Repeated screening tests may be required as determined by Liberty University College of Osteopathic Medicine or the clinical training sites.

Clinical education sites may require LUCOM to provide them with a copy of the results of any background evaluation or substance abuse test performed on students prior to and for the duration of their placement at the site. Clinical education sites may set their own standards in regard to whom they will admit based on the results of the substance abuse screening or require additional screening. Students who are not willing to allow the release of the required personal information may not be able to be placed at an affiliated clinical education site, and thus cannot meet the requirements to continue their education and fulfill the curriculum requirements for graduation.

#### **4.3.A. Procedure**

1. A substance abuse screening test and criminal background check will be completed on all applicants offered admission to LUCOM prior to matriculation.

2. The letter sent by the COM to each accepted applicant, as well as to selected wait-listed applicants, will include information about these requirements with the contingency that the final decision regarding matriculation will be made after institutional review of the accepted applicant's substance abuse screening test report and criminal background check.
3. Appropriate authorization, with pertinent identifying information necessary to initiate the test, will be received from each accepted applicant prior to initiating either a criminal background check or a substance abuse screening test.
4. LUCOM will contract with one or more outside vendors for the performance of the tests. Such tests will be conducted in accordance with the Americans with Disabilities Act and other applicable laws.
5. If the test results are positive for unreported criminal activity or substances of abuse, the LUCOM Admissions Committee will review the information and the application to determine if the results will interfere with the student completing all of the requirements of the curriculum or interfere with the student obtaining graduate medical education or an unrestricted medical license to practice after graduation. Depending on the decision of the Admissions Committee, the student's acceptance can be rescinded or advancement to clinical year delayed based on these results.
6. All criminal background checks and substance abuse screening tests results will be maintained in a secure location to assure confidentiality. Access to the information will be limited.

The student is responsible for obtaining and paying for the examinations from one of the agencies approved by LUCOM. The list of agencies is supplied to each accepted student as a component of their acceptance packets and information.

## Chapter 5. Academic Program

### 5.1. Academic Credit

Academic credit is granted for classes successfully completed at LUCOM. A minimum of 14 and a maximum of 16 hours of academic effort are required for one credit in any course. Academic effort is determined according to the following:

- One hour of classroom contact is equivalent to one hour of academic effort
- Two hours of laboratory, small group or simulation contact is equivalent to one hour of academic effort
- Two hours of assigned directed learning or activity outside of the classroom is equivalent to one hour of academic effort

Examinations and anticipated study outside of the assigned requirements are not included in the calculation of academic credit.

0-4 hours of academic effort	0.25 credit	5-10 hours of academic effort	0.5 credit
11-13 hours of academic effort	0.75 credit	14-16 hours of academic effort	1.0 credit

One clinical rotation hour is equivalent to one hour of academic effort. Clinical rotations are designed to require 70-80 contact hours every two weeks or 140-160 contact hours during a four-week block.

Courses successfully completed may be transferred for credit from other LCME or AOA accredited colleges on an individual basis if they meet the criteria and objectives established in the COM catalog and course syllabus. No student may graduate from LUCOM without completing all of the requirements of the curriculum as established by the faculty and administration, meeting all of the requirements for knowledge, skill, and competency in osteopathic philosophy, procedures, and techniques and completing at least the last two years of instruction at LUCOM.

<b>Enrollment Classification</b>	<b>Less than Half Time</b>	<b>½ Time</b>	<b>¾ Time</b>	<b>Full-Time</b>
Credit Hours per Semester	1-2	3	4-5	=>6



## 5.2. Grades OMS-I and OMS-II

Grading for OMS I-IV medical students is based on a scale of 0 to 100. LUCOM requires a grade of 70 or above for passing of all courses, any grade below 70 is failing. LUCOM provides only numerical grades between 0 and 100 for transcripts and Dean's letters. Letter grades are given for reference only.

95-100	A
90-94	A-
85-89	B
80-84	B-
75-79	C
70-74	C-
0-69	F

## 5.3. Grades OMS-III

The grading structure for OMS-III core clinical rotations is based on a 0-100 point scale for the final exam and a Likert Scale for the preceptor's evaluations.\* The Likert Scale grade is converted to a numerical grade based on the following table to develop a final numerical course grade.

Likert Scale 0-100 equivalent

9	100
8	94
7	89
6	84
5	79
4	74
3	69
2	65
1	60

The final numerical course grades from both preclinical and clinical years are used to calculate term and cumulative averages.

\*Anticipated beginning in Academic Year 2020-2021, OMS-III core clinical rotations and applicable courses will be graded pass/fail based on satisfactory completion of rotation/course requirements.

## 5.4. Grades OMS-IV

The grading structure for all OMS-IV selective and elective rotations will be pass/fail.

## 5.5. Other Grades

Some courses are graded pass with honors/high pass/pass/fail/and satisfactory; or satisfactory/fail; as shown below. LUCOM official grades are numerical grades only and not letter grades.

P	Pass*	70-100
F	Fail*	0-69
R	Repeated course	
X	Remediated course	
I	Incomplete	
NR	No grade reported	
FN	Failure for nonattendance	
W	Withdrawal	
WP	Withdrawal Passing	
WF	Withdrawal Failing	
AU	Audited course	
H	Pass with honors	90-100
HP	High pass	80-89
S	Satisfactory	70-79
U	Unsatisfactory	0-69

*\*courses when no honor grade is accepted*

## 5.6. Transcript Request

The official records of each student in LUCOM will be secured in the Office of the Registrar. The Family Educational Rights and Privacy Act (PL93-380) will govern the release of information for this record, which contains the transcript from Liberty University, transcripts and transcript evaluations from other educational agencies attended by the student, secondary school transcripts, scholastic aptitude, other standardized test scores, LUCOM admission application, and general correspondence with the student. Letters concerning misconduct or disciplinary actions at Liberty University are kept in the Office of the Dean. The official transcripts will only be released when the student has met all of their financial obligations to Liberty University. Questions regarding a hold on the student account may be addressed to Student Accounts at (434) 592-7201. The transcript and contents of the permanent record may be examined by the student upon emailing the request from your Liberty email account to [lucomregistrar@liberty.edu](mailto:lucomregistrar@liberty.edu) or by coming to the Registrar's Office and filling out a Transcript Request form.

## **5.7. Rank Calculation and Distribution**

LUCOM documents term and cumulative rank on the student's record. Students will receive notification of their personal cumulative rank after the close of their OMS-II, OMS-III, and OMS-IV years. Term average is calculated by multiplying the earned numerical grade for each course by the course credits assigned, resulting in course "points." Next, the total points for all courses taken within a term are summed and then divided by the total number of credits taken within the term. Cumulative average is an overall total of course points, which are divided by the overall total number of credits. Rank is determined by each student's term and cumulative average, compared to the student's classmates. As a result of a student's withdrawal, dismissal, suspension, or leave of absence, they will no longer be accounted for in the class rank calculations. Any OMS-III student unable to progress to OMS-IV by June 30 will be excluded from class rank calculations. A notation of "N/A" will be applied to the MSPE.

## **5.8. Graduation Requirements**

A student who has fulfilled all the academic requirements may be granted the degree Doctor of Osteopathic Medicine (D.O.) provided the student:

1. Has satisfactorily completed all of the curriculum and rotations requirements at an AOA-accredited college of osteopathic medicine including at a minimum the last two years of his/her education at LUCOM.
2. Has completed all academic requirements in no more than six years from the date of matriculation.
3. Has complied with all the curricular, legal, and financial requirements of the university.
4. Has attended the compulsory portions of orientation and senior week, including graduation rehearsal and the graduation ceremony, at which time they take the osteopathic oath.
5. Has passed COMLEX Level I and both components of COMLEX Level 2 (CE and PE) of the examination administered by the National Board of Osteopathic Medical Examiners.
6. Has reached at least 21 years of age.
7. Has demonstrated the ethical, personal, and professional qualities deemed necessary by the LUCOM faculty for the practice of osteopathic medicine and gained the recommendation for graduation from the Student Progress Committee.
8. Has demonstrated suitability for the practice of osteopathic medicine to the administration and LUCOM faculty through action of the Student Progress Committee as evidenced by their conduct, ethical and professional behavior, demonstrations of medical knowledge and skills, displaying responsibility for patient care, and exhibiting integrity in the conduct of clinical and academic activities.
9. Has demonstrated compliance with the Code of Behavioral Conduct.

Degrees are not awarded solely upon the completion of any prescribed number of courses, credits, or upon passing a prescribed number of examinations. Granting of the degree requires in addition, that the LUCOM faculty believes the student has attained sufficient maturity of thought, ethics, and professional proficiency to serve the public as an osteopathic physician. Matriculation and enrollment does not guarantee the issuance of a degree without satisfactorily meeting the aforementioned curriculum and degree requirements.

### **5.8.A. Hooding Ceremony**

The student doctor hooding ceremony recognizes and celebrates LUCOM graduates. LUCOM recognizes the values of professionalism and service in support of the mission and vision of the institution. Eligible family members are, therefore, invited to participate in the hooding ceremony for student doctors. Family members are eligible to participate in the hooding ceremony if they meet the following qualifications:

- Hold a DO or MD degree
- Must be an immediate family member (parent, sibling or spouse)

Graduates must complete a Hooding Request Form for advanced approval of the family member's participation. If a student does not request to be hooded by a family member, the student will be hooded by a LUCOM faculty member.

### **5.9. Non-enrolled Person Building Access**

LUCOM upholds the integrity of building access, the protection of those that utilize it, and the limitation of disruptions to the education of enrolled students.

The following includes, but is not limited to, who can classify as a non-enrolled person:

- an individual who is no longer considered an active student
- students no longer registered in current courses
- students on a voluntary or administrative leave of absence
- students who have been suspended or dismissed
- alumni

Once a student is consider non-enrolled, the student's badge access will be deactivated immediately by LUCOM. Deactivation will remove access to the building, printing, and other Liberty University auxiliaries.

Visitation to LUCOM by a non-enrolled person will require specific approval by the administration. Should the non-enrolled person want to attend any class, event, or meeting, then the non-enrolled person must submit a written request at least two weeks in advance of the intended visit and will need to receive written consent from The Office of Admissions and Student Services. The consent may require additional approval by faculty, the Director of Facilities, and/or the Dean.

Alumni (student doctors who have graduated) do not need prior approval by the administration to visit LUCOM facilities, but access may be limited or denied if alumni do not have a scheduled meeting or event to attend at LUCOM.

Once consent is granted to the non-enrolled person to visit as a guest, the non-enrolled person will be required to check-in at the front desk of the Center for Medical and Health Sciences Building. The guest will sign in, receive the guest pass, and, if deemed necessary by LUCOM administration, the

guest will meet an escort who will guide them throughout the building. Failure to comply may result in disciplinary action.

