SAINT LOUIS UNIVERSITY.

Program-Level Assessment: Annual Report

Program: Magnetic Resonance Imaging	Department: Clinical Health Sciences
Degree or Certificate Level: UG	College/School: Doisy College of Health Sciences
Date (Month/Year): Sept 2021	Primary Assessment Contact: Marcey Kennedy/Amy Harkins

In what year was the data upon which this report is based collected? 2020-2021

In what year was the program's assessment plan most recently reviewed/updated? 2019-2020

1. Student Learning Outcomes

Which of the program's student learning outcomes were assessed in this annual assessment cycle?

PLO #1 "Students will demonstrate the Jesuit mission by caring for the whole patient as they perform diagnostic imaging procedures."

PLO #5 "Students will be able to recognize ethical practices in the health care setting."

2. Assessment Methods: Artifacts of Student Learning

Which artifacts of student learning were used to determine if students achieved the outcome(s)? Please identify the course(s) in which these artifacts were collected. Clarify if any such courses were offered a) online, b) at the Madrid campus, or c) at any other off-campus location.

NOTE: The following courses were delivered in the traditional setting, in seat, and with students in the clinical practice.

PLO #1
MRI-4410 Clinical MRI Practicum I: Mid and Final Clinical Rotation Evaluations
MRI-4910 Clinical MRI Practicum II: Mid and Final Clinical Rotation Evaluations

PLO #5:
MRI-4350 Patient Care & MRI Safety: In-class Ethics Exercise and Honor code violations.
MRI-4410/4910 Clinical MRI Practicum I/II Final Clinical Rotation Evaluations
MRI-4410/4910 Critical Reflection papers

Madrid artifacts are not applicable.

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.

NOTE: All evaluation documents are attached in the Appendix.

PLO #1 MRI-4410 Clinical MRI Practicum and **MRI-4910** Clinical MRI Practicum II
Data was collected from student clinical rotation evaluations over the spring and summer semesters of 2021 according to the program-level assessment plan. The Program Director reviewed and assigned rankings to the evaluations from the clinical preceptors using the corresponding assessment rubrics.
PLO #5: MRI-4350 Patient Care & MRI Safety: In-class Ethics Exercise and Honor code violations.
The ARRT Standards of Ethics in Practice was reviewed with students and then posed ARRT scenarios of conduct. Lively discussion followed, with all students participating. The discussion was reviewed by MRI faculty and led to the students achieving at minimum, the "knowledge" ranking. Course exam content included ethics principles as well as

Honor Code violations. The exam included a section for students to name at least one code violation. The program director gathered the responses from the exams with students.
MRI-4410/4910 Clinical MRI Practicum I/II Final Clinical Rotation Evaluations
Student evaluations from the clinical instructors included "ethical" behaviors. The program director gathered the data and reviewed comments from the instructors to assess the student's progression to the "analysis" level of the rubric.
MRI-4410/4910 Critical Reflection papers
The students write critical reflections while in the clinical setting. Some of these reflections surround ethical/non-ethical behavior that was observed. To more directly analyze data to show that the students recognize ethical practices, two of the six reflections must be specific to ethical issues.

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)?

NOTE:
The program target identified in the assessment plan, which is the minimum percentage of students able to achieve each PLO at the designated ranking, was established at the College standard rate of 85% or better by the former Dean of the Doisy College of Health Sciences.

PLO #1
The program director identified students scoring majority of 3's on the clinical rotation evaluations as achieving the ranking of "analysis" or higher. These evaluations were conducted over two practicum courses, MRI 4410, and MRI 4490. An average of >85% of students (6/6) achieved this ranking. This data along with positive comments from the clinical instructors shows a progression to "synthesis" for caring for the whole patient. The goal was met.

PLO #5
MRI-4350 Patient Care & MRI Safety: The use of the ARRT ethical situation scenarios, along with the Standards of Ethics, produced lively discussion. Success of progression to "synthesis" to students recognizing ethical behavior was verified by the discussion and success on the exam content.
MRI-4410/4910 Clinical MRI Practicum I/II Final Clinical Rotation Evaluations
All students (6/6) received at least 85%of "3" ratings on their work ethic characteristics on the mid and final rotation evaluations.
MRI-4410/4910 Critical Reflection papers
The critical reflection papers show progression in writing as well as critical thinking (attached rubric and directions). The papers on ethical/unethical behavior were very rich and thorough. The showed progression to "synthesis".

5. Findings: Interpretations & Conclusions

What have you learned from these results? What does the data tell you?

PLO #1
The data supports the student's success in caring for the whole patient. The students spend four, eight-week rotations in the clinical setting. The majority of students accomplish this goal.

