SAINT LOUIS UNIVERSITY

Program-Level Assessment: Annual Report

Program Name (no acronyms): Doctor of Medicine	Department: Curricular Affairs
Degree or Certificate Level: MD	College/School:
Date (Month/Year): January 11, 2024	Assessment Contact: Dr. Neal Weber

In what year was the data upon which this report is based collected? AY21-22

In what year was the program's assessment plan most recently reviewed/updated? 2022

Is this program accredited by an external program/disciplinary/specialized accrediting organization or subject to state/licensure requirements? Yes, Liaison Committee on Medical Education (LCME)

If yes, please share how this affects the program's assessment process (e.g., number of learning outcomes assessed, mandated exams or other assessment methods, schedule or timing of assessment, etc.): N/A for specific process just report generated.

1. Student Learning Outcomes

Which of the program's student learning outcomes were assessed in this annual assessment cycle? (Please provide the complete list of the program's learning outcome statements and **bold** the SLOs assessed in this cycle.)

Student performance in our year 3 clinical clerkships was significantly revised for AY 21-22. In the past, National Board of Medical Examiners (NBME) standardized multiple-choice examinations and clinical assessments (observations by faculty, written history and physical exams documents, etc.) were combined to create a single, final grade for each clerkship. This combination of MCQ exams and clinical performances masked the true ability of students to demonstrate their clinical skills: the NBME exams always had a larger score distribution than clinical performance measures.

Beginning in AY 21-222, students in our core clerkships received two separate grades: one based on the NBME exam and the other based on multiple clinical performance measures. Each clerkship is represented on the student transcript by two entries: XXX-301 Clerkship (clinical grade) and XXX Clerkship Exam-301E (NBME grade).

2. Assessment Methods: Artifacts of Student Learning

Which artifacts of student learning were used to determine if students achieved the outcome(s)? Please describe the artifacts in detail, identify the course(s) in which they were collected, and if they are from program majors/graduates and/or other students. Clarify if any such courses were offered a) online, b) at the Madrid campus, or c) at any other off-campus location.

All courses are offered only at Saint Louis University School of Medicine.

At the end of each clerkship rotation, students sit for the National Board of Medical Examiners (NBME) Subject examination in that specialty: Family Medicine, Internal Medicine, Neurology, Obstetrics and Gynecology, Pediatrics, Psychiatry, and Surgery. These are nationally-normed examinations administered to students in most medical schools for the core clerkships. Grading is similarly standardized and based on the National Percentile Rank as reported by the NBME. Saint Louis University School of Medicine uses the following criteria for all seven core clerkships:
- 75th percentile and above = Honors
- 50th -74th percentile = Near Honors
- 5th -49th percentile = Pass
- Below 5th percentile = In Progress for the 1st attempt at the NBME

- Below 5th percentile = Fail on the 2nd attempt at the NBME

All clerkships include student performance evaluations based on observations by faculty and residents. Additional assessments vary by clerkship, based on the specifics of the discipline. For example, the "required clinical experiences" are lists of patient types and/or conditions specific to the discipline that each student will experience during that clerkship. Grades of Honors (40%), Near Honors (30%), Pass (40%), Fail are calculated for each rotation of the clerkship. Grades and distributions are assigned by the clerkship directors and monitored by the assistant dean for program evaluation and assessment.

The table below lists the clinical assessments used by each clerkship director to determine the final clinical grade for each student.

Clerkship	Clinical Assessments
Family Medicine (FCM-301)	Student performance evaluation- receptor Student performance evaluation- Case-based learning Required clinical experiences Professionalism SOAP note submissions
Internal Medicine (IM-301)	Student performance evaluations- faculty and residents Required clinical experiences History & Physical submissions Professionalism SOAP note submissions Clinical reasoning exercise
Neurology (N-301)	Student performance evaluations- faculty and residents Required clinical experiences Professionalism History & Physical notes Supervised history & physical Unsupervised history & physical Clinical cases
Obstetrics, Gynecology, and Women's Health (OB-301)	Student performance evaluations- faculty and residents Required clinical experiences History & physical submissions Objective structured clinical exam (OSCE)
Pediatrics (PED-301)	Student performance evaluations- faculty and residents Required clinical experiences Professionalism Quality improvement/Critical reflection assignment Well-child visit or newborn admission history Well-child visit or newborn admission physical exam Problem-based visit or hospitalization history Problem-based visit or hospitalization physical exam Problem-based visit or hospitalization information sharing Medical documentation Objective structured clinical examination (OSCE)
Psychiatry (PS-301)	Student performance evaluations- faculty and residents Required clinical experiences History & physical exam submissions Objective structured clinical examination (OSCE) Parallel charting Panopto videos and preparation Cultural narrative- implicit bias Observation checklist

