

# Doctor of Osteopathic Medicine

## Goal A: Student Doctors will develop research-related skills.

### Goal Description:

The College of Osteopathic Medicine promotes research opportunities as a way to enrich the core curriculum of the DO degree program. Students engaged in research will develop applied critical thinking, investigation, and writing techniques. These opportunities will give students the opportunity to develop scholarship, receive recognition in their field of study, and ensure that they will be competitive applicants in the residency application process.

### Providing Department: Doctor of Osteopathic Medicine

#### RELATED ITEMS/ELEMENTS -----

##### RELATED ITEM LEVEL 1

### LO1-A: Student Doctors learn to disseminate research.

#### Learning Objective Description:

COM Students must develop excellent academic writing skills for research grants, proposals, and manuscripts, in addition to disseminating the research in the form of abstracts & posters.

##### RELATED ITEM LEVEL 2

### Indicator: 100% student pass rate on writing assignments related to research

#### Indicator Description:

Students are assigned a variety of research and evidence-based medicine assignments in their systems, Osteopathic Manipulative Medicine (OMM), Clinical Medicine, and Research-thread courses.

Assignments include developing grant proposals and manuscript drafts that relate to current research at the COM or novel research proposed by the student.

#### Criterion Description:

All COM students complete and pass all research writing assignments.

#### Findings Description:

Starting with AY22-23, all OMS1 student doctors are required to take the course Research and Evidence Based Medicine (REBM 7301). One requirement for the course is to create a research proposal to a hypothetical \$1.5M award from the National Institutes of Health (NIH). Please see the attached syllabus for REBM 7301, as well as the grading rubric for the assignment.

For the REBM 7301 research proposal assignment, 100% (151/151) of the enrolled student doctors submitted a proposal and received a grade for the assignment. The average grade was 88.6% (min 70%, max 100%).

#### Attached Files

 [Research Seminar Marek FA2022 FINAL\(2\).pdf](#)

 [Research Proposal Rubric.pdf](#)

##### RELATED ITEM LEVEL 3

### Action - Writing Assignments Pass Rate

#### Action Description:

The COM met its criterion.

For AY2023-24, the COM will continue to offer the course Research and Evidence Based medicine (REBM 7301) to all OMS1 student doctors. As part of the course, students will continue to create a research proposal to a hypothetical award from the National Institutes of Health (NIH).

## RELATED ITEM LEVEL 2

### **Indicator: Number of students disseminating research**

#### **Indicator Description:**

The number of students that have disseminated research at the COM will be tracked and reported each year.

#### **Criterion Description:**

Students are given multiple opportunities to develop novel ideas into abstracts, manuscripts, grants, and posters. By the end of their four years at SHSU-COM, students will surpass the national average of medical student research publications and presentations by the time of residency application (2.9 publications).

#### **Findings Description:**

Upon a review of student doctor CVs available at the time of this report, the Office of Assessment, Evaluation, and Accreditation calculated the average number of publications and presentations per student doctor as 2.41 for the Class of 2024 preparing for the NRME Residency Match.

## RELATED ITEM LEVEL 3

### **Action - Students Disseminating Research**

#### **Action Description:**

While the COM fell slightly short of its criterion, having an average of 2.41 publications and presentations for the Class of 2024 a semester before NRME Residency Match is noteworthy.

For AY2023-24, the COM will continue to require the course Research and Evidence Based medicine (REBM 7301) for all OMS1 student doctors, as well as provide students opportunities to participate in research throughout the curriculum. Students will be encouraged to actively participate in faculty-led research, along with developing their own novel research ideas related to the COM mission. The COM recently hired a new Director of Research to better coordinate the future of research at the COM. The Director of Research is currently developing a database to track student research across the continuum.

## RELATED ITEM LEVEL 2

### **Indicator: Student research self-assessment for writing skills**

#### **Indicator Description:**

Students will complete a self-assessment to indicate their knowledge related to disseminating research before and after each stage of the research thread. This assessment will be administered in a question in the End-of-Year Student Survey.

#### **Criterion Description:**

Students on average indicate that their knowledge related to disseminating research has increased.

#### **Findings Description:**

An End-of Year OMS Survey was distributed to all COM students in May 2023. For the Class of 2026, on average, students indicated that their knowledge related to disseminating research has increased. Prior to attending Year 1, 44.4% of students described their proficiency in research-related writing skills as very high, high, or moderate. After Year 1, 69.4% of students described their proficiency in research-related writing skills as very high, high, or moderate.

## RELATED ITEM LEVEL 3

### **Action - Student self-assessment on writing skills**

#### **Action Description:**

With a 25.0 percentage point increase in self-reported proficiency, the COM met its target.