PLO #5
The ethics scenarios discussion was a new concept for this class, which was successful. The program director looked at ways to more directly analyze data to show that the students recognize ethical practices. The students write critical reflections while in the clinical setting. Many of these reflections surround ethical/non-ethical behavior that was observed. The program director added requirements for two of the six critical reflections be specific to ethical issues. This is to systematically gather information from all students on synthesis of ethical behavior. This also ties ethics from didactic to patient safety to practical use and acknowledgement.

6. Closing the Loop: Dissemination and Use of Current Assessment Findings

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

Program faculty discuss the results and findings of the assessment cycle in early September. The Clinical Health Sciences department holds dedicated meetings for assessment and opportunities to meet with the Associate Dean to receive feedback on ideas or concerns prior to submission deadlines.
The MRI advisory Board is a great resource for the MRI program. This board is interactive and involved with participating in grading student capstone presentations and with suggestions on updates or changes to think about with the program.

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.

The original goal to improve PLO 1 was to determine a more detailed means of identifying the students' progression from knowledge to synthesis in caring for the whole patient. For example, the program director was looking at ways to see progression from the student's first rotation to the last clinical rotation. Due to multiple unforeseen circumstances, this task was not completed enough to put into action. This task is to be completed before the students begin rotations in December and would possibly include an updated Rotation Evaluation tool.

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 assessment data?

The MRI program underwent programmatic changes due to change in faculty. With the loss of the clinical coordinator, coursework was re-evaluated. The program also only had two students in the previous year (2019-2020). With edits due to covid restrictions and limited faculty, one change was to begin "group" clinical practicum visits. Program faculty would "visit" students in the clinical setting and ask questions and go over material presented in the fall, as well as ensuring application of knowledge. The group visits were utilized every other visit schedule. The students enjoyed the group session (not so much pressure to answer correctly). I believe this format helped the more timid students to understand content due to the discussion with all (or most) students participating.

B. How has this change/have these changes been assessed?

The group clinical visits were not assessed formally. The student did rely on their approval of the group visits and that it was not so intimidating and very informational.

C. What were the findings of the assessment?

This is a new assessment.

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

A new addition to assess is to give a pre-test prior to each group visit. The students will be able to take notes on the content and the program will have a method to gauge depth/increase of learning.

IMPORTANT: Please submit any assessment tools and/or revised/updated assessment plans along with this report.

Magnetic Resonance Imaging (MRI)		
Program Learning Outcome (PLO #1): Students will demonstrate the Jesuit mission caring for the whole patient as they perform diagnostic imaging procedures."		
Knowledge	**Analysis**	**Synthesis**
• Recognize the importance of effective communication in patient interaction	• Demonstrate appropriate communication skills in the clinical setting	• Integrate effective, professional communication with patients and professionals

PLO #5

Magnetic Resonance Imaging (MRI)		
Program Learning Outcome (PLO #5): Students will be able to synthesize ethical practices in the health care setting.		
Knowledge	**Analysis**	**Synthesis**
• Maintain MRI didactic information for clinical correlation	• Correlate didactic information with clinical experience	• Incorporate didactic information with clinical experiences

Preceptor Evaluation Tool:

Saint Louis University
Magnetic Resonance Imaging Program
Mid & Final Rotation Evaluations

Student Name: _____ **Date:** _____ **Rotation** 1 2 3 4

Mid Rotation Evaluation

	(circle one)	
1. The student understands the objectives of the rotation.	Y	N
2. The student's understanding of exams coincides with the level of the rotation.	Y	N
3. The student is actively pursing the requirements to complete the rotation.	Y	N
4. The student is displaying motivation in performing procedures.	Y	N
5. The student is responsive to feedback and constructive criticism from staff.	Y	N
6. The student is demonstrating good patient care skills.	Y	N
7. The student is practicing under the safety guidelines of the clinical rotation.	Y	N
8. The student keeps busy when not doing procedures.	Y	N
9. The student arrives at assigned area of work on time.	Y	N
10. The student checks the clinical schedule to determine what procedures need to done.	Y	N
11. The student checks for metallic or ferromagnetic objects before entering MR suite.	Y	N
12. This evaluation has been explained with the student.	Y	N

Please explain in writing if any of the questions were answered no:

Suggestions for improvement and areas of concern:

Student's Comments:

_____ _____ _____ _____
Evaluator's Signature **Date** **Student's Signature** **Date**

Saint Louis University
Magnetic Resonance Imaging Program
Final Rotation Evaluation

Student Name: _____ **Date:** _____ **Rotation** 1 2 3 4

FINAL EVALUATION FORM
(See reverse side for key)