Clerkship	Clinical Assessments
Surgery (S-301)	Student performance evaluations- faculty and residents
	Required clinical experiences
	Professionalism
	Operative notes
	History & physical
	Small group presentation
	Objective structured clinical examination (OSCE)

3. Assessment Methods: Evaluation Process

What process was used to evaluate the artifacts of student learning, and by whom? Please identify the tools(s) (e.g., a rubric) used in the process and **include them in/with this report document** (please do not just refer to the assessment plan).

Our clerkship directors are physicians and the subject matter experts in their courses. They identify new instructional methods and assessments, review their utility and make decisions about the use of new methodologies in their courses.

Student course evaluations provide feedback to the course directors and the curriculum deans. Student insight regarding new approaches to teaching and learning is an essential part of the evaluation process. Once every year a student team reviews course evaluation data and meets with the directors and academic deans to discuss the course and recommend changes. Clerkship directors provide an "action plan" for the next year, which is reviewed by the Clinical Curriculum subcommittee. A copy of the AY 21-22 Annual Review Report for the Psychiatry clerkship is attached.

4. Data/Results

What were the results of the assessment of the learning outcome(s)? Please be specific. Does achievement differ by teaching modality (e.g., online vs. face-to-face) or on-ground location (e.g., STL campus, Madrid campus, other off-campus site)?

	Students earning the **same** final grades for clinical performance and NBME exam	Students earning **different** final grades for clinical performance and NBME exam
FCM-301 and FCM-301E	40.7%	59.3%
IM-301 and IM-301E	48.0%	52.0%
N-301 and N-301E	39.3%	60.7%
OB-301 and OB-301E	42.4%	57.6%
PED-301 and PED-301E	46.2%	53.8%
PS-301 and PS-301E	32.8%	67.2%
S-301 and S-301E	39.9%	60.9%

This change in our curriculum reflects the difference between student performance on multiple-choice exams and performance in the clinical skills essential for patient care. Achievement does differ: some students are better at standardized tests than they are at interpersonal and clinical skills, and visa versa. Separating these assessments is allowing us to provide appropriate feedback and additional, targeted training where each student most needs help to improve.

5. Findings: Interpretations & Conclusions

What have you learned from these results? What does the data tell you? Address both a) learning gaps and possible curricular or pedagogical remedies, and b) strengths of curriculum and pedagogy.

> The data support our contention that the skills involved in being successful on multiple-choice examinations and those required for success in the clinic require separate assessments, different teaching and learning modalities, and different remediation plans for students who demonstrate difficulties in either area.

6. Closing the Loop: Dissemination and Use of <u>Current</u> Assessment Findings

A. When and how did your program faculty share and discuss the results and findings from this cycle of assessment?

> The Clinical Curriculum Subcommittee is the forum in which discussion of the clerkships, the curriculum being taught, and instructional modalities takes place. Clerkship directors share their experiences with the students and the outcome measures that they use. This subcommittee meets monthly.

B. How specifically have you decided to use these findings to improve teaching and learning in your program? For example, perhaps you've initiated one or more of the following:

Changes to the Curriculum or Pedagogies
- Course content
- Teaching techniques
- Improvements in technology
- Prerequisites
- Course sequence
- New courses
- Deletion of courses
- Changes in frequency or scheduling of course offerings

Changes to the Assessment Plan
- Student learning outcomes
- Artifacts of student learning
- Evaluation process
- Evaluation tools (e.g., rubrics)
- Data collection methods
- Frequency of data collection

Please describe the actions you are taking as a result of these findings.