For AY2023-24, the COM will continue to require the course Research and Evidence Based medicine (REBM 7301) for all OMS1 student doctors, as well as provide students opportunities to participate in research throughout the curriculum. Students will be encouraged to actively participate in faculty-led research, along with developing their own novel research ideas related to the COM mission.

#### RELATED ITEM LEVEL 1

### **LO2-A: Student Doctors learn to present and publish research.**

#### **Learning Objective Description:**

COM Students must develop excellent academic presentation and publication skills in preparation for residency applications.

#### RELATED ITEM LEVEL 2

### **Indicator: Number of students presenting or publishing research**

#### **Indicator Description:**

The number of students that have presented or published research at the COM will be tracked and reported each year.

#### **Criterion Description:**

Students are given multiple opportunities to develop novel ideas into abstracts, manuscripts, grants, and posters. By the end of their four years at SHSU-COM, students will surpass the national average of medical student research publications and presentations by the time of residency application (2.9 publications).

#### **Findings Description:**

Upon a review of student doctor CVs available at the time of this report, the Office of Assessment, Evaluation, and Accreditation calculated the average number of publications and presentations per student doctor as 2.41 for the Class of 2024 preparing for the NRME Residency Match.

#### RELATED ITEM LEVEL 3

### **Action - Students Presenting or Publishing Research**

#### **Action Description:**

While the COM fell slightly short of its criterion, having an average of 2.41 publications and presentations for the Class of 2024 a semester before NRME Residency Match is noteworthy.

For AY2023-24, the COM will provide students opportunities to participate in research throughout the curriculum. Students will be encouraged to actively participate in faculty-led research, along with developing their own novel research ideas related to the COM mission. The COM recently hired a new Director of Research to better coordinate the future of research at the COM. The Director of Research is currently developing a database to track student research across the continuum.

#### RELATED ITEM LEVEL 2

### **Indicator: Student research self-assessment for presenting or publishing skills**

#### **Indicator Description:**

Students will complete a self-assessment to indicate their knowledge related to presenting or publishing research before and after each stage of the research thread. This assessment will be administered in a question in the End-of-Year Student Survey.

#### **Criterion Description:**

Students on average indicate that their knowledge related to presenting or publishing research has increased.

#### **Findings Description:**

An End-of Year OMS Survey was distributed to all COM students in May 2023. For the Class of 2026, on average, students indicated that their knowledge related to presenting research has increased. Prior to attending Year 1, 61.1% of students described their proficiency in research-

related presentation skills as very high, high, or moderate. After Year 1, 80.5% of students described their proficiency in research-related presentation skills as very high, high, or moderate.

RELATED ITEM LEVEL 3

Action - Student self-assessment on presenting or publishing research

Action Description:

With a 19.4 percentage point increase in self-reported proficiency, the COM met its target.

For AY2023-24, the COM will continue to require the course Research and Evidence Based medicine (REBM 7301) for all OMS1 student doctors, as well as provide students opportunities to participate in research throughout the curriculum. Students will be encouraged to actively participate in faculty-led research, along with developing their own novel research ideas related to the COM mission.

Goal B: Student Doctors will develop learning strategies to pass the COMLEX-USA Level 1 Exam.

Goal Description:

Students will sit for the COMLEX-USA Level 1 board examination at the end of OMS year 2. Passing the COMLEX-USA Level 1 board examination is required for graduation, and allows student doctors to progress into their clinical clerkships in OMS years 3 and 4. In order to prepare for this important examination, students will be given time and resources to adequately prepare themselves to perform well.

Providing Department: Doctor of Osteopathic Medicine

RELATED ITEMS/ELEMENTS -----

RELATED ITEM LEVEL 1

LO1-B: Student Doctors will perform adequately on simulated board exams.

Learning Objective Description:

Prior to sitting for the COMLEX-USA Level 1 board examination, all students will take simulated board exams to identify areas of strength and opportunity.

RELATED ITEM LEVEL 2

Indicator: Average scores on simulated board exams

Indicator Description:

Students average scores on simulated board exams will be disaggregated by system and discipline in order to identify potential gaps in knowledge. Overall, students should aim to pass the simulated board exam as a measure of readiness for the COMLEX-USA Level 1 exam at the end of OMS year 2.

Criterion Description:

Students will first-time pass the simulated board exam at a rate higher than the national average for the COMLEX-USA Level 1 exam (94.3%).

Findings Description:

COMSAE is a simulated board prep exam developed and administered by NBOME using retired items from COMLEX-USA exams. All student doctors enrolled in their final pre-clerkship course, Systems Integration, are required to take COMSAE until they achieve a 450, or they reach the maximum number of attempts. The passing score for COMLEX-USA is 400. COMSAE scores equate to COMLEX-USA scores for comparison purposes.

