

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:

Student Doctors were assigned a variety of research and evidence-based medicine assignments in their systems, Osteopathic Manipulative Medicine (OMM), Clinical Medicine, and Research thread courses. All students passed the writing component of these assignments.

RELATED ITEM LEVEL 3

Action - Writing Assignments Pass Rate

Action Description:

SHSU-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. In August 2021, SHSU-COM's Director of Research has transitioned to the position of Associate Dean for Biomedical Sciences. SHSU-COM hopes to hire or select a new Director of Research to better coordinate the future of research at SHSU-COM during the upcoming academic year. The Director of Research will develop a repository or database that can easily track student research across the continuum. In August 2022, SHSU-COM implemented a new Research & Evidence Based Medicine course for the first semester of OMS1 in order to better orient students to research fundamentals.

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:

The COM funded 4 new student driven research project this year for a total of \$11,700 and 3 new intramural faculty grants totaling \$50,000. SHSU-COM currently has five externally funded faculty, including three National Institutes of Health (NIH) projects, totaling \$1.65 million. The Medical Scholar Summer Program funded 11 student doctors at \$3,0000.00 each to participate in faculty-led research projects during the summer semester and the COM supported 15 student travel awards to present at regional and national conferences totaling \$23,000.00.

RELATED ITEM LEVEL 3

Action - Students Disseminating Research

Action Description:

SHSU-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. In August 2021, SHSU-COM's Director of Research has transitioned to the position of Associate Dean for Biomedical Sciences. SHSU-COM hopes to hire or select a new Director of Research to better coordinate the future of research at SHSU-COM during the upcoming academic year. The Director of Research will develop a repository or database that can easily track student research across the continuum. In August 2022, SHSU-COM implemented a new Research & Evidence Based Medicine course for the first semester of OMS1 in order to better orient students to research fundamentals.

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 2022. Of the 179 invited to participate, 45 OMS2 and 67 OMS1 student doctors submitted responses to questions related to their student experience at SHSU-COM (Response rates: 61.6% OMS2 and 63.2% OMS1).

In the survey, OMS1 students were asked to assess the following research skills prior to OMS1 and after OMS1:

1. Research Development Skills
2. Writing Skills
3. Analytical Skills
4. Presentation Skills

For all skills, students on average indicated a higher proficiency after OMS1. Please see the following attachment for more detail.

Attached Files

 [OMS EOY Survey Data Summary.pdf](#)

 [Research Skills.pdf](#)

RELATED ITEM LEVEL 3

Action - Student self-assessment on writing skills

Action Description:

SHSU-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. In August 2021, SHSU-COM's Director of Research has transitioned to the position of Associate Dean for Biomedical Sciences. SHSU-COM hopes to hire or select a new Director of Research to better coordinate the future of research at SHSU-COM during the upcoming academic year. The Director of Research will develop a repository or database that can easily track student research across the continuum. In August 2022, SHSU-COM implemented a new Research & Evidence Based Medicine course for the first semester of OMS1 in order to better orient students to research fundamentals.

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:

The COM funded 4 new student driven research project this year for a total of \$11,700 and 3 new intramural faculty grants totaling \$50,000. SHSU-COM currently has five externally funded faculty, including three National Institutes of Health (NIH) projects, totaling \$1.65 million. The Medical Scholar Summer Program funded 11 student doctors at \$3,0000.00 each to participate in faculty-led research projects during the summer semester and the COM supported 15 student travel awards to present at regional and national conferences totaling \$23,000.00.

RELATED ITEM LEVEL 3

Action - Students Presenting or Publishing Research

Action Description:

SHSU-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. In August 2021, SHSU-COM's Director of Research has transitioned to the position of Associate Dean for Biomedical Sciences. SHSU-COM hopes to hire or select a new Director of Research to better coordinate the future of research at SHSU-COM during the upcoming academic year. The Director of Research

will develop a repository or database that can easily track student research across the continuum. In August 2022, SHSU-COM implemented a new Research & Evidence Based Medicine course for the first semester of OMS1 in order to better orient students to research fundamentals.