The student **did / did not** complete this rotation. Based on the number of clinical competencies achieved (see front), the student's performance:

(circle one)

(check one)

___ Exceeded requirements (3)
___ Satisfactorily met requirements (2)
___ Minimally met requirements (1)
___ Did not meet requirements. (0)

This evaluation has been explained with the student. _____ **Yes** _____ **No (check one)**
If no, please explain:

Clinical Supervisor's Comments:

Student's Comments:

_____ ____/____/____ _____ ____/____/____
Evaluator's Signature **Date** **Student's Signature** **Date**

STUDENT CLINICAL EVALUATION/PERSONAL CHARACTERISTICS
(Use the following scale in completing this evaluation) 3 = Always 2 = Sometimes 1 = Rarely 0 = Never

ATTIRE
1. ____ Presents themselves according to dress code, i.e. wears scrubs or approved attire and name badge while working in the department
2. ____ Exercises good personal hygiene (showered, clean clothes, free from offensive odors)

ATTITUDE
3. ____ Appears interested in learning procedures and asks appropriate questions
4. ____ Handles negative feedback in a professional manner
5. ____ Demonstrates empathy in professional interactions
6. ____ Finds things to do to keep busy when not doing procedures

PUNCTUALITY
7. ____ Arrives at assigned area work on time
8. ____ Notifies supervising technologist when leaving assigned area and expected return time
9. ____ Returns to assigned area promptly after scheduled breaks

INITIATIVE/MOTIVATION
10. ____ Takes initiative to work on tasks that he/she has proven they can do with minimal supervision
11. ____ Takes initiative to do clinical tasks that he/she is unfamiliar with, inviting appropriate supervision from the technologist
12. ____ Makes an active effort to check the clinical schedule to determine what procedures are to be performed
13. ____ Helps out in unassigned clinical areas when responsibilities are completed in assigned area
14. ____ Work is completed in a prompt and efficient manner
15. ____ Helps technologist with patients when special needs arrive (moving patients, use of bedpan, etc.)

RESPONSIBILTY
16. ____ Makes corrections in performance after appropriate feedback
17. ____ Limits socialization with others while a patient is in his/her assigned area
18. ____ Refrains from congregating in inappropriate areas when not busy or between patient studies
19. ____ Refrains from taking care of personal matters during clinic time (phone calls, non-related errands, etc.)
20. ____ Refrains from violating patients' rights (confidentiality, privacy, etc.)

PATIENT INTERACTION
21. ____ Takes initiative to converse with every patient who enters assigned area
22. ____ Becomes actively involved with the explanation given to patient before a procedure
23. ____ Has the ability to adapt exams based on patient's ability
24. ____ Refrains from discussing personal matters with patient
25. ____ Refrains from making inappropriate comments to patients (flirting, joking around, etc.)

INFECTION CONTROLS / SAFETY
26. ____ Uses gloves when appropriate
27. ____ Disposes of biohazardous waste (sharps, syringes, IV components) in appropriate receptacles
28. ____ Washes hands or uses alcohol foams/cleansers as recommended
29. ____ Follows isolation protocols
30. ____ Checks for metallic or ferromagnetic objects before entering MR suite

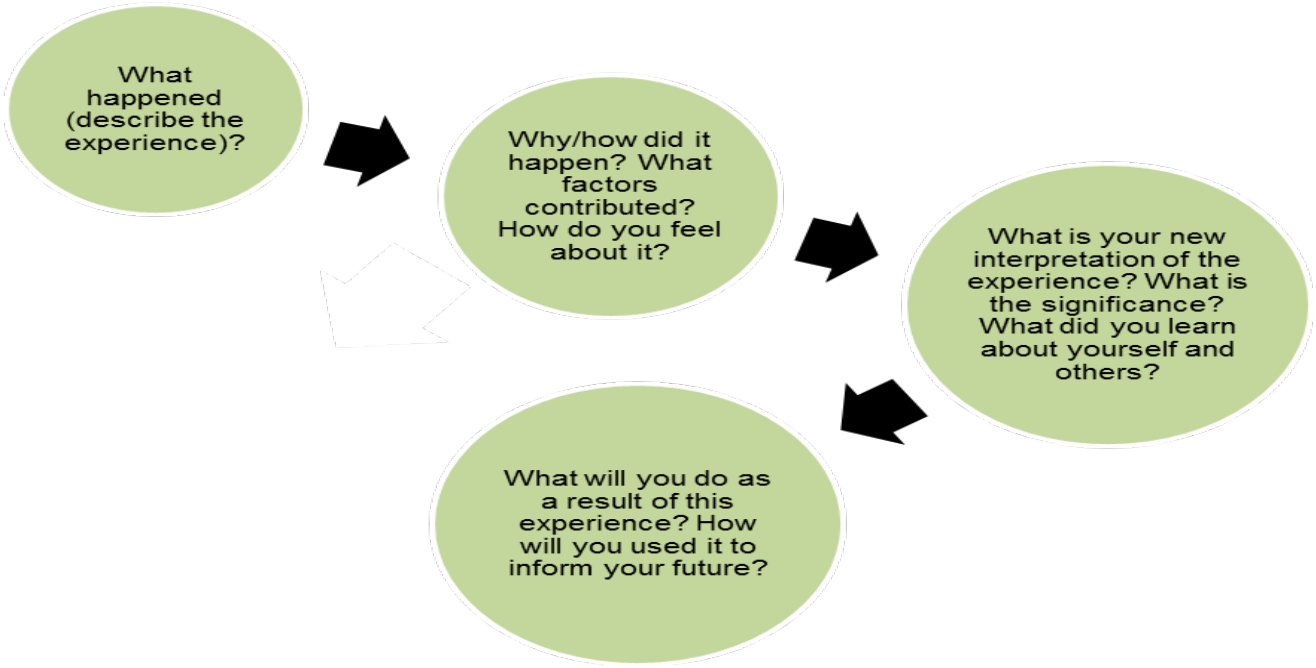
____ **TOTAL** **TOTAL/30 = _____ AVERAGE SCORE** **Rev 06/16**