During AY22-23, COMSAE was administered 4 times over the course of 10 weeks. On the first attempt, 35.0% (36/103) achieved a score of at least 400, with 15 of those achieving the course requirement of 450 or greater.

By the fourth and final attempt, which was approximately 10 weeks after the first administration, 100% (102/102) students achieved a score of at least 400. However, 3 student doctors failed to achieve the course requirement of 450 or greater and consequently failed the course.

#### RELATED ITEM LEVEL 3

##### **Action - Average Score on Simulation Board Exams**

##### **Action Description:**

The COM did not meet its criterion.

As part of the evaluation of the FUSION board-prep sessions and Systems Integration course, faculty determined that students, in general, need up to 10-weeks after their first COMSAE experience to coordinate their study efforts, consolidate their knowledge, and pass the exam. For AY2023-24, Systems Integration (SI) will be cut in half and become a 3-week course. The SI Course Director (CD) will work with other CDs to offer the first COMSAE earlier in the semester, still allowing 10 weeks until its final offering. Future criteria will need to be adjusted accordingly to match these findings.

#### RELATED ITEM LEVEL 2

##### **Indicator: Student self-assessment of board readiness**

##### **Indicator Description:**

Students will complete a self-assessment to indicate their readiness for board examinations. This assessment will be administered in a question in the End-of-Year Student Survey.

##### **Criterion Description:**

OMS2 Students on average indicate that they are going to pass the COMLEX-Level 1 exam on the first attempt. OMS1 Students on average indicate that they are 'Slightly Ready' or more for the COMLEX-Level 1 exam.

##### **Findings Description:**

An End-of Year OMS Survey was distributed to all COM students in May 2023. All the OMS2 student doctors responding to the survey indicated that they will definitely or probably pass the COMLEX-USA Level 1 exam on the first attempt. In addition, 60% of OMS1s indicated that they are slightly, moderately, or very ready to pass the exam on the first attempt.

#### RELATED ITEM LEVEL 3

##### **Action - Self-assessment on board readiness**

##### **Action Description:**

The COM met its criterion.

For AY2023-24, the COM will continue offering FUSION board-prep sessions to OMS1s and OMS2s to give students test-taking skills and to provide context regarding the individual preparation required for board exams. Students will still be required to achieve a score greater than or equal to 450 on the COMSAE to qualify for the COMLEX-USA Level 1 exam.

#### RELATED ITEM LEVEL 1

##### **LO2-B: Student Doctors will perform adequately on COMLEX-USA Level 1 Exam.**

##### **Learning Objective Description:**

Student Doctors must pass the COMLEX-USA Level 1 Exam in order to enter clinical rotations in Years 3 & 4.

#### RELATED ITEM LEVEL 2

##### **Indicator: First time pass rate for COMLEX-USA Level 1**

##### **Indicator Description:**

From the NBOME website:

"COMLEX-USA Level 1 is a problem- and symptom-based assessment, administered in a time-measured environment that integrates the foundational biomedical sciences and other areas of medical knowledge relevant to solving clinical problems and promoting and maintaining health in providing osteopathic medical care to patients."

"Competency domains assessed include application of osteopathic medical knowledge, osteopathic patient care and osteopathic principles and practice, communication, professionalism and ethics. Competency assessment occurs in the context of clinical and patient presentations and systems-based practice as required for entry into the supervised practice of osteopathic medicine as an independently practicing osteopathic generalist physician and for readiness for lifelong learning and practice-based learning and improvement."

### **Criterion Description:**

Students will first-time pass the COMLEX-USA Level 1 exam at a rate higher than the national average (94.3%).

### **Findings Description:**

Our inaugural cohort (the Class of 2024) took COMLEX-USA Level 1 during the Summer of 2022. Their first-time pass rate was 97.1% (67/69).

The Class of 2025 took COMLEX-USA Level 1 during the Summer of 2023. As of the writing of this report, all except one score for the cohort has been released by NBOME, resulting in a tentative first-time pass rate of 99.0% (99/100).

#### **RELATED ITEM LEVEL 3**

##### **Action - First time pass rate**

##### **Action Description:**

The COM is pleased to report that not only did it meet its criterion, its first-time pass rate is among the highest in the nation.

For AY2023-24, Systems Integration (SI) will be cut in half and become a 3-week course. The SI course requirements will continue to require taking multiple simulated board exams, and to achieve a score greater than or equal to 450 on the COMSAE to qualify for the COMLEX-USA Level 1 exam. The COM will continue offering FUSION board-prep sessions to OMS1s and OMS2s to give students test-taking skills and to provide context regarding the individual preparation required for board exams.