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 2022. Of the 179 invited to participate, 45 OMS2 and 67 OMS1 student doctors submitted responses to questions related to their student experience at SHSU-COM (Response rates: 61.6% OMS2 and 63.2% OMS1).

In the survey, OMS1 students were asked to assess the following research skills prior to OMS1 and after OMS1:

1. Research Development Skills
2. Writing Skills
3. Analytical Skills
4. Presentation Skills

For all skills, students on average indicated a higher proficiency after OMS1. Please see the following attachment for more detail.

Attached Files

 [OMS EOY Survey Data Summary.pdf](#)

 [Research Skills.pdf](#)

RELATED ITEM LEVEL 3

Action - Student self-assessment on presenting or publishing research

Action Description:

SHSU-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. In August 2021, SHSU-COM's Director of Research has transitioned to the position of Associate Dean for Biomedical Sciences. SHSU-COM hopes to hire or select a new Director of Research to better coordinate the future of research at SHSU-COM during the upcoming academic year. The Director of Research will develop a repository or database that can easily track student research across the continuum. In August 2022, SHSU-COM implemented a new Research & Evidence Based Medicine course for the first semester of OMS1 in order to better orient students to research fundamentals.

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:

In AY21-22, 73 student doctors had the opportunity to sit for two full Kaplan simulated exams (January/February and April 2022) and one COMAT-FBS exam (March 2022). In order to sit for the COMLEX-USA Level 1, students were required to score a 400 on the COMSAE, an examination that utilizes questions recycled from old COMLEX-USA Level 1 exams.

Of the 73 student doctors:

- 50 were cleared to sit for COMLEX-USA Level 1 by scoring a 400+ on their first attempt of the COMSAE.
- 10 were cleared to sit for COMLEX-USA Level 1 by scoring a 400+ on their second attempt of the COMSAE.
- 10 were cleared to sit for COMLEX-USA Level 1 by scoring a 400+ on their third and final attempt of the COMSAE.
- 2 were never cleared to sit for the COMLEX-USA Level 1, with scores <400 on all COMSAE attempts.
- 1 requested a Leave-of-Absence after scoring <400 on their first attempt of the COMSAE

RELATED ITEM LEVEL 3

Action - Average Score on Simulation Board Exams

Action Description:

COM will implement FUSION board-prep sessions earlier in the OMS curriculum in order to give students more context regarding the individual preparation required for board exams. In addition to sitting for simulated board exams, student doctors are required to score greater than or equal to 450 on the COMSAE in order to qualify for the COMLEX-USA Level 1 board exam.

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:

The COMLEX-USA Level 1 exam is typically administered after the second year of OMS curriculum. In Spring 2022, SHSU-COM had its first cohort sit for the COMLEX-USA Level 1 exam.

This year, SHSU-COM distributed an End-of-Year OMS1 Survey to all COM students. OMS2 Students were asked to indicate if whether or not they believed they would pass their first attempt of the board exam. OMS1 Students were asked to indicate their readiness for the COMLEX-USA Level 1 exam on a scale from Not at all ready to Extremely Ready.

35 out of 37 OMS2 students who completed the survey question indicated that they believed they would pass the COMLEX-USA Level 1 Exam on their first attempt. In general, OMS1 students who completed the survey indicated that they were slightly ready for the COMLEX-USA Level 1 Exam. Please see the following attachment for more detail.

Attached Files

 [OMS EOY Survey Data Summary.pdf](#)

 [Readiness.pdf](#)

RELATED ITEM LEVEL 3

Action - Self-assessment on board readiness

Action Description:

COM will implement FUSION board-prep sessions earlier in the OMS curriculum in order to give students more context regarding the individual preparation required for board exams. In addition to sitting for simulated board exams, student doctors are required to score greater than or equal to 450 on the COMSAE in order to qualify for the COMLEX-USA Level 1 board 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:

As of 7/27/22, out of the 69 students cleared to sit for the COMLEX-USA Level 1 exam, 68 have had scores posted by NBOME.