## **5.10. Academic Calendar**

### **5.10.A.**

#### **Fall 2018 Semester July 2, 2018 – December 30, 2018**

July 2-27*	Elective and Make-Up Rotations, OMS-IV rotations can begin
July 23	OMS-III Orientation to clinical rotations begins
July 24-28	Orientation (OMS-I)
July 28	White Coat Ceremony (OMS-I)
July 30*	Classes and Clinical Rotations begin (OMS-I, OMS-II, OMS-III)
September 3	Labor Day Holiday (OMS-I, OMS-II)
October 15-19	Fall Break (OMS-I, OMS-II)
November 21-23	Thanksgiving Break (OMS-I, OMS-II)
December 14*#	Last day of rotations (OMS-III)
December 17#	Last day of Fall classes (OMS-I, OMS-II)

### **5.10.B.**

#### **Spring 2018 Semester December 31, 2018 – June 30, 2019**

December 31*	Clinical Rotations begin (OMS-III, OMS-IV)
January 7	Classes begin (OMS-I, OMS-II)
March 18-22	Spring Break (OMS-I, OMS-II)
April 22	Easter Break (OMS-I, OMS-II)
April 22-May 3	Capstone OMS-III, on-site at LUCOM (OMS-III)
May 6-10	Senior Week (OMS-IV)
May 11	Commencement Ceremony (OMS-IV)
May 31	Last day of classes (OMS-I, OMS-II)
May 25-June 9#	Elective/Vacation/Remediation (OMS-I, OMS-II)

\*Scheduling for OMSIII and OMSIV students is coordinated through the Office of Clinical Rotations. Students must refer to the Clinical Training Manual and to rotation site requirements for scheduled obligations and attendance requirements.

#A break is scheduled for personal time off and/or vacation for OMS-I, OMS-II, and OMS-III student. Note: Student Progress Committee hearings are conducted during this time. Student-doctors may be required to return to campus.

## 5.11. OMS-I Curriculum Schedule

### 5.11.A. Fall Semester

Biomedical Foundations of Osteopathic Medicine	7 Credits
Osteopathic Manipulative Medicine 101	2 Credits
Patient-Centered Medicine 101	2.5 Credits
Integument and Musculoskeletal System	6.75 Credits
Cardiovascular, Respiratory, and Hematologic Systems	6.25 Credits
Humanities & Medical Ethics I	0.5 Credits
<b>Total</b>	<b>25 Credits</b>

### 5.11.B. Spring Semester

Osteopathic Manipulative Medicine 102	2 Credits
Patient-Centered Medicine 102	2.5 Credits
Gastrointestinal System and Nutrition	5 Credits
Urinary System	4.25 Credits
Endocrine and Reproductive Systems	4.5 Credits
Nervous System/Head and Neck	7 Credits
Population Based Medicine	3.25 Credits
Humanities & Medical Ethics II	0.5 Credits
Elective*	
<b>Total</b>	<b>29 Credits</b>

OMS I Total 54 Credits

\*Research or Medical Outreach. Student may elect to take vacation instead of elective course. Some students may be remediating during this time and will not be able to take an elective course.

## 5.12. OMS-II Curriculum Schedule

### 5.12.A. Fall Semester

Osteopathic Manipulative Medicine 201	2 Credits
Hematology/Oncology	3.25 Credits
Orthopedics/Rheumatology/Dermatology	4 Credits
Cardiology, Pulmonology	7 Credits
Nephrology and Urology	3.5 Credits
Patient-Centered Medicine 201	1.5 Credits
Humanities & Medical Jurisprudence I	0.5 Credits
Elective*	

**Total 21.75 Credits**

### 5.12.B. Spring Semester

Osteopathic Manipulative Medicine 202	1.75 Credits
Gastroenterology	4.25 Credits
Neurology/Psychiatry/Ophthalmology	6.25 Credits
Endocrinology	2.5 Credits
Women's Health	3 Credits
Pediatrics	2.75 Credits
Geriatrics and End of Life	1.75 Credits
Patient-Centered Medicine 202	1.5 Credits
Humanities & Medical Jurisprudence II	0.5 Credits
Capstone OMS-II	1.5 Credits
Elective*	

**Total 25.75 Credits**

OMS II Total 47.5

\*Research or Medical Outreach. Student may elect to take vacation instead of elective course. Some students may be remediating during this time and will not be able to take an elective course.

### 5.13. OMS-III Curriculum Schedule\*\*

Community Based Family Medicine	10 Credits
Internal Medicine I	10 Credits
Internal Medicine II	10 Credits
Surgery	10 Credits
Women's Health	10 Credits
Pediatrics	10 Credits
Psychiatry/Behavioral Health	10 Credits
Underserved Care	10 Credits
Osteopathic Manipulative Medicine	5 Credits
Concepts in Acute Care Medicine	5 Credits
Capstone OMS-III	0.5 Credits
Elective*	
Undergraduate Fellowship**	5-10 Credits
OMS-III Total without Electives or Fellowship	90.5 Credits

### 5.14. OMS-IV Curriculum Schedule

Topics in Application of OMM (Fall)	1 Credit
Osteopathic Approach to Pain Management (Spring)	5 Credits
GME Selective	10 CreditsElectives^ 650 Credits
Undergraduate Fellowship**	5-10 Credits
OMS-IV Total without Fellowship	81 Credits

\*OMS-III Elective rotations must have Dean or Dean's designee prior approval

\*\*All Undergraduate Fellowships have a competitive selection process

^Students must complete a minimum of 65 credits of Elective Rotations. At least 55 credits must be performed in a clinical setting. At least 20 credits must be performed in the Spring semester. Students may choose from the elective course offering list below:

- Non-Clinical Elective Rotation (2.5 or 10 Credits)
- Research Elective Rotation (5 Credits)
- Family Medicine Elective Rotation (5 or 10 Credits)
- Internal Medicine Elective Rotation (5 or 10 Credits)



- Surgery Elective Rotation (5 or 10 Credits)
- Women's Health Elective Rotation (5 or 10 Credits)
- Pediatrics Elective Rotation (5 or 10 Credits)
- Specialty Medicine Elective Rotation (5 or 10 Credits)
- Psychiatry & Behavioral Health Elective Rotation (5 or 10 Credits)
- Underserved Care & Medical Outreach Elective Rotation (5 or 10 Credits)
- Emergency Medicine Elective Rotation (5 or 10 Credits)
- OMM/MMM Elective Rotation (5 or 10 Credits)

**Total Credits Required for Graduation: 273 Credits**

### **5.15. Curriculum Description**

The normal course of study to gain a Doctor of Osteopathic Medicine (D.O.) degree from LUCOM consists of four years of progressive integrated education. Two years are held predominately on campus and the second two years are held predominately at clinical sites that are collaborative partners of LUCOM.

The College of Osteopathic Medicine has a dedicated faculty; established affiliations with medical centers, hospitals, and healthcare systems; a structured and supported rural/underserved medicine program; and a mission to educate the finest osteopathic physicians possible.

The design of the curriculum is based on successful integrated academic models. It emphasizes interdisciplinary collaboration, guiding students to develop a holistic, and more importantly, an osteopathic approach to medicine. We continually correlate basic scientific information and methodology with fundamental clinical application. Students are exposed to clinical settings in their first year, which gives them the opportunity to prepare for the “real world” of medicine.

This clinical exposure expands in the second year and the students have increased opportunity to interact with standardized patients on campus as well as be involved, under physician supervision, with real patients in the office and hospital setting.

Students are assigned to one of our core educational centers to ensure continuity and coordination of clinical education within our vast and growing clinical training network. Our innovative curriculum is designed to fulfill our mission of training students who are competent and ready to enter graduate medical education and training with an emphasis on preparing students to become primary care physicians.

A notable aspect of the clinical program is a required month long rotation in an underserved practice setting. In rural clinics and hospitals throughout the state of Virginia and across the United States, our students participate in providing healthcare to medically underserved and indigent patients. Our students learn to treat various patients whose lifestyles, practices, and attitudes toward health care differ from those seen in more traditional training sites.

### **5.15.A. Pre-Clinical Curriculum**

For the first two years of the osteopathic medical education, LUCOM utilizes a blended, spiral curriculum that features a variety of learning modalities to prepare its students to meet the competencies established by the AOA COCA, acquire the knowledge and skills expected of a graduate osteopathic physician and develop the tools required to become a life-long learner and contributor to the expansion of medical knowledge and patient health. The curriculum seeks to provide the opportunity for students to develop the level of professional and ethical standards and behaviors expected of osteopathic physicians in addition to the medical knowledge and skills required of a graduate osteopathic physician.

Early clinical experiences are provided during the first two years of medical school in order to integrate the student into the professional atmosphere and to attempt to maintain the humanistic qualities that the COM expects students to bring into the program. An emphasis on active learning and graduated student responsibility for their education and professional development is fostered through a variety of learning experiences, including classroom presentations and application exercises, laboratory sessions, small group and team-based learning activities, near-peer instruction, the use of standardized patients and patient simulators, clinical experiences and guided and self-directed independent study. The entirety of the educational experience at LUCOM aims to encourage students to develop a pattern of individual responsibility and capacity for life-long learning and growth as competent, patient-centered, holistic excellent osteopathic physicians.

The integrated spiral nature of the pre-clinical curriculum consists of three longitudinal “strands” of learning: (1) osteopathic manipulative treatment (OMM), (2) patient-centered medicine (PCM), and (3) biomedical basis of health, disease, and intervention (BBHDI). Each of these three strands runs throughout the first two years of the curriculum, and the contemporaneous learning in each of these strands is integrated, interrelated, and complementary – similar to the double helical nature of strands of DNA within chromosomes. LUCOM desires to create a culture of informed inquiry. The most valuable learning experiences are motivated by a rational recognition of the “need to know and grow.” The development of problem solving skills, the application of inductive and deductive reasoning and a thoughtful, intentional process of clinical reasoning is introduced early in the curriculum of each of the three strands.

### **5.15.B. Strand 1: Osteopathic Manipulative Medicine (OMM)**

The courses regarding osteopathic principles, practice, and treatment may be viewed as one longitudinal curriculum spanning over four years divided into semesters and subdivided into four phases. The OMM courses may include didactic presentations, demonstrations, practical laboratory experiences and hands-on clinical opportunities utilizing other students as well as real and standardized patients to establish the student’s knowledge and ability to recognize and utilize the relationship between structure and function that is integral to Osteopathic Medicine.

During the OMS-I year, during the first semester, the student will be exposed to the history of the profession, vocabulary, osteopathic principles, and tissue palpation skills development (Phase One). This will form the foundational knowledge upon which all additional osteopathic studies will be built. After the student has demonstrated a sound knowledge of the foundational principles, the students will then begin their instruction in the biomechanical diagnosis and functional anatomy of the human body. Likewise, the students will advance their palpation skills to be able to diagnose and treat the human system from a biomechanical perspective as the students advances through the body systems for their first time in osteopathic medical training (Phase Two).

During the OMS-II year, the students are exposed to the various systems of the human body. However, at this time, the students will build upon their biomechanical knowledge gained during the first year and learn how to apply these skills to influence the body from a physiologic perspective. The educational goal of the second year is to teach the student how to support the homeostatic process of the body, remove obstructions to health and help foster an environment which is optimal for the healing and self-regulating processes of the body to recover from disease. Further, the student will begin to understand that there are multiple ways to influence homeostasis and healing within the patient and manipulation, when integrated with all other standard methods of disease management, may play a role in helping to provide the patient with the best chance for recovery (Phase Three).

Lastly, through hands-on review lab sessions, online modules, and face to face contact with faculty and preceptors, students will be expected to carry, review and apply their knowledge and treatment skills during their third and fourth years of training.

### **5.15.C. Strand 2: Patient-Centered Medicine (PCM)**

The PCM courses are designed to provide educational experiences that promote the development of the students into medical professionals and physicians rather than repositories of knowledge. The courses will require the development of active learning skills, the ability to inquire and communicate effectively with patients to acquire medical and historical information to guide patient care, the development of the skills required to work in health care teams and collaborative settings, and maturation of the skills required to become life-long learners. Throughout the PCM courses, the students should be able to develop their clinical skills related to the systems being studied and demonstrate the ability to interpret, evaluate, and apply both knowledge and clinical skills to improve patient outcomes.