## **Update to Previous Cycle's Plan for Continuous Improvement Item**

### **Previous Cycle's Plan For Continuous Improvement (Do Not Modify):**

#### **Closing Summary**

SHSU-COM welcomed our second cohort of student doctors in August 2021. For this past academic year, we focused our degree assessment efforts around measuring student doctors' research and board preparation skills. These efforts focused around a research self-assessment, documented research participation, and COMLEX-USA Level 1 preparation. These main concepts helped us develop our main degree assessment goals for AY 2021-2022:

1. Student Doctors will develop research-related skills.
2. Student Doctors will develop learning strategies to pass the COMLEX-USA Level 1 Exam.

COM's first degree-related goal focused on developing student research skills. Student doctors clearly indicated through self-assessment that their proficiency in all research skills has improved over the course of their first year of study. Moving into next academic year, SHSU-COM will hire a new Director of Research to coordinate the research thread, will continue offering research opportunities for student doctors. In addition to hiring a new Director of Research, COM has also implemented a new Research and Evidence Based Medicine course that will specifically address research as a key component of the curriculum and further develop student research skills at COM.

COM's second degree-related goal focused on board preparation and performance. COM's FUSION board prep programming was a coordinated, collaborative effort across departments to provide additional learning opportunities and resources to student doctors prior to their first attempt of the COMLEX-USA Level 1 exam. Through this collaborative effort, COM was able to provide a robust review of key concepts from the Pre-Clerkship (Years 1-2) curriculum and give students multiple opportunities to assess their board preparation progress. COM leadership and other stakeholders are very pleased with the outcomes of the first cohort and plan to further develop our FUSION programming and other board prep resources to increase our first-time pass rate next academic year.

As we welcome a new Dean to COM, we look forward to adjusting our program assessment goals to reflect the priorities of our new leadership team. In addition, we plan to incorporate assessment items from SHSU's campus-wide strategic plan in order to align COM with the goals, mission, and values of university as a whole.

#### **Update of Progress to the Previous Cycle's PCI:**

The plan for continuous improvement (PCI) for AY 2021-22 included several DO Degree items, all of which were incorporated into the AY 2022-23 assessment plan. First, the COM hired a new Director of Research to coordinate research efforts, develop research opportunities for student doctors, and direct the Research and Evidence Based Medicine course for OMS1s. Second, the COM implemented a new Research and Evidence Based Medicine course for OMS1s to develop student research skills. Third, the COM's FUSION board prep programming was refined, which resulted in an increase in our first-time pass rate for COMLEX-USA Level 1. For AY 2022-23 the COM did not change our two DO Degree assessment goals from the previous academic year to incorporate assessment items from SHSU's campus-wide strategic plan.

### **Plan for Continuous Improvement Item - DO Degree**

#### **Closing Summary:**

SHSU-COM welcomed our third cohort of student doctors in August 2022. For this past academic year, we continued to focus our DO Degree assessment efforts on measuring student doctors' research and board preparation skills. For AY 2022-23 the COM did not change our two DO Degree assessment goals from the previous academic year, which were:

1. Student Doctors will develop research-related skills.
2. Student Doctors will develop learning strategies to pass the COMLEX-USA Level 1 Exam.

The COM's first DO Degree goal focused on developing student research skills. Student doctors clearly indicated through self-assessment that their proficiency in all research skills has improved over the course of their first year of study. The COM hired a new Director of Research, who will coordinate research efforts, develop research opportunities for student doctors, and direct the Research and Evidence Based Medicine course for OMS1s. The COM will also continue to provide students opportunities to participate in research throughout the curriculum. Students will be encouraged to actively participate in faculty-led research, along with developing their own novel research ideas related to the COM mission.

The COM's second DO Degree goal focused on board preparation and performance. COM's FUSION board prep programming was a coordinated, collaborative effort across departments to provide additional learning opportunities and resources to student doctors prior to their first attempt of the COMLEX-USA Level 1 exam. Through this collaborative effort, COM was able to provide a robust review of key concepts from the Pre-Clerkship (Years 1-2) curriculum and give students multiple opportunities to assess their board

preparation progress. COM leadership and other stakeholders are very pleased with student outcomes and plan to further develop our FUSION programming and other board prep resources to maintain our exceptional first-time pass rate.

For AY 2023-24, the COM's inaugural cohort, the Class of 2024, will be engaging in a variety of clinical experiences in preparation for our first NRMP Match, graduation, and post-graduation placement as resident DO physicians. The COM also matriculated its fourth cohort, the Class of 2027, resulting in our on-site pre-clerkship curriculum running at full capacity. Toward the end of AY 2022-23, the COM welcomed a new Dean, who brings with him a renewed vision for the COM, its graduates, and the impact the COM will have on healthcare in our region. In the upcoming months, the COM will reflect upon our accomplishments and adjust our DO Degree assessment goals for AY 2023-24 under the guidance of our new leadership and anticipated changes in structure.