Out of the 68 students with posted results, 66 students have passed. To date, SHSU-COM's first time pass rate for COMLEX-USA Level 1 is 97.1%. The final student's scores will be posted on 8/16/22.

RELATED ITEM LEVEL 3

Action - First time pass rate

Action Description:

COM will implement FUSION board-prep sessions earlier in the OMS curriculum in order to give students more context regarding the individual preparation required for board exams. In addition to sitting for simulated board exams, student doctors are required to score greater than or equal to 450 on the COMSAE in order to qualify for the COMLEX-USA Level 1 board exam. Students that do not pass on their first attempt will be supported and advised by the Associate Dean for Educational Affairs, the Director of Medical Student Affairs, and the Remediation Case Manager, as the student continues their preparation to pass the Level 1 exam within three total attempts.

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 first cohort of student doctors in August 2020. For this academic year, we focused our degree assessment efforts around building self-directed learning and research skills. These efforts focused around COMLEX-USA Level 1 preparation, research self-assessment, and active student engagement in learning. These concepts helped us develop our main degree assessment goals for AY 2020-2021:

1. Student Doctors Develop Self-Directed Learning (SDL) Skills
2. Student Doctors Build Skills in Research

COM's first degree-related goal focused on self-directed learning through board examination preparation. While most students utilized the Kaplan QIP/Qbank software, students have provided feedback through Pulse Checks, Course Evaluations, and other mechanisms that self-directed learning has been a difficult modality to participate in and learn from. Self-directed learning (SDL) is a particularly challenging learning modality for students to transition toward after an undergraduate degree. Student doctors of the first cohort have struggled to understand the purpose of this learning modality. Based on a variety of student feedback

and anecdotal evidence, it is clear that our first cohort of student doctors has a strong preference for learning modalities that deliver content directly to them. In order to better elucidate SDL at a curricular level, SHSU-COM will utilize new TBL software to streamline the team learning process, along with giving new curricular opportunities for students to learn concepts independently. Students were given an opportunity to develop self-directed learning through a summer genetics assignment as a part of a re-orientation program developed by the faculty and Office of Academic Infrastructure and Professional Development. This continued to highlight issues that students have with SDL, and further illustrated a need for adult learning development. The department of Educational Affairs alongside the SHSU-COM faculty will continue to collaborate to come up with new strategies for encouraging and developing these skills with our student doctors.

COM's second degree-related goal focused on developing student research skills. This goal surpassed our initial expectations for assessment. 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 or select a new Director of Research to realign and coordinate the research thread, will continue offering research opportunities for student doctors, and will further integrate research-related writing assignments throughout the curriculum.

After reflecting on the assessment goals from AY 2020-2021, the Office of Assessment, Evaluation, and Accreditation has decided to refocus our assessment efforts toward (1) assessing student research skills and (2) assessing direct student outcomes of biomedical sciences concepts in osteopathic clinical settings during pre-clerkship years.

Update of Progress to the Previous Cycle's PCI:

Over the past academic year, COM has directly seen the impact of the Self-Directed Learning goals that were set in the last DO degree assessment plan. As of August 15, 2022, students in the Class of 2024 that took the COMLEX-USA Level 1 board exam had a first-time pass rate of 97.1%, a result of their dedication to and implementation of self-directed learning. In terms of student research, COM was able to host its first annual Student Research Day, celebrating the academic curiosity of the student doctors at COM. In addition, COM has now implemented a Research and Evidence Based Medicine course for OMS1 students in order to develop research fundamentals as students begin to engage in high level research.

By refocusing our assessment goals to also focus on board exam performance, COM was able to develop strategies and resources to prepare students for the COMLEX-USA Level 1 exam. The programming and resources created for students preparing for board exams will be further developed as we continue to identify key metrics of board exam success throughout the COM curriculum.

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.

Plan for Continuous Improvement Item - DO Degree

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.