The student will be expected to develop and demonstrate skills and competencies in areas of interviewing and communicating with patients and colleagues, demonstrate diagnostic and therapeutic reasoning, and problem solving skills. The student will be taught the diagnostic and therapeutic procedures and skills required of an osteopathic graduate prepared to enter graduate medical education. The student will demonstrate competencies required to function in different systems of health care, collaborative, and team- based settings.

The student, as a component of this strand, will have the opportunity to participate in early clinical experiences including experiences with standardized patients and in the simulation laboratories, experiences in physician offices, community health centers, health departments, and hospitals.

The courses' curriculum requires both passive and active learning in the classroom, in the physical diagnosis and procedures laboratory, in small group settings and in clinical settings. It includes both the formative and summative utilization of simulator cases; computer-assisted clinical cases, early clinical exposure, and standardized patient encounters.

### **5.15.D. Strand 3: Biomedical Basis of Health, Disease, and Intervention (BBHDI)**

There are four phases of the BBHDI strand of learning that run longitudinally through the preclinical curriculum. There are four turns (or "passes") in the preclinical curricular spiral, with each turn representing a pass through an expanding breadth and depth of information and clinical application. The first turn of the spiral occurs in Phase One and focuses on foundational information and understanding. The second turn occurs in Phase Two, which emphasizes the normal structure and function that defines states of health and wellness and approaches to health promotion in individuals and populations. The

third turn occurs in Phase Three, where the emphasis is on recognition of disease and the application of clinical understanding that leads to rational patient-centered approaches to prevention, diagnosis, and treatment of disease. The fourth and final turn takes place in Phase Four, where students are provided an opportunity for summation and synthesis of the understanding and application of information that has grown throughout the preceding phases.

*i) Phase One (BBHDI-1)*

This phase comprises the first few weeks of the curriculum in the first year of osteopathic medical education. BBHDI-1 consists of a single course: Biomedical Foundations of Osteopathic Medicine (BFOM). Students are introduced to fundamental principles, concepts, and mechanisms important to the biological consideration of health and disease. Traditional biomedical science disciplines of molecular and cellular biology, genetics and developmental biology, histology and anatomy, neuroscience, physiology, microbiology and immunology, pathology, and pharmacology are considered in an integrated, interdisciplinary fashion. This course focuses on general principles and mechanisms that are fundamental and common to the biomedical considerations of health and disease processes. The BFOM course provides the foundation upon which the remainder of the BBHDI curriculum and learning is built throughout the preclinical years of education.

*ii) Phase Two (BBHDI-2)*

This phase extends through the remainder of the OMS-I year and consists of a series of six courses organized predominantly by body regions/system, and a final course that introduces and develops concepts and principles of public health, epidemiology, and clinical research. A study of traditional medical science disciplines (molecular and cellular biology, genetics, biochemistry, developmental biology and embryology, histology, anatomy, physiology, microbiology and immunology, pathology, and pharmacology) are integrated into the system-based courses. This phase emphasizes normal structure-function relationships and the principles, mechanisms, and processes of the human body that are important for the maintenance and promotion of health in individuals as well as populations. In the context of abnormal structure-function relationships, basic principles and mechanisms of disease processes and the rationale for approaches to intervention are introduced as well.

One of the innovative aspects of the LUCOM curriculum involves student cadaveric dissection beginning with Phase Two, rather than following the tradition of beginning gross anatomy student dissection activity at the onset of the curriculum. Throughout the system courses during OMS-I, students study human gross anatomy by examining prosected human cadavers and preserved specimens, models, and digital images.

The final course, Population Based Medicine, offers an overview and understanding of principles and practice of public health, classical and clinical epidemiology, general types of clinical research studies, and the biostatistical considerations that are relevant to being able to read, interpret, and apply clinical research information in the context of evidence-based medical practice.

*iii) Phase Three (BBHDI-3)*

This phase begins at the start of the second year of medical school and includes a “second pass” through the same body regions/systems that were examined during OMS-I. With this second pass, there is intentional review, with emphasis on recall, application, expansion, and synthesis of understanding and skills. In these OMS-II system-based courses, a greater focus is placed on understanding the epidemiology, risks, pathogenesis and pathophysiology of disease, as well as

rational approaches to diagnostic evaluations and interventions aimed at advancing patient health and wellness. An emphasis is placed on developing sound clinical reasoning in generating appropriate differential diagnoses, working diagnoses, and the rationale for patient management plans.

In their second year, having already acquired a working understanding of human anatomy and the importance of three-dimensional structure-function relationships, students engage in human cadaveric dissection throughout the Phase Three system courses. Students begin their Phase Three human cadaveric dissection experience with a sound knowledge and appreciation of human anatomy, allowing them to more efficiently and meaningfully learn from their dissection. Invariably, there is much pathology that can be appreciated and investigated through cadaveric dissection. By dissecting cadavers in their second year, students are better able to recognize pathology and benefit from a more thorough consideration of clinical-pathologic correlations.

LUCOM also uses the second-year dissection of cadavers as an opportunity to provide valuable near-peer teaching experiences. Because of the alignment of the two passes through the system-organized courses, second-year students are completing regional cadaveric dissection while the first-year students are studying the same relevant body system. OMS-I students can visit the gross anatomy cadaver lab and OMS-II students are able to present their dissections to their first-year colleagues. In this way, second-year students, under the supervision of the gross anatomy faculty, can become tutors and demonstrate and explain relevant three-dimensional anatomic and structure- function relationships as well as demonstrate and explain relevant clinical-pathologic correlations. Additionally, as first-year students examine the cadaveric dissection of their second-year near-peers, they are given a valuable glimpse into the future of what they will be doing themselves the following year.

*iv) Phase Four (BBHDI-4)*

This phase occurs near the end of the OMS-II year and includes a more in- depth study of conditions commonly found associated with women's health, pediatrics and geriatrics. These three courses provide an opportunity to compare and contrast important processes, clinical syndromes and considerations across a life-stage continuum of the human experience of health and disease.

**5.15.E. OMS-III Core Clinical Curriculum**

The OMS-III year is based at one of LUCOM core clinical sites and each student follows a COM directed curriculum that includes patient care as well as didactics, independent learning assignments, interactive computer case-based learning, simulation scenarios to ensure development of foundational competencies for each discipline are provided for each student. The students will complete OMS-III core clinical rotations occurring both in the hospital and in community settings. Each rotation has designated learning objectives for the accompanying curriculum, integrated osteopathic learning objectives and requirements, as well as an end-of-rotation evaluation. Each student must successfully pass each core clinical rotation to move to the OMS-IV year, in addition to COMLEX requirements established by the COM.

LUCOM recognizes the important benefit of interprofessional training and fully supports and anticipates several scheduled and extemporaneous opportunities for our students to train as a member of a patient-centered team comprised of multiple healthcare providers. It is the expectation that students will respect the roles of different members of the team and how each contributes to the delivery of complete care within the healthcare delivery system. Dependent upon the resources available at each core rotation

site, students will be engaged in interdisciplinary didactic training, participation in team-based health care delivery discussions, and opportunities for simulation and standardized patient training alongside team members who are either in clinical training or providing care through training they have acquired in other healthcare disciplines. Interprofessional educational experiences may be done with pharmacists, physician assistance, nurses, nurse practitioners, certified nurse's aides, medical assistants, personal care technicians and among other disciplines while under the supervision of their physician preceptor.

The core rotations during the OMS-III year, supervised by COM appointed faculty at one of the COM affiliated core hospitals, are integral to the development of physicians and is designed to allow the student to convert facts and information accumulated during their preclinical years into application of that knowledge for the benefit of the patient, develop confidence in themselves as professionals as well as expose areas of need for further learning. Included are rotations in internal medicine and medical subspecialties, general surgery and surgical subspecialties, obstetrics and women's health. During rotations, while the students are not primarily responsible for the care or outcome of the patient, the patient remains the primary concern of all members of the health care team, including the student. Students are challenged to demonstrate to the faculty that they have acquired and can utilize a foundation of basic clinical skills, medical knowledge, and competencies that has them prepared to move into graduate medical education.

Based in a community and outpatient setting, this portion of the core education of the OMS-III student is designed to expose the student to the practice of medicine originating outside of the hospital and academic settings. With an emphasis on public health, preventive medicine, wellness, primary and secondary care of acute and chronic illness, and emphasizing a holistic approach to the patient, the student will have opportunity to follow the physician from the clinic to the hospital and back, providing an opportunity to participate in the total care of the patient regardless of where the care originated. Some students may be allowed to perform their underserved health rotation at a medical outreach site in or outside of the United States.

#### **5.15.F.OMS-IV**

The OMS-IV year requires that a student complete a GME selective rotation within an ACGME accredited residency program. The rotation will allow the student to participate in the US residency system. The student will learn to work within the framework of an accredited residency program. A general description of opportunities for each different residency type is discussed in the course syllabus. The GME selective rotation includes options in Emergency Medicine, Family Medicine, Internal Medicine, Pediatrics and General Surgery.

LUCOM must ensure that all students have adequate opportunities to provide and practice OMM under the supervision of COM credentialed physicians. OMS-III students participate in a two week OMM rotation which includes a minimum of four half days of OMM clinic. The rotation also requires that students attend current lectures and assist in OMM labs for OMS-I and OMS-II students. Students will also perform a standardized patient encounter to help prepare for OMM in COMLEX Level 2 PE. OMM modules are embedded into Family Medicine, Women's Health, Internal Medicine, General Surgery and Pediatrics rotations.

During the OMS-IV year, students have a number of required curricular experiences in order to ensure they receive a comprehensive osteopathic education. In the fall semester, students are required to take Topics in Application of OMM which is a 12 week osteopathic module based course that allows for the



student to develop their skills in self-directed learning while growing their understanding of OMM. In addition, it is preparatory work and a prerequisite course for the spring OMM course, The Osteopathic Approach to Pain Management. The Osteopathic Approach to Pain Management course is designed to provide each graduating senior the opportunity to solidify their OMM skills just prior to entering residency. It is also designed to incorporate the Virginia Core Competencies in Pain Management and Addiction with an osteopathic approach utilizing the integration of OMT, behavioral considerations and modalities, the spiritual impact of pain, and procedural interventions. To gain an understanding of residency programs and prepare students for graduate medical education training, students are required to perform at least one rotation within an ACGME accredited residency program.

Each student must earn 65 elective rotation credits during the OMS-IV year. 55 elective rotation credits must be earned in a clinical setting. A student may not earn more than 20 elective or selective rotation credits with the same preceptor in the same discipline. An elective rotation may be completed by the student with COM appointed faculty, at COM approved sites or at other sites arranged by the student if the policy established in the Clinical Training Manual are followed.

## Chapter 6. American Osteopathic Association Core Competencies

### 6.1. Osteopathic Philosophy and OMM

Both cognitive and psychomotor skill sets are taught and assessed in this competency domain. Classroom-based learning occurs throughout years one and two. Laboratories for training in clinical and manipulative medicine skills are conducted through years one and two. Requirements for the incorporation and application of osteopathic principles are incorporated in clinical rotation syllabi, reading, case-based modules, and through the required OMS-III OMM rotation. The principles of structure and function, the clinical osteopathic examination, the diagnosis and treatment of somatic dysfunction, viscerosomatic, and somatovisceral dysfunction are integrated throughout the curriculum through coordination of OMM with Principles of Clinical Medicine and Biomedical Foundations and Systems. Knowledge and skills are assessed through written examinations in years one and two, observation and evaluation of performance during laboratory sessions and structured evaluations of diagnostic and treatment knowledge and skills during the OMM courses. Clinical competence in this domain is evaluated by faculty at core rotation sites during years three and four as well as performance in hands-on labs, symposium, and evaluations at the end of each core rotation. Overall, competency in osteopathic manipulative medicine is assessed by laboratory practical examinations, through assessments utilizing standardized patients, and OSCEs during years one, two and three along with demonstration during the required OMM laboratory sessions during the core rotations of OMS-III. This competence is further tested by the NBOME (COMLEX) with passage of Levels 1, 2-CE, and 2-PE required of all degree candidates.