Critical Self-Reflection Grading Rubric

	0- Beginner	1-Developing	2-Accomplished (Reflections 1-4; Maximum Points Available = 10)	Comments	3-Advanced (Reflections 5-8 ; Maximum Points Available = 15)	Comments
Identifies and Summarizes Issue ☐	Does not identify or summarize issue.	Minimally identifies and summarizes issue.	Identifies and summarizes issue. Explores some aspects of the issue.		Identifies and summarizes issue comprehensively. Explores all aspect of the issue.	
Gathers facts and evidence related to issue ☐	Only uses facts or evidence present at the onset of the issue. Does not seek out additional information.	Seeks and gathers minimal information related to issue from few or inappropriate sources.	Seeks and gathers ample additional information from a variety of sources.		Generates comprehensive set of facts/evidence based information from a variety of credible sources.	
Incorporates perspectives ☐	Does not consider the other points of view when approaching issue.	Approaches issue based off of personal perspective and majority/popular points of view.	Approaches issue based off of other people's perspectives and opinions.		Utilizes all perspectives available when approaching issue. Distinguishes between facts and opinion when presenting evidence.	
Draws Conclusions ☐	Does not draw conclusions or formulates conclusions inconsistent with evidence and perspectives.	Formulates some conclusions consistent with some evidence, but lacking in depth and scope.	Formulates conclusions consistent with most evidence.		Formulates conclusions consistent with a wide range of evidence.	
Identifies impact on future ☐	Does not identify implications or consequences either to self or others. Does not acknowledge impact of issue on future.	Identifies implications and consequences of issue to self. Identifies potential effect on future.	Identifies implications and consequences of issue to self and others. Identifies concrete examples of change in future.		Comprehensively identifies implications and consequences of issue to self and others and makes connections to specific ways in which the future will be affected.	
Subtotal:						
*Less Grammatical Points :						
Total:						

Critical Self-Reflection Journaling Assignment

Critical self-reflection refers to the most important learning experience. It means reassessing the way we have posed problems, our own meaning perspectives, and our own orientation to perceiving, knowing, believing, feeling, and acting.



As another form of communication with program faculty, MRI students are required to make regular written comments and reflections on experiences in the clinical areas in a critical reflection/journal entry. These reflections should describe experiences in the clinic; they are not designed to be written about personal topics or issues (unless approved by program faculty). Reflection topics may vary by student and are designed to tie didactic coursework into the clinical practicum, as well as address clinical issues that may come up that can be discussed during faculty clinical visits.

Each entry should contain at least 1-2 of the example topics listed below, with at least two of the reflections specific to ethical issues.

Examples of topics:

- Describe progress or obstacles being faced in the clinic
- Observation of practices in the clinic (good or bad)
- Ethical dilemmas faced in the clinic
- Suggestions for improvements for future students
- Self reflection in regards to goals of becoming a technologist
- Free write about an experience you wish to share, related to your clinical experience

Please note: these entries will be kept confidential between program faculty and the student, and will not be shared with clinical personnel. These entries should NOT be written during clinical time. Since this reflection is part of the overall clinical rotation grade calculation, failure to complete the assignment will result in a decrease of the student's clinical grade.