> Our findings have resulted in several changes to the assessment plans.
> 1. Student learning outcomes have been more clearly defined in terms of exam performance and clinical skills.
> 2. New artifacts related to clinical skills have been designed and implemented such as the critical reflection assignment in Pediatrics.
> 3. New evaluation tools, such as the parallel charting exercise in Psychiatry have been introduced.
> 4. The frequency of reviewing student notes (SOAP, admission, history & physical exam, operative) has been increased.
> 5. The Medical Student Performance Evaluation (MSPE) is a document provided to residency programs as part of the medical student application for residency. This year for the first time the MSPE will be able to highlight student abilities in both exam-taking (important for in-training and licensing exams during residency) and clinical skills (important for patient care and teamwork in the clinical setting)
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> In addition, new resources and personnel have been added to specifically address improving students' clinical skills.
> Dr. Sara Barnett has been a Learning Specialist in the Office of Student Affairs for several years. She works closely with each of our medical students (across all four years) to strengthen their exam skills and study habits. She is a coach that helps our students prepare for their internal exams and their medical licensing examinations. This year she is joined in her work by Tara O'Sadnick, also a Learning Specialist in Student Affairs.
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> Dr. Timothy Havens is our new Medical Director of the Clinical Skills Center and Course Director for Clinical Diagnosis. In this role he will be working on the development and expansion of clinical skills training and assessment, particularly in the field of objective structured clinical exams (OSCEs) where students work with standardized patients to develop and practice their clinical skills. Dr. Havens is currently an assistant professor in the department of surgery, division of emergency medicine. Dr. Havens is known for both his outstanding clinical care and outstanding teaching. He has served in leadership roles in both the education of students and

residents. He was the co-director of the emergency medicine clerkship and director of a number of student electives. Among his graduate medical education roles, he was the Director of Resident Performance Improvement and Oral Board Preparation for the SLU Emergency Medicine Residents. During his time as faculty, he was awarded the Best Doctor Award and, later, the Best Teaching Award by the Division of Emergency Medicine. He received the Excellence in Professionalism Award from the school of medicine. Recently, he was honored as the R.R. Hannas Physician of the Year by the Missouri College of Emergency Physicians in 2019.

Dr. Tom Olsen will be stepping into a new role as Clinical Remediation Specialist. Dr. Olsen will be a resource for students who are struggling clinically to get some hands-on clinical coaching, develop an action plan, and ensure remediation follow-up and accountability. He will assist in remediation efforts for any student that does not get a passing grade on the clinical component of a clerkship or students identified as needing additional clinical coaching. Dr. Olsen, he is an outstanding general internist/primary care physician and medical educator who is SLU through and through. He did medical school and residency at SLU before becoming faculty. He has been the IM residency program director and has won numerous teaching awards. Recently, he was named a Master Clinician by the American College of Physicians denoting his career excellence in both clinical care and education.

If no changes are being made, please explain why.

7. **Closing the Loop: Review of _Previous_ Assessment Findings and Changes**
   A. What is at least one change your program has implemented in recent years **as a result of previous assessment data**?

   Students in years 1 and 2 have consistently requested more opportunities for active learning and fewer traditional, passive lectures. They express this opinion in course evaluations, evaluation team meetings, in class meetings, and in casual conversations. In AY 21-22 we implemented team-based learning (TBL) and peer instruction (PI) as two new instructional methods. Mr. Neal Weber (Director of Instructional Design and Assessment) provided faculty training, student training, and directed the TBL and PI sessions over Zoom due to COVID restrictions. Almost every course in years 1 and 2 had TBL and/or PI sessions.

   B. How has the change/have these changes identified in 7A been assessed?

   Student satisfaction with TBL and PI is assessed through the annual course evaluation process. Students complete the course evaluation; a student team provides a summary of the findings and meets with the course directors and academic deans to discuss the course and the student summary report. Course directors then provide an action plan to address any issues in the course: the action plan is reviewed by the Program Evaluation and Assessment Subcommittee and the Pre-Clerkship Curriculum Subcommittee. Either committee can return the plan to the course directors for amendment or clarification.

   C. What were the findings of the assessment?

   Overall, students were highly satisfied with both TBL and PI. Their specific recommendations included:
   1. Fewer, but more focused TBL sessions.
   2. Move faster through the PI session.
   Clarify learning objectives for the TBL sessions.

   D. How do you plan to (continue to) use this information moving forward?

   Overall, we will utilize assessment data to help guide our efforts in making sure our curriculum foundation is solid. As changes arise in medicine, medical education must evolve to meet the requirements of the healthcare field. We are looking into revising our formative feedback assessments, bringing in more consistent assessment measurements within our first and second-year courses, and expanding our clinical skills assessments to assist in the learning process for our medical students.

IMPORTANT: Please submit any assessment tools (e.g., artifact prompts, rubrics) with this report as separate attachments or copied and pasted/appended into this Word document. Please do not just refer to the assessment plan; the report should serve as a stand-alone document. Thank you.