### 6.2. Medical Knowledge

Each course has established learning objectives established by the faculty and the curriculum committee, including learning objectives for the clinical rotations. These include humanistic and professional objectives as well as cognitive learning objectives during preclinical and clinical clerkship.

Medical knowledge is assessed through written or computer module examinations during preclinical courses, through student presentations and participation during active learning, case-based or team learning sessions, by student scholarly research, papers, and presentations. It is measured by both the preclinical and clinical faculty through assessment of the quality and depth of student patient assessments, presentations, research and documentation of patient interviews, assessments and plans during clinical rotations as well as through the utilization and evaluation of performance on assigned case based modules, during practical examinations

at the bedside as much as during clinical and osteopathic skills laboratories. Knowledge is measured by the students' performance individually and compared to peers during the end-of-rotation examinations at the completion of each core clinical rotation, their performance on each of the levels of COMLEX and/or USMLE. The assessment provided by peers on the student's performance during interactions in the class, lab, and clinical setting is also utilized along with self-assessment tools for each student.



### **6.3. Patient Care**

Patient care is taught through the clinical evaluation and care of patients, through active learning opportunities in small groups with case-based scenarios, in the standardized patient and simulation laboratories, medical outreach experiences, and then assessed through observational evaluation by the faculty and peers, written or computer-provided case-based and educational modules and associated formative and substantive examinations, through student presentations and participation during case-based or team-learning sessions, through student-generated patient assessments and notes during clinical rotations, during practical examinations in clinical and osteopathic skills laboratories, through the utilization of end-of-rotation examinations at the completion of each core clinical rotation, through performance on the various stages of COMLEX and/or USMLE and through direct faculty interaction. Students also participate in formal case write-ups, peer education requirements utilizing oral presentations during clinical education.

### **6.4. Interpersonal and Communication Skills**

The COM provides structured curriculum, simulation opportunities, group and active learning requirements, practical experiences, role models, and mentors designed to foster the ability of each student to interact with patients and peers in a manner that exhibits clarity and respect in the Patient-Centered Medicine course that extends over years one and two as well as in day-to-day interactions at the campus, during outreach events, and throughout the clinical curriculum. Students receive formal interview training and communication training, coupled with training in the psychology, sociology and diversity of patients during the pre-clinical years of the curriculum during their Patient-Centered Medicine courses.

Ethics and professionalism are emphasized as features of the curriculum and high standards of each are expected by the COM for all students. An emphasis is placed on an understanding of population-based as well as individual healthcare issues, public health policy concerns and development, and the role the patient's diversity plays in their life and health care.

The art and requirements of the medical interview are part of the early curriculum for the students and the required skills are reinforced through clinical laboratory experiences, standardized patient encounters, case-based group interactions and team-based learning environments, along with early community clinic experiences. As students gain greater experience and skills during their supervised clinical experiences during OMS-III and IV years, so do the expected levels of performance increase.

These competencies are also assessed by observation by the faculty and other students during both professional and social settings occurring at the COM and problems and concerns dealt with through faculty and student governance structure. The actions and interactions with other students, staff and faculty are important assessments of the student's competency. Students are observed during small group, classroom, clinical laboratory, and outreach experiences beginning in year 1 and continuing into the core clinical rotations. OSCEs are conducted utilizing standardized patients and simulation which are recorded for both formative and summative evaluation and to promote self-improvement on the part of the student. Peer feedback as a part of this assessment is highly valuable in shaping and changing behavior as well as improving skills. Students are evaluated by their clinical faculty in this domain during OMS-III and OMS- IV clinical rotations. These competencies are further assessed during COMLEX

Level 2-PE, during the high stakes at the end of the second year clinical OSCE and the end of the third year Capstone.

## **6.5. Professionalism**

Professionalism and ethics are presented during Patient Centered Medicine Courses, during small group educational sessions that are a component of the curriculum, as a component of clinical laboratories, simulation and standardized patient encounters.

While the competency is evaluated through written examinations including Standardized Patient and simulation scenario's, it is evaluated more importantly through the action of the student in active learning environments such as small groups and team-based learning events, by their compliance with the policies and procedures of the institution, the students' involvement in COM and University activities and organizations and professional organizations and associations. Further assessment is made through the students' contributions for the benefit of other students, demonstrations of their leadership, their actions and interactions with other professionals, students, staff, and faculty all are important assessments of the student's competency in this domain. Each student is observed by the faculty and evaluated by their peers during clinical laboratory, simulation, small group, team-based learning, and outreach experiences beginning in year 1 and continuing into the core clinical rotations. OSCEs are conducted utilizing standardized patients and low and high-fidelity simulation which are recorded for both formative and subjective evaluation as well as self-improvement on the part of the student.

Students are evaluated for professionalism and ethics by their clinical faculty and other educators during OMS-III and OMS-IV clinical rotations. The competency is further assessed by COMLEX Level 2-PE, during the high stakes at the end of the second year clinical competency OSCE and at the end of the third year Capstone conducted by the COM.

## **6.6. Practice-Based Learning and Improvement**

Activities that promote reflective learning require scholarly research and application of knowledge. Such actions requiring evaluation of outcomes compared to standards and peers provide students with opportunities to gain competence through both pattern recognition, analysis of these outcomes, and the acquisition of new knowledge.

Each student is placed in clinical environments during the OMS-III and OMS-IV years that provides for outcome-based and evidence-based practice. These occur in both institutional and outpatient settings. During these rotations, they are exposed to quality of care reviews, patient safety programs, patient registries, and standards of care requirements. Their skill and knowledge is assessed through small group, case-based, and practical evaluations of patient care and outcomes occurring as a component of the Patient Centered Medicine curriculum, written examinations during preclinical course work that measure knowledge of standards of care, patient safety, patient registries, outcome and scientific-based practices, as well as their knowledge of methods of research and analysis.

Student evaluations, presentations, and documentations during clinical rotations are evaluated and the students are given feedback by the faculty on how these evaluations and treatment plans meet

established standards and could be expected to affect outcomes. The student will learn to utilize electronic assessment tools for the formulation of and narrowing of differential diagnosis and the appropriate diagnostic and evaluation. Subject examinations at the completion of each core clinical rotation, all levels of COMLEX and/or USMLE, along with direct faculty interaction, will provide the student with a guide to his/her progress along with performance during formal case write-ups and oral presentations. Knowledge and ability to utilize up- to-date information is also assessed during the high stakes end-of-second year clinical competency and end of third year clinical competency examination conducted by the COM.

## **6.7. System-Based Practice**

Students are taught about patient health care challenges and opportunities surrounding both the United States and global medical systems and their effect on patient outcomes both as individuals and as populations during their Patient-Centered Medicine courses and symposium during the first two years of medical school at LUCOM. Early clinical experiences provide for practical experience working inside differing systems during the student's time in private clinics and institutions, at Federally Qualified Healthcare Centers (FQHC), at rural and critical access hospitals, military institutions, and at public health departments in Virginia. Active learning during case-based learning opportunities, including interdisciplinary/interprofessional experiences during simulation, and standardized patient encounters all require the student to apply knowledge of variant systems in determining appropriate evaluation and treatment of the "patients". Clinical faculty provide practical insight into health care services in a complex interdisciplinary/interprofessional environment during core clinical rotations. Students also participate in formal case write-ups and oral presentations during both preclinical and clinical years that require them to address the issue.

The domain is taught and assessed through participation in small group discussion occurring as a component of the Patient Centered Medicine and Population Based Medicine curriculum, interactive learning opportunities with nursing students at Liberty University, through written examinations during preclinical years that measure knowledge of the operations of differing systems of care, knowledge of patient safety, and patient registry programs. Student patient evaluations, documentation, evaluation and treatment plans are evaluated by peers and faculty. The topics are covered during examinations at the completion of each core clinical rotation and the topic is included on COMLEX and USMLE evaluations. Students are assessed for this competency as well during the high stakes end-of-second year clinical competency and end-of-third year clinical competency examination conducted by the COM.

All students are required to become certified in BLS and ACLS, in that order, as a component of their prep for clinical practice curriculum. Students are taught the basics of acute care of the sick and injured patient during clinical medicine and as a component of their systems courses. This knowledge is assessed on end-of-rotation examination, during Standardized Patient and Simulation events, and during small group and team learning discussions and presentations. Students are taught the process for research and information retrieval during clinical medicine and the prep for clinical practice course utilizing on-line resources such as Up-to-Date, Epocrates, MEDLINE, etc.

## Chapter 7. Course Descriptions

### 7.1. OMS I

#### 7.1.A. LCOM 4021: Osteopathic Manipulative Medicine 101 (OMM 101) 2 Credits

This introductory Osteopathic Manipulative Medicine course is designed to provide the student with a fundamental understanding of the history, principles, and philosophies of osteopathic medicine. During this course the student will be introduced to the lexicon which are the foundational principles and professional expectations upon which the profession was built. The faculty works in conjunction with other departments to complement and integrate the knowledge received from the systems based and clinical medicine courses. Whenever possible, the OMM 101 curriculum will integrate with the basic science departments to help enhance knowledge of anatomic relationships, particularly in the musculoskeletal, nervous, and cardiopulmonary systems, as they apply to osteopathic theory and treatment.

Additionally, the student will sequentially initiate training in the tactile and haptic skills necessary for the diagnostic palpation of and manipulative treatments for their future patients, regardless of the medical specialty chosen. Consequently, this course will instruct the student in the philosophic and diagnostic underpinnings upon which they will continue to build their osteopathic knowledge, and structurally based examination, palpatory and clinical methods and modalities which will continually develop for the rest of their clinical careers. This course consists of a mandatory, skills-based laboratory component which will instruct the student incrementally on competencies central to osteopathic screening, structural evaluation, diagnosis, and osteopathic manipulative treatment (OMT).

#### 7.1.B. LCOM 2021: Patient-Centered Medicine 101 (PCM 101) 2.5 Credits

Patient-Centered Medicine 101 is designed to introduce clinical skills including the art of medical history taking and physical examination. It also introduces the student to the concept of medical professionalism and ethics, the physician's role and duties toward society and the profession, the concept of the physician-patient relationship and the obligations and rights of both the doctor and their patients.

The course places an emphasis on respect for individuals along with an understanding of the diversity of individuals and cultures. The ability to communicate with patients effectively, educate and motivate them to advance their own health and wellness along with the ability to work collaboratively in a team environment that is essential for the physician is developed during the course. The course requires active participation and demonstrations of mastery of the core competencies expected of an osteopathic physician. The course utilizes computer-based educational content, lecture demonstration, small group case-based learning exercises, problem-solving exercises, clinical laboratory experiences, standardized patients and simulations as well as assigned reading to provide the knowledge and skills foundation expected by the faculty. The course teaches the basics of radiology including doctor and patient safety.

#### 7.1.C. LCOM 2111: Humanities and Medical Ethics I (HMEI) 0.5 Credits

The Humanities & Medical Ethics I course is designed to introduce future physicians to basic concepts, virtues, and principles of medical ethics. Presentations include the topics of privacy and confidentiality,

spirituality in medicine, and ethics of clinical and stem cell research. Students will also meet as a group to view the film, “The Doctor,” followed by small group discussion.

#### **7.1.D. LCOM 1001: Biomedical Foundations of Osteopathic Medicine (BFOM) 7 Credits**

The BFOM course provides students with a foundation upon which to further develop a growing understanding of important structure-function interrelationships that are involved in states of health and disease. The course integrates fundamentals of traditional medical science disciplines across levels of organization of the human body: from molecules, to cells, to tissues, to organs, to organ systems, to the entire body. These biomedical principles and processes are considered in the context of the body's natural ability to maintain homeostasis through self-regulation and self-healing mechanisms. A major purpose of the BFOM course is to provide a common medical scientific foundation and a holistic, osteopathic approach to learning about processes of health and disease in patients and populations. Framed around the Tenets of Osteopathic Medicine, the BFOM course stresses fundamental characteristics of living organisms, structure-function interrelationships, specialization, localization, levels of organization, communication, and coordination within the body.

#### **7.1.E. LCOM 3002: Integument and Musculoskeletal System (IMSK) 6.75 Credits**

The Integument and Musculoskeletal System course builds upon the BFOM course and aims to expand the student's foundational understanding of human structure and function in both normal and pathologic states. Principles and concepts introduced and developed in this course are integrated into the classroom discussions and laboratory experiences of the OMM and PCM courses.

Students have the opportunity to study the development as well as the structure and function of the skeleton, joints, the associated muscles and soft tissues, and the neurovascular connections of the somatic body in states of health and disease, but the emphasis is on the homeostatic maintenance of health. Students will be introduced to pathologic conditions affecting the somatic body and general considerations important to clinical decision-making, including the biological basis for generating differential diagnoses and approaches to rational patient care. Osteopathic principles and concepts will be discussed, integrated, and applied along with the interdisciplinary discussion and application of traditional biomedical sciences including molecular and cellular biology, biochemistry, embryology, anatomy, histology, physiology, microbiology and immunology, pathology, and pharmacology.

#### **7.1.F. LCOM 3001: Cardiovascular, Respiratory, Hematologic Systems (CVRH) 6.25 Credits**

The Cardiovascular, Respiratory, Hematologic Systems (CVRH) course is designed to enable students to acquire the knowledge and understanding of normal structure-function relationships and the biomedical basis for health maintenance involving the cardiovascular, respiratory, blood and lymphatic systems. Principles and processes involved in maintaining healthy gas exchange with blood and its circulation and tissue perfusion are explored. Normal principles and processes are compared to pathophysiological conditions which are abnormal structure-function relationships. Where possible and appropriate, osteopathic principles, approaches and rationale for osteopathic treatments are discussed and examined, with parallel applications in the concurrent OMM course.

### **7.1.G. LCOM 4022: Osteopathic Manipulative Medicine 102 (OMM102) 2 Credits**

During this course the student will continue to explore the lexicon, the foundational principles and professional expectations upon which the profession was built. The faculty works in conjunction with other departments to complement and integrate the knowledge received from the systems based and clinical medicine courses. Whenever possible, the OMM 102 curriculum will integrate with the basic science departments to help enhance your knowledge of anatomic relationships, particularly in the musculoskeletal, nervous, and cardiopulmonary systems, as they apply to osteopathic theory and treatment.

Additionally, the student will sequentially initiate training in the tactile and haptic skills necessary for the diagnostic palpation of and manipulative treatments for their future patients, regardless of the medical specialty chosen. Consequently, this course will instruct the student in the philosophic and diagnostic underpinnings upon which they will continue to build their osteopathic knowledge, and structurally based examination, palpatory and clinical methods and modalities which will continually develop for the rest of their clinical careers. This course consists of a mandatory, skills-based laboratory component which will instruct the student incrementally on competencies central to osteopathic screening, structural evaluation, diagnosis, and osteopathic manipulative treatment (OMT).

### **7.1.H. LCOM 2022: Patient Centered Medicine 102 (PCM102) 2.5 Credits**

Patient Centered Medicine 102 is designed to build upon necessary clinical skills, including the art of medical history taking and physical examination. It also introduces the student to the concept of medical professionalism and ethics, the concept of the physician-patient relationship and the obligations and rights of both the doctor and their patients.

The course places an emphasis on respect for individuals along with an understanding of the diversity of individuals and cultures. The ability to communicate with patients effectively, educate and motivate them to advance their own health and wellness along with the ability to work collaboratively in a team environment that is essential for the physician is developed during the course. The course requires active participation and demonstrations of mastery of the core competencies expected of an osteopathic physician. The course utilizes computer-based educational content, lecture demonstration, small group case-based learning exercises, problem-solving exercises, clinical laboratory experiences, utilization of standardized patients and simulations as well as assigned reading to provide the knowledge and skills foundation expected by the faculty.

### **7.1.I. LCOM 2112: Humanities and Medical Ethics II (HMEII) 0.5 Credits**

The Humanities & Medical Ethics II course builds upon the virtues and principles of medical ethics that were presented in the Humanities and Medical Ethics I course. Class cases in the history of medical ethics will be presented. Ethical dilemmas in reproduction, and fetal and neonatal intervention will also be discussed. Other issues include ethics and the care of minors and dependent adults, challenges in caring for those with advanced illness, transplant ethics, and ethics of genomic medicine.

### **7.1.J. LCOM 3006: Gastrointestinal System and Nutrition (GINutri) 5 Credits**

The Gastrointestinal System and Nutrition course is structured to enable the student to acquire knowledge related to the normal structure and function of the gastrointestinal system and be able to develop and apply this knowledge to the prevention, diagnosis, and treatment of pathological conditions



affecting this system. Students will explore the autonomic and neurohormonal regulation of the GI system and apply this understanding to somatovisceral and viscerosomatic dysfunction and the clinical recognition of and approach to the treatment of GI disorders. The study of the molecular and cellular level structure and function of normal healthy states provides a basis for explaining the pharmacologic approaches to patient care.

Students will examine the organization and role of accessory organs of digestion: salivary glands, liver, gall bladder, and pancreas. This course expects students to recognize and describe common pathologic conditions of these organs and the effect that these abnormalities have on digestion and nutritional status and how such abnormalities typically present clinically. The acquisition, metabolism, and utilization of nutrients required for maintenance of health will be explored and contrasted with the abnormalities in structure and function characteristic of disease states that arise from inadequacies in nutrient sources or processing. In addition, the nutritional basis of dieting and weight management will be surveyed in relation to stages of the life cycle. The mental and physical components of obesity and eating disorders will be examined.

### **7.1.K. LCOM 3005: Urinary System (Uri) 4.25 Credits**

The Urinary System course is designed for the student to acquire knowledge related to the normal structure and function of the urinary system and to develop the ability to apply this knowledge to the prevention, diagnosis, and treatment of pathological conditions affecting this system. The gross and microscopic structure and organization of the kidneys, ureters, bladder, urethra, and associated structures are correlated with normal functions of the body, including the maintenance of acid-base balance, electrolyte balance, body fluid balance, blood pressure, and the elimination of metabolic wastes and drug agents.

Students study and discuss the biomedical basis for common clinical presentations related to pathologic states involving the urinary system and the rationale for approaches to prevention and therapeutic intervention. The utilization of common laboratory tests used to assess urinary system function as well as the application of such test results in the clinical decision making process is explored and applied to clinical scenarios.

### **7.1.L. LCOM 3008: Endocrine and Reproductive Systems (EndoRepro) 4.5 Credits**

The Endocrine-Reproductive System course provides a study of the normal structure and function of the organs and hormones of the endocrine system along with reproductive, pelvic and perineal anatomy and physiology. The ENDREP course will establish a basis for understanding the disorders of the endocrine/reproductive systems. The microscopic and macroscopic structure of the endocrine organs as well as non-endocrine reproductive, pelvic and perineal anatomy, will be presented in lecture and laboratory. The following seven aspects of each hormone will be presented in lecture: (1) site of synthesis; (2) stimulus for release and transport; (3) cellular mechanism of action; (4) physiological effect(s); (5) feedback regulation; (6) elimination, degradation, half-life; and (7) clinical examples and case studies. All of the hormones will not all be presented in the ENDREP course but will also be presented in the appropriate courses in which those specific hormones are applicable.

Students are expected to apply their understanding of normal and abnormal structure-function of the endocrine/reproductive/pelvic/perineal systems to explain the basis for both the clinical presentations of common endocrine/reproductive/pelvic/perineal disorders and the general approaches to diagnosis. Students are expected to apply this understanding in the concurrent PCM course to explain the rationale

for aspects of a patient history and physical examination. Additionally, this course offers an introduction to the biomedical basis of common approaches to laboratory testing and pharmacotherapeutics.

### **7.1.M. LCOM 3003: Nervous System/Head and Neck (NervHN) 7 Credits**

The Nervous System/Head and Neck course is designed to facilitate the student acquiring knowledge related to the healthy central nervous system's structure and function. In addition, the student should learn the anatomy and physiology of the normal head and neck musculature, skeleton, innervation and vasculature. The link between head and neck anatomy and nervous system anatomy will be reinforced by the studying the pathways and functions of the cranial nerves, as these nerves connect many of the central nervous system topics with those of the head and neck.

Students study and discuss the biomedical basis for common clinical presentations related to pathologic states involving the nervous system and the rationale for approaches to prevention and therapeutic intervention. Students will be asked to correlate neurological, motor and sensory symptoms with lesions in the central nervous system. This course will also emphasize the connections between the nervous system and multiple other systems and regions, which reinforces the osteopathic principle of the body being a single unit.

### **7.1.N. LCOM 2011: Population Based Medicine (PBM) 3.25 Credits**

The Population Based Medicine course introduces students to principles of classical and clinical epidemiology, preventive medicine, public health, and evidence-guided medical practice. Students consider the role of the osteopathic physician as it is influenced by measures of population and individual health and efforts to improve individual and population health. An introduction to the principles and processes of clinically related research, as well as a basic understanding of parametric and nonparametric biostatistics needed to be able to read and interpret clinical research, provides a context for considering the application of clinical information in the practice of osteopathic medicine. The roles of public health related strategies in the prevention of disease and its dissemination are discussed.

The ability to review and critically evaluate medical literature and diagnostic and therapeutic outcomes is essential to the acquisition of the knowledge required to be competent osteopathic physicians appropriately engaged in life-long learning. This course presents the basics of these foundational skills and provides the foundation for developing an approach to evidence-guided medical practice. This course also examines fundamental principles of preventive medical services, specifically in relation to infectious, environmental, and chronic diseases, as well as occupational medicine.

## **7.2. OMS II**

### **7.2.A. LCOM 4023: Osteopathic Manipulative Medicine 201 (OMM201) 2 Credits**

OMM 201 is designed to build upon and integrate the concepts taught in OMS-I curriculum to help enhance knowledge of functional anatomy as it applies to osteopathic theory and treatment. The student will continue training in the tactile and haptic skills necessary for the diagnostic palpation of and manipulative treatments for their future patients, regardless of the medical specialty chosen. This course will instruct the student in the philosophic and diagnostic underpinnings upon which they will continue to build their osteopathic knowledge, and structurally based examination, palpatory and



clinical methods and modalities which will continually develop for the rest of their clinical careers. This course consists of a mandatory, skills-based laboratory component which will instruct the student incrementally on competencies central to osteopathic screening, structural evaluation, diagnosis, and osteopathic manipulative treatment (OMT).

Consistent with the professional and the core educational standards developed by the Educational Council of Osteopathic Principles (ECOP), OMM 201 will emphasize the best available supportive data related to the biomechanical, functional, and physiologic mechanisms in order to provide a foundation for future education and development within the art and science of osteopathy. The course is taught primarily through the utilization of clinically-based directed self-learning and reinforcement in a hands-on lab. Instructional methods which may be utilized include case based learning events, assigned reading and computer-based modules, active hands-on laboratory sessions, standardized patients, the utilization of simulation events and the application of knowledge and skills provided to patients during faculty supervised clinics and medical outreach events.

### **7.2.B. LCOM 2023: Patient Centered Medicine 201 (PCM 201) 1.5 Credits**

Patient Centered Medicine 201 is designed to introduce clinical skills including the art of medical history taking and physical examination. The course provides an insight into the clinical practice of medicine. The course places an emphasis on knowledge, evaluation and problem solving that promote the development of treatment plans and their evaluation. The course requires active learning and participation and the demonstration of the clinical and communication skills necessary to practice competent medicine. Key components include lecture demonstration, clinical laboratory experience, small group sessions, standardized patients and simulation encounters.

The course requires active participation and demonstrations of mastery of the core competencies expected of an osteopathic physician. The course is the third of a series of clinical skills courses that are integrated with the osteopathic manipulative medicine courses and correlated with the systems courses taught in the curriculum.

### **7.2.C. LCOM 2113: Humanities and Medical Jurisprudence 1 (HMJI) 0.5 Credits**

The Humanities & Medical Jurisprudence I course is designed to assist students in understanding issues surrounding care of patients. Topics include cultural competency, health literacy, Affordable Care Act, health care organizations, and the influence of world religion on health care. The course concludes with presentations on peer review, hospital governance, medical board, and functions of ethics committees.

### **7.2.D. LCOM 3015: Nephrology and Urology (NephUro) 3.5 Credits**

Focus will be placed on the interpretation of patient presentations, signs and symptoms, clinical examination findings, and laboratory and radiographic testing results to generate appropriate differential diagnoses and formulation of treatment plans for pathological conditions commonly found in patients. Where appropriate, students should incorporate osteopathic principles and treatment into the overall patient management plan.

Clinical reasoning is employed while considering a full spectrum of renal disorders, including the foundational structure and function of renal disease, developmental and structural abnormalities of the urogenital tract, acute and chronic renal failure, end stage renal disease, renal dialysis, renal transplant, behavioral health considerations of renal disease, fluid and electrolyte disorders, acid/base disorders,

hypertension, rationale treatment of fluid and electrolyte balance using intravenous fluids and diuretics, and the intrinsic renal diseases: nephrotic syndrome, nephritic syndrome, glomerular disorders, tubular and interstitial disorders, diabetic and hypertensive nephropathy, and renal oncology.

Clinical reasoning is employed while considering a full spectrum of urologic disorders, including urinary system anomalies, mechanisms of continence and the disorders characterized by urinary incontinence, urinary outflow obstruction, hematuria, and urinary tract infection. Attention will then be directed toward the evaluation of the structure and function of the urinary bladder, bladder pathology, sexually transmitted infections, disorders of the scrotum, testes, prostate, and penis. Finally, the course will address genitourinary trauma, urinary stone disease, and behavioral health aspects of male sexual dysfunction.

#### **7.2.E. LCOM 3004: Hematology/Oncology (HEM/ONC) 3.25 Credits**

The Hematology/Oncology course is designed to introduce the medical student to the basic concepts, pathophysiology, pathological clinical conditions and therapeutics in the clinical disciplines of Hematology and Oncology. Additionally, immunodeficiency, including HIV, will be covered in the course content. Students apply their expanding understanding of normal and abnormal structure and function of blood cells and components as well as the lymphatic system to the prevention, diagnosis, and treatment of pathologic conditions involving the hematologic system. Principles and mechanisms related to cell proliferation and differentiation that were examined in previous courses are recalled, expanded, and applied to as students consider neoplasia in general – from tumor formation to clinical presentation, diagnosis, and treatment. Common benign and malignant neoplastic diseases in adults and children are examined, with an emphasis on epidemiology, clinical presentation, diagnostic approaches, prognosis, and treatment. Students should be able to comprehend, synthesize potential solutions, and interactively apply knowledge of the pathophysiological processes that result in altered structure and function.

#### **7.2.F. LCOM 3019: Orthopedics/Rheumatology/Dermatology (ORD) 4 Credits**

This course is designed to encourage students to recall and acquire knowledge of normal and abnormal structure and function of the integument and the musculoskeletal system and somatic body and apply this knowledge to the prevention, diagnosis, and treatment of pathologic conditions commonly diagnosed in clinical settings and relevant to the medical specialties of orthopedics, rheumatology, and dermatology. The student should be able to comprehend, synthesize potential solutions, and interactively apply knowledge of the pathophysiological processes that result in altered structure and function. Additionally, students are expected to recognize abnormalities, interpret diagnostic findings, and discuss the appropriate application of osteopathic principles into the overall medical treatment plan.

#### **7.2.G. LCOM 3020: Cardiology/Pulmonology (CardPulm) 7 Credits**

Students apply their expanding understanding of normal and abnormal structure and function of the cardiovascular and respiratory systems to the biomedical rationale for the prevention, diagnosis, and treatment of pathologic conditions affecting the cardiovascular and respiratory systems. Students should be able to comprehend, synthesize potential solutions, and interactively apply knowledge of the pathophysiological processes that result in altered structure and function.

Clinical evaluation, treatment, and management of congenital and acquired structural and pathophysiological abnormalities are emphasized through active learning methods using illustrative clinical presentations. The incorporation of laboratory sessions utilizing models, diagnostic testing and

interpretation, human subjects, simulation and cadavers is an important component of the course. Diagnostic information obtained from patient history, physical examination, functional studies, radiographic studies, and laboratory studies are discussed and incorporated into the process of clinical decision-making. Students will discuss the appropriate application of osteopathic principles and treatments into the overall medical treatment plan.

### **7.2.H. LCOM 4024: Osteopathic Manipulative Medicine 202 (OMM 202) 1.75 Credits**

OMM 202 is designed to be a capstone experience tying together concepts from biomedical and clinical science material to help enhance your knowledge of functional anatomy as it applies to osteopathic theory and treatment. The student will continue training in the tactile and haptic skills necessary for the diagnostic palpation of and manipulative treatments for their future patients, regardless of the medical specialty chosen. Consequently, this course will instruct the student in the philosophic and diagnostic underpinnings upon which they will continue to build their osteopathic knowledge, and structurally based examination, palpation and clinical methods and modalities which will continually develop for the rest of their clinical careers. This course consists of a mandatory, skills-based laboratory component which will instruct the student incrementally on competencies central to osteopathic screening, structural evaluation, diagnosis, and osteopathic manipulative treatment (OMT).

Consistent with the professional and the core educational standards developed by the Educational Council of Osteopathic Principles (ECOP), OMM 202 will emphasize the best available supportive data related to the biomechanical, functional, and physiologic mechanisms in order to provide a foundation for future education and development within the art and science of osteopathy. The course, as part of a two year OMM curriculum, is taught primarily through the utilization of clinically-based directed self-learning and reinforcement in a hands-on lab. Instructional methods which may be utilized include case based learning events, assigned reading and computer-based modules, active hands-on laboratory sessions, standardized patients, the utilization of simulation events and the application of knowledge and skills provided to patients during faculty supervised clinics and medical outreach events.

### **7.2.I. LCOM 2024: Patient Centered Medicine 202 (PCM 202) 1.5 Credits**

Patient Centered Medicine 202 is designed to introduce clinical skills including the art of medical history taking and physical examination. The course provides an insight into the clinical practice of medicine. The course places an emphasis on knowledge, evaluation and problem solving that promote the development of treatment plans and their evaluation. The course requires active learning and participation and the demonstration of the clinical and communication skills necessary to practice competent medicine. Key components include lecture demonstration, clinical laboratory experience, small group sessions, standardized patients and simulation encounters.

The course requires active participation and demonstrations of mastery of the core competencies expected of an osteopathic physician. The course is the fourth of a series of clinical skills courses that are integrated with the osteopathic manipulative medicine courses and correlated with the systems courses taught in the curriculum.

### **7.2.J. LCOM 2114: Humanities and Medical Jurisprudence 2 (HMJ2) 0.5 Credits**

The Humanities & Medical Jurisprudence II course addresses the issues of the impaired physician and how to care for members of non-traditional sexual communities. The majority of this course is devoted to medical jurisprudence, with the following topics presented: medical malpractice, fraud and abuse

statutes, Stark Law, False Claims Act, insurance law, medical mistakes and truth-telling, relevant statutes influencing the practice of medicine, and employment and agency law.

### **7.2.K. LCOM 3014: Gastroenterology (GI) 4.25 Credits**

As a component of this course, students continue their study of the effects of nutrition on normal growth and development, the role of metabolic products in disease and wound healing, the role and management of oral, enteral and parenteral feeding techniques in light of general nutrition requirements and the pathophysiology and nutritional disorders. Students apply their expanding understanding of normal and abnormal structure and function of the gastrointestinal system to the molecular basis and biomedical rationale for the prevention, diagnosis, and treatment of pathologic conditions affecting the alimentary canal (foregut and hindgut), as well as the liver, gallbladder, and pancreas. Students should be able to comprehend, synthesize potential solutions, and interactively apply knowledge of the pathophysiological processes (anomalies, disorders, neoplastic and non-neoplastic diseases) that result in altered structure and function.

### **7.2.L. LCOM 3012: Neurology/Psychiatry/Ophthalmology (NPO) 6.25 Credits**

This course expects students to build upon their knowledge of functional neuroanatomy and neuroscience while applying this understanding to the interpretation of clinical examination findings, patient complaints, signs and symptoms, for the generation of appropriate differential diagnoses, and formulation of treatment plans for pathological conditions commonly found in the patients. Where appropriate, students should incorporate osteopathic principles and treatment into the overall patient management plan. This approach to clinical reasoning is employed while considering a full spectrum of neurologic pathological processes, including developmental and metabolic neurologic disorders, neurodegenerative disorders, vascular disorders affecting the nervous system, infectious and inflammatory processes, neoplastic processes, and structural disorders and traumatic injuries.

Furthermore, given the strong interplay between the nervous system, organic psychiatric conditions and human behavior, this course is designed with the goal of enabling the student to obtain the requisite knowledge and skills necessary to understand the structural changes and physiologic attributes that result in functional neurocognitive capabilities and normally accepted behaviors and actions. Conversely, pathologic conditions, both organic and acquired, that result in abnormal behavior will be discussed.

The psychiatry section provides an introduction to the clinical features, scientific understanding, and most effective treatments of the major mental health disorders that characterize medical practice. Core areas of clinical psychiatry include psychopathology and the psychiatric treatment of mental disorders. Students will review the functions of the brain as a regulator of emotional and somatic functions and the role of biologic and psychological functions of the brain in the genesis and maintenance of disorders. The student will become familiar with the DSM-V criteria of mental disorders as well as the indications, mechanisms of action, side effects and cautions surrounding commonly applied psychiatric and behavioral pharmacological agents. The indications and approaches for non-pharmacological interventions are explored as well.

This course explores the medical specialties of ophthalmology and neuro-ophthalmology, with considerations of the clinical presentation, diagnostic evaluation and treatment of general pathologic processes affecting vision and the structure and function of the eye.

### **7.2.M. LCOM 3018: Endocrinology (Endo) 2.5 Credits**

The Endocrinology course focuses primarily on the involvement of the hypothalamus, pituitary, thyroid, parathyroid, pancreas, and adrenal gland components of the endocrine system in human disease processes. The pathophysiology of the diffuse endocrine system that is distributed widely throughout the mucosal portions of the respiratory and gastrointestinal systems is also examined in this course. Students apply their expanding understanding of normal and abnormal structure and function of these components of the endocrine system to the biomedical rationale for the prevention, diagnosis, and treatment of related pathologic conditions. Students should be able to comprehend, synthesize potential solutions for, and interactively apply knowledge of the pathophysiological processes that result in altered structure and function.

### **7.2.N. LCOM 3016: Women's Health (WH) 3 Credits**

Students apply their expanding understanding of normal and abnormal structure and function of the female reproductive system, including the associated endocrine organs, and female genital tract to the biomedical rationale for the prevention, diagnosis, and treatment of pathologic conditions affecting these organs and systems. Students should be able to comprehend, synthesize potential solutions, and interactively apply knowledge of the pathophysiological processes that result in altered structure and function.

The student will be introduced to diverse conditions and syndromes which contribute to the lack of wellness in women of all ages. The student will gain an appreciation for the pathological conditions that are important in women's health and the prevention, diagnostic evaluation, and treatment of conditions important to a woman's well-being. Reinforced in this course is the role in which pathologic conditions from other systems present and impact the overall wellness and physiology of the female patient.

### **7.2.O. LCOM 3017: Pediatrics (PEDS) 2.75 Credits**

The Pediatrics course is designed to provide the student with the basic skills and knowledge required for professional approach and care of pediatric patients and their families. The course provides an overview of general pediatrics from newborn through adolescence, building on the foundational principles and understanding of the physiologic and pathophysiologic mechanisms that produce health and disease. The course will include such topics as neonatology, normal growth and development, health supervision and preventive care, genetic and inheritable disorders, common acute and chronic pediatric clinical conditions and presentations, including pediatric emergencies and poisoning. The course will develop the student's ability to obtain detailed and relevant information from patients and their parents/caregivers, conduct a comprehensive examination, and formulate appropriate management approaches and treatments. Relevant osteopathic treatments would be incorporated across all age groups as much as possible.

### **7.2.P. LCOM 2007: Geriatrics and End of Life (GeriEOL) 1.75 Credits**

The course is designed to introduce the medical student to the challenges that exist in caring for the elderly. The number of persons over the age of 65 continues to increase dramatically in the United States and the number of primary care physicians that are capable of caring for them will not keep pace. It is imperative that medical students get introduced to the unique issues and concerns involved in the medical care of this population of patients prior to entering into clinical rotations.

Special attention will be placed on having the student develop self-awareness of their own personal attitudes and fears toward aging and the aged. Focus will be placed on the students developing an understanding of the multidisciplinary and interdisciplinary approach to caring for the elderly.

### **7.2.Q. LCOM 2050: Capstone OMS II 1.5 Credits**

The Capstone course requires students to demonstrate that they have acquired and are able to apply acquired medical, psychological and psychosocial knowledge and skills in a manner that indicates they are adequately prepared to enter into the clinical and patient-focused phase of their medical education. The course also provides specific clinical skills and knowledge that are essential to success.

The course includes OSCE and Clinical Skills Exam. This high stakes evaluation reviews the knowledge and skills that students were expected to acquire over the preceding two years of study. Realistic clinical cases scenarios will require students to properly examine, diagnose, and describe treatment for standardized patients who present with clinical syndromes or conditions. Students will also be expected to demonstrate medical knowledge and clinical skill during simulation and case-based clinical scenario's utilizing low and high fidelity simulators as well as computer-based cases. Students are expected to utilize proper communication and interview techniques, demonstrate appropriate clinical examination skills, and incorporate osteopathic principles and philosophy in the evaluation of these patients.

## **7.3. OMS III**

The OMS-III core curriculum has been developed by the faculty and designed to ensure that all students obtain the competencies required to move toward Graduate Medical Education and to allow success on national competency examinations such as COMLEX. The curriculum is designed to cover the major components of the principle medical disciplines, but is not inclusive of all aspects of each general discipline.

The required curriculum, in addition to the clinical experience provided at the rotation site, consists of assigned readings requirements from a designated text and faculty selected journals, the completion of on- line case-based clinical modules for the discipline, and the completion of assigned study in OMM topics correlated with the rotation. End-of-rotation examinations will occur on the last Friday of each block at a time and place assigned for each core rotation site. Students may be required to return to the campus for end-of- rotation examinations.

The goal of clinical education at LUCOM is to provide experience in the major core disciplines of medicine and graduate well-rounded generalist physicians that are prepared to enter any discipline for resident training. Students are expected to learn the pathophysiology and structure associated with patient conditions, the indications, contraindications, complications and follow- up of therapy for patients with a wide variety of medical issues.

### **7.3.A. LCOM 5001 Community Based Family Medicine 10 Credits**

The student will be assigned in four week blocks to one or more clinical sites under the supervision of one or more primary care specialists and faculty. In the majority of cases, the supervising physician will be a family medicine practitioner; however, some students will spend clinic based time with internal



medicine, women's health or pediatric specialists. The student will provide supervised care for patients in both outpatient and inpatient settings on this service.

Family medicine clinical experiences allow students to understand the diagnostic process and management decisions for a large variety of medical conditions, the treatment of both acute and chronic conditions and the psychosocial complications that are faced by patients and health care providers. Students will learn about health policy and public health aspects of the health care system, the legal and regulatory requirements of practice and the economic systems of practice. Students learn the fundamentals of an approach to the evaluation and management of frequently occurring, complex, concurrent, and ill-defined problems across a wide variety of acute and chronic presentations.

### **7.3.B. LCOM 5100-5101: Internal Medicine I and II 20 Credit Hours**

The students of LUCOM spend two blocks on internal medicine. For the majority of students, both blocks will be done on an inpatient hospitalist service. In some cases and with prior approval, the student may spend one of the blocks assigned to a hospital based internal medicine sub-specialty service, such as cardiology, neurology, critical care, etc.

Students will expand history and physical diagnosis skills, gain an understanding of the indications and applications of differing diagnostic techniques, develop the ability to prioritize patient problems and treatments, generate a differential diagnosis, and implement patient management strategies, observe their effects and the appropriate follow up of the patients on their service. Internal Medicine requires extensive problem-solving skills utilizing structured, scientifically researched and founded processes, inductive and deductive reasoning and team approach to the care of the adult patient. The discipline provides an opportunity to view the patient as a whole and not merely as a pathological or disease-specific condition, to coordinate the total care of the patient to understand how a disease impacts not only on the patient's health, but also on his or her emotional and social well-being.

### **7.3.C. LCOM 5200: Surgery 10 Credits**

The General surgery rotation will include exposure to a variety of surgical topics and experiences, including minor surgery procedures as well as major, inpatient as well as outpatient patients, gastrointestinal (abdominal surgery), hernia repair, breast, endocrine, and trauma surgery experiences.

Students will be expected to acquire the knowledge to know the indications for surgery vs. medical therapy, the evaluation and work up of the surgical patient, the post-op care of the patient, and the appropriate prophylactic treatment of the patient. The student will be expected to acquire competency in the management of nutrition, blood, fluid, electrolytes, pain, and infection.

### **7.3.D. LCOM 5300: Women's Health 10 Credits**

The goal of the Women's Health/OB-GYN rotation is to expose students to the fundamentals of women's health in inpatient and outpatient clinical settings. During this rotation, the student will be active in the operative and non-operative care of the pregnant and obstetrical patient, medical and surgical management of pathology surrounding reproductive health and malignancies, preventive health care and procedures, and the treatment of acute and chronic illness. The students will participate in the evaluation, diagnosis and treatment of both medical and surgical patients during the block. Upon completion of this rotation students should be prepared to address basic issues in women's health care for women of all ages and begin to apply them to their chosen specialty.

### **7.3.E. LCOM 5400: Pediatrics 10 Credits**

This rotation provides a survey of pediatric medicine, from the care of the well newborn, through childhood and adolescence. Each stage of the child's life has distinct challenges, important conditions and milestones that must be considered to ensure the proper developmental and preventive medical outcomes. The rotation may be conducted in an outpatient, inpatient, or combined setting under the direction of pediatric professionals. Similar to internal medicine, the student will be exposed to the differing subspecialties of pediatrics practice during the rotation.

The issues of guardianship, privacy, legal responsibility and informed consent are considered as a component of the rotation. Pediatricians must develop the communication and interpersonal skills to treat the parents and sometimes, the family, rather than just the child. The differences in the psychosocial, legal, and medical needs of adolescents are to be learned by the student during the rotation as well.

### **7.3.F. LCOM 5600: Psychiatry/Behavioral Health 10 Credits**

The Psychiatry and Behavioral Health rotation provides an experience in which students are required to become knowledgeable of normal and abnormal psychiatric and behavioral functions, the pathophysiology behind the conditions, their evaluation, diagnosis and treatment. Generally conducted as an outpatient service, the rotation may include institutional care of patients. The service will provide exposure to psychiatric care for children, adolescence, adult and geriatric patients. The service will require students to recognize psychiatric emergencies and develop knowledge of appropriate interventions. The student will reinforce previously learned pharmacological treatment methods and develop knowledge of counseling and non-pharmacological treatment methods for common behavioral and organic-based conditions. The student will become familiar with the legal rights and responsibilities of the patient, the health care provider, and the public in issues of psychiatric care. The student will learn the workings of the health care team concerning psychiatric care of the patient. The diagnosis and treatment of common psychiatric and behavioral problems will be emphasized.

### **7.3.G. LCOM 5700: Underserved Care 10 Credits**

All students must complete one rotation at an underserved clinical site that provides diverse and comprehensive services for underserved and underrepresented patients. With prior LUCOM administrative approval, students may complete the requirement at an international site. Such approval requires a minimum of 150 days of advanced notification for proper screening to occur and must meet educational requirements as determined by the administration.

The delivery of quality medical care in health systems with wide diversity of patient types and varying degrees of resources is the focus of the curriculum for this rotation in underserved care. The student often must utilize the knowledge and skills of a diverse health care team where many of the high-tech tools of medicine are not available. In this environment, students advance their abilities in patient care on the basis of their medical history, communication, physical exam, and clinical medicine skills. Participants will be given robust curricular opportunities for procedural skills in medicine and surgery that will better prepare them for residency training and practice. The curriculum places an emphasis on preventive medicine, population-based care, and public health subjects.



### **7.3.H. LCOM 6050: Capstone OMS III 0.5 Credits**

The Capstone OMS III course requires students to demonstrate that they have acquired and are able to apply medical, psychological, and psychosocial knowledge and skills in a manner that indicates they are adequately prepared to enter into the clinical and patient-focused phase of their medical education (i.e. the student selective and elective rotations). The course also provides specific clinical skills and knowledge that are essential to success. The course includes OSCE and BLS recertification. The OSCE is a high stakes examination that evaluates the knowledge and skills that students are expected to acquire over the preceding three years of study. Realistic clinical cases scenarios will require students to properly interview, examine, diagnose, and describe treatment plans for standardized patients who present with clinical syndromes or conditions.

## **7.4. OMS IV**

The curriculum is designed to ensure that all students obtain the core competencies required to move into graduate medical education. Due to the diversity of rotations allowed, it may not be inclusive of all aspects of any discipline. OMS-IV rotations are designed to further refine clinical medicine and patient care knowledge and skills in preparation for graduate medical education. Students will be expected to assume additional responsibility and expand their volume of patient care activities during this portion of their education. The rotations are primarily hospital based, at COM affiliated or GME program locations and with COM approved or credentialed faculty.

### **7.4.A. LCOM 5999: Graduate Medical Education Selective 10 Credits**

The GME Selective rotation is designed to immerse the student in the US residency system. This allows the student to learn to work within the framework of an accredited residency program. This rotation includes options in Emergency Medicine, Family Medicine, Internal Medicine, Pediatrics and General Surgery. A general description of opportunities for each different residency specialty is discussed in the course syllabus.

### **7.4.B. LCOM 4925 Topics in Application of OMM 1 Credit**

This 12 week non-clinical required longitudinal course allows for the students to develop their interests and understanding in OMM. It is designed to keep osteopathic principles and practice in the forefront of the students' mind as they embark on their electives in the fall of the fourth year. In addition, it is preparatory work and complimentary for the spring OMM course, The Osteopathic Approach to Pain Management. LCOM 5998: Osteopathic Approach to Pain Management: 5 Credits This course is designed to provide each graduating senior the opportunity to solidify his/her OMM skills just prior to entering residency. It also is designed to incorporate the Virginia Core Competencies in Pain Management and Addiction (adopted October, 2017) with an osteopathic approach utilizing the integration of OMT, behavioral considerations and modalities, the spiritual impact of pain, and procedural interventions.

#### 7.4.C. LCOM 7---: Elective 650 Credits

Electives allow students to strengthen their knowledge and skills in specific disciplines and areas of either individual weakness or interest. Electives provide students the opportunity to rotate at sites outside of core locations affiliated with the COM and acquire knowledge of differing approaches to the practice of medicine within varying disciplines. These clinical experiences allow students to demonstrate to Program Directors, clinical faculty, and DSME's their interest and abilities while seeking selection for GME training. The OMS-IV curriculum offers two- and four-week clinical elective courses and one-, two-, and four-week non-clinical elective courses. Elective Course Offering:

- LCOM 6900 Non-Clinical Elective Rotation 10 Credits: 4 week Non-Clinical elective rotation
- LCOM 6925 Non-Clinical Elective Rotation 2.5 Credits: 1 week Non-Clinical elective rotation
- LCOM 6950: Research Elective Rotation 5 Credits: 2 week Research elective rotation
- LCOM 7000 Family Medicine 10 Credits: 4 week Family Medicine or sub-specialty elective rotation
- LCOM 7050 Family Medicine 5 Credits: 2 week Family Medicine or sub-specialty elective rotation
- LCOM 7100 Internal Medicine 10 Credits: 4 week Internal Medicine or sub-specialty elective rotation
- LCOM 7150 Internal Medicine 5 Credits: 2 week Internal Medicine or sub-specialty elective rotation
- LCOM 7200 Surgery 10 Credits: 4 week Surgery or sub-specialty elective rotation
- LCOM 7250 Surgery 5 Credits: 3 week Surgery or sub-specialty elective rotation
- LCOM 7300 Women's Health 10 Credits: 4 week Women's Health or sub-specialty elective rotation
- LCOM 7350 Women's Health 5 Credits: 2 week Women's Health or sub-specialty elective rotation
- LCOM 7400 Pediatrics 10 Credits: 4 week Pediatrics or sub-specialty elective rotation
- LCOM 7450 Pediatrics 5 Credits: 2 week Pediatrics or sub-specialty elective rotation
- LCOM 7500 Specialty Medicine 10 Credits: 4 week Specialty Medicine or sub-specialty elective rotation
- LCOM 7550 Specialty Medicine 5 Credits: 2 week Specialty Medicine or sub-specialty elective rotation
- LCOM 7600 Psychiatry & Behavioral Health 10 Credits: 4 week Psychiatry or sub-specialty elective rotation
- LCOM 7650 Psychiatry & Behavioral Health 5 Credits: 2 week Psychiatry or sub-specialty elective rotation
- LCOM 7700 Underserved Care & Medical Outreach 10 Credits: 4 week Underserved Care & Medical Outreach or sub-specialty elective rotation
- LCOM 7750 Underserved Care & Medical Outreach 5 Credits: 2 week Underserved Care & Medical Outreach or sub-specialty elective rotation
- LCOM 7800 Emergency Medicine 10 Credits: 4 week Emergency Medicine or sub-specialty elective rotation
- LCOM 7850 Emergency Medicine 5 Credits: 2 week Emergency Medicine or sub-specialty elective rotation
- LCOM 7900 OMM/NMM Elective Rotation 10 Credits: 4 week ONMM/NMM or sub-specialty elective rotation

- LCOM 7950 OMM/NMM Elective Rotation 5 Credits: 2 week ONMM/NMM or sub-specialty elective rotation

Students have control over the selection of their elective rotations within certain educational requirements established by LUCOM administration.

Electives in domestic locations must be approved a minimum of 90 days in advance by the Office of Clinical Education. All elective faculty must be appointed by the COM and meet the administrative criteria established by the COM. The student may not do more than two electives with the same preceptor and may not do more than two electives in the same discipline at the same hospital or institution.

The student may perform an international medicine rotation for up to twenty credits provided the experience meets the academic standards established by LUCOM. Due to additional time required to certify and credential these rotation sites, these must be applied for at least 150 days in advance of the desire date of rotation.

Students may perform non-clinical electives. Examples including but not limited to research, health policy, education, OMM, etc. during the OMS-IV year. Students must apply for this rotation and receive the support of a fulltime LUCOM biomedical science or clinical faculty member who will serve as the Faculty Sponsor for the student if seeking research experience. Students may engage in research activity at LUCOM or LU, or the research experience may take place at an unaffiliated institution (e.g., NIH). The Faculty Sponsor, therefore, may serve as the research mentor for the student; however, in some instances, the Faculty Sponsor's role will be to provide oversight of the rotation experience for a student who engages in research activity at an unaffiliated institution. The research activity may occur in a one-month, concentrated experience, or may – as appropriate and conducted at LUCOM or LU – be spread out over a one-semester-long experience. Students will be required to complete an academic component for this rotation, which may consist of a culminating oral or poster presentation, written paper, or verification of substantive contribution to a manuscript submitted to a peer-reviewed journal. The Faculty Sponsor will be required to ensure that an appropriate evaluation of student performance is completed according to the administrative criteria established by the COM. Recorded grades will be Pass/Fail.

## **7.5. Undergraduate Fellowships**

Unique opportunity that is made available to exceptional students through an application process. It expands the medical training period from four to five years. Participating students may receive tuition assistance and an additional stipend. Fellows are selected annually. All Undergraduate Fellowship Programs have a competitive selection process.

Prerequisite: Acceptance into the Undergraduate Fellowship Program.

### **7.5.A. LCOM 6801: Undergraduate Fellowship Teaching I 5 Credits**

This course will allow students to develop their skills teaching and improve their skills in medical education courses including Anatomy and Patient-Centered Medicine. Each student will have an opportunity to give a guided lecture, provide laboratory teaching and tutor in the first year medical curriculum.

### **7.5.B. LCOM 6802: Undergraduate Fellowship Teaching II 5 Credits**

The Part II course will allow students to enhance their skills teaching and improve their skills in medical education courses including Anatomy and Patient-Centered Medicine. Each student will have an opportunity to give a guided lecture, provide laboratory teaching and tutor in the first year medical curriculum.

### **7.5.C. LCOM 6811: Undergraduate Fellowship OMM/OPP I 5 Credits**

This course will allow students to develop their skills teaching and improve their skills in the medical education course Osteopathic Manipulative Medicine/Osteopathic Principles and Practices. Each student will have an opportunity to give a guided lecture, provide laboratory teaching and tutor in the first year medical curriculum.

### **7.5.D. LCOM 6812: Undergraduate Fellowship OMM/OPP II 5 Credits**

This course will allow students to enhance their skills teaching and improve their skills in the medical education course Osteopathic Manipulative Medicine/Osteopathic Principles and Practices. Each student will have an opportunity to give a guided lecture, provide laboratory teaching and tutor in the first and second year medical curriculum.

### **7.5.E. LCOM 6821: Undergraduate Fellowship Research I 5 Credits**

This course will allow students to develop their skills in research methodology. Each student will have an opportunity to participate in a research project under the supervision of a faculty member.

### **7.5.F. LCOM 6822: Undergraduate Fellowship Research II 5 Credits**

This course will allow students to enhance their skills in research methodology. Each student will have an opportunity to participate in a research project under the supervision of a faculty member.

## **7.6. Additional Course Offerings**

### **7.6.A. LCOM 6500: Preclinical Medical Outreach Elective**

Students may perform an elective providing medical care and other professional service as a component of medical outreach or international medicine rotation/experience each time offered if in good standing, upon completion of the required applications, submission of required documents and payment of any required fees. The Faculty will provide oversight of the rotation experience and any medical services provided for all students who engage in care and service activities at a clinical site in or outside of the U.S.A. Students will be required to complete an academic component for this rotation, which may consist of a culminating oral or poster presentation, written paper, case presentation or verification of substantive contribution to a such materials submitted to a peer-reviewed or other professional journal acceptable to course director. The Faculty Sponsor will be required to ensure that an appropriate evaluation of student performance is completed according to the administrative criteria established by the COM. Recorded grades will be Pass/Fail.

### **7.6.B. LCOM 6501: Preclinical Anatomical Cadaveric Elective**

Students may engage in an unrequired four-week Anatomical Sciences elective, in which they perform advanced anatomic prosection of cadavers under the supervision of the LUCOM Anatomical Sciences Department faculty between OMS-II and OMS-III years. Students must apply for this elective rotation and will be selected based upon criteria established by the Anatomical Sciences Department and the approval of the Dean. Students will be expected to provide specimens of good quality that illustrate structural relationships, structure-function interrelation, and clinicopathologic correlations according to the objectives established at the outset of the rotation, with the expectation that the specimens can be used in the educational programs of LUCOM and LU. Anatomical Sciences Department faculty will evaluate student prosections and work and assign a Pass/Fail grade accordingly.

### **7.6.C. LCOM 6502: Preclinical Research Elective**

Students may perform an unrequired elective Preclinical Research Rotation between OMS-I and OMS-II or OMS-II and OMS-III years. Students must apply for the rotation and receive the support of a fulltime LUCOM biomedical science or clinical faculty member who will serve as the Faculty Sponsor for the student during this research experience. Students may engage in research activity at LUCOM or LU, or the research experience may take place at an unaffiliated institution (e.g., NIH). The Faculty Sponsor, therefore, may serve as the research mentor for the student; however, in some instances, the Faculty Sponsor's role will be to provide oversight of the rotation experience for a student who engages in research activity at an unaffiliated institution. The research activity may occur in a four (4) week, concentrated experience, or may – as appropriate and conducted at LUCOM or LU – be spread out over a one-semester-long experience. Students will be required to complete an academic component for this rotation, which may consist of a culminating oral or poster presentation, written paper, or verification of substantive contribution to a manuscript submitted to a peer-reviewed journal. The Faculty Sponsor will be required to ensure that an appropriate evaluation of student performance is completed according to the administrative criteria established by the COM. Recorded grades will be Pass/Fail.

## Chapter 8. Reservation of Power

This catalog is not intended to be a contract or part of a contractual agreement between LUCOM and the student. The Catalog is available online at [www.Liberty.edu/LUCOM](http://www.Liberty.edu/LUCOM). Changes in the content of the Catalog may be made at any time, by the University or College administration. Notice of anticipated changes will be given to the students in advance of implementation, whenever possible. Each addition of the Catalog supersedes all previous versions, documents, and directives where they may be in conflict. Failure to read the Catalog and to be familiar with the rules, policies, and procedures contained in it does not excuse the student from being required to comply with the provisions of the policy.

Liberty University reserves the rights to amend, modify, add to, or delete from its rules, policies and procedures without notice, affecting its institutional relationship with students as deemed necessary by the administration without such change being considered a violation of the relationship between the University or College and the student. Such changes may include but are not limited to changes in tuition and/or fees, academic requirements, curriculum or responsibilities of